

KASASV

KOREAN AMERICAN SEMICONDUCTOR ASSOCIATION IN SILICON VALLEY

July 2025

진정한 지도자는 일을 나눌 줄 안다

“지도자가 책임감에 사로잡혀 다른 사람과 일을 나누지 못하고, 권권을 위임하지도 못할 때 갈등은 더 커질수 있습니다. 우리 주위에는 아무리 바빠도 모든 일을 자신이 직접 처리해야 직성이 풀리는 사람들이 많습니다. 지도자가 부담감에 짓눌리게 되면 예민해지고 자주 화를 내게 됩니다. 또 무의식중에 직원들을 공격하게 됩니다. 이런 공격적인 태도로 직원을 통솔하기는 어려워집니다.

마음에 공격심이 생기면 자신을 더 잘 보살피라는 신호로 받아들여야 합니다. 자신을 잘 보살핌으로써 갈등에 좀 더 여유롭게 대처할 수 있기 때문입니다. 혼자 모든 책임을 짊어져야 한다는 부담감에서 벗어나야 비로소 다른 사람에게 일을 맡길 수 있습니다.

그리고 다른사람에게 일을 적절하게 맡길 수있수 있어야 지도자 본연의 임무를 더 잘 수행할수 있습니다. -안셀름 그윈

INTRO

E-mail 주소는 blind 로 나가기때문에 공유가 되지 않습니다. 혹시 개인 메일주소를 원하시면 저에게 알려주시면 update 하도록 하겠습니다. 그리고 Newsletter distribution 을 원치않으시면, 알려주시기 바랍니다.

6 월에는 다음과 같은 행사가 있었습니다. 참석해주신 분들께 감사드립니다.

- 6 월 3 일(화)에는 한미 AI 반도체 혁신 센터 주관으로 “Silicon Valley Semiconductor Day” 행사
- 6 월 4 일~5 일에는 TechEx North America 2025 의 하나인 AI & Big Data Expo 가 Santa Clara Convention Center 에서.
- 6 월 28 일(토)에는 올해 두번째 KASASV Golf Tournament 가 있었습니다. 참석해주신 모든 분들께 감사드립니다. 추가 내용은 저희 웹사이트 announcement 를 참조하시기 바랍니다.

Linkedin 에 KASASV 를 officially launch 했습니다. 많은 관심 부탁드립니다.

저희는 미국 Internal Revenue Code 501(c)(3)에 의거하여 Federal Income tax exemption 을 받은 비영리단체로 donation/협찬으로 운영이 되고 있습니다. 관심이 있으시면 저희 웹사이트 Partners tab 을 보시면 좀 더 자세히 보실수 있습니다. 올해부터는 off-line event 하고있으니, 스케줄은 웹사이트(Announcement)를 참조하시기 바랍니다

- 사이먼 리 드림/협회 상근임원

www.kasainsv.com

감사합니다

Applied Materials Powers The Future Of AI Chipmaking

June 17, 2025 Investor Overview

Summary

- Applied Materials, Inc. is a key enabler of AI-driven chip innovation, with strong positions in advanced DRAM, packaging, and critical process technologies.
- Despite short-term China-related headwinds, AMAT is delivering record revenue, margins, and cash flow, outperforming peers in core markets.
- The company boasts a robust balance sheet, rising dividends, aggressive buybacks, and trades at a reasonable valuation relative to growth prospects.
- Geopolitical and cyclical risks are manageable due to diversification, financial strength, and deep customer integration, making AMAT stock a compelling 1- to 3-year investment.



Sundry Photography

Applied Materials, Inc. (NASDAQ:AMAT) plays a key role in the semiconductor industry. Without their machines, chips cannot be produced, and therefore neither can modern technology such as data centers or self-driving cars. Yet, the stock was punished shortly after strong quarterly figures at the end of May. The share price fell by around 5% due to concerns about weak demand from China and geopolitical pressure. Ironically, because under the hood, AMAT is delivering record performances.

This seems to be a textbook example of a moment when short-term noise creates opportunities for long-term investors. Anyone looking for growth companies at a reasonable valuation will find a solid candidate in AMAT. The combination of secular growth drivers such as AI, a strong market position in critical process technology, a healthy financial profile, and an attractive valuation make Applied Materials particularly interesting for investors with a horizon of 1 to 3 years.

Growing On Multiple Fronts At The Same Time

The biggest driver of AMAT's momentum is artificial intelligence. AI demands more powerful, faster, and more economical chips, and these require complex production processes. AMAT supplies the tools that chipmakers such as TSMC (TSM), Samsung (OTCPK:SSNLF), and Micron (MU) use to create these new generations of chips. This not only involves logic chips but also DRAM and innovative packaging methods. CEO Gary Dickerson recently called AI the greatest productivity transformation of our generation. In practice, this is already translating into sharply increasing investments in so-called "leading edge" technology. While China is scaling back its investments in older chips, foundries worldwide are fully committed to gate-all-around transistors, backside power delivery, and high-bandwidth memory. Applied Materials is positioned precisely at these intersections.

AI Central To Industry Outlook



- In the early phases of a multi-decade AI application and infrastructure build out
- Advances in energy-efficient computing require disruptive innovation across the technology stack
- AI is reshaping the semiconductor design and manufacturing roadmap
- AI data center innovation is driving shifts in WFE mix this year toward leading-edge foundry-logic and advanced DRAM

AI is a major catalyst for innovation and growth

AI central to industry outlook (AMAT Q1 2025 Investor Presentation)

In advanced DRAM, for example (a market that is growing by more than 40% this year) AMAT has a leading position. This sets the company apart from many competitors. While Lam Research (LRCX) focuses largely on etching, KLA (KLAC) on inspection, and ASML (ASML) on lithography, AMAT covers almost all other crucial steps: from deposition and metrology to ion implantation. This breadth offers economies of scale and makes co-innovation with customers more efficient. This not only gives AMAT market share but also strategic anchoring with the largest chipmakers. The company is already working with customers on technologies that will not be on the market for another 5 years. Such relationships are not easy to catch up on.

Well Positioned for Device Architecture Inflections

Gate-All-Around
with Backside Power



Advanced DRAM



LEADING-EDGE FOUNDRY-LOGIC

Advanced fab with gate-all-around (GAA) and backside power delivery (BPD) increases Applied's revenue opportunity by ~30% compared to FinFET node*

- » Transition from FinFET to GAA grows Applied's transistor SAM from ~\$6B to ~\$7B*
- » Introduction of BPD grows Applied's wiring SAM from ~\$6B to ~\$7B*
- » On track for >50% SAM share

ADVANCED DRAM

In FY25, we expect revenues from advanced DRAM customers to grow >40% as they ramp investments in DDR-5 and HBM

* For the equivalent fab capacity (per 100k wafers per month)

© | Applied Materials External



Well positioned for Device Architecture Inflections (AMAT Q1 2025 Investor Presentation)

Of course, not everything is rosy. The export restrictions towards China are cutting into a chunk of revenue, especially in older chip technology. In the most recent quarter, Chinese revenue fell by 37% YoY. However, the impact is limited to trailing-edge nodes such as 28 nanometers, technology that is more than 15 years old. It is precisely in these niches that AMAT still has access and a strong market share. At the same time, sales outside China are growing much faster. In 2024, the company outperformed its competitors outside China. AMAT's share in Taiwan, South Korea, and the U.S. (where AI fabs are built) has actually increased.

Sales by Geography (in \$ M)	United States	Q/Q change	Y/Y change	China	Q/Q change	Y/Y change
FQ2'25	808	-11.9%	-5.3%	1,774	-20.9%	-37.3%
FQ1'25	917	-20.5%	20.8%	2,243	5.0%	-25.2%
FQ4'24	1,153	9.5%	43.6%	2,136	-0.8%	-27.9%
FQ3'24	1,053	23.4%	1.3%	2,153	-23.9%	24.2%
FQ2'24	853	12.4%	-23.4%	2,831	-5.5%	101.5%
FQ1'24	759	-5.5%	-27.8%	2,997	1.1%	161.7%
FQ4 '23	803	-22.7%	-3.3%	2,963	70.9%	121.6%
FQ3 '23	1,039	-6.6%	43.3%	1,734	23.4%	-3.5%
FQ2 '23	1,113	5.9%	58.5%	1,405	22.7%	-34.1%
FQ1 '23	1,051	26.6%		1,145	-14.4%	
FQ4 '22	830	14.5%		1,337	-25.6%	
FQ3 '22	725	3.3%		1,797	-15.8%	
FQ2 '22	702			2,133		

Sales by Geography (SA-Applied Materials in charts: China sales continue to dip year-on-year in FQ2)

Geopolitics is also not only a risk but also an opportunity. As countries such as the U.S., Germany, and India subsidize their chip production to become less dependent on Asia, new markets are emerging. Applied Materials is responding to this with local production and a new R&D hub in Silicon Valley, which will be operational from 2026. This so-called EPIC Campus should accelerate innovations by literally bringing customer teams under one roof. The strategy is clear: help customers innovate faster so that AMAT remains their preferred supplier in a world full of technological acceleration.

Figures That Support The Story

The Q2 2025 quarterly figures illustrate that the strategy is working. Revenue grew by 7% to \$7.1 billion, and earnings per share reached a record level of \$2.39. Gross profit margin peaked at 49.2%, the highest level since 2000. This jump is not a one-time windfall but the result of better pricing strategies, a favorable product mix, and more customers. Even analysts who were previously skeptical about margins with lower China revenues acknowledge that AMAT's improved mix and process control tools are structurally supporting gross margin.

FQ2'25 Non-GAAP Financial Results

\$M, except EPS	FQ2'24	FQ1'25	FQ2'25	YoY	Year-over-year highlights: <ul style="list-style-type: none">▪ Revenue growth across all business segments▪ Highest quarterly Non-GAAP gross margin since FQ4'2000▪ Growth in R&D, partially offset by decreases in G&A, as we focused on funding critical inflection-related research▪ Record Non-GAAP EPS benefitted from revenue growth, better profitability and share repurchases
Revenue	6,646	7,166	7,100	7%	
Gross Margin*	47.5%	48.9%	49.2%	170bps	
Operating Expenses*	1,233	1,313	1,311	6%	
Operating Income*	1,927	2,190	2,180	13%	
Operating Margin*	29.0%	30.6%	30.7%	170bps	
EPS*	\$2.09	\$2.38	\$2.39	14%	

* For reconciliation of GAAP to non-GAAP results, see appendix of this presentation and non-GAAP reconciliation on the investor relations website at investor.appliedmaterials.com

14 | Applied Materials External



FQ2'25 Non-GAAP Financial Results (AMAT Q1 2025 Investor Presentation)

The semiconductor division, which accounts for more than 70% of revenues, is growing fastest. Foundry and DRAM customers are investing heavily, while a slight decline in orders for older chips (such as IoT and cars) is being well compensated. The service division (Applied Global Services) is also running steadily with recurring revenues from maintenance contracts. Two-thirds of that service revenue is now subscription-based, which generates predictable cash flow.

What's especially reassuring is that the company is delivering on its earnings growth in a challenging environment. Despite weakness in China and slowing global trade, AMAT is on track for revenue growth of around 7% this year, with expectations of adding another \$7.2 billion in the third quarter. In other words, this is not a company that's going to collapse after a pandemic bubble, but rather a solid grower leading the transition to an AI-driven economy.

Business Outlook

Third QUARTER FISCAL 2025

OUTLOOK*	Total Revenue	~\$7.2B ± \$500M
	Non-GAAP EPS*	~\$2.35 ± \$0.20
SEGMENT REVENUE	Semiconductor Systems	~\$5.40B
	Applied Global Services	~\$1.55B
	Display	~\$250M
OTHER	Non-GAAP Gross Margin*	~48.3%
	Non-GAAP Operating Expenses*	~\$1.34B
	Non-GAAP Tax Rate*	~13%

* For reconciliation of GAAP to non-GAAP results, see appendix of this presentation and non-GAAP reconciliation on the investor relations website at ir.appliedmaterials.com

18 | Applied Materials External



Business Outlook (AMAT Q1 2025 Investor Presentation)

In addition, the balance sheet is solid. With \$6.2 billion in cash versus \$6.3 billion in debt, Applied Materials is effectively debt neutral. Cash flow is strong: \$1.6 billion in Q2, of which \$1.1 billion was discretionary. That makes the company immune to rising interest rates and provides room for investment without sacrificing shareholder returns.

Dividends and Valuation

Applied Materials has a compelling capital return policy. The quarterly dividend increased 15% this year, paid from the stable cash flow of the service business. The dividend yield is around 1.1%, which is comparable to competitors such as Lam Research and KLA. But the pace at which AMAT increases the dividend is above average. More importantly, the payout ratio remains conservative, making future increases easy to finance.

Capital Allocation Strategy

1. Invest in R&D and infrastructure to enable profitable growth

2. Grow dividend per share and use buybacks to distribute excess FCF

OVER PAST 10 FISCAL YEARS (through FY24)

- » Reinvested >\$22B in R&D and >\$6B in capital additions
- » Distributed nearly 90% of FCF*
- » Grew dividend per share at ~15% CAGR
- » Reduced shares outstanding by 33%



Committed to distribute 80–100% of FCF to shareholders over time

\$15.9B remaining on share repurchase authorization at end of FY22/23

* For reconciliation of GAAP to non-GAAP results, see appendix of this presentation and non-GAAP reconciliation on the investor relations website at investor.appliedmaterials.com

21 | Applied Materials Estimated



Capital Allocation Strategy (AMAT Q1 2025 Investor Presentation)

Even more impressive is the share buybacks. In Q2 alone, AMAT bought back \$1.7 billion of its own shares, just over 1% of the outstanding shares. The Board recently approved an additional \$10 billion in buybacks, leaving \$15.9 billion in headroom. Given the market capitalization of around \$136 billion, that represents a potential 12% reduction in the number of shares. That supports earnings per share growth.

In terms of valuation, Applied Materials remains attractive. The P/E ratio based on expected 2025 earnings is around 18x. That is lower than peers such as ASML (28x) and KLA (27x), while AMAT is not far behind in margins and profitability. The PEG ratio of 2.1x looks healthy. Earnings are growing in high single digits this year, while the valuation remains reasonable. As such, AMAT offers exactly what GARP investors are looking for: growth at a reasonable price.

The gross margin of almost 50% and the operating margin of 36% demonstrate strong pricing power and operating leverage. Together with the robust balance sheet and shareholder-friendly capital allocation, this makes Applied Materials undervalued in my view. Especially given the growth prospects in AI, DRAM, and chip packaging technologies.

Risks Are Manageable

The biggest threat comes from geopolitical risks, especially the restrictions on China. However, AMAT is prepared for this. It mainly serves legacy technologies in China that are outside the scope of most sanctions. Moreover, the growth in AI-driven markets more than compensates for these losses. A second risk is the classic semiconductor cycle: in a global recession, customers would pause their investments. But with the broad diversification in end markets and the buffer of service revenues, AMAT is less cyclical than before. And third, there is the rise of local Chinese competitors. However, they technically lag behind in the most advanced applications, where AMAT has been deeply integrated into the ecosystem of top customers for years.

All risks together are valid, but due to the diversification, financial buffer, and technological advantage of Applied Materials, they do not outweigh the upside potential in my opinion.

Conclusion

Applied Materials is built on solid foundations. The company not only supplies the machines used to make chips but also has a strong position in the biggest technological innovations of the moment. Think of faster memory solutions, new chip architectures, and better connection techniques between components. In a sector that is constantly changing, AMAT always knows how to be in the right places. Profitability is high, cash flow is stable, and the balance sheet is solid. At the same time, the company pays out a lot of cash to shareholders, without this being at the expense of investments in innovation.

Although the geopolitical situation and competition from China in particular pose risks, the company is well-prepared for this. The spread of customers, products, and regions ensures resilience. And because AMAT works closely with customers worldwide, it remains relevant in the long term. Anyone looking for a growth company that is also financially healthy and remains reasonably priced will find a strong candidate in Applied Materials.

In my opinion, the share offers an attractive opportunity for investors with patience and a horizon of 1 to 3 years. Not by speculating on hype, but by betting on a market leader that grows profitably with a digital world that increasingly needs more chips.

KLA Is Near All-Time Highs

June 19, 2025 Bay Area ideas

Summary

- KLA delivered strong Q3 results, with revenue and EPS growth exceeding expectations and margins expanding significantly.
- Despite robust fundamentals and continued capital returns via dividends and buybacks, guidance for Q4 signals a notable slowdown in growth.
- KLAC stock is fairly valued relative to its peers, justified by superior revenue growth, but the premium leaves limited upside at current levels.

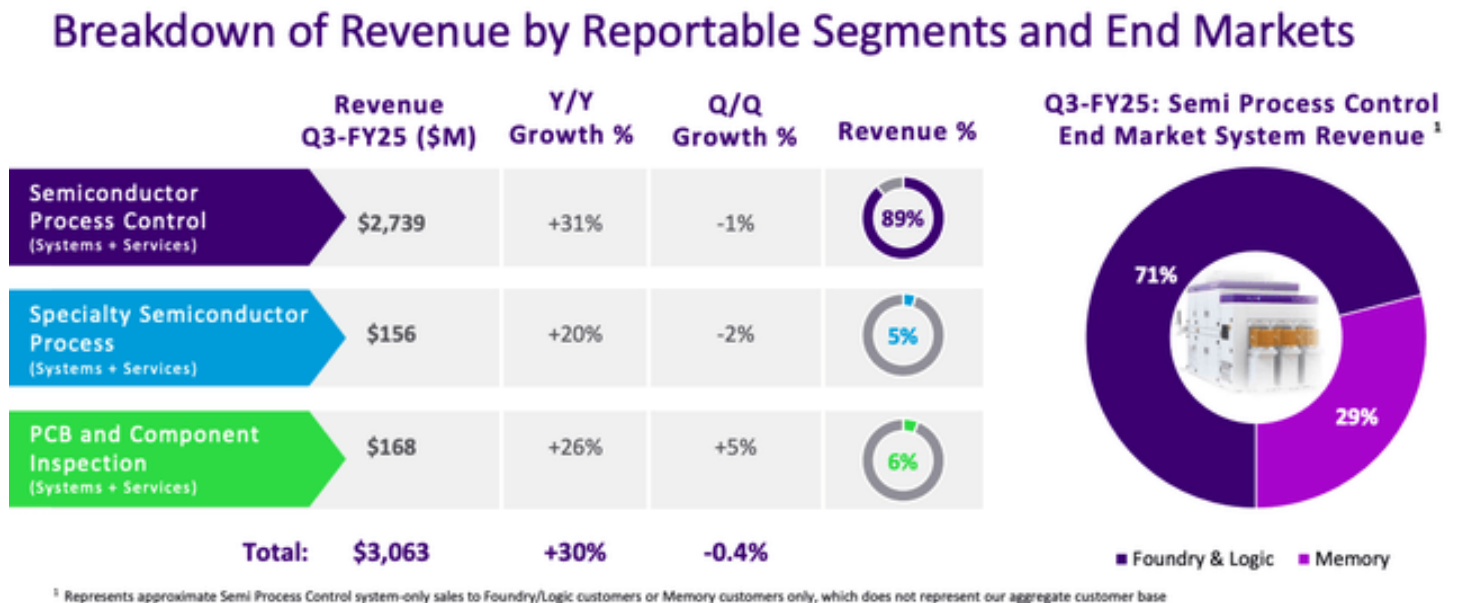


hapabapa

Let's start with an overview of their FY2025 Q3 earnings. The company as a whole reported total revenues of \$3.063 billion, which surpassed the midpoint of their previously provided guidance. This figure represents growth of 29.80% and

as you can see, a notable acceleration occurred QoQ. Now, the revenue growth rate is far above the multiyear average, and Q3 was, in fact, one of the best quarters in the past three years. Revenues also surpassed expectations as they beat by a healthy \$53.22 million. For adjusted EPS, they reported \$8.41, up 59.89% YoY. With EPS increasing at an even faster pace than revenues, margins likely expanded from the year ago quarter. This EPS figure also surpassed expectations, as the beat analyst estimates by \$0.33. In terms of margins, they indeed had a very strong performance. Adjusted gross margin increased from 59.8% to 63.0% to indicate strong pricing, while adjusted operating margin rose from just 36.8% to 44.2% to show a major jump in business efficiency.

Their Largest Segment Leads



KLA Q3 Presentation

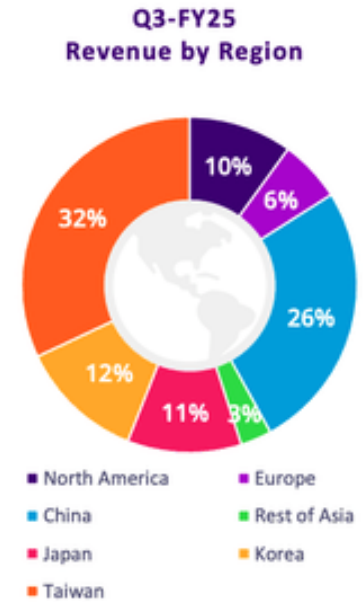
Above, is the breakdown of their revenues in terms of their segments. It is very encouraging to see that their by far the largest segment, Semiconductor Process Control, saw the strongest YoY growth of the three segments. This segment made up 89% of revenues and was clearly the leader for KLA. Still, the growth rates for their Specialty Semiconductor Process and PCB and Component Inspection segments were no slouch either as they reported 20% and 26% respectively. While the strength in Semiconductor Process Control shows that their core business is outperforming, the highly respectable results in the other two segments show that the company is experiencing widespread strength. Both are encouraging signs in my view.

China is a Risk

Breakdown of Revenue by Major Product and Regions

	Revenue Q3-FY25 (\$M)	Y/Y Growth %	Q/Q Growth %	Revenue %
Wafer Inspection	\$1,496	+51%	-4%	49%
Patterning	\$636	+18%	+20%	21%
Specialty Semi Process	\$138	+19%	-3%	4%
PCB and Component Inspection	\$104	+53%	+12%	3%
Services	\$669	+13%	+0.3%	22%
Other ¹	\$19	-67%	-76%	1%
Total:	\$3,063²	+30%	-0.4%	

¹ Included in the Semiconductor Process Control Segment
² Due to rounding, amounts do not total exactly



KLA Q3 Presentation

In terms of the revenue breakdown for their product categories, Wafer Inspection made up nearly 50% of revenues. Wafer Inspection saw the second-highest growth rate of all the product categories, as revenues increased 51% YoY. Again, this shows that their core business is rock-solid. Their other two major products, Patterning and Services, still show resilient growth as they reported increases of 18% and 13% YoY respectively. On the right side of the above diagram, the geographic breakdown of KLA's revenues is provided. Taiwan was the largest contributor at 32%, but China was the second largest at 26%. With U.S. export restrictions seemingly getting increasingly strict, this is a potential risk to KLA's business. Clearly, the company is still quite reliant on the Chinese market, and so its growth may be impacted if the U.S. does indeed further limit exports.

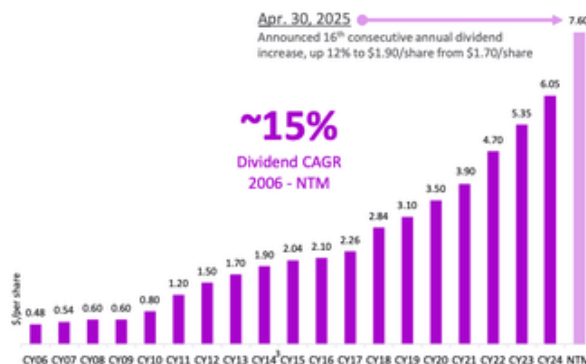
Committed to Returning Capital

Return to Shareholders Across Both Share Repurchases & Dividends

Share Repurchases - Last 5 Years¹



Track Record of Dividend Increases



KLA Q3 Presentation

Dividend Grades ?

Category	Sector Relative Grade
Dividend Safety	A+
Dividend Growth	A+
Dividend Yield	D+
Dividend Consistency	B+

SA

KLA seems committed to returning capital to investors, even though its dividend yield is definitely on the low-side at 0.85% currently. On the day of their earnings, they announced both an increase to their dividend and a major share repurchase program. The annual dividend is getting raised to \$7.60 per share or \$1.90 quarterly. This is a 12% increase and as you can see above, the CAGR is around 15%. They also stated that this represents the 16th consecutive annual dividend increase, and I believe investors should find that promising. As you can see above, Seeking Alpha generally rates KLA's dividend favourably except for yield, which is indeed a bit low. However, they make up for that with share repurchases. The company bought back \$2.194 billion in stock in the LTM, and they had \$462 million in remaining share repurchase authorization. On April 30th, they unveiled a new \$5 billion buyback authorization, and so they are likely to continue returning capital to investors in the years to come. This also demonstrates management's strong confidence in the value of their stock.

Guidance is Weaker Than Desired

June 2025 Quarter Guidance

Revenue	\$3.075B +/- \$150M	Macro Assumptions Semi PC Revenue By End Market <ul style="list-style-type: none"> Foundry/Logic: ~69% Memory: ~31% → DRAM ~76% NAND ~24% Model Assumptions <ul style="list-style-type: none"> Non-GAAP Operating Expenses*: ~\$595M Other Income & Expense (OIE)*, Net: ~\$35M Effective Tax Rate*: ~13.5% Diluted Share Count: ~132.5M
Non-GAAP Gross Margin*	63% +/- 1%	
GAAP Diluted EPS	\$8.28 +/- \$0.78	
Non-GAAP Diluted EPS*	\$8.53 +/- \$0.78	

* Non-GAAP metric - Refer to Appendix for Reconciliation to GAAP

KLA Q3 Presentation

KLA provided guidance for their FY2025 Q4. First off, they are expecting to see revenues of \$3.075 billion +/- \$150 million. That midpoint figure would represent growth of 19.7% from the year ago quarter's \$2.569 billion figure. While this growth rate is still respectable, it does represent a significant growth slowdown from their Q3's 29.8% increase. For

adjusted gross margin, they are projecting 63% +/- 1%. This would be a slight improvement from the prior year period's 62.5% and so there are no signs of any pricing pressure. Demand is therefore expected to still be strong. Lastly, they expect to see an adjusted EPS of \$8.53 +/- \$0.78. This implies a midpoint increase of 29.2% YoY. Like revenue growth, EPS growth is still respectable, but there is a notable slowdown from Q3's nearly 60% growth rate. As a whole, I would say that the guidance was a bit weaker than I hoped for, as growth is clearly expected to slow. Nonetheless, the fundamentals are still in good shape, especially with gross margin still expanding.

The Stock is Fairly Valued



YCharts

The P/S ratio hit a major high in mid-2024. After contracting in the second half of 2024 and earlier this year, the multiple has climbed swiftly back to a current reading of 10.33. This is far above the multiyear average and relatively close to the approximately 12.0 peak in 2024. I believe this shows around fair valuation for KLA relative to the company's growth. Early in this article, it was stated that revenue growth for their Q3 was at 29.8% and far above the three-year average. The considerable increase in gross margin is another catalyst for multiple expansion. In their Q4 guidance, it was shown that revenue growth will slow to 19.7%. While that is a bit disappointing, that growth rate is still expected to remain above KLA's three-year average for the figure, and so the company's outlook is still robust overall. Furthermore, gross margin is expected to expand slightly in their Q4, further supporting the valuation. With the fundamentals being solid as shown by Q3 earnings and the outlook still respectable as indicated by Q4 guidance, I believe the relatively elevated position in the P/S ratio is justified.

The P/S ratio history for Applied Materials (AMAT) and Lam Research (LRCX) is given above. Currently, KLA is trading at a notable premium to both companies. However, I believe this can be justified. As of this writing, Seeking Alpha has a grade of A- for KLA in terms of revenue growth. This is contrasted with Applied Materials' C+ grade and Lam Research's B+. Therefore, relative to the growth of peers, KLA stock seems to be correctly valued. Also note that Lam Research has a higher P/S than Applied Materials, as the former has a higher revenue growth grade.

Lam Research: A Model Of Operational Excellence Worth Investing In

June 24, 2025 Star Investment

Summary

- Lam Research exceeded expectations in Q3 FY25, driven by strong demand for its ALTUS Halo and Akara systems and operational excellence from its 'Close to the Customer' strategy.
- Financial results were robust: revenue up 24% YoY, record gross margins, expanding operating margins, and strong cash flow, supporting continued buybacks and dividends.
- Valuation remains attractive with a low PEG ratio, secular AI-driven tailwinds, and solid shareholder returns, despite some near-term risks from China exposure and DRAM market uncertainty.



hapabapa

Despite the loss of business from China adversely impacting the company's services and spare parts business, Lam's results were better than expected. The company exceeded both its own and the market's expectations in many key financial metrics. Additionally, management's commentary implies a healthy demand environment and solid adoption of its newest products, ALTUS Halo and the Akara System, as well as record revenues in its upgrades business.

ALTUS Halo is for Molybdenum Atomic Layer Deposition, a tool that has become necessary as Tungsten has become obsolete in the production of the newest chips. My March 17 article discussing ALTUS stated:

Up until recently, the industry has used Tungsten as a deposition material. The problem is that Tungsten has reached its limitations. The drive to pack better chip performance into a smaller space has made the material obsolete. Lam created

a tool that can deposit Molybdenum, a material with a lower resistance than Tungsten. Molybdenum enables more rapid electrical transmission, which is necessary in devices used for applications such as generative AI, cloud computing, and next-generation smartphones and PCs.

Chief Executive Officer ("CEO") Timothy Archer said on the third quarter 2025 earnings call (emphasis added):

Our ALTUS Halo system enables barrierless atomic layer deposition of molybdenum, reducing the resistance of critical contact and interconnect layers by 50% compared to legacy technologies. In the case of 3D NAND, this reduction is critical to achieving the superior I/O performance needed for AI applications. As a result, Lam's Halo molybdenum process is seeing increased adoption across our leading 3D NAND customers.

The company believes Akara is "a generational leap forward" in plasma etch technology. Plasma etch can etch chip designs at the nanometer scale, which is necessary for manufacturing virtually all modern semiconductor devices, ranging from the smallest memory chips to the most complex logic processors. My March 17 article stated about Akara:

Akara gives chipmakers more precise control to create even more complex 3D structures at a microscopic level. It can also help lessen patterning defects that sometimes occur when using lithography to print the outlines of tiny, integrated circuit patterns onto a silicon wafer. By reducing defects, manufacturers can improve the yield or the amount of useful chips they gain from each wafer. Improving the yield is a big deal for chip manufacturers, as it can directly improve profitability. Any tool that helps chip manufacturers enhance profitability will likely be in heavy demand—a reason management is excited by its growth prospects.

CEO Tim Archer said about Akara on the third quarter 2025 earnings call (emphasis added):

In etch, our new Akara system has gotten off to a great start, rapidly solidifying and expanding our market-leading position in conductor [etch]. Featuring a proprietary industry-first innovation for ultrafast plasma control, Akara delivers previously unachievable levels of performance in etch selectivity and profile patterning precision. We have previously announced leading-edge foundry logic momentum with this tool. And just since our Investor Day, Akara has also won multiple critical etch applications at a major DRAM manufacturer. By enabling current DRAM logic road maps with Akara, we are setting the stage for Lam to make further gains as the industry looks to implement even more challenging device architectures like 3D DRAM and CFET [Complementary Field-Effect Transistor] over next decade.

This article will discuss the company's operational excellence and strategic execution. It will also review Lam's third-quarter 2025 earnings, risks, valuation, and why I still recommend a buy.

Lam Research's Strategic Plan and Operational Excellence

Among the reasons why the stock has risen substantially since my March buy recommendation was that the company exceeded the midpoint of all its guidance ranges that management provided on its third-quarter FY2025 earnings call (for the March 2025 quarter). You can attribute a large part of this performance to a decision made by management several years ago to adopt a "Close to the Customer" strategy. By operating key wafer fabrication equipment ("WFE") manufacturing plants near the majority of its customers' semiconductor fabs (chip manufacturing plants), Lam can respond more quickly to issues, provide timely service and spare parts, and minimize expensive downtime for its largest customers. Lam also actively collaborates with its customers to build new solutions. By having manufacturing and process development capabilities closer to its largest customers' R&D facilities, Lam can facilitate better collaboration, accelerate the time it takes to develop new solutions, and integrate its equipment more seamlessly into customer processes. Operating closer to customers carries the additional benefit of helping Lam manage costs and create significantly better operational efficiency.

The following image shows that 93% of the revenue that Lam generated in its March 2025 quarter came from Asia.

The geographic distribution of revenue during the March 2025 quarter is shown in the following table:

Region	Revenue
China	31%
Korea	24%
Taiwan	24%
Japan	10%
United States	4%
Southeast Asia	4%
Europe	3%

Lam Research Third Quarter FY2025 Earnings Release

Lam has several WFE plants globally, with five locations in the U.S., one in Taiwan, and three in South Korea. In August 2021, Lam opened its latest and largest manufacturing facility in Batu Kawan, Malaysia. Lam also established a new R&D lab in Bengaluru, India, in 2022. Asian customers will no longer have to rely solely on collaborating with a research and development (R&D) Lab that is 15 to 16 time zones behind (Lam's U.S.-based R&D lab in Oregon). Manufacturing closer to the large customer base in Asia also improves logistics by reducing transportation time, costs, and carbon emissions.

Additionally, since labor costs are lower than in the U.S. in many Asian countries, the company can reduce its manufacturing costs. Both lower transportation costs and lower manufacturing costs improve its gross margins. CEO Tim Archer said on the company's third quarter 2025 earnings call (emphasis added):

Gross margin percentage was also a record for the company since the Novellus merger as the investments we have made over the past several years in our manufacturing and operations are contributing positive as we scale the business. As our guidance indicates, gross margins are set to expand again in the June quarter.

Lastly, by being more responsive, efficient, and collaborative, Lam can strengthen its relationships with customers, helping it sign more contracts for its products and services, which in turn contribute to market share and revenue gains.

Company Fundamentals

Lam's March quarter results reflect continued strong execution across the company with revenues, gross margin, operating margin and EPS, all exceeding the midpoint of our guidance. We delivered a record quarter for foundry revenues, demonstrating our solid product momentum in leading-edge technology inflections.

Source: CEO Timothy Archer on Lam's Third Quarter FY 2025 earnings call

LAM RESEARCH CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data and percentages)
(unaudited)

	Three Months Ended			Nine Months Ended	
	March 30, 2025	December 29, 2024	March 31, 2024	March 30, 2025	March 31, 2024
Revenue	\$ 4,720,175	\$ 4,376,047	\$ 3,793,558	\$13,264,198	\$11,033,879
Cost of goods sold	2,406,489	2,303,066	1,977,820	6,874,848	5,783,087
Restructuring charges, net - cost of goods sold	—	—	15,202	—	38,099
Total cost of goods sold	2,406,489	2,303,066	1,993,022	6,874,848	5,821,186
Gross margin	2,313,686	2,072,981	1,800,536	6,389,350	5,212,693
Gross margin as a percent of revenue	49.0 %	47.4 %	47.5 %	48.2 %	47.2 %
Research and development	525,904	494,947	512,274	1,516,209	1,404,615
Selling, general and administrative	226,023	244,150	215,904	713,301	651,770
Restructuring charges, net - operating expenses	—	—	15,246	—	18,955
Total operating expenses	751,927	739,097	743,424	2,229,510	2,075,340
Operating income	1,561,759	1,333,884	1,057,112	4,159,840	3,137,353
Operating income as a percent of revenue	33.1 %	30.5 %	27.9 %	31.4 %	28.4 %
Other income (expense), net	(25,035)	14,262	36,073	19,308	68,513
Income before income taxes	1,536,724	1,348,146	1,093,185	4,179,148	3,205,866
Income tax expense	(206,057)	(157,128)	(127,359)	(541,019)	(398,376)
Net income	\$ 1,330,667	\$ 1,191,018	\$ 965,826	\$ 3,638,129	\$ 2,807,490
Net income per share:					
Basic	\$ 1.04	\$ 0.93	\$ 0.74	\$ 2.82	\$ 2.13
Diluted	\$ 1.03	\$ 0.92	\$ 0.73	\$ 2.81	\$ 2.12
Number of shares used in per share calculations:					
Basic	1,283,779	1,287,109	1,308,382	1,290,041	1,316,627
Diluted	1,288,100	1,291,469	1,315,178	1,294,545	1,322,819
Cash dividend declared per common share	\$ 0.23	\$ 0.23	\$ 0.20	\$ 0.69	\$ 0.60

Lam Research Third Quarter FY 2025 Earnings Release

Lam Research's revenue for the March quarter of 2025 increased 24% year-over-year and 7.8% sequentially to \$4.72 billion, surpassing analysts' estimates by \$79.90 million. Its revenue also exceeded management's prior March quarter 2025 revenue estimates of \$4.65 billion.

Chief Financial Officer Douglas Bettinger said on the company's third quarter FY 2025 earnings call:

Our deferred revenue balance at quarter end was \$2 billion, which was essentially flat from the December quarter. Within this number, though, advance payments trended lower, while other components of the deferred balance trended higher. As we sit here today, I believe our deferred revenue balance will move lower by the end of 2025.

Deferred revenue represents money that Lam Research has received from customers for goods (like wafer fabrication equipment) or services (like maintenance contracts, upgrades, or software licenses) that it has not yet delivered or recognized as revenue. The company will only "earn" this revenue once it provides the product or service to the customer. The \$2 billion in deferred revenue represents money that the company has already collected and serves as an indicator of the future revenue management expects the company to generate.

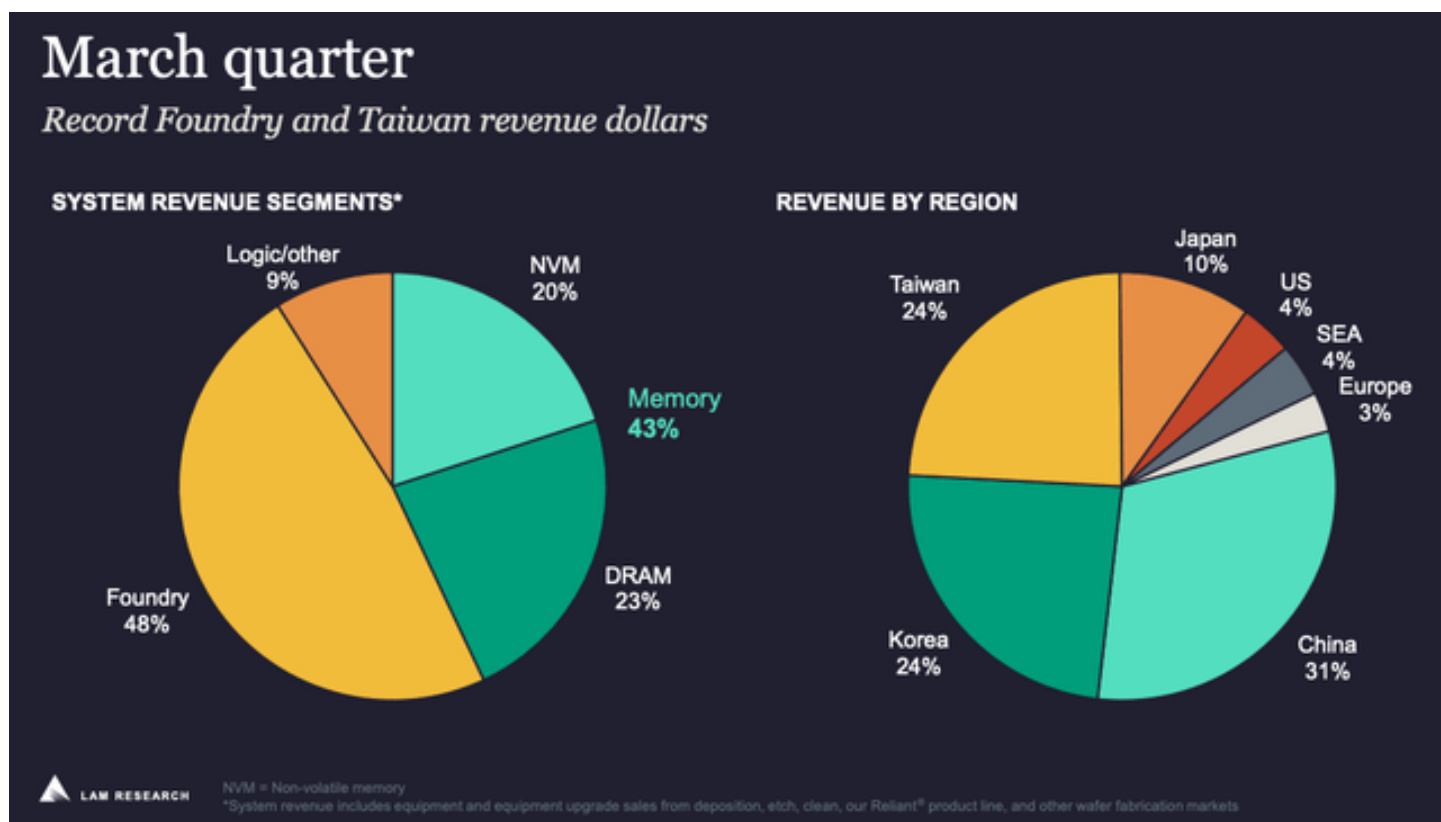
A flat deferred revenue balance indicates that the rate at which the company is booking new revenue is roughly equal to the rate at which it is converting deferred revenue into recognized revenue. "Advance payments trended lower" likely means that customers are making fewer or smaller upfront payments, where customers pay a portion of the cost before the new equipment is fully shipped, installed, and accepted. This number may decrease for several reasons, including fewer new upfront bookings of large equipment orders, changes in customer payment terms resulting from a stronger

bargaining position by the customer, and a shift in product mix toward products requiring smaller advance payments becoming more dominant. Management didn't specify the reason for the trend in advanced payments trending lower.

"While other components of the deferred balance trended higher," suggests that service contracts, spare part agreements, upgrade contracts, software licenses, and subscriptions could be the components trending higher. Another deferred component possibility is that some large equipment sales to Japan have contracts where the company only recognizes revenue once the customer accepts the equipment, a revenue recognition policy that differs from the standard, which Lam bases on delivery to, or pickup by, the customer. If its chipmaking tools are awaiting acceptance in Japan, it could raise the deferred balance.

Management doesn't specify which components of the deferred balance trended higher. Still, the "other components" (except for large equipment sales to Japan) trending higher is a positive sign, as it indicates growth in recurring revenue streams, which are often more predictable and stable than large, one-time equipment sales.

The commentary about the deferred revenue balance decreasing by the end of 2025 indicates that the rate at which the company recognizes revenue will exceed the rate at which it books new orders. On the positive side, this statement is a sign of efficient execution, indicating that revenue growth over the next several quarters could be robust. However, the bad news is that new order bookings may have slowed, potentially leading to less robust growth over the longer term. Investors will need to observe in future quarters whether the deferred balance continues to decline, potentially signaling slower new order growth and weakening demand.



Lam Research Third Quarter FY 2025 Earnings Slide

Lam's March quarter memory revenue declined seven points sequentially to 43% of systems revenue. Within the overall memory segment, non-volatile memory ("NVM"), which is computer memory that retains stored data even when power is turned off, declined four points to 20% of system revenue. Chief Financial Officer Bettinger said on the earnings call:

This segment includes a domestic China customer that we classified as a non-volatile memory producer and that we are currently limited from shipping to. On a dollar basis, NAND [which is NVM] saw growth from non-Chinese customers,

consistent with our expectations from earlier in the year. On a dollar basis, NAND saw growth from non-Chinese customers, consistent with our expectations from earlier in the year. The non-volatile memory segment is being driven by customer spending on technology conversions from 1xx layer to 256-layer class devices. We currently expect this segment to represent the biggest percentage growth in systems revenue for Lam in the June quarter.

The "1xx Layer" Class Devices refer to 3D NAND generations that have between 100 and 199 layers. The "technology conversions" that Bettinger speaks of are simply an addition of layers to bring the 3D NAND devices up to 256 layers. The more layers a manufacturer adds to a 3D memory device, the more challenging it becomes to design and manufacture.

In the third quarter of FY 2025, DRAM decreased by three points sequentially to 23%. Chief Financial Officer Bettinger said the following on the earnings call, "DRAM spending was focused on technology upgrades across one alpha, one beta and one gamma nodes to enable DDR5, LPDDR5 and high-bandwidth memory." One alpha, one beta, and one gamma node are successive generations of advanced DRAM process technology nodes. Each node or improvement in technology involves shrinking the memory cell size, improving transistor performance, and often incorporating new materials or more complex patterning techniques, such as Extreme Ultraviolet (EUV) lithography, to achieve higher bit density, faster speeds, and lower power consumption. High-bandwidth memory (HBM) is a specialized, high-performance DRAM technology that uses a 3D-stacked architecture. Companies like Amazon (AMZN), Alphabet (GOOGL)(GOOG), Meta Platforms (META), and Microsoft (MSFT) use HBM chips in artificial intelligence ("AI") and high-performance computing applications. As Lam's customers make these technology upgrades, they require more of Lam's most advanced tools.

Foundry revenue consists of Lam's sales to companies such as Taiwan Semiconductor Manufacturing Company (TSM), Samsung Foundry, and Intel (INTC) Foundry Services. The Foundry segment increased by 13 points to 48% of systems revenue. Chief Financial Officer Bettinger said on the earnings call:

This level [of revenue] represents a new record in dollar terms for Lam. Shipments for gate-all-around nodes and advanced packaging were strong. We also benefited from mature node spending with domestic Chinese customers. I'd just like to point out that the last time we're at these revenue levels back in late 2022, foundry represented a concentration in the low to mid-30% range. We have clearly broadened and diversified our business since then.

Gate-All-Around ("GAA") nodes refer to a new type of transistor architecture that is replacing FinFET transistors. I discussed the difference between FinFET and GAA in my last article about the company. Chip manufacturers use GAA nodes in CPUs (Central Processing Units) for servers, workstations, and high-end desktops; GPUs (Graphics Processing Units) for gaming, professional content creation, and AI/ML training and inference; SoCs (System-on-Chip) used in smartphone and tablet processors; and specialized ASICs (Application-Specific Integrated Circuits).

Lam Research is a leader in enabling GAA technology. The company's advanced etch and deposition tools, such as the Akara system discussed earlier in this article, as well as Atomic Layer Deposition (ALD) tools, are indispensable for manufacturing GAA transistors.

Lastly, logic and other declined by six points sequentially to 9% of systems revenue. The Chief Financial Officer said on the earnings call, "The decrease was primarily driven by reduced leading-edge spending." That statement means that Integrated Device Manufacturers (IDMs) such as Intel and possibly some fabless companies collaborating directly with equipment vendors to produce advanced logic chips have at least temporarily reduced their orders from Lam for advanced GAA logic chips. The pullback from IDMs has likely shown up because Intel reduced its Capital Expenditure ("CapEx") target by \$2 billion in 2025, meaning it is spending less on WFE, such as products from Lam.

The company's March quarter 2025 GAAP (Generally Accepted Accounting Principles) gross margin expanded 1.5 points to 49%, over the high point of management's GAAP gross margin guidance of 48.9%.

Its March quarter GAAP operating expenses increased by 1.2% year-over-year and 1.7% sequentially to \$751.93 million. A company's revenue growing substantially faster than operating expenses indicates excellent operational efficiency and

translates to improved operating margins. Lam's March quarter 2025 GAAP operating margins expanded 5.2 points to 33.1%.

The company's GAAP net income for the March quarter increased by 11.73% year-over-year to \$1.33 billion. Its March quarter GAAP diluted earnings per share ("EPS") increased by 41% to \$1.03, beating analysts' estimates by \$0.03.

Although Lam reports GAAP metrics, it emphasizes non-GAAP metrics in its earnings calls, likely to highlight its core profitability by eliminating one-time and non-cash costs.

	Three Months Ended	
	March 30, 2025	December 29, 2024
U.S. GAAP gross margin	\$ 2,313,686	\$ 2,072,981
Pre-tax non-GAAP items:		
Amortization related to intangible assets acquired through certain business combinations	2,687	2,817
EDC related liability valuation (decrease) increase	(3,982)	1,353
Non-GAAP gross margin	\$ 2,312,391	\$ 2,077,151
U.S. GAAP gross margin as a percentage of revenue	49.0 %	47.4 %
Non-GAAP gross margin as a percentage of revenue	49.0 %	47.5 %
U.S. GAAP operating expenses	\$ 751,927	\$ 739,097
Pre-tax non-GAAP items:		
Amortization related to intangible assets acquired through certain business combinations	(538)	(538)
EDC related liability valuation decrease (increase)	11,947	(4,058)
Non-GAAP operating expenses	\$ 763,336	\$ 734,501
U.S. GAAP operating income	\$ 1,561,759	\$ 1,333,884
Non-GAAP operating income	\$ 1,549,055	\$ 1,342,650
U.S. GAAP operating income as percent of revenue	33.1 %	30.5 %
Non-GAAP operating income as a percent of revenue	32.8 %	30.7 %

Lam Research Third Quarter FY 2025 Earnings Release

EDC-related liability valuation refers to adjustments made to the estimated value of liabilities associated with its Employee Deferred Compensation ("EDC") program (an agreement where an employee receives part of their pay at a later date than when it was earned, often during retirement). Amortization related to intangible assets spreads out the cost of an intangible asset (non-physical assets) over its estimated useful life. The company acquires these intangible assets when it acquires other companies.

Lam's March quarter non-GAAP gross margin increased 1.5 points sequentially to 49%.

The company's March 2025 operating expenses increased 3.8% sequentially to reach \$763 million. The company's Chief Financial Officer said on the third quarter FY 2025 earnings call, "The [operating expense] increase was due to growth in R&D [research and development] activities associated with our ongoing road map differentiation. R&D accounted for 70% of the total operating expenses."

Its March quarter non-GAAP operating margin increased 2.1 points sequentially to 32.8%, above the midpoint of company guidance of 32%. Bettinger attributed the operating margin performance primarily to "higher revenue and the stronger gross margin performance."

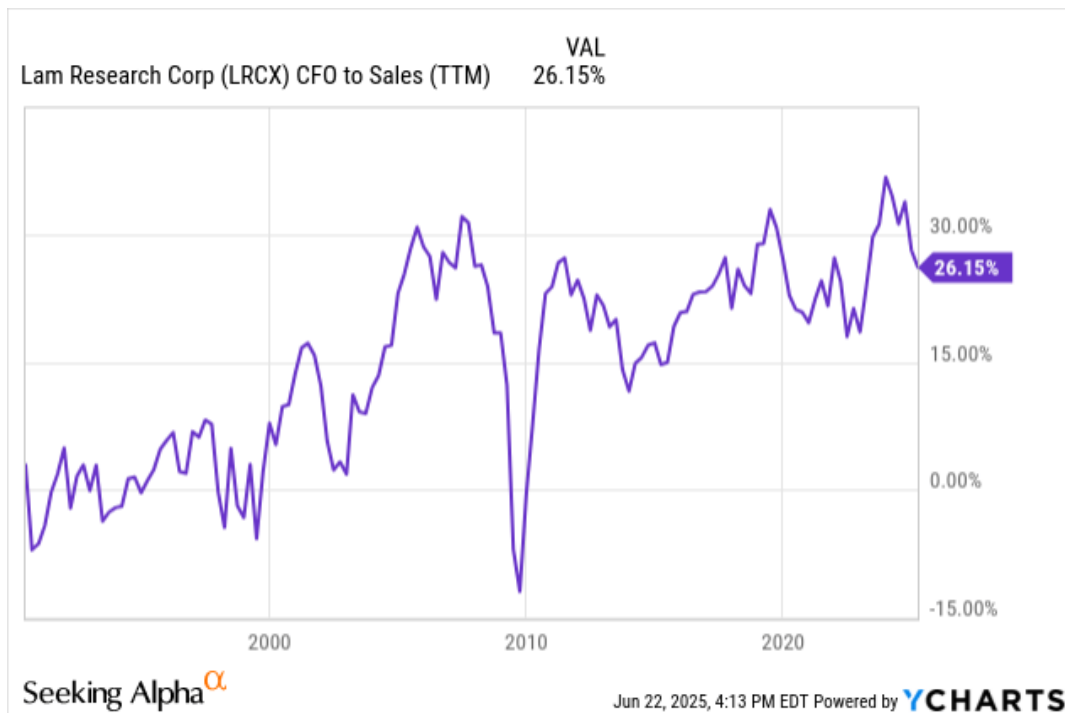
Reconciliation of U.S. GAAP Net Income to Non-GAAP Net Income
(in thousands, except per share data)
(unaudited)

	Three Months Ended	
	March 30, 2025	December 29, 2024
U.S. GAAP net income	\$ 1,330,667	\$ 1,191,018
Pre-tax non-GAAP items:		
Amortization related to intangible assets acquired through certain business combinations - cost of goods sold	2,687	2,817
Elective deferred compensation ("EDC") related liability valuation (decrease) increase - cost of goods sold	(3,982)	1,353
EDC related liability valuation (decrease) increase - research and development	(7,168)	2,432
Amortization related to intangible assets acquired through certain business combinations - selling, general and administrative	538	538
EDC related liability valuation (decrease) increase - selling, general and administrative	(4,779)	1,626
Amortization of note discounts - other income (expense), net	759	772
Loss (gain) on EDC related asset - other income (expense), net	16,903	(4,502)
Net income tax expense (benefit) on non-GAAP items	381	(276)
Income tax benefit from a change in tax law	—	(20,778)
Non-GAAP net income	\$ 1,336,006	\$ 1,175,000
Non-GAAP net income per diluted share	\$ 1.04	\$ 0.91
U.S. GAAP net income per diluted share	\$ 1.03	\$ 0.92
U.S. GAAP and non-GAAP number of shares used for per diluted share calculation	1,288,100	1,291,469

Lam Research Third Quarter FY 2025 Earnings Release

The company's non-GAAP net income increased by 13.70% sequentially to \$1.33 billion. Lam's non-GAAP diluted EPS is \$1.04, beating analysts' estimates by \$0.04.

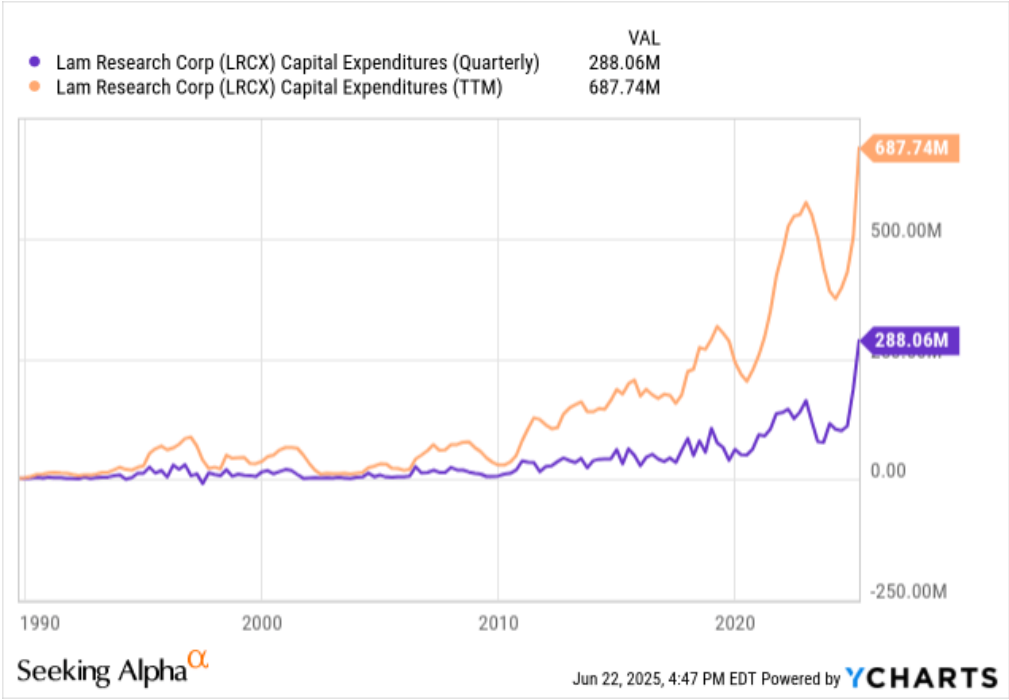
Its trailing 12-month ("TTM") cash from operations ("CFO") to sales is 26.15%, meaning that for every \$1 of sales over the last year, the company generated \$0.26.



The company's March quarter CapEx increased 188% sequentially to \$288 million. Generally, when Lam increases its CapEx, it indicates that management is confident its future business will grow and the company has expanded its investment in production capability to meet higher anticipated demand. Investors often take this as a positive sign that future revenue will increase. Chief Financial Officer Bettinger said on the third quarter earnings call:

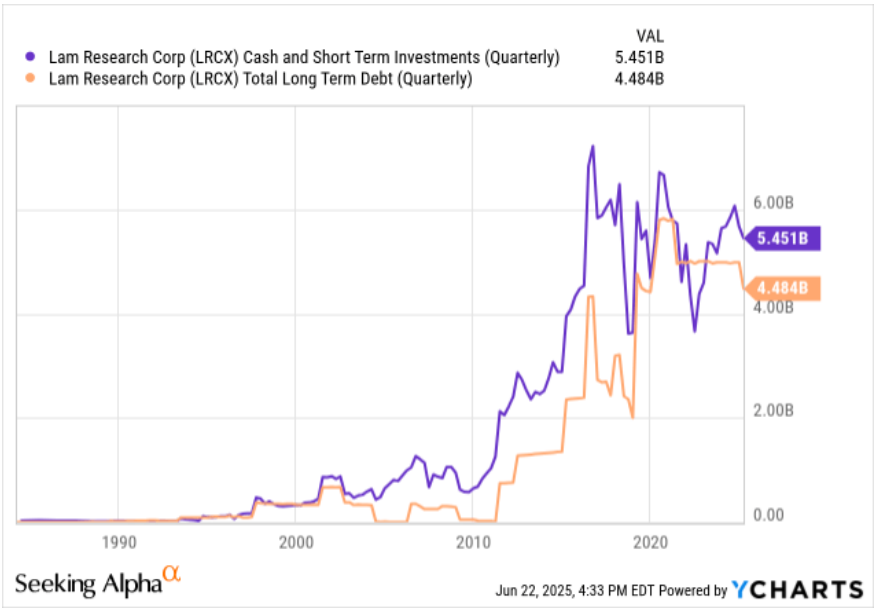
A major driver of this [CapEx] increase was a purchase of land in India to enable our planned lab expansions there. Our capital spending otherwise was focused on lab investments in the United States and global growth in manufacturing.

Higher investments in labs indicate that the company likely plans to spend significantly more on R&D to develop new future products.



YCharts

Lam's TTM CFO was \$4.48 billion, and TTM free cash flow ("FCF") was \$3.79 billion.



The company's cash and short-term investments decreased from around \$5.7 billion to \$5.45 billion. The company's Chief Financial Officer commented on the earnings call, "The primary factors behind the cash decrease were the repayment of [long-term debt], our capital spending [CapEx] as well as our capital return activities [stock repurchases]." Its long-term debt decreased by \$500 million to \$4.48 billion.

Lam's Days Sales Outstanding (DSO), a measure of the number of days it takes to collect money from its customers after making a sale, decreased by seven days sequentially to 62 days. Collecting payments faster from customers is a positive development, as it helps improve cash flow. Inventory (including components and finished goods) increased slightly sequentially to \$4.5 billion. The company intentionally raised its inventory in anticipation of more sales in future quarters. Inventory turns, a measure of how many times a company has sold and replaced its inventory during the quarter, increased from 2.1 to 2.2. A higher inventory turnover ratio indicates that sales are strong relative to inventory levels, typically suggesting that the company is managing its inventory more efficiently and turning it over more quickly. Investors often view faster inventory turnover as favorable because it means less capital tied up in inventory, and more capital is available for reinvestment in the business or other purposes, such as paying down debt or returning capital to shareholders.

Outlook

For the quarter ended June 29, 2025, Lam is providing the following guidance:

	U.S. GAAP			Reconciling Items	Non-GAAP		
	\$5.00 Billion	+/-	\$300 Million	—	\$5.00 Billion	+/-	\$300 Million
Revenue							
Gross margin as a percentage of revenue	49.4%	+/-	1%	\$ 2.7 Million	49.5%	+/-	1%
Operating income as a percentage of revenue	33.4%	+/-	1%	\$ 3.2 Million	33.5%	+/-	1%
Net income per diluted share	\$1.20	+/-	\$0.10	\$ 3.7 Million	\$1.20	+/-	\$0.10
Diluted share count	1.28 Billion			—	1.28 Billion		

Lam Research Third Quarter FY 2025 Earnings Release

Management forecasts revenue at the midpoint of \$5.00 billion for the June quarter (fourth quarter of FY 2025), surpassing analysts' estimates. Before the company reported its March quarter earnings, analysts estimated the June quarter revenue at \$4.6 billion. Following the company's March earnings report, analysts increased their estimates to \$4.99 billion.

If the company achieves its June quarter GAAP gross margin midpoint forecast, GAAP gross margin will expand by 1.9 points, and its non-GAAP gross margin will increase by one point to 49.5%.

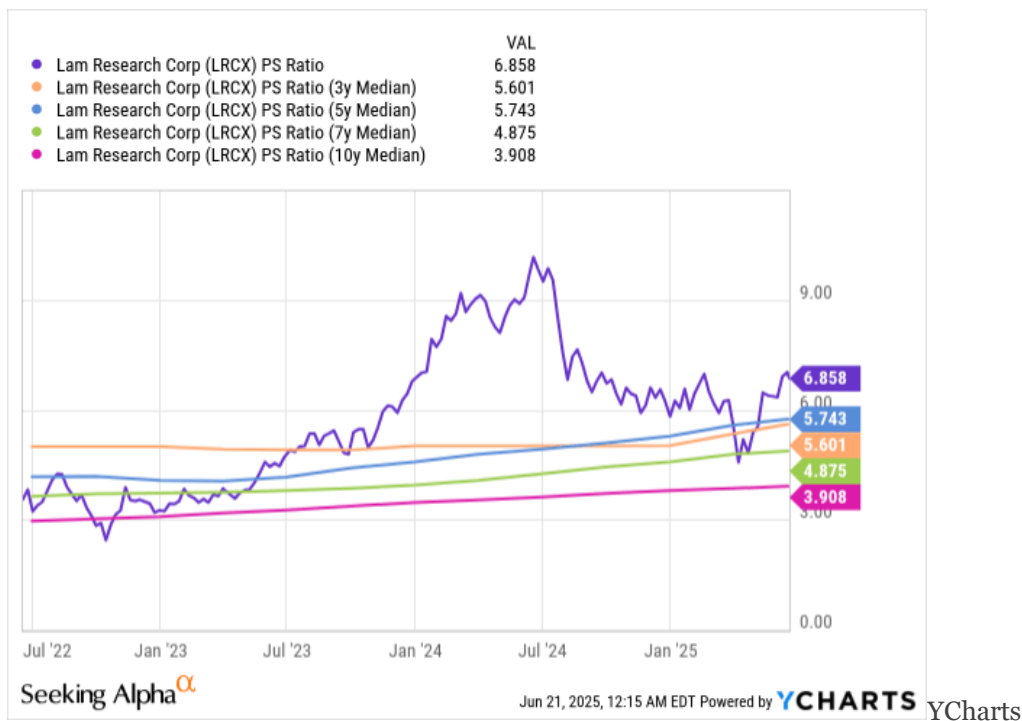
Suppose Lam achieves its June quarter GAAP midpoint operating margin forecast; GAAP operating margin will expand 4.3 points to 33.4%, and its June quarter non-GAAP operating margin will increase 2.8 points to 33.5%.

The company forecasted a June quarter GAAP diluted EPS at the midpoint of \$1.20, which exceeded analysts' June quarter estimates of \$0.98 before the release of its March quarter earnings. Following the March quarter earnings release, analysts raised their diluted EPS estimates to \$1.20.

The stock rose 6.25% the day after the company released its March quarter results.

Valuation

Lam's price-to-sales (P/S) ratio of 6.858 exceeds its three-year, five-year, seven-year, and ten-year medians, indicating that the market may be overvaluing the stock. If the stock were to sell at its three-year P/S median, its price would be \$73.82, an 18.42% decline from its June 20 closing price of \$90.49.



The following table compares Lam Research's P/S to revenue growth (P/S/G) ratio valuation with that of its peers in the WFE market. Although this metric compares P/S to revenue growth, the market often values profitability and FCF as factors more important than revenue growth. Additionally, the market sometimes factors in intangibles, such as a company's competitive advantages and the risks it faces. For instance, although Applied Materials has the lowest revenue growth rate in the comparison, it has the highest P/S/G ratio. Lam also has better FCF margins, profitability, and ROIC than Applied Materials. However, Applied Materials has a far more diversified business and greater scale than Lam. The market likely awards Applied Materials a better P/S/G over LAM because its business is likely to hold up better in a down market due to its greater scale and diversity.

Tokyo Electron (OTCPK:TOELF) is a similar business to Lam and Applied Materials. Although Tokyo Electron is a great company and a stiff competitor in the etch and a few other WFE markets, its limited financial information available under its Pink Limited Information tier on the OTC market handicaps it in this comparison. If it had a listing on one of the major U.S. exchanges, Tokyo Electron's valuation might be higher than Lam's due to its more diversified business.

KLA deserves its higher P/S/G over LAM because, although it has a similar expected revenue growth rate to Lam, its FCF margin, ROIC, and profitability are superior to those of Lam.

ASML's valuation is surprising because it has the highest expected revenue growth rate and the highest ROIC. Additionally, it has a virtual monopoly in its lithography business (much stronger moat than Lam). Either the market overvalues LAM, undervalues ASML, or both.

Company	2025 forward P/S	Analysts estimated 2025 forward revenue growth rates	2025 forward P/S to estimated 2025 revenue growth	TTM FCF margin	TTM operating margin	Return On Invested Capital
Lam Research	11.96	22.43%	0.53	22.11%	30.85%	34.38%
Applied Materials (AMAT)	8.59	5.91%	1.45	20.87%	29.66%	27.20%

Tokyo Electron	6.34	13.68%	0.46	24.07%	28.67%	28.90%
ASML Holding (ASML)	11.76	26.70%	0.44	30.56%	33.74%	42.07%
KLA Corp. (KLAC)	17.57	22.93%	0.76	30.39%	40.17%	37.50%

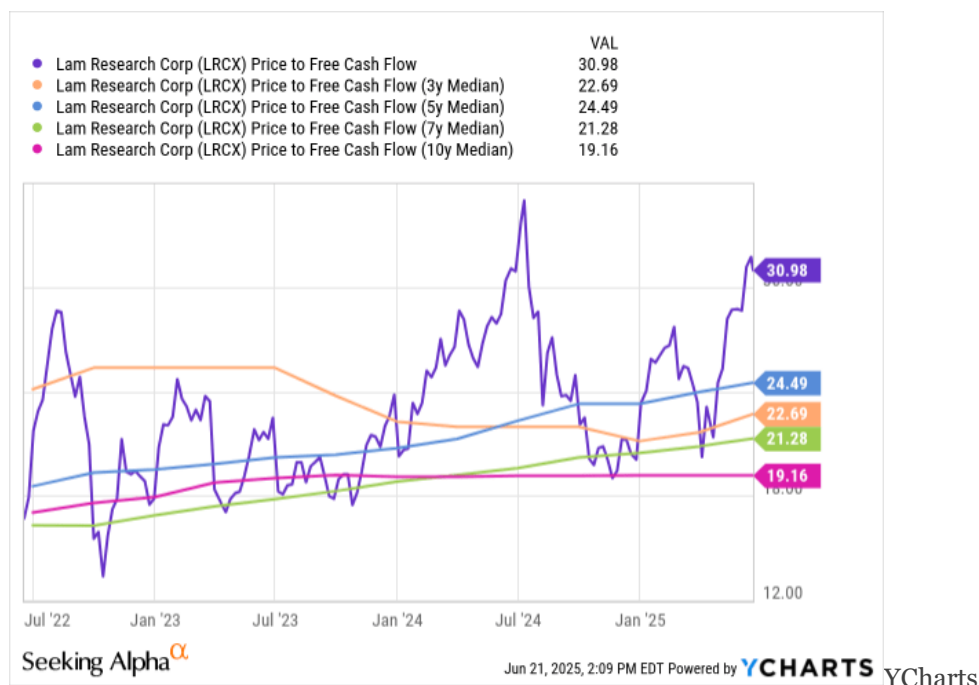
Lam's TTM price-to-earnings (P/E) ratio was 25.21, below the Information Technology ("IT") sector median of 27.87, suggesting that the market might be undervaluing the stock.

Fiscal Period Ending	EPS Estimate	YoY Growth	Forward PE	Low	High	# of Analysts
Jun 2025	4.00	32.07%	23.05	3.75	4.06	31
Jun 2026	4.02	0.56%	22.92	3.49	4.65	30
Jun 2027	4.70	16.71%	19.64	3.98	5.41	16

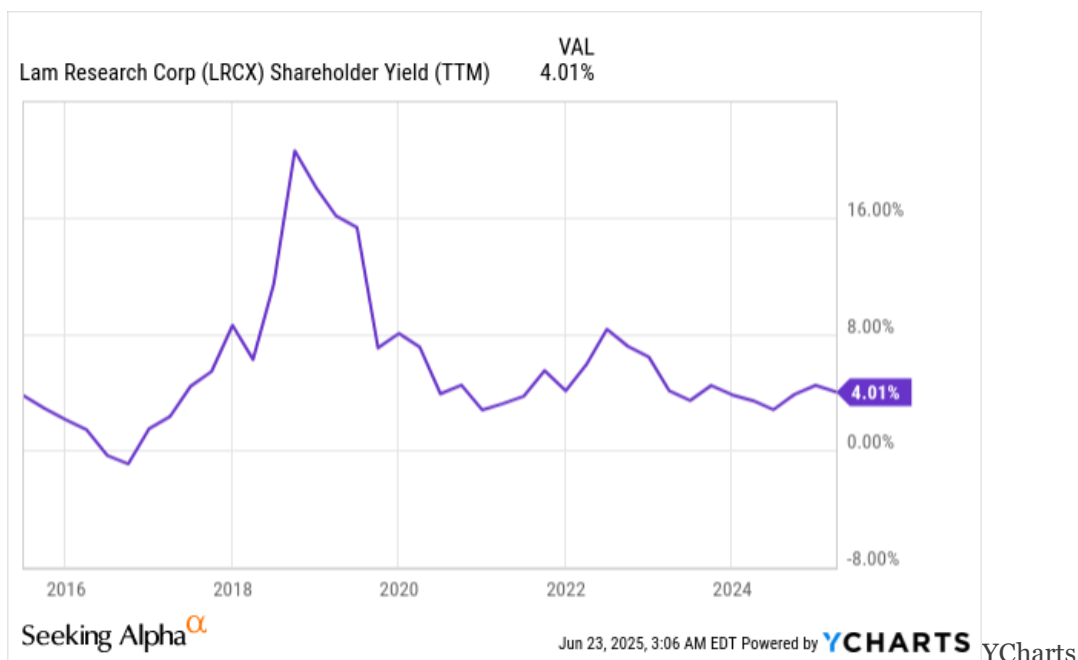
Seeking Alpha

Lam's 2025 forward P/E to EPS growth ("PEG") ratio is 0.72, calculated by dividing its 2025 forward P/E of 23.05 by estimated EPS growth of 32.07%. Generally, investors consider a PEG ratio of less than 1.0 as an indication that the market undervalues the stock's EPS growth rate. Suppose it had a 2025 PEG ratio of 1.0; its stock price would be \$128.28, a 41.76% rise above the June 20 closing price of \$90.49.

However, note that the company's 2026 forward PEG ratio is 40.92, signaling that the market grossly overvalues the company's FY 2026 EPS growth rate. I will discuss why analysts forecast a declining EPS growth rate in the risk section.

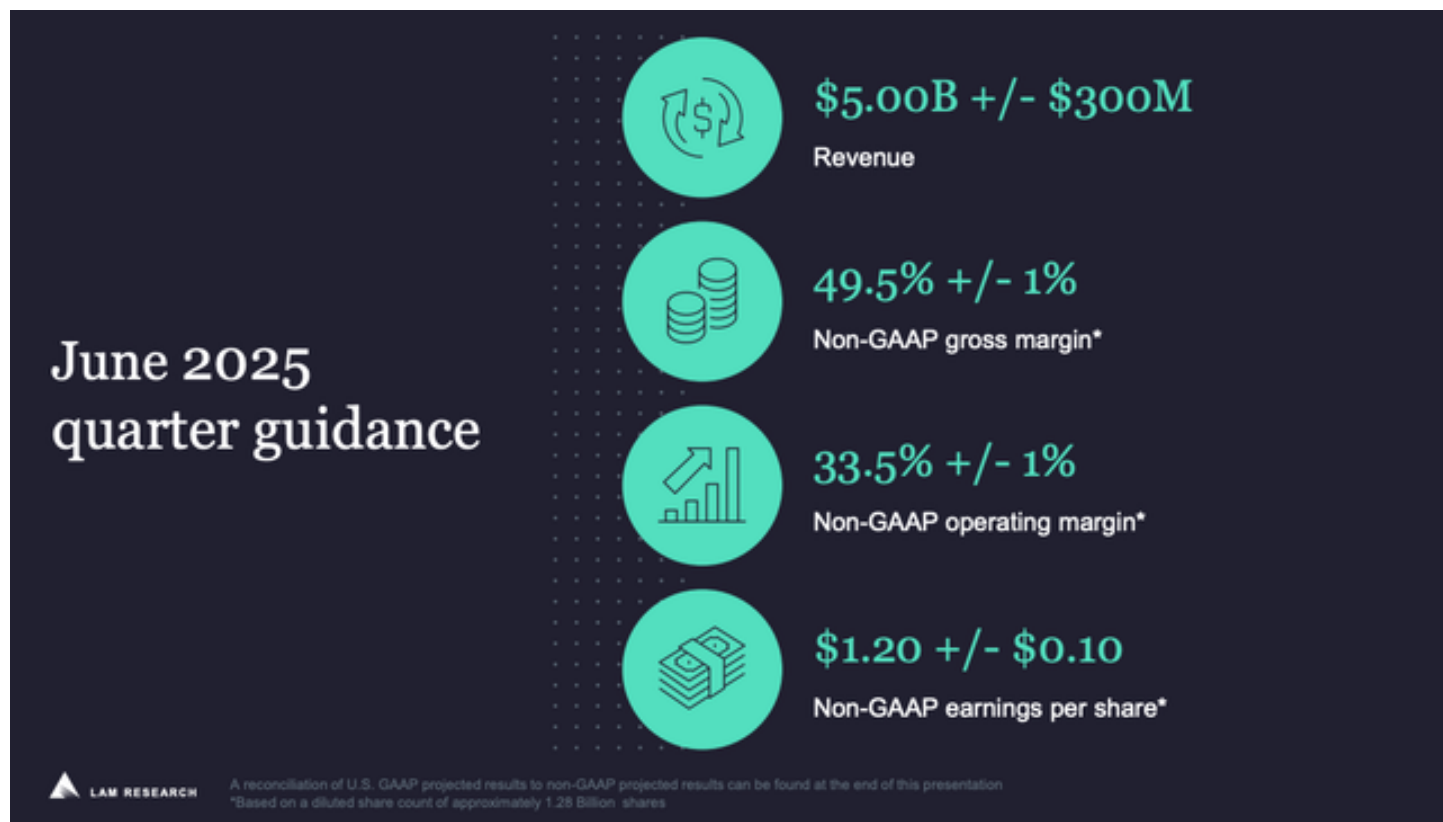


The company's price-to-FCF ratio is 30.98, which is significantly above its three-, five-, seven-, and ten-year medians—a sign that the market may be overvaluing its FCF. If the stock were to sell at its five-year median price-to-FCF of 24.49, the stock price would be \$71.51, representing a 21% decline from its June 20 closing price.



Shareholder yield measures the total amount of cash a company returns to its shareholders through debt reduction, dividends, and share repurchases. Generally, when a company's shareholder yield is at the lower end of its valuation range, the market tends to overvalue the stock. Conversely, when a stock is at the higher end of its valuation range, the market may undervalue it. Although Lam's shareholder yield is at the lower end of its range, a yield of 4.01% suggests a healthy return of capital to shareholders. The market may either undervalue the stock or consider it at fair value, given the stock's volatility risk.

Guidance Is Strong



Lam Research provided guidance for their June 2025 quarter. They are expecting to see revenues of \$5.0 billion +/- \$300 million. With revenues being \$3.87 billion in the prior year period, the midpoint of guidance represents a YoY growth rate of 29.2%. Their March quarter was already one of the strongest in the past three years in terms of revenue growth, but this expected acceleration shows that the outlook is very robust. For EPS, they are expecting an adjusted figure of \$1.20 +/- \$0.10. At the midpoint, this would imply growth of 47.4% over the prior year period's \$0.814 (adjusted for stock splits). QoQ EPS growth would be 15.4%, a slight increase from their March quarter. Lastly, margins are also expected to see notable improvements from the year ago quarter. Adjusted gross margin is expected to increase from 48.5% to 49.5% YoY at the midpoint, showing that their pricing power is continuing to increase. This is also an improvement from their March quarter as well. Adjusted operating margin is projected to expand from 30.7% to 33.5% YoY at the midpoint, and so efficiency is also likely to improve significantly. In QoQ terms, operating margin is expected to improve from 32.8%. As a whole, I find this guidance to be strong, as the outlook is impressive in terms of growth acceleration and margin expansion.

Risks

The primary reason Lam has a high 2026 forward PEG ratio of 40.92 is that analysts forecast a significant decline in EPS growth from 32.07% to 0.56% in FY 2026. The market also anticipates a decrease in revenue growth from 22.43% in FY2025 to 2.69% in FY2026.

Fiscal Period Ending	Revenue Estimate	YoY Growth	FWD Price/Sales	Low	High	# of Analysts
Jun 2025	18.25B	22.43%	11.74	18.06B	18.33B	31
Jun 2026	18.74B	2.69%	11.43	17.52B	20.18B	31
Jun 2027	20.81B	11.03%	10.29	18.27B	22.95B	19

SA

These numbers initially confused me because the company appears to be gearing up for greater growth in its end markets, and analysts forecast significant growth in WFE spending. Leading industry association Semi published the following forecast on March 25, 2025:

Global fab equipment spending for front-end facilities in 2025 is anticipated to increase by 2% year-over-year (YoY) to \$110 billion, marking the sixth consecutive year of growth since 2020, SEMI announced today in its latest quarterly World Fab Forecast report. Fab equipment spending is projected to rise by 18% in the following year, reaching \$130 billion. This growth in investment is driven not only by demand in the high-performance computing (HPC) and memory sectors to support data center expansions, but also by the increasing integration of artificial intelligence (AI), which is driving up the silicon content required for edge devices.

However, although the overall memory market should rise, some have forecasted since mid-2024 that a specific part of the memory market, the DRAM market, may decline. Astute Group published an article in February 2025 that stated:

The DRAM price plunge isn't just hitting the older DDR4 modules; even DDR5 is feeling the heat. Omdia forecasts a steep decline for 64GB server DDR5 modules, with prices expected to fall from \$270 in Q4 2024 to \$248 in Q1 2025, and further to \$228 in Q2 2025. Some analysts are even predicting a drop to just above \$200 by the end of the [2025 calendar] year. This dramatic slide marks a stark contrast to the relative stability the server DRAM market has enjoyed until recently.

A drop in DRAM pricing would be disastrous for Lam. When prices drop in the chip market, chip manufacturers often respond by reducing CapEx investments, and the purchases of WFE from companies like Lam Research begin to slow. Therefore, analysts may anticipate a slowdown in orders for Lam in FY2026. If this slowdown does occur, the market may overvalue Lam's low FY2026 EPS growth, and the stock price is at risk of declining shortly as the market factors in a

growth slowdown. However, not all analysts feel the same way. According to a more recent industry forecast by market researcher Yole Group, DRAM will continue growing, with significant expansion in the HBM market. So, take the estimates of a decline in the DRAM market and a substantial decline in revenue and EPS with a grain of salt. Investors should carefully monitor management's guidance and commentary when the company reports its fourth-quarter results on July 30, 2025. The market is likely to react negatively if the company confirms a significant downturn in the DRAM market in the near term. Still, if management forecasts excellent revenue and EPS growth in FY 2026, it could prompt analysts to raise their revenue and EPS guidance, and concerns over a slowdown could quickly dissipate.

Some have concerns over Lam's Customer Support Business Group ("CSBG"), its "after-sales" business that sells spare parts, support services, equipment upgrades, and the Reliant Product Line (new and sometimes refurbished systems primarily used for specialty technologies or less advanced applications). It is an integral part of Lam's business. Many of the company's CSBG products and services operate like subscription or recurring revenue businesses, providing a more stable, recurring revenue stream than its one-time product sales of chipmaking equipment. These recurring revenue streams can smooth out some of the cyclicity of the WFE business. Many of CSBG's businesses have higher margins compared to the sale of new equipment. Generally, the higher the percentage of revenue coming from CSBG, the greater the improvement in margins, and CSBG is growing rapidly. CEO Timothy Archer stated on the third-quarter earnings call, "We expect to grow our CSBG revenue faster than our installed base as customers look to Lam's upgrade, automation and equipment intelligence offerings to enhance productivity and execution as they expand their global fab operations."

Still, some analysts expressed concern on the earnings call about the great CSBG growth engine showing growth flattening in the current fiscal year and wondered whether export restrictions on sending tools to China might negatively impact the CSBG business, especially Reliant sales. One analyst asked on the earnings call, "Is there...a headwind on the service and spares from some of the restrictions in China?" Chief Financial Officer Bettinger responded:

Yes, of course, there's those customers that all of a sudden became restricted, we can no longer provide service and spares. So that factors into this, too. But I mean, what you have going on is we described the point of view that China is down as a percent of total year-over-year. So that's the Reliant statement, right? A lot of the tools going in China are Reliant. And then we have this amazing upgrade business right now that's showing up, especially in NAND, right, not just NAND, but it's quite strong in NAND. And so when you think about those 2 things offsetting each other, overall utilization year-over-year is stronger, so that's beneficial for spares and service. There's a lot of moving pieces in here. Spares continues to be the biggest individual component of CSBG. And then upgrades are growing a bunch this year and Reliant is down.

Bettinger is confirming that the China export restrictions are responsible for the downturn in the service and spare parts business, as well as Reliant's business. However, the weakness in Reliant is being offset by its upgrades business globally (Especially in NAND). These opposing forces largely offset each other, resulting in flat CSBG revenue for the year. Since Lam views CSBG as a critical strategic factor in its long-term growth, flat CSBG revenue growth can dampen investor sentiment toward the company.

Lastly, Lam has a high customer concentration risk. Its most significant customers are Taiwan Semiconductor Manufacturing Company, Samsung, and Micron (MU). If it should lose orders from any of its top customers for etch, deposition, or packaging products to competitors like Tokyo Electron or Applied Materials, its revenue growth could slow, and margins could shrink. If the market perceives the company as struggling due to competition or a loss of market share, investors may sell off the stock.

Some may fear the loss of revenue from China, and a possible slowdown in the DRAM market, could cause the stock to stall or even drop over the next year. If you are risk-averse, you may want to avoid the stock.

However, in my last article justifying a buy for Lam, I stated:

Lam has significant secular tailwinds from AI adoption, driving the need for smaller, more powerful chips. This company sells the equipment and processes to manufacture the type of chips the market demands.

Making Intel Great Against AMD: Don't Fear The Latter's Share Gain

Jun 17, 2025 TechStockPros

Summary

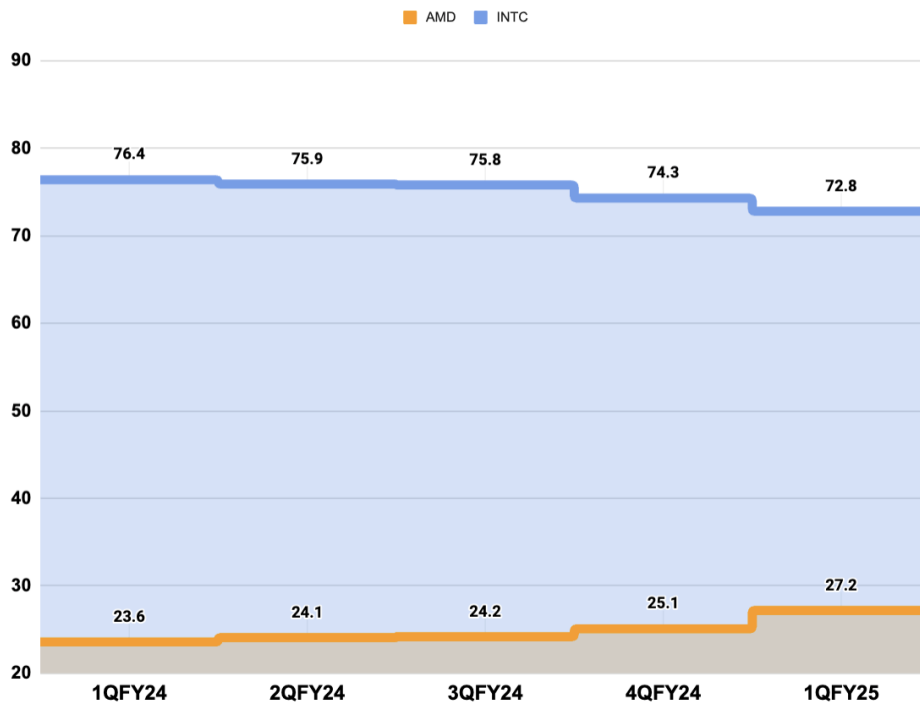
- Intel Corporation is painfully losing market share to Advanced Micro Devices, with the latter looking to take 40% share this year.
- We think Intel's share loss to AMD is temporary and should reverse next year with 18A and new product line up more so after Nova Lake spec leaks.
- Management is laser-focused on restoring gross margins above 50% and is aggressively cutting costs through layoffs and potential divestitures.

It hasn't been too long since we published a double down and buy under \$20 note on Intel, since which the stock hit \$22 before sinking back down again but we're prompted to give an update after Mercury Research report on AMD nearing 40% share of the server market this year, signaling worries about the latter being "poised to match Intel in 2026." We think the share gain momentum will reverse in 2026, potentially in Intel's favor. We're more sure of this after Intel's commentary at the Bank of America Global Tech Conference, which put together the big picture on where Intel is headed. Our last note was focused on Intel versus TSMC (TSM) on the foundry front, but this one addresses the growing elephant in the room: Intel versus AMD. We're here to hush the fear and tell investors this is a timing game. Intel is headed for its make-or-break moment with 18A coming up because that'll be its uno-reverse card against AMD.

The chip on Intel's shoulder is AMD

AMD has been the talk of the market, and for good reason, it is stealing share away from Intel very quickly. Remember that pre-2017, Intel didn't really have anyone we could say was a rival on that front, with the company dominating almost 90% of the PC CPU market share and 98% of the server CPU market share. This started to change after AMD's first Zen-based CPUs, and things spiraled from there to putting Intel's share at less than 80% and 75%, respectively, in each market last year. The chart below outlines a snapshot of how bad the share loss has gotten since 1QFY24, but keep in mind that Intel has been in the danger zone since 2018. Things got worse in 1Q25 with AMD gaining share in server, client, and desktop revenues, hitting a revenue share of 39.4% and heading for a +40% share by the end of the year. Understandably, this is making investors look twice at Intel before buying the comeback story.

Server CPU market share AMD versus Intel



TechStockPros

Intel has been bleeding share to AMD, with Mercury Research President Dean McCarron noting that for Q1:

AMD's growth rate in the quarter was multiples of Intel's.

So, there's no easy way of making this look good for Intel. Our belief, however, is that this share loss will not extend into 2026, and that's why we're bullish on this stock. The reason for AMD's share gain is pretty simple: they have a better and higher-performance product at the moment, while Intel is saving its hit products for early 2026, when they can run them using the 18A node. So, naturally, customers are flaunting over to AMD's product, even more so with tariff concerns looming because you don't wanna be stuck with last-gen product if potential tariffs hit and the new one's price has quadrupled.

This is why Intel is the right stock for the patient investors, who aren't many. Once Intel is using its own foundry for 18A nodes in its products, it gains an almost automatic edge over AMD, which manufactures at TSMC. Next year, we're expecting Intel to regain share with a couple of products in the pipeline. The company is preparing an expanded data center portfolio with Diamond Rapids and Clearwater Forest confirmed for 2026 at the BofA Global Tech Conf earlier this month. Customers are already deploying Granite Rapid, which makes us believe more traffic for the lineup will follow in 2026. Nova Lake, which succeeds the Core Ultra 200S or Arrow Lake series, will use both TSMC and Intel Foundry to provide a more competitive product with both a mobile and desktop stack. We also have the Clearwater Forest server chip, which will be the first server product built on 18A. What we are already waiting for patiently is the Panther Lake laptop processor, which should be coming even sooner in 2H25 and using an 18A node.

This morning, we got leaks on Nova Lake specs from hardware leaker chi11eddog, as shown in the chart below. Nova Lake will be built with Lion Cove P-cores and Skymont E-cores, and uses Coyote Cove P-cores with Artic Wolf E-cores. It'll feature up to 52 cores and have double P-cores and E-cores, which will enable a "20% higher Processor Base Power (PBP) than its predecessor" and, of course, come at a high average selling cost, benefiting margins which we'll discuss in a bit. This is the product that'll compete directly with AMD's next-gen Zen 6 processors.

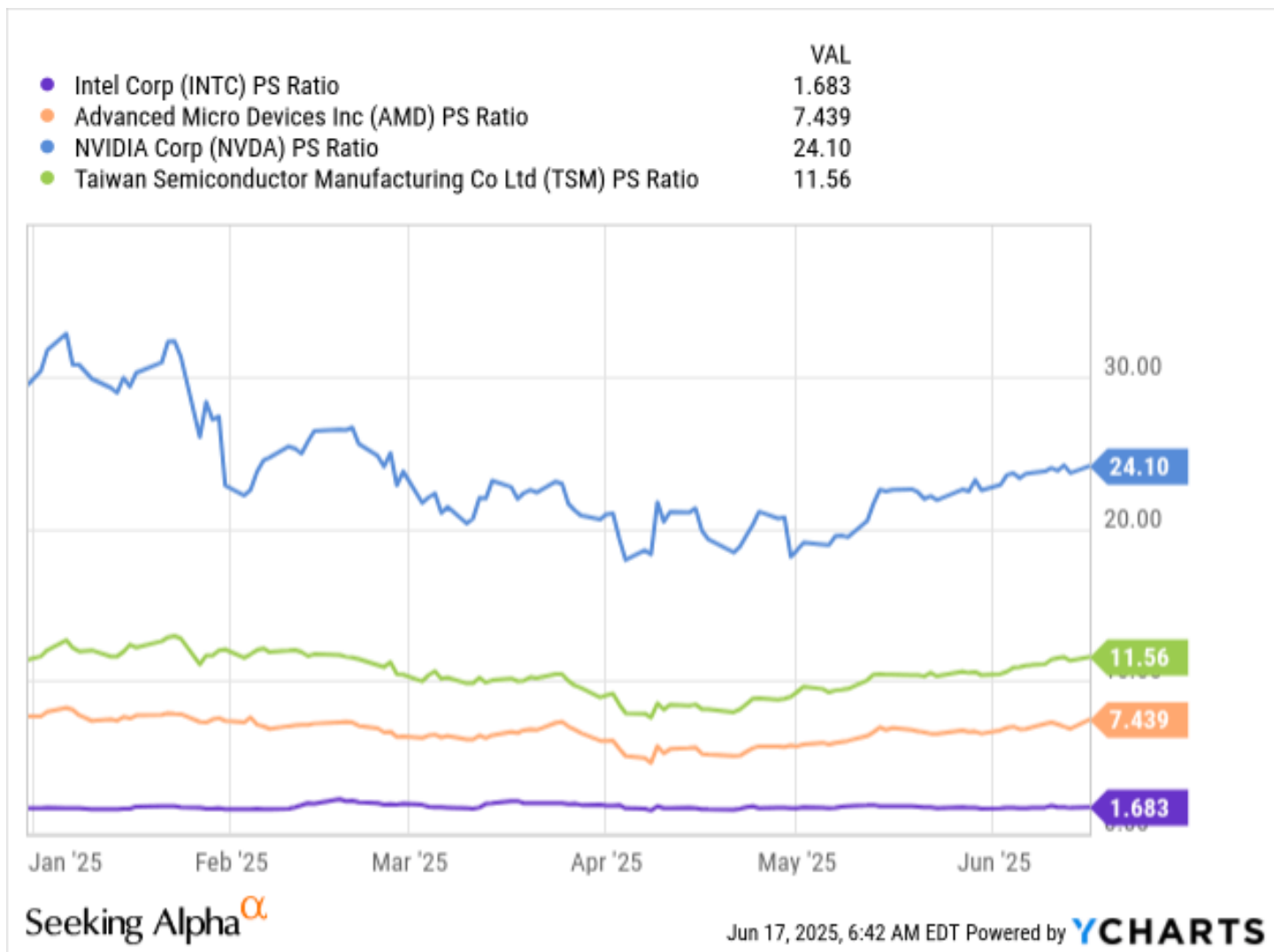
Intel Nova Lake Processor Specifications*

Processor	P-cores	E-cores	LPE-cores	PBP (W)
Core Ultra 9	16	32	4	150
Core Ultra 9 285K	8	16	0	125
Core Ultra 7	14	24	4	150
Core Ultra 7 265K	8	12	0	125
Core Ultra 5	8	16	4	125
Core Ultra 5	8	12	4	125
Core Ultra 5 245K	6	8	0	125
Core Ultra 5	6	8	4	125
Core Ultra 5 225	6	4	0	65
Core Ultra 3	4	8	4	65
Core Ultra 3	4	4	4	65

Tom's Hardware

Intel has been cheap for a while, but it's getting even cheaper

Intel's valuation at current levels is a big selling point; the stock trades at P/S of 1.68x, lower than the semi peer group average of 3.04x and the main competitors, as shown on the YTD chart below. The stock trades at forward EV/Sales of 2.49x compared to a group average of 2.90x and a Price/Book of 0.82x, materially lower than the group average of 4x. The stock is even cheaper now than when we covered it a month ago, when Price to Sales was 1.76x and Price to Book was 0.95x.



YCharts

The cheap valuation doesn't come from nowhere; Intel has really earned it with forward revenue growth of -1% and EPS growth of -9%. Not to mention, net income margin of -36% in spite of EBITDA margin of 15% (higher than average for the sector, which sits at 10%). The chart below also outlines Intel's trailing 12-month operating margins excluding 1Q25.

Intel Trailing 12-Month Operating Margin (GAAP)



YahooFinance

Bottom Line: Margins & Layoffs

Investors aren't sure whether to buy Intel's comeback story yet, and we can't say that's not for good reason. The stock has been stuck trading sideways since it took a nosedive last August, down almost 32% on the one-year chart. This trend is unlikely to change over the next quarter; having said that, Intel was the best-performing semi in our coverage for 1QCY25, and we're expecting it to be among the best performers in Q4. This leaves investors with a quarter to find a way into Intel stock.

The company's product CEO, Michelle Johnston, also gave us a nice piece of info during the conference, which is that new management is "laser focused on the fact that we need to get our gross margins back up above 50%." And, how they'll get to this number is pretty straightforward:

...moving forward, if you have a product and you're going through our decision matrix, you actually can't get approved if you're not a product that can show me that you can get above a 50% gross margin based on a set of industry expectations, and ASP...You actually don't get engineers assigned to it if it's not 50% or higher gross margins moving forward.

Next-gen CPUs, Panther Lake and Nova Lake, are already set to give us better gross margins than expected. Intel is also leading the sector in terms of layoffs, reducing staff by more than 20%, which translates to 22,000 layoffs or one-third of all tech layoffs for the current year. Another report from last week on Tom's Hardware pointed to Intel laying off personnel at its Silicon Forest campus starting mid-July with the aim of "restructuring its Intel Foundry manufacturing group to make it more focused on engineering and technical roles (i.e., cutting middle management)." Tan isn't only trimming fat when it comes to workforce but also business lines; chatter came out in late May of the company looking to sell its network and edge business, NEX, although management declined to comment. This is part of a bigger refocus push, and we think it'll take time, but expect it to pay off.

Navitas Semiconductor: Nvidia's Endorsement Ignites A Multi-Year Revenue Boom

June 18, 2025 Ahmed Abdelazim

Summary

- Navitas Semiconductor's collaboration with Nvidia for the 800 HVDC data center architecture is a significant validation for its GaN and SiC technology.
- Navitas' technological edge could see it obtain a significant share in GaN and SiC content within Nvidia's new architecture.
- I expect Navitas to reach positive adjusted EBITDA in 2026 as it taps into its \$450 million design wins thanks to the operating leverage it showed in Q1.



Pinging

Navitas Semiconductor (NASDAQ:NVTX) is a name that I have been bullish on since August last year, reiterating my bullish stance on it in December and February, thanks to its solid growth potential in GaN and SiC power semiconductors. Recently, my bullish stance on the stock has been validated by an Nvidia (NVDA) announcement, featuring Navitas, along with other power semiconductor players, as key collaborators in the next generation of data center architecture that is expected to support 1 MW of racks. Since this announcement, Navitas' stock is up 260% as this collaboration could be a significant revenue stream for the company once the new architecture rolls out.

Moreover, Nvidia's endorsement is a major validation of its technology, which could be a tailwind for future design wins, in my opinion. As is, this collaboration comes at a time where Navitas is bracing itself for a return to top-line growth later this year with GaN adoption growing in several key segments, namely the solar and EV sectors. In my opinion, Navitas' expected return to top-line growth, combined with the operating leverage it is currently showing, could see the company become adjusted EBITDA positive in 2026. With a clear growth runway until 2027 at least, I'm upgrading Navitas to strong buy.

Nvidia Collaboration & Navitas Semiconductor's Technological Edge

On May 20th, Nvidia announced the next generation of data centers, an 800 V DC architecture, that will support rack speeds of 1 MW and beyond. This new architecture is expected to roll out in 2027 to support Kyber rack-scale systems powering the Rubin GPU family, to address the rapid growth of data center power demands driven by the exponentially increasing AI workloads. As part of this announcement, **Nvidia selected Navitas, Infineon (OTCQX:IFNNY), ROHM (OTCPK:ROHCY), Monolithic Power Systems (MPWR), STMicroelectronics (STM), and Texas Instruments (TXN) as silicon providers.**

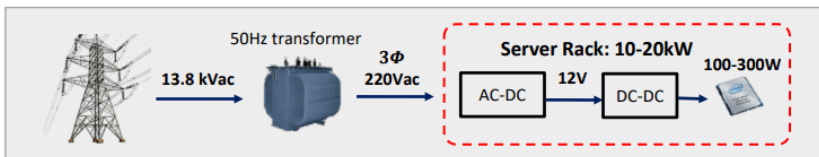
Nvidia's new architecture requires gigawatts of power since it will directly convert 13.8 kV AC grid power to 800 V DC through solid state transformers (SSTs) and rectifiers, consolidating several AC/DC and DC/DC conversion steps in the process to maximize efficiency and reliability. As such, this architecture would reduce the thickness of copper wires by up to 45%, improve power efficiency by up to 5%, reduce maintenance costs by 70%, and lower cooling costs by directly connecting HVDC to the racks within a data center.

Given the demands of Nvidia's 800 volt architecture, GaN and SiC devices will be crucial to power future data centers based on this technology thanks to their efficiency and speed. This can be seen by the higher power efficiency of today's 48 V data centers, which include both GaN and SiC, ranging between 80 to 90%, compared to traditional 12 V data centers, that mainly rely on silicon, with power efficiencies between 70 to 80%. However, the next generation of data centers, 800 V, aims to introduce energy efficiency of more than 90% due to their reliance on ultra-high voltage solid state transformers, which are semiconductor-based, instead of traditional transformers.

Dramatic Data Center Transformation

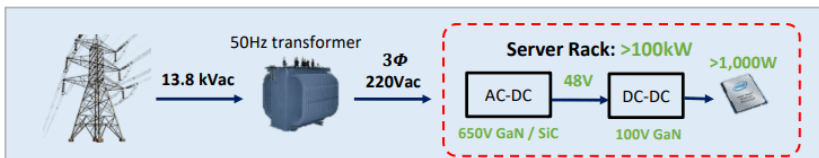


Traditional 12V Data Centers



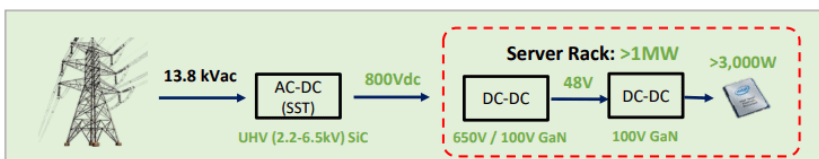
- 70-80% total energy efficiency
- 100% Si-based power systems
- Limited GaN or SiC use today

Today's AI 48V Data Centers



- 80-90% total energy efficiency
- Significant GaN / SiC opportunity

Future AI 800V Data Centers



- Target over 90% total energy efficiency
- Accelerating GaN / SiC opportunity

Copyright Navitas Semiconductor

4

Navitas Presentation at Baird 2025 Global Consumer, Technology & Services Conference

This translates to lower electricity and thermal management costs, the costliest 2 elements in operating data centers. At the same time, the higher use of GaN and SiC in Nvidia's new architecture could allow for the delivery of more power in a smaller size, since they both materials can operate up to 20 times faster than silicon.

While some investors believe that Navitas is competing with these players to gain content in Nvidia's new architecture, it is clear that Nvidia is building a broad ecosystem that leverages each of these companies' strengths to maximize the performance of this architecture. With that in mind, Navitas appears to already have an edge in this architecture over the other silicon players collaborating with Nvidia, especially in the SST stage of the architecture.

The SST in Nvidia's architecture requires ultra-high voltage SiC between 2.2 to 6.5 kV. Given the power demands of this architecture, higher voltage SiC in this stage would provide significant advantages, and as such, utilizing 6.5 kV SiC would be most beneficial. This provides Navitas with a substantial edge since it is the only company offering 6.5 kV SiC.

In fact, the company is already working on introducing 10 kV SiC devices, per CEO Gene Sheridan in Rosenblatt's Tech Summit. On the other hand, Infineon, STM, and Rohm can only offer up to 3.3 kV, 2.2 kV, and 2 kV SiC devices, respectively. This tells me that Navitas is likely to secure more content in the SST stage compared to the other silicon providers in Nvidia's architecture, especially in the highest voltage portions of the SST. This is mainly due to its higher voltage capacity allowing for simpler and more compact designs, which could eventually lead to a higher ASP per device, potentially improving Navitas' gross margins.

In addition to the potential opportunity Navitas has in Nvidia's architecture, this collaboration has validated and added credibility to its technology, creating an even bigger market opportunity. This can be seen by the company receiving inbound calls from parties interested in SSTs and 800 V power supplies since Nvidia's announcement, as mentioned in Rosenblatt's Tech Summit.

This growing interest could be a substantial tailwind for Navitas' growth in 2027 and beyond, considering that the design process of the 800 V architecture takes around 24 months. To that end, the company intends to start prototyping this year and start early production in late 2026, before a major ramp in 2027 and beyond. At the same time, being an early mover positions Navitas to potentially secure a significant share in this market, which is forecasted to be worth \$5 to \$10 million per GW of power delivered, as Sheridan highlighted in Rosenblatt's Tech Summit.

Product Innovation & Growth Runway

Aside from Nvidia's collaboration, Navitas is already on track for a major revenue ramp later this year and throughout 2026 as it taps into its \$450 million design wins, the vast majority of which will be realized in 2026 and the rest spread over late this year and 2027. In the data center vertical, the company had 75 customer projects as of the end of Q1, up from 40 at the end of 2024. Navitas' robust data center pipeline is likely to accelerate throughout this year thanks to Navitas' latest innovative product in this space, the 12 kW power supply platform, marking an industry first.

This platform utilizes GeneSiC and GaNSafe ICs and is supported by the Intelliweave control technology, enabling a doubling of total rack power up to 500 kW at a 97.8% power efficiency. As such, the 12 kW platform could be an ideal solution for Blackwell Ultra and Rubin GPU families, which could contribute to a higher ASP for these designs.

As for the EV vertical, Navitas' GanSafe technology is now automotive-qualified to the AEC-Q101 standard and is now adopted by the industry's first GaN EV onboard charger design with China's Changan Auto, with production expected in early 2026. At the same time, GeneSiC technology is now exceeding automotive reliability standards, leading the company to announce a new reliability standard, AEC Plus, which exceeds AEC standards by more than 100%.

GeneSiC's impressive reliability in EVs is especially promising with Navitas' expansion in the commercial EV space. The company announced that 2 significant commercial EV customers are now adopting GeneSiC's technology in the Q1 earnings call, and Navitas expects commercial EVs to have a multi-million revenue impact in 2026.

In the solar segment, Navitas is on track to see a ramp in late 2025 with Enphase (ENPH) adopting its GaN Bidirectional Switches (BDS) in its IQ9 microinverters that will launch later this year. BDS is the world's first production-released 650 V bidirectional GaNFast ICs and replaces the traditional two-stage topology used in more than 70% of today's power converters by consolidating the 2 stages into a single stage. Accordingly, BDS can achieve up to 10% cost savings, 20% energy savings, and 50% size reductions, while increasing system performance.

As Navitas continues innovating high-speed high-efficiency products, I expect it to announce large partnerships over the coming years, especially after the boost it received from Nvidia's endorsement. On that note, CEO Gene Sheridan alluded to a potential partnership with Tesla (TSLA) in Rosenblatt's Tech Summit by stating that Tesla is a perfect customer for Navitas given its exposure to the EV, solar, energy storage, and data centers. In fact, Sheridan stated that Navitas sees a significant opportunity with Tesla and is working towards it.

Risks

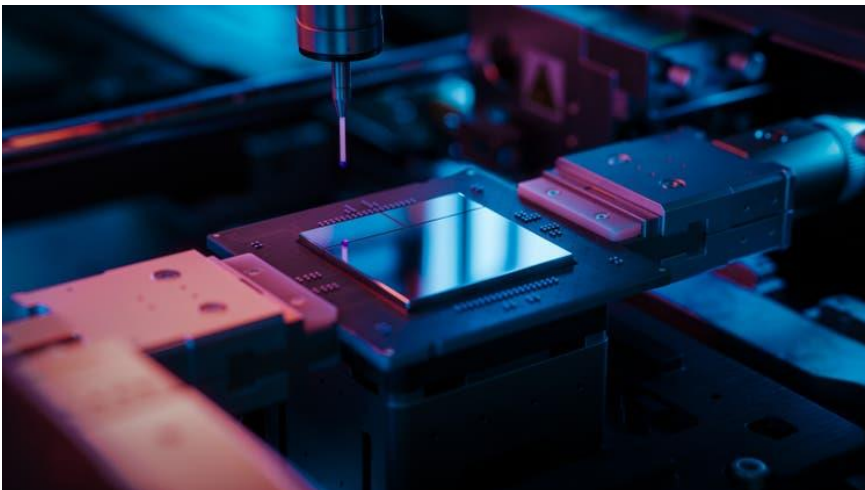
Since my bullish thesis on Navitas is highly dependent on future growth, execution is key for Navitas to maintain its leading position in GaN and SiC. Although the collaboration with Nvidia presents a significant opportunity for the company to expand its presence in the data center market, it also introduces ramp up challenges since scaling production for a new high-volume design can be complex. Accordingly, failing to meet customer demand or production deadlines could lead to customer dissatisfaction and loss of future design wins. This can also reflect on Navitas' valuation, as its current valuation metrics suggest that it is priced for significant future growth. As such, any execution mishaps could lead to a sharp correction in Navitas' share price.

HBM: The Hidden AI Bottleneck That Makes Micron A Strong Buy Before Earnings

June 16, 2025 Saira Quaraishi

Summary

- Micron's leadership in high-bandwidth memory makes it a critical enabler of AI infrastructure, with demand outpacing supply and sold-out capacity through 2025.
- HBM market exploding from \$4B (2023) to \$35B+ (2025) and potentially \$130B by 2033.
- Micron's HBM and low-power DRAM products are validated by top customers like Nvidia and hyperscalers, driving exceptional revenue growth and margin expansion.
- Despite rapid growth and strong fundamentals, Micron trades at a significant discount to peers, offering 45% upside with a \$164 price target based on conservative estimates.
- Only three global suppliers (Micron, SK Hynix, Samsung) can produce HBM at scale. Micron's technical leadership with 30% power efficiency advantage and 50% higher capacity.



SweetBunFactory

Modern AI accelerators, particularly the latest generation from Nvidia and AMD, are data hungry and having insufficient memory bandwidth is like "having a Formula 1 car stuck in traffic." The processing power is there but without the ability to feed data to and from these processors at speeds, the entire system becomes constrained by memory performance rather than computational capability. The numbers surrounding HBM market growth are nothing short of extraordinary and they tell a story of a fundamental shift in how computing infrastructure is evolving.

The HBM market is projected to reach over \$35 billion by the end of this year. That's Micron's latest estimate which they have already revised upward from their previous \$30 billion forecast. This growth is nearly a nine times increase in just two years.

But the story doesn't end there. Micron projects the HBM market will reach \$100 billion by 2030, while Bloomberg Intelligence's research suggests it could hit \$130 billion by 2033. This is a CAGR of approx. 42% through 2033 making HBM one of the fastest growing segments not just in semiconductors but in all of technology.

This growth is being driven by multiple vectors simultaneously. It's not just about training larger language models, though that remains important. The real growth is coming from the proliferation of AI inference workloads, the expansion from cloud to edge applications, the emergence of AI PCs and smartphones and the development of entirely new categories like autonomous vehicles and robotics that require massive local processing power.

Hyperscale customers like Amazon, Microsoft and Google are all reiterating their massive infrastructure spending plans for 2025 and beyond. Amazon recently announced a \$4 billion cloud infrastructure investment in Chile alone, while Oracle is planning up to \$14 billion in AI infrastructure investments in Saudi Arabia. A substantial Part of these investments would go to HBMs because it is a crucial component of these AI infrastructures.

Micron is about to report its Q3 FY25 earnings on 25th June and I believe this is a unique opportunity for investors. Because my investment thesis is based on the long-term structural advantages of their HBM position, the upcoming earnings announcement could serve as a powerful catalyst that accelerates market recognition of their fundamental transformation.

After months of investor skepticism about memory pricing, concerns over NAND market conditions, and April tariff panic, sentiment has begun to shift. The stock's recovery to current levels around \$118 suggests that some investors are positioning ahead of what could be a huge moment for the company.

Management previously indicated that in Q3 there could be a slight decline in gross margins due to NAND underutilization and higher consumer-oriented revenue, but they also said that Q4 and beyond would show sequential improvement. If they can show us that this margin inflection is materializing while simultaneously providing robust guidance for HBM growth, I think it could trigger a huge revaluation.

I believe that given the sold-out HBM capacity and strong customer demand signals, there's potential for upward revisions to both revenue and margin projections that could fundamentally reset market expectations for the company's earnings power.

Complexity That Creates an Unbreachable Moat

What sets HBM apart from other semiconductor products is the extraordinary technical complexity required for production. This isn't simply a matter of scaling up existing manufacturing processes because HBM is a fundamentally different approach to memory architecture that requires capabilities possessed by only a handful of companies worldwide.

The silicon trade ratio tells the story most clearly. Where standard DDR5 DRAM might require one unit of wafer capacity to produce a certain number of bits, HBM3E requires three times that capacity for the same bit output. When you look ahead to HBM4 and HBM4E, Bloomberg Intelligence projects this ratio will exceed 4:1, meaning even more wafer capacity will be consumed for each bit of HBM produced. Which means that their memory is 4 times more energy efficient than standard DRAM where each unit uses the same energy as standard DRAM but the output is four times higher.

This technical complexity creates a defensible moat that is very hard to breach. The manufacturing process involves 3D stacking of multiple DRAM dies, advanced through-silicon via (TSV) technology and packaging techniques that push the boundaries of what's physically possible.

And keep in mind that HBM can't be simply plugged into a system like traditional memory modules. It requires co-design with the processor and system level optimization that creates extremely long qualification cycles. This means that once a customer qualifies a particular supplier's HBM for their platform, switching costs become very high creating what amounts to a multi-year customer lock-in effect.

Micron's Technical Leadership

The global HBM supply base is concentrated with only three companies possessing the manufacturing capability and technical expertise to produce HBM at scale: SK Hynix, Samsung and Micron. This market structure is the result of technical barriers and capital requirements involved in HBM production.

Samsung has a massive scale advantage approximately eight times larger than Micron in terms of overall revenue. They hold roughly 34% market share as of 2025. However, their qualification delays with key customers have provided a significant opportunity for Micron to gain market share during this critical growth phase.

Despite being the smallest of the three suppliers, Micron has achieved remarkable technical leadership in key performance metrics. Their HBM3E products showed 30% lower power consumption compared to competitors' solutions which is a critical advantage in data center environments where power efficiency directly impacts operating costs and performance.

Micron has a huge capacity advantage in this game. Their 12-high HBM3E stacks deliver 36GB of memory capacity compared to the 24GB offered by competing 8-high solutions that's 50% higher capacity while consuming 20% less power. I think that because of this power efficiency and capacity advantage hyperscalers would prefer Micron over its competitors.

The power efficiency advantage is particularly significant because data center operators are increasingly limited by power consumption. Their power advantage effectively allows customers to deploy more AI capability within their existing power budgets.

Strategic Customer Relationships

The integration with Nvidia's (NVDA) platforms gives me the clearest validation of Micron's technical leadership. Nvidia's GB200 systems use Micron's HBM3E 8-high products, while the next generation GB300 platforms are designed around Micron's HBM3E 12-high solutions. Given Nvidia's reputation for demanding the highest performance components, their selection of Micron as a primary HBM supplier speaks volumes about the technical merit of Micron's products.

During the Q2 FY25 earnings call, management said that they had initiated volume shipments to their third major HBM customer. While they didn't disclose the customer's identity, the timing and scale suggest it's likely one of the major cloud hyperscalers (Amazon, META, Microsoft). This customer expansion is critical because it reduces Micron's dependence on any single customer and provides additional revenue diversification.

As I said earlier, the qualification process is so lengthy and expensive that customers are essentially committing to multi-year partnerships. This creates exceptional revenue visibility for them and they have already sold out their HBM production for all of 2025.

As AI workloads are moving beyond just training large language models to include inference, edge computing and specialized applications, the number of companies requiring HBM is growing rapidly. This demand reduces concentration risk while providing multiple avenues for growth. When customers invest hundreds of millions of dollars and months of engineering time to qualify a particular HBM solution, they're not making switching decisions based on minor price

differences. This allows Micron to maintain premium pricing for their superior technical performance, which directly means higher margins and profitability.

The Billion-Dollar Breakthrough

When I was researching their HBM progress, I was looking for whether their technical achievements were translating into meaningful financial results. In Q2 FY25 earnings for the first time in company history, Micron's HBM revenue exceeded \$1 billion in a single quarter. They delivered over 50% sequential growth in HBM revenue moving from what was already a substantial business to crossing the billion dollar threshold in just three months.

Micron's entire quarterly revenue in Q2 was approximately \$8.1 billion meaning HBM now is roughly 13% of total company revenue. This percentage is growing rapidly, and HBM carries significantly higher margins than traditional memory products. What gives me confidence in the sustainability of this growth is the capacity utilization picture. They have completely sold out their HBM production capacity through calendar 2025, and management hinted that they're already in active discussions with customers about 2026 supply agreements.

The DRAM Market Beyond HBM

While HBM rightfully captures the spotlight, Micron is doing really well in the DRAM market too. In Q2 FY25 DRAM revenue of \$6.1 billion with 47% YoY growth which means that the AI driven demand surge extends well beyond just HBM applications.

They have achieved record data center DRAM revenue driven not just by HBM but also by strong demand for high capacity DDR5 modules and their low power DRAM solutions. They are the only supplier shipping low power DRAM into data centers at high volume.

The low power DRAM opportunity deserves particular attention because it's an area where Micron has essentially created a new market category. In AI servers their LP DRAM reduces memory power consumption by over two thirds compared to standard DDR5 which directly addresses one of the most pressing challenges in data center design. The transition from soldered components to SOCAMM (Small Outline Compression Attached Memory Module) form factors, developed in collaboration with Nvidia for the GB300 platform, should accelerate broader adoption of low power memory in server applications. This is a new business opportunity beyond HBM that benefits from many of the same AI infrastructure trends while providing portfolio diversification.

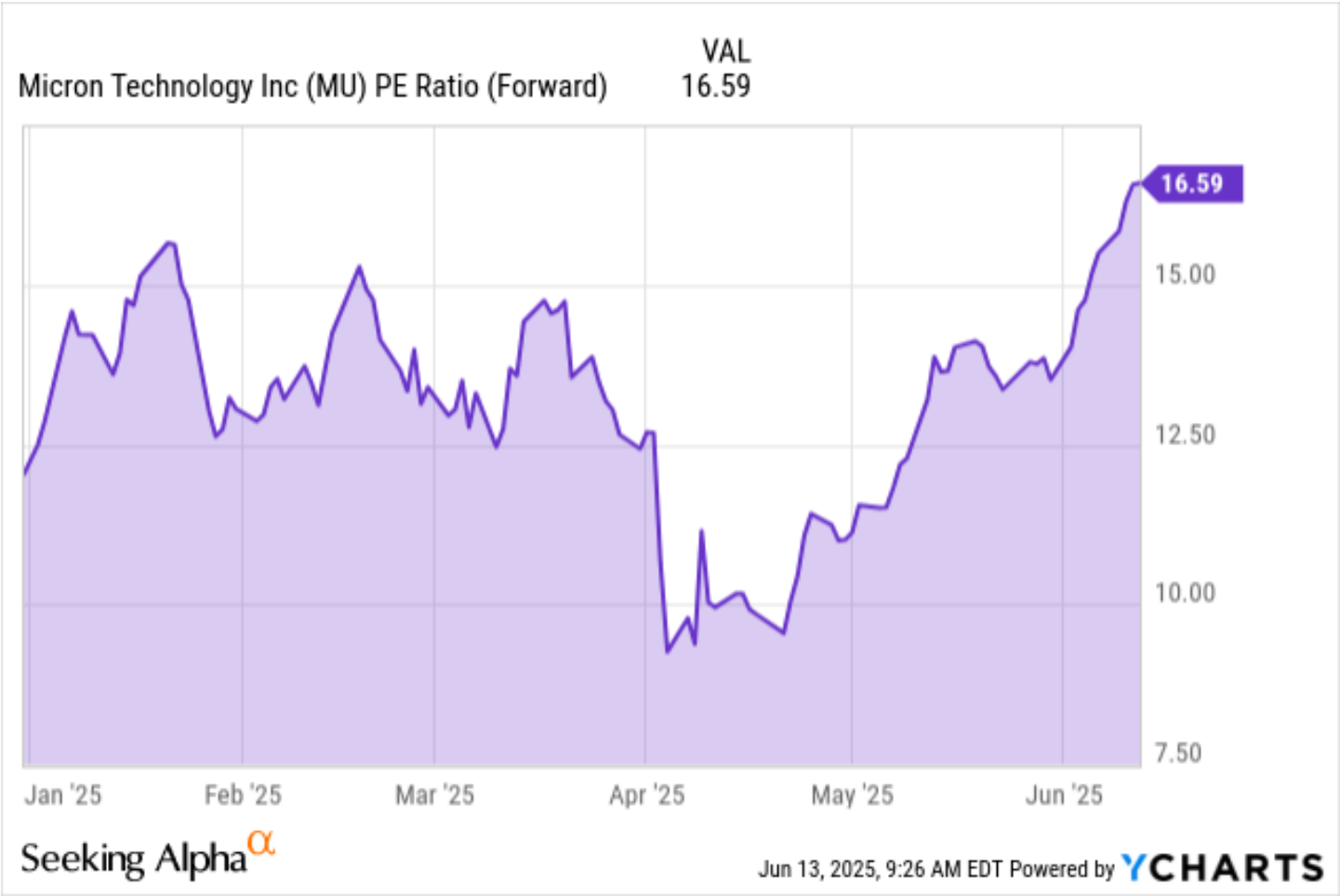
The projected three year forward revenue CAGR of 43.7% shows that they are riding multiple secular growth waves simultaneously. The HBM business alone is expected to generate multi-billion dollar annual revenue but this is occurring alongside strength in traditional data center DRAM, recovery in consumer markets and the emergence of AI enabled edge devices.

What gives me confidence in these projections is the visibility that comes from the HBM business model. Unlike traditional memory sales which can be quite volatile and spot-market driven, HBM involves long-term partnerships with extensive qualification processes. When a customer designs Micron's HBM into their next-generation AI accelerator, they're essentially committing to multi year purchasing relationships. This provides a level of revenue predictability that's rare in the semiconductor industry.

As HBM becomes a larger percentage of their revenue mix and as their technology leadership positions them for premium pricing across their DRAM portfolio, they should see sustained improvement in profitability.

Perhaps the most striking aspect of my Micron analysis is the enormous disconnect between the company's fundamental transformation and its market valuation. Despite exceptional growth prospects and strengthening competitive position, Micron trades at substantial discounts to semiconductor peers across virtually every meaningful metric.

Right now, as of writing this article, Micron is trading at a forward P/E of 16.5x, which is a 27% discount to the semiconductor sector median of 22.8x.



YCharts

For a company projecting 71% revenue growth YoY this valuation is almost inexplicably low.

MU Growth Grade		A+				
	Sector Relative Grade	MU	Sector Median	% Diff. to Sector	MU 5Y Avg.	% Diff. to 5Y Avg.
Revenue Growth (YoY)	A+	71.05%	6.21%	1,043.88%	9.20%	671.92%
Revenue Growth (FWD)	A+	42.50%	7.03%	504.76%	11.63%	265.37%
EBITDA Growth (YoY)	A+	289.40%	8.64%	3,248.22%	65.57%	341.35%
EBITDA Growth (FWD)	A+	127.41%	9.15%	1,292.02%	25.68%	396.17%

SA

The EV/EBITDA multiple discount is even more pronounced. Their forward EV/EBITDA of 7.8x is a massive 45% discount to the sector median of 14.4x.

EV / EBITDA (TTM)	A	9.59	17.44	-45.00%	14.81	-35.25%
EV / EBITDA (FWD)	A	7.85	14.37	-45.35%	10.64	-26.22%
EV / EBIT (TTM)	B-	22.07	23.20	-4.88%	21.96	0.50%
EV / EBIT (FWD)	B+	14.71	19.24	-23.54%	-	NM

SA

This metric is particularly relevant because it normalizes for different capital structures and provides a cleaner comparison across the semiconductor industry. The discount suggests the market is either missing the fundamental shift in Micron's business model or applying excessive risk premiums.

Risk Factors

Despite my strong conviction in Micron, I cannot ignore the elephant in the room that is the inherently cyclical nature of the semiconductor memory industry. I believe this cycle may be different due to AI driven structural demand, the historical cycles in memory pricing remains a legitimate concern that could impact my investment thesis.

The memory industry has traditionally operated on approximately three to four-year cycles, driven by capacity additions across the supply chain. During the 2018-2019 demand downturn, DRAM prices fell over 50% in less than a year, and companies like Micron saw their stock prices decline by similar magnitudes despite technological leadership.

If we experience a broader economic slowdown companies might delay AI infrastructure investments which could create an oversupply situation even in the HBM market. The memory industry's high fixed costs mean that even small demand reductions can translate into severe margin compression.

The escalating technology competition between the United States and China creates a risk vector for their business. The tariff environment remains highly volatile. Even though semiconductor memory products have been exempted from recent tariff rounds, these exemptions could be reversed if trade tension increased.

As HBM becomes increasingly critical for AI applications it could face restrictions on sales to certain countries or customers. The current controls primarily focus on the most advanced AI chips rather than memory components the scope of restrictions could broaden if national security concerns intensify.

Bottom Line

In a market obsessed with GPUs and compute power, Micron's dominance in high-bandwidth memory positions it at the true choke point of AI infrastructure. With sold-out HBM capacity through 2025, growing customer diversification and clear validation from Nvidia and hyperscalers, Micron is becoming an essential AI enabler.