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IDEA

July 6, 2026 04:01 AM GMT

Semiconductors | North America

Weekly: Meta GPU context; May SIA

We think that gpu compute remains in shortage, and recent events are more about stronger cloud demand vs. any excess compute capacity. Separately, May SIA #s were slightly below our forecast.

Last week, Bloomberg reported that Meta - covered by Brian Nowak & team - would develop a cloud services unit, competing with Azure, AWS, and others; the company has not finalized details about this offering. Our understanding is that this was at least part of the weakness in the stocks last week, in addition to a broader derisking.

To us, this points to excess demand for GPUs, more so than excess supply from any one hyperscaler: This is not the first report that we have heard of larger internally focused hyperscalers offering GPUs to others, and is something that we are hearing regularly. We would not jump to the negative conclusion that the market seems to be focused on - that these vendors have excess compute. An alternate explanation fits our checks more clearly - that there is a substantial shortage of GPU compute in the market right now, such that the most profitable use of GPUs might be to rent them to others. There is excess demand, more so than excess supply, at least on an industry-wide basis, and the highest utility use of a GPU might be to rent it to someone else.

While clearly some are doing better than others, we expect to hear about very strong cloud compute demand through earnings, across the board, and see this strong cloud backdrop as at least part of the story here.

Meta aside, this larger trend towards subletting GPUs - which we have seen in multiple places - should be a significant positive for NVIDIA market share, in our opinion. If there is a mismatch of compute - whether lower demand internally or higher demand externally - that demand is better served with the chip that is the defacto standard in the industry. ASIC capacity is much harder to sublet, especially for lower volume ASICs. AMD has more ubiquity than ASICs, which is helpful, but lower market share overall would point to a smaller secondary compute market.

NVIDIA made an important point at Computex, where they talked about NVDA offering by far the highest tokens per gigawatt by a large margin - but also offering better economics through faster bring up, longer mean time between failure, and longer asset life as driving better NVDA economics vs. competing solutions. We would certainly add ubiquity of compute as another key advantage.

Specifically at Meta, we do not perceive disruption, though their capex isn't the upside driver that we have seen in the past. At the moment, we are seeing upside in GPU demand from many places, and somewhat in contrast to prior years Meta

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isn't as notable an upside driver to GPU trends. We would not be alarmist about this, it's not a deceleration, as in each of the last few years leadership has transitioned from one customer to another.

We do expect Meta to be the early adopter of AMD Helios, though that doesn't seem to have impacted purchasing from NVIDIA that we can tell. The economics of the warrant structure is even more important given the appreciation in the share price of AMD; the warrants are effectively a 75% discount for at least the initial gigawatt, which is a substantial incentive for someone that has been AMD's biggest customer over the life of the MI300/350 families.

Overall SIA data was softer than expected for May, driven by both broad markets and memory. May Semiconductor Industry Association billings data reported on Saturday, July 4th, came in lower than our estimates and seasonality for broad markets and memory:

- **Overall**: Sales were up 16.1% m/m, below our estimate of 22.0% though above the 10-yr average change of 6.9%. 3-month y/y growth accelerated to 104.2% from 93.9% in April, and one month y/y growth was 118.8%.
- **Trend by geography** (y/y): The Americas (+150.7%) was followed by Asia Pacific (+126.3%), China (+101.9%), Europe (+83.7%), and Japan (+39.4%).

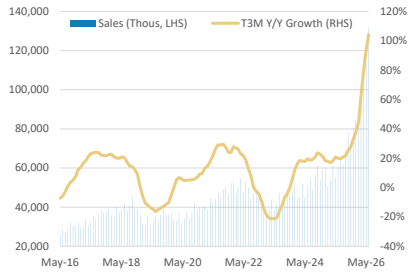
Broad markets decelerated following a strong April**:**

- **Discrete** (miss): -6.9% m/m vs our estimate of -1.0% and the 10-yr average change of -0.9%. Units were below the 10-yr average (-4.1% vs -1.3%) and ASP was below (-2.9% vs -0.4%).
- **Analog** (miss): -7.8% m/m vs our estimate of -2.0% and 10-yr average of -1.7%. Units were below the 10-yr average (-4.0% vs 1.5%) and ASP was below (-4.0% vs -3.0%).
- **MCU** (in-line): -2.7% m/m vs our estimate of -2.0% and 10-yr average change of -2.1%. Units were above the 10-yr average (1.8% vs -0.8) and ASP was above (-4.4% vs -1.1%).
- **MPU** (beat): 5.0% m/m vs our estimate of 3.2% and 10-yr average change of 1.8%.

May was softer than expected after a strong April, with both broad markets and memory coming in below our estimates. Even so, the broader cycle still appears to be improving and remains generally consistent with constructive JunQ supplier commentary. From our checks intra-quarter, Industrial continues to recover from cyclical lows and demand is broadening beyond AI-linked areas into more traditional end markets. On pricing, increases are still showing up across the supply chain, though the primary driver remains cost pass-through for the broader supply chain. AI remains the clear area of outperformance, and while we still do not see evidence of a true replenishment cycle, visibility into a stronger 2H continues to improve.

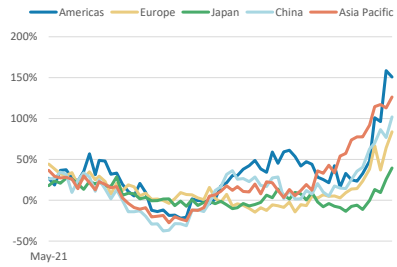
In analog, the 3-month average y/y growth held flat at 14.2%, led by General Purpose. MCUs' 3-month average y/y growth accelerated to 15.5% from 13.2% in April, led by General Purpose.

Exhibit 1: Global Semiconductor Sales



Source: SIA, Morgan Stanley Research

Exhibit 2: Semiconductor Sales by Region



Source: SIA, Morgan Stanley Research

Memory was softer in May, likely reflecting supply constraints, with both NAND and DRAM underperforming our estimates while NAND was above seasonality:

- **DRAM**: Below expectation and 5-yr average, coming in at 27.7% m/m vs our estimate of 43.0% m/m and 5-yr average of 45.9%. Bits were below our estimate (13.2% vs 30.0%) m/m, up 16.1% y/y), while ASP was above (12.9% vs 10.0%). On a 3-month y/y basis, total DRAM sales reached 304.8% in May, marking another new historical high since 2001, while ASP growth (218.3%) has now increased for ten consecutive quarters.

- **NAND**: Slightly below expectation though above the 5-yr average, coming in at 40.7% m/m vs our estimate of 43.8% and 5-yr average of 25.6%. Bits were below our estimate (19.5% m/m vs 22.0%), while ASPs were in-line (up 17.8% m/m vs 17.9%- prices were up 281.6% y/y). On a 3-month average y/y basis, revenue reached 364.6% in May, also marking a new record in our dataset's history, while ASP growth of 277.5% also marked a new record. Volume decelerated slightly to 23.8% from 30.7% in April.

May data does not alter the core memory thesis; we have commented in the past that it is challenging to predict monthly trends when the drivers shifts from seasonal drivers to more linear supply drivers. What stands out now is not just constrained supply, but growing evidence that customers are trying to lock in access before the market loosens, reinforcing our view that this is a structurally constrained AI-led cycle rather than a conventional inventory recovery. DRAM remains the clearest bottleneck, while NAND is increasingly benefiting from tighter mix and better discipline than investors typically assume. Said differently, the key takeaway is no longer just that memory is tight, but that the industry is beginning to formalize that tightness in ways that could extend the earnings window. We continue to see memory as a key constraint on AI buildouts, supporting elevated DRAM pricing, a more durable NAND recovery, and continued preference for MU and SNDK.

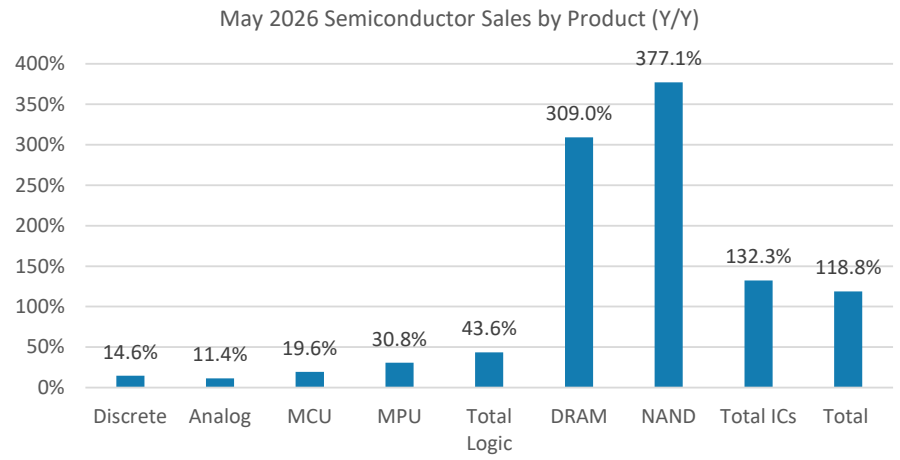
Changes to our forecast: Our forecast comes down slightly from up 103% to up 99% for the year, mostly the moderation in memory volumes. Our CY26 memory forecast at $847bn is slightly lower than our prior forecast but still up meaningfully from $222bn last year. For CY27, we are assuming 24% growth y/y to $1.95 trillion, mostly due to memory pricing rippling through - largely unchanged from our prior

forecast.

Our take: May SIA being a bit slow is surprising given the generally positive tone of business across the broader markets during 2q, but it doesn't change our view that 2q will be generally a very strong quarter. Memory remains the clearest area of tightness, with DRAM still the main bottleneck to AI deployments and NAND also holding firmer than many expected. We continue to favor that exposure through MU and SNDK, given limited near-term supply flexibility and a pricing backdrop that still looks more durable than investors had expected. Outside memory, the May data is also supportive of a more constructive broad-market view, as improving conditions are no longer limited to AI-linked demand. That keeps us constructive on NVDA, AVGO, and CBRS in leading-edge logic, LRCX, KLAC, MKSI, and ON in cap equipment/supply-chain, and ADI and NXP in premium analog/MCU.

SIA Note Charts

Exhibit 3: May 2026 Semiconductor Sales by Product (Y/Y)



Source: SIA, Morgan Stanley Research

Exhibit 4: Variance Table

Reported Item ($ mn)	May 2026 Actual	May 2026 Est.	Difference (Act-Est)	Last Mth	MoM	Last Yr	YoY	Last Mth (Before Revision)	Last Mth Revised vs. Reported
Discrete / Opto / Sensors Sales	7,936	8,435	-5.9%	8,521	-6.9%	6,923	14.6%	8,521	
Analog Sales	7,297	7,758	-6.0%	7,917	-7.8%	6,548	11.4%	7,917	
MCU Sales	1,993	2,008	-0.7%	2,049	-2.7%	1,666	19.6%	2,049	0
MPU Sales	6,034	5,929	1.8%	5,745	5.0%	4,615	30.8%	5,745	0
Total Micro Sales	8,257	8,160	1.2%	8,017	3.0%	6,515	26.7%	8,017	0
Total Logic (ex Micro) Sales	33,853	33,546	0.9%	32,569	3.9%	22,800	48.5%	32,569	
Total Logic Sales	42,109	41,706	1.0%	40,586	3.8%	29,314	43.6%	40,586	
DRAM Sales	47,978	53,720	-10.7%	37,566	27.7%	11,730	309.0%	37,566	0
DRAM Gigabit Equivalents	32,158,182	36,942,211	-13.0%	28,417,085	13.2%	27,705,526	16.1%	28,417,085	0
DRAM Price per Gb Equivalent	$1.4919	$1.4542	2.6%	$1.3220	12.9%	$0.4234	252.4%	$1.3220	$0.0000
NAND Sales	25,811	26,377	-2.1%	18,349	40.7%	5,410	377.1%	18,349	
NAND 1 Gigabit Equivalent	732,553,576	747,996,074	-2.1%	613,243,576	19.5%	662,338,864	10.6%	613,243,576	
NAND Price per Gb Equivalent	$0.0352	$0.0353	-0.1%	$0.0299	17.8%	$0.0082	331.4%	$0.0299	
Total Memory Sales	74,596	80,835	-7.7%	56,654	31.7%	17,522	325.7%	56,654	0
Total ICs	124,002	130,299	-4.8%	105,156	17.9%	53,384	132.3%	105,156	0
Semiconductor Sales	131,938	138,734	-4.9%	113,677	16.1%	60,307	118.8%	113,677	0

Source: SIA, Morgan Stanley Research

Exhibit 5: Quarterly SIA Data

	Mar/24 A	Jun/24 A	Sep/24 A	Dec/24 A	Mar/25 A	Jun/25 A	Sep/25 A	Dec/25 A	Mar/26 A	Jun/26 E	Sep/26 E	Dec/26 E
Revenues ($ Millions)												
Discretes / Optos / Sensors	22,185	21,383	24,285	23,191	21,519	22,629	25,449	24,905	23,996	25,106	27,392	27,254
Analog	19,276	19,011	20,648	20,653	19,813	20,186	23,052	23,396	22,756	23,531	25,365	25,727
MCU	5,751	5,409	5,512	5,087	4,950	5,326	5,694	5,628	5,788	6,433	6,700	6,688
MPU	12,124	13,276	13,911	14,860	13,606	13,943	15,894	17,615	16,548	18,295	19,644	20,826
Other	651	658	690	703	728	752	813	768	565	683	100	100
Total Micro	**18,526**	**19,343**	**20,114**	**20,650**	**19,284**	**20,021**	**22,401**	**24,011**	**22,902**	**25,412**	**26,445**	**27,614**
Logic (ex Micro)	48,462	49,479	56,194	61,634	65,356	68,892	78,853	88,783	91,117	101,967	110,263	117,750
Total Logic	**66,988**	**68,822**	**76,307**	**82,283**	**84,640**	**88,913**	**101,254**	**112,794**	**114,019**	**127,379**	**136,708**	**145,364**
DRAM	18,175	22,269	26,173	28,243	27,074	31,635	39,949	51,939	93,436	135,769	155,616	177,742
NAND	13,472	17,813	18,003	17,140	12,617	15,404	17,382	22,282	42,794	66,484	81,979	89,151
Other	1,039	1,010	1,133	1,048	1,070	1,154	1,310	1,329	1,544	7,459	7,459	7,459
Total Memory	**32,685**	**41,092**	**45,308**	**46,431**	**40,761**	**48,193**	**58,641**	**75,550**	**137,775**	**209,712**	**245,055**	**274,352**
Total ICs	**118,949**	**128,925**	**142,263**	**149,367**	**145,214**	**157,293**	**182,946**	**211,740**	**274,550**	**360,622**	**407,127**	**445,444**
Total Semiconductor	**141,134**	**150,308**	**166,547**	**172,558**	**166,732**	**179,921**	**208,395**	**236,645**	**298,546**	**385,728**	**434,519**	**472,697**
Q/Q Change	*-3.3%*	*6.5%*	*10.8%*	*3.6%*	*-3.4%*	*7.9%*	*15.8%*	*13.6%*	*26.2%*	*29.2%*	*12.6%*	*8.8%*
Y/Y Change	*18.1%*	*18.6%*	*23.7%*	*18.2%*	*18.1%*	*19.7%*	*25.1%*	*37.1%*	*79.1%*	*114.4%*	*108.5%*	*99.7%*

Source: SIA, Morgan Stanley Research

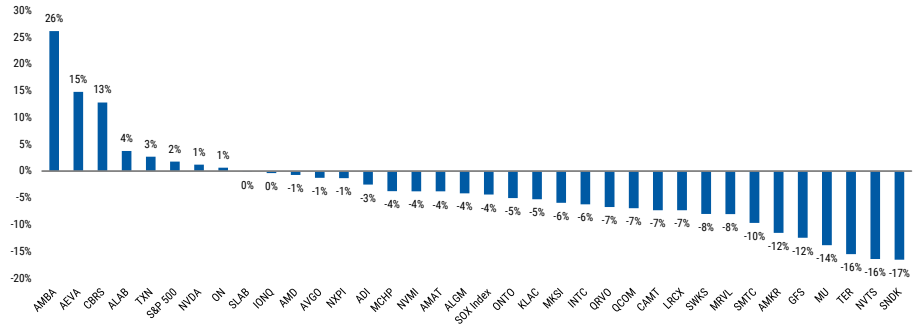
Exhibit 6: Annual SIA Data

	2010 A	2017 A	2018 A	2019 A	2020 A	2021 A	2022 A	2023 A	2024 A	2025 A	2026 E	2027 E
Revenues ($ Millions)												
Discretes / Optos / Sensors	48,406	69,087	75,446	78,953	79,164	92,945	99,591	98,359	91,044	94,502	103,748	109,730
Analog	42,285	53,069	58,380	53,939	55,658	73,816	88,919	81,146	79,588	86,447	97,379	105,203
MCU	14,799	16,430	17,027	15,808	15,484	19,622	25,030	27,861	21,758	21,597	25,610	28,331
MPU	39,927	44,370	46,371	47,974	51,812	56,766	51,299	45,480	54,172	61,059	75,313	84,108
Other	5,908	3,286	3,262	2,658	2,382	2,845	3,217	3,172	2,702	3,062	1,449	400
Total Micro	**60,633**	**64,086**	**66,660**	**66,440**	**69,678**	**79,234**	**79,546**	**76,513**	**78,633**	**85,718**	**102,372**	**112,839**
Logic (ex Micro)	77,377	102,196	109,411	106,535	118,408	153,710	176,097	178,493	215,768	301,883	421,098	503,416
Total Logic	**138,010**	**166,281**	**176,071**	**172,975**	**188,086**	**232,944**	**255,643**	**255,006**	**294,401**	**387,601**	**523,470**	**616,256**
DRAM	39,210	72,802	98,604	62,475	64,324	92,960	77,769	51,945	94,860	150,598	562,563	675,785
NAND	21,735	47,227	54,263	40,180	49,390	55,953	47,109	36,104	66,427	67,685	280,409	442,530
Other	8,669	3,946	4,428	3,785	3,769	4,921	4,948	4,261	4,229	4,229	4,229	4,229
Total Memory	**69,614**	**123,976**	**157,295**	**106,440**	**117,482**	**153,834**	**129,825**	**92,309**	**165,516**	**222,512**	**847,201**	**1,122,544**
Total ICs	**249,909**	**343,326**	**391,746**	**333,354**	**361,226**	**460,594**	**474,388**	**428,461**	**539,505**	**696,560**	**1,468,050**	**1,844,002**
Total Semiconductor	**298,315**	**412,414**	**467,192**	**412,307**	**440,389**	**553,540**	**573,978**	**526,820**	**630,549**	**791,061**	**1,571,798**	**1,953,732**
Y/Y % Growth	*31.8%*	*21.7%*	*13.3%*	*-11.7%*	*6.8%*	*25.7%*	*3.7%*	*-8.2%*	*19.7%*	*25.5%*	*98.7%*	*24.3%*
5 year CAGR	*6.0%*	*7.2%*	*8.9%*	*4.2%*	*5.6%*	*10.3%*	*6.8%*	*2.4%*	*8.9%*	*12.4%*	*23.2%*	*27.8%*
10 year CAGR	*3.9%*	*4.9%*	*6.5%*	*6.2%*	*4.0%*	*6.3%*	*7.0%*	*5.6%*	*6.5%*	*9.0%*	*16.6%*	*16.6%*
Y/Y Real Growth	*30.0%*	*19.5%*	*11.0%*	*-13.1%*	*6.0%*	*21.7%*	*-3.4%*	*-12.3%*	*16.7%*	*23.0%*	*94.8%*	*21.9%*

Source: SIA, Morgan Stanley Research

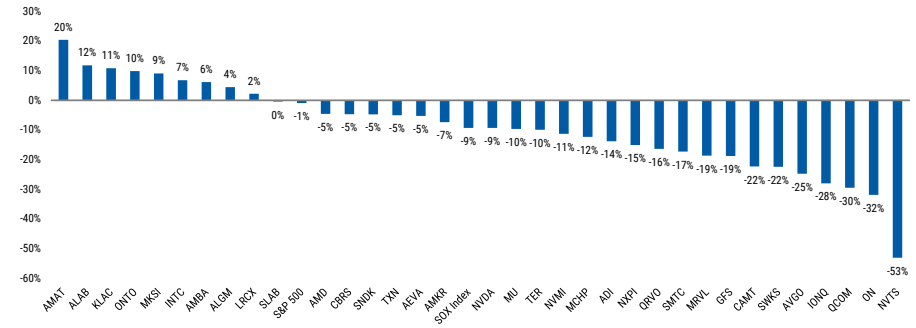
Semiconductor Coverage – Valuation / Stock Performance

Exhibit 7: Weekly stock performance



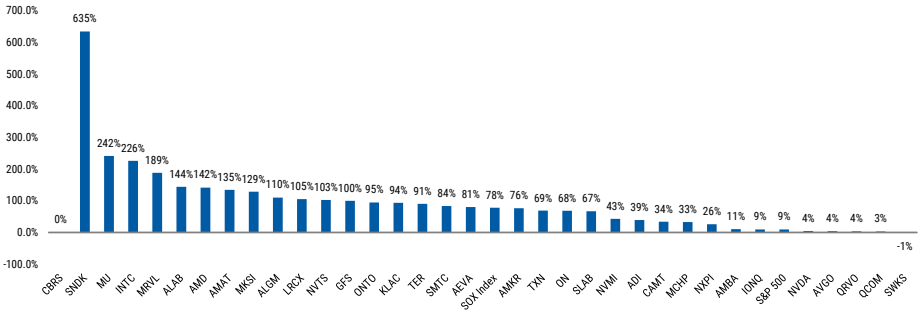
Source: FactSet, Morgan Stanley Research

Exhibit 8: Monthly stock performance



Source: FactSet, Morgan Stanley Research

Exhibit 9: YTD stock performance



Source: FactSet, Morgan Stanley Research

Semis Week Ahead

Exhibit 10: July 6th - July 10th, 2026

Monday, July 6th

Tuesday, July 7th

Wednesday, July 8th

Thursday, July 9th

Friday, July 10th

LOOKING AHEAD

Wednesday, July 15th
ASML Earnings
9:00am ET
SEMI Advanced Packaging Summit 2026
https://www.semi.org/en/connect/events/advanced-packaging-summit-2026

Thursday, July 16th
TSMC Earnings
2:00am ET

Wednesday, July 22nd
TXN Earnings
4:30pm ET
AMD Advancing AI - Day 1

Thursday, July 23rd
STMicro Earnings
3:30am ET
AMD Advancing AI - Day 2
Livestream - https://www.youtube.com/@AMD/streams
INTC Earnings
5:00pm ET

July 26th-29th
DAC 2026: The Chips To Systems Conference
https://dac.com/2026

Tuesday, July 28th
NXP Earnings
4:30pm ET
KLAC Earnings
5:00pm ET

Wednesday, July 29th
QCOM Earnings
4:45pm ET

August 23rd-25th
Hot Chips
https://hotchips.org/

Tuesday, September 8th
IONQ Investor Day
2:00pm ET

Wednesday, September 16th
ON Financial Analyst Day
2:00pm ET

October 13th-15th
SEMICON West
https://www.semiconwest.org/

Source: Bloomberg, Refinitiv, Morgan Stanley Research

Semiconductor Coverage

Exhibit 11: Semiconductors - Risk Reward

Ticker	Rating	Price	Risk-Reward Bear	Risk-Reward Base	Risk-Reward Bull	% Upside / Downside Base
Computing						
AMD	EW	$517.8	$210	$410	$570	-21%
CBRS	OW	$204.9	$90	$273	$400	33%
INTC	EW	$120.4	$43	$73	$110	-39%
NVDA	OW	$194.8	$160	$288	$330	48%
Memory						
MU	OW	$975.6	$675	$1,200	$1,650	23%
SNDK	OW	$1,745.0	$1,100	$1,750	$2,635	0%
Capital Equipment						
AMAT	EW	$603.0	$330	$502	$693	-17%
CAMT	EW	$142.5	$118	$163	$214	14%
KLAC	OW	$235.6	$136	$190	$233	-19%
LRCX	OW	$351.4	$219	$331	$436	-6%
MKSI	OW	$365.6	$234	$374	$506	2%
NVMI	EW	$470.1	$366	$494	$643	5%
ONTO	OW	$307.6	$257	$371	$475	21%
TER	EW	$369.1	$267	$387	$512	5%
Comm-IC / Multi-Market						
ALAB	OW	$406.4	$121	$240	$332	-41%
AMBA	OW	$78.4	$34	$96	$136	23%
AVGO	OW	$360.5	$308	$502	$637	39%
MRVL	EW	$245.3	$130	$195	$286	-21%
QCOM	EW	$176.3	$108	$231	$305	31%
QRVO	EW	$87.6	$40	$84	$110	-4%
SMTC	EW	$135.3	$95	$175	$230	29%
SWKS	EW	$62.6	$43	$76	$105	21%
Analog / MCUs						
ADI	OW	$377.2	$342	$428	$517	13%
ALGM	OW	$55.5	$43	$51	$70	-8%
MCHP	EW	$84.6	$69	$94	$118	11%
NVTS	UW	$14.5	$4.9	$13.7	$22.7	-5%
NXPI	OW	$273.4	$268	$335	$400	23%
ON	NC	$91.2	++	++	++	-
SLAB	EW	$218.2	$83	$231	$265	6%
TXN	UW	$293.1	$184	$221	$263	-25%
Components						
AEVA	EW	$24.0	$4.5	$18.5	$52.0	-23%
Foundry						
AMKR	EW	$69.7	$49	$69	$88	-1%
GFS	EW	$69.8	$34	$58	$96	-17%
Quantum Computing						
IONQ	EW	$49.1	$6	$48.5	$110	-1%

Source: FactSet, Morgan Stanley Research estimates

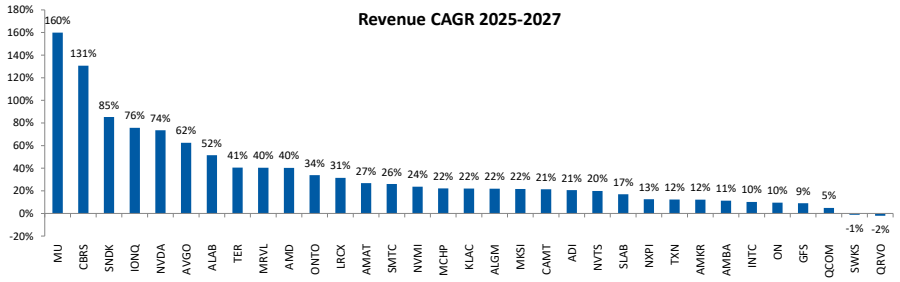
Exhibit 12: MS vs. Street

		CY2026e EPS				CY2026e Revenue			
		MS	Consensus	% Diff		MS	Consensus	% Diff
OW	ADI	$13.21	$12.74	(4%)	ADI	$15,499	$15,067	(3%)
	ALAB	$2.88	$3.02	(8%)	ALAB	$1,532	$1,550	(1%)
	ALGM	$0.93	$0.88	10%	ALGM	$1,048	$1,022	2%
	AMBA	$0.74	$0.78	3%	AMBA	$443	$437	0%
	AVGO	$13.68	$12.89	(3%)	AVGO	$123,943	$116,826	0%
	CBRS	-$0.78	-$0.94	(3%)	CBRS	$863	$866	0%
	KLAC	$4.38	$4.42	(1%)	KLAC	$15,335	$15,365	(0%)
	LRCX	$7.00	$6.89	(0%)	LRCX	$27,067	$27,020	(0%)
	MKSI	$11.70	$11.70	4%	MKSI	$4,793	$4,800	1%
	MU	$104.09	$99.69	45%	MU	$172,900	$168,952	18%
	NVDA	$4.77	$8.62	6%	NVDA	$215,938	$377,840	5%
	NXPI	$14.96	$14.73	4%	NXPI	$14,138	$14,067	1%
	ONTO	$7.31	$7.20	4%	ONTO	$1,347	$1,342	1%
	SNDK	$161.07	$134.09	43%	SNDK	$38,078	$33,736	7%
EW	AEVA	-$1.80	-$1.69	2%	AEVA	$33	$32	(19%)
	AMAT	$13.75	$12.97	2%	AMAT	$36,416	$34,883	3%
	AMD	$7.22	$7.45	1%	AMD	$48,807	$49,908	(5%)
	AMKR	$2.07	$2.08	(8%)	AMKR	$7,570	$7,610	(4%)
	CAMT	$3.56	$3.50	10%	CAMT	$577	$571	5%
	GFS	$1.94	$1.89	(4%)	GFS	$7,250	$7,240	(1%)
	INTC	$1.12	$1.08	21%	INTC	$58,131	$58,534	0%
	IONQ	-$0.54	-$0.37	(109%)	IONQ	$266	$266	3%
	MCHP	$2.71	$2.78	(1%)	MCHP	$5,769	$5,818	2%
	MRVL	$3.98	$3.95	3%	MRVL	$11,498	$11,223	2%
	NVMI	$10.12	$10.47	1%	NVMI	$1,057	$1,064	4%
	ON	$3.12	$3.08	8%	ON	$6,472	$6,472	(0%)
	QCOM	$9.23	$10.80	(100%)	QCOM	$39,926	$42,917	(100%)
	QRVO	$6.31	$6.89	(3%)	QRVO	$3,346	$3,501	(7%)
	SLAB	$3.00	$2.77	9%	SLAB	$934	$922	1%
	SMTC	$2.72	$2.58	(2%)	SMTC	$1,375	$1,331	0%
	SWKS	$4.68	$5.04	(4%)	SWKS	$3,750	$3,948	(3%)
	TER	$8.03	$7.46	0%	TER	$4,748	$4,538	2%
UW	NVTS	-$0.17	-$0.17	13%	NVTS	$43	$42	15%
	TXN	$7.82	$7.70	(1%)	TXN	$21,035	$21,020	(1%)

Source: FactSet, Morgan Stanley Research estimates

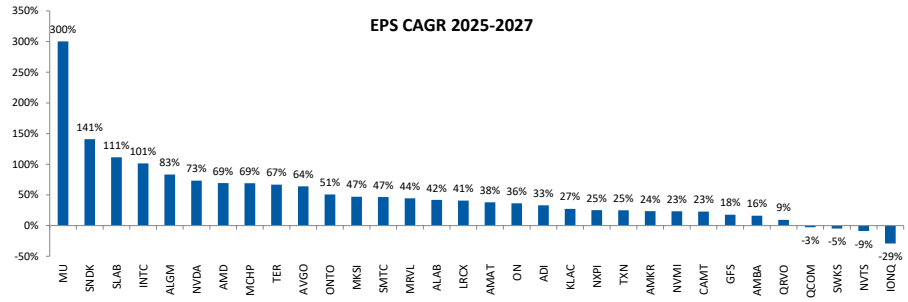
Revenue and EPS Growth

Exhibit 13: 2025-27e Revenue CAGR



Source: FactSet, Morgan Stanley estimates

Exhibit 14: 2025-27e EPS CAGR

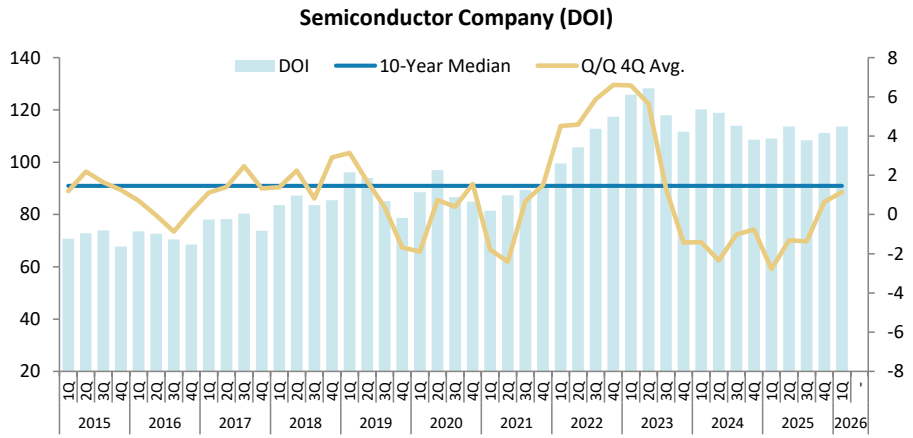


Source: FactSet, Morgan Stanley estimates



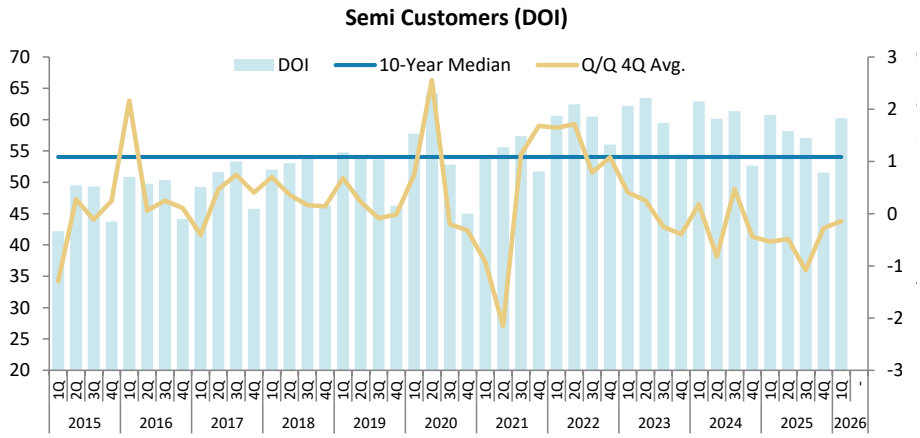
Inventory

Exhibit 15: Semiconductor Company inventory is at 114 days, up 2 days q/q which is 2 days ahead of the seasonal increase of 5 days. DOI is 23 days above the historical median and trailing 4-quarters slightly increased..



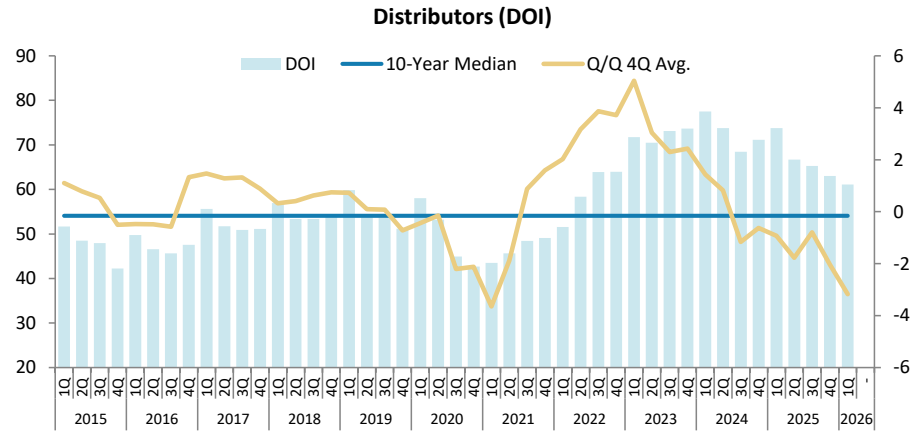
Source: FactSet, Morgan Stanley Research

Exhibit 16: Semi Customer DOI increased 9 days sequentially to 60 days vs a seasonal increase of 8 days. DOI is above the historical median and trailing 4 quarters increased from last quarter.



Source: FactSet, Morgan Stanley Research

Exhibit 17: Distributor inventory is at 61 days, down 2 days q/q, below seasonal increase of 4 days. DOI is 7 days above the historical median while trailing 4-quarters decreased sequentially.



Source: FactSet, Morgan Stanley Research

Short Interest

Exhibit 18: Short Interest as % of Float

	3/Jul/25	3/Apr/26	3/May/26	3/Jun/26	3/Jul/26
ADI	1.7%	2.0%	2.2%	1.9%	2.5%
AEVA	8.2%	12.4%	11.9%	10.7%	9.1%
ALAB	6.4%	9.0%	7.7%	6.9%	6.7%
ALGM	7.0%	6.4%	5.9%	6.4%	7.2%
AMAT	1.9%	1.6%	2.0%	2.5%	2.8%
AMBA	4.9%	4.8%	6.0%	5.1%	6.5%
AMD	3.0%	2.2%	2.2%	2.7%	2.9%
AMKR	2.6%	3.5%	3.0%	3.4%	3.7%
AVGO	1.2%	1.1%	1.1%	1.2%	1.3%
CAMT	7.8%	7.4%	6.5%	6.5%	6.1%
CBRS				2.1%	2.9%
GFS	1.8%	3.1%	1.8%	1.4%	1.2%
INTC	2.6%	2.4%	2.8%	2.7%	2.9%
IONQ	9.8%	21.7%	22.4%	15.5%	13.5%
KLAC	2.8%	2.4%	2.4%	26.9%	3.1%
LRCX	2.5%	2.2%	2.3%	2.6%	2.4%
MCHP	6.5%	5.1%	5.5%	6.0%	7.6%
MKSI	6.1%	5.5%	5.3%	6.6%	6.8%
MRVL	2.9%	3.2%	3.2%	4.0%	4.5%
MU	2.5%	2.8%	3.3%	3.3%	3.7%
NVDA	1.0%	1.2%	1.2%	1.2%	1.2%
NVMI	5.2%	5.2%	4.8%	5.6%	5.4%
NVTS	19.9%	18.6%	17.9%	15.4%	16.2%
NXPI	2.4%	3.2%	2.6%	3.3%	3.6%
ON	9.0%	7.9%	7.5%	8.0%	8.0%
ONTO	4.3%	2.7%	2.0%	3.9%	5.2%
QCOM	2.0%	4.1%	4.7%	4.3%	4.2%
QRVO	7.0%	7.1%	6.7%	7.9%	7.0%
SLAB	5.0%	4.6%	5.7%	7.2%	6.6%
SMTC	10.0%	5.8%	6.7%	6.8%	7.7%
SNDK	5.0%	5.4%	7.3%	6.2%	7.4%
SWKS	9.0%	13.3%	15.1%	18.7%	18.3%
TER	4.4%	3.1%	3.5%	4.4%	5.7%
TXN	2.0%	2.0%	1.7%	2.1%	2.3%
AVERAGE	5.2%	5.7%	5.7%	6.4%	5.8%
MEDIAN	4.9%	4.6%	4.8%	5.3%	5.5%

Source: FactSet, Morgan Stanley Research

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Total	3,668		933			1731	

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INDUSTRY COVERAGE: Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (07/02/2026)
Joseph Moore		
Advanced Micro Devices (AMD.O)	E (06/09/2024)	$517.82
Aeva Technologies Inc (AEVA.O)	E (07/19/2021)	$23.98
Allegro Microsystems Inc (ALGM.O)	O (02/13/2026)	$55.49
Ambarella Inc (AMBA.O)	O (03/29/2016)	$78.36
Amkor Technology Inc (AMKR.O)	E (11/08/2023)	$69.65
Analog Devices Inc. (ADI.O)	O (11/16/2023)	$377.16
Astera Labs Inc (ALAB.O)	O (05/11/2025)	$406.42
Broadcom Inc. (AVGO.O)	O (06/09/2024)	$360.45
Cerebras Systems (CBRS.O)	O (06/08/2026)	$204.86
GlobalFoundries Inc (GFS.O)	E (10/28/2024)	$69.84
Intel Corporation (INTC.O)	E (02/22/2023)	$120.35
IonQ Inc (IONQ.N)	E (04/25/2023)	$49.12
Marvell Technology Group Ltd (MRVL.O)	E (09/14/2015)	$245.29
Microchip Technology Inc. (MCHP.O)	E (07/10/2024)	$84.64
Micron Technology Inc. (MU.O)	O (10/06/2025)	$975.56
Navitas Semiconductor Corp (NVTS.O)	U (04/06/2025)	$14.46
NVIDIA Corp. (NVDA.O)	O (03/16/2023)	$194.83

NXP Semiconductor NV (NXPI.O)	O (02/11/2025)	$273.36
ON Semiconductor Corp. (ON.O)	++	$91.22
Qorvo Inc (QRVO.O)	E (10/28/2025)	$87.57
Qualcomm Inc. (QCOM.O)	E (06/24/2026)	$176.25
Quantinuum (QNT.O)	E (06/29/2026)	$74.56
SanDisk Corporation. (SNDK.O)	O (03/03/2025)	$1,745.00
Semtech Corp. (SMTC.O)	E (04/06/2025)	$135.27
Silicon Laboratories Inc. (SLAB.O)	E (01/19/2021)	$218.22
Skyworks Solutions Inc (SWKS.O)	E (11/28/2018)	$62.56
Texas Instruments (TXN.O)	U (04/13/2020)	$293.08
Wolfspeed, INC (WOLF.N)	NR (04/06/2025)	$40.00
Lee Simpson		
Arm Holdings plc (ARM.O)	E (04/07/2026)	$315.28
Cadence Design Systems Inc (CDNS.O)	O (02/14/2024)	$373.14
Synopsys Inc. (SNPS.O)	E (02/27/2026)	$437.16

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* Historical prices are not split adjusted.

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