



Gies College of Business

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

University of Illinois Urbana - Champaign (Gies College of Business)

FIN 529 – Applied Financial Analysis

Final Report – LAM Research Corp. | Applied Materials

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Executive Summary

We propose a BUY for Lam Research Corporation (NASDAQ: LRCX) and Applied Materials Inc. (NASDAQ: AMAT), two global leaders in semiconductor capital equipment. Our recommendation is based on a rigorous 10-year DCF analysis, long-term structural drivers, and excellent capital return policies that allow for upside even in the face of cyclical challenges. Lam and AMAT are key suppliers of etch, deposition, and process control equipment for advanced chip fabrication. As the semiconductor industry moves to smaller nodes (sub-5nm), 3D architectures, and advanced packaging, both companies profit from higher capital intensity per wafer and longer tool life cycles, which drive recurring service income. Government-backed semiconductor reshoring activities in the United States, Japan, and India (e.g., CHIPS Act) prolong visibility into long-term fab buildouts, making these companies crucial beneficiaries of policy-driven capex.

Our 10-year DCF models (2025-2034) generate:

Lam Research (LRCX) reports an implied terminal value of \$147.7 billion, citing a resurgence in DRAM/NAND demand, leadership in high-aspect ratio etch, and rising service margins.

Applied Materials (AMAT) has an implied terminal value of \$384.0 billion, which is backed by diversified exposure to logic and memory, early advantage in hybrid bonding and advanced packaging, and sustained operating leverage.

While the industry confronts near-term headwinds such as memory softness, export limitations to China, and fab expenditure deferrals, both businesses retain free cash flow margins of more than 25%, low leverage, and consistent buyback/dividend policies. These principles provide downside protection and enable countercyclical investment in R&D. Lam and Applied are not only vendors in an increasingly strategic and innovation-driven semiconductor supply chain; they are ecosystem gatekeepers. We believe that patient investors will benefit from accumulating both stocks for long-term compounding exposure.

Investment Thesis Highlights

We have a unified BUY recommendation on both Lam Research Corporation (NASDAQ: LRCX) and Applied Materials Incorporated (NASDAQ: AMAT) considering them through the lens of three deterministic long-term trends. The company acts as a building block of semiconductor production, providing essential instruments in etch, deposition, and metrology which are increasingly more important as architectural complexities deepen alongside the plateauing of scaling transistors. Collectively, these companies represent an attractive investment proposition with sustainable cash flow, favorable geopolitical conditions, and disciplined capital returns.

Thesis #1: Process Complexity is Expanding Capital Intensity Across All Nodes

Lam and Applied Materials are mission-critical enablers of advanced logic and memory manufacture, leveraging increased equipment intensity per wafer. As Moore's Law slows and chipmakers shift to 3D scaling, chip architectures such as GAA-FETs, FinFETs, and 3D NAND necessitate an increasing number of deposition and etch steps—segments in which Lam (etch leadership) and AMAT (full-process portfolio) maintain defensible market positions. The capital intensity

Figure 1: LRCX Company Data

Last Close	74.52
Market Capitalization	95319.9
Shares Outstanding	1279.1
52-Week High	113
52-Week Low	56.22
EV/NTM EBITDA	14.85x

Source: Capital IQ, Team Analysis

Figure 2: AMAT Company Data

Last Close	155.1
Market Capitalization	126009.6
Shares Outstanding	812.4
52-Week High	255.89
52-Week Low	123.74
EV/NTM EBITDA	13.92

Source: Capital IQ, Team Analysis

Figure 3: LRCX Financial Data

	24A	25E	26E	27E
Revenue (\$M)	\$14905	\$17811	\$20928	\$24277
Revenue Growth	1.20%	19.50%	17.50%	16.00%
Gross Profit (\$M)	\$7053	\$8653	\$10254	\$12138
Gross Margin	47.50%	48.50%	49.00%	50.00%

of semiconductor production has increased by 20-30% with new process nodes, with WFE spending per fab expected to rise considerably by 2026. Both organizations have created annuity-like service businesses (~25-30% of sales) linked to their worldwide installed base, producing high-margin, recurring revenue regardless of capex cycles.

Thesis #2: Reshoring & CHIPS Act Subsidies Anchor Multi-Year Growth Visibility

Both firms are poised to gain from government-subsidized fab expansions in the United States, Japan, and India, bringing visibility to over \$200 billion in global WFE spending. The United States CHIPS Act (\$52.7 billion), Japan's METI program, and India's PLI scheme are all driving a decade-long reshoring and supply chain diversification push. AMAT and Lam stand to benefit significantly as TSMC, Intel, Samsung, and Micron increase their manufacturing footprints in the United States. AMAT's North American integration (~18% of revenue) and Lam's significant exposure (~22%) enable them to grab early-stage orders when regional fabs become operational. These state-backed incentives steer the industry away from capex cyclicality and towards policy-driven structural growth.

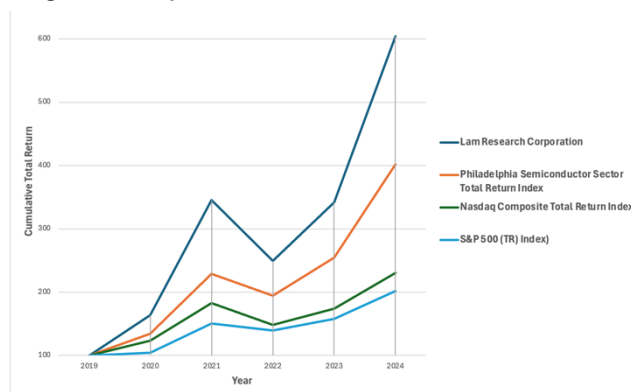
Thesis #3: High Cash Conversion and Capital Returns Create Downside Support

Lam and Applied both convert more than 25% of revenue into free cash flow, which they deploy through strong buybacks and dividends, reinforcing shareholder alignment. Lam and AMAT consistently earn free cash flow margins of more than 25%, thanks to capital-efficient business strategies and resilient service streams. Lam returned \$5.5 billion and AMAT \$7.7 billion in FY2024 through repurchases and dividends, respectively, for a 5-6% shareholder yield. With capex below 5% of revenue and low leverage, both companies can fund innovation, cushion downturns, and compound capital across cycles. Their dedication to shareholder returns improves overall return predictability while maintaining reinvestment capacity.

Figure 4: AMAT Financial Data

	24A	25E	26E	27E
Revenue (\$M)	\$27176	\$28806	\$30823	\$33288
Revenue Growth	2.50%	6.00%	7.00%	8.00%
Gross Profit (\$M)	\$13031	\$13855	\$14949	\$16145
Gross Margin	48.00%	48.10%	48.50%	48.50%

Figure 5: Comparison of Five Year Cumulative Total Return



Industry Overview

The semiconductor materials and equipment sector is at the heart of worldwide chip production, producing innovative tools for wafer fabrication, etching, deposition, lithography, metrology, and packaging. Players like Lam Research and Applied Materials enable the actual fabrication of transistors, making them necessary at every stage of the semiconductor value chain. As technology advances and demand for computation grows, this capital equipment segment becomes increasingly important in allowing Moore's Law, or its current expansions, through architectural innovation.

Rising Capital Intensity Across Nodes – Positive

Each generation of semiconductor fabrication (e.g., sub-5nm, 3D NAND, GAA-FETs) necessitates more etching, deposition, and inspection stages, considerably increasing the dollar value of equipment required per wafer.

Secular Growth from AI and High-Performance Computation - Positive

The rapidly growing need for GPUs, cloud infrastructure, and edge devices is driving long-term wafer fab equipment (WFE) spending. These tendencies are structural rather than cyclical, and they benefit capital equipment providers.

Government Backed Reshoring Activities - Positive

Policy supports from the CHIPS Act (US), METI (Japan), and PLI (India) gives multi-year order visibility for fab expansions while mitigating typical demand cyclicalities.

Export Restrictions and Geopolitical Risk - Negative

US limitations on advanced equipment sales to China (e.g., SMIC, YMTC) have a direct impact on companies like Lam and AMAT, which formerly derived ~35-40% of their sales from China.

Fab Capex Cyclicity and Order Volatility - Negative

Despite long-term demand, short-term equipment orders are susceptible to memory market downturns, consumer electronics slowdowns, and factory inventory adjustments.

Figure 6: Semiconductor Materials and Equipment Sales

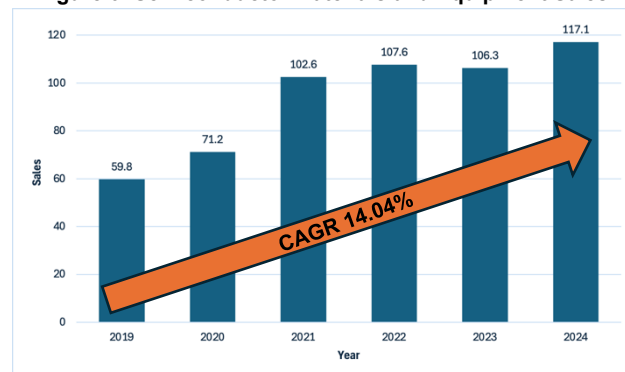
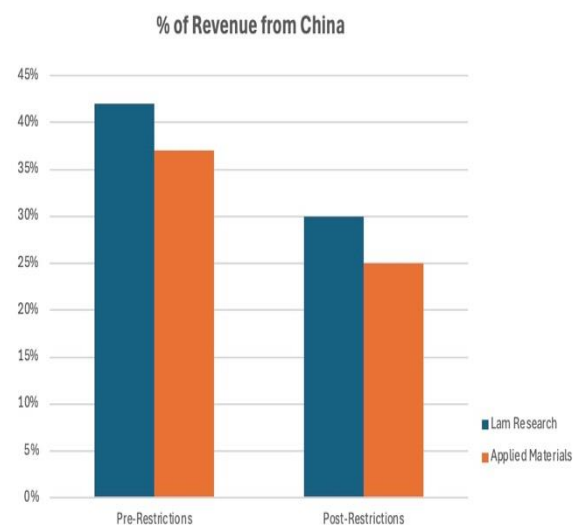


Figure 7: Revenue from China – Pre vs. Post



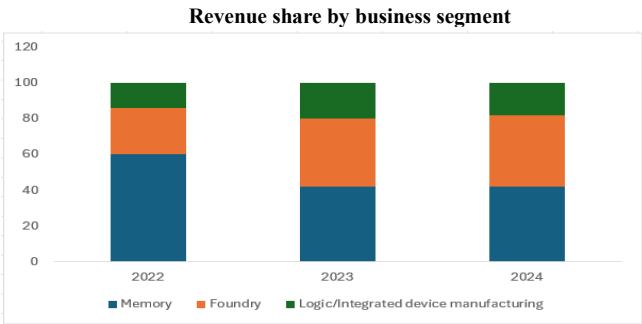
Business Overview – LAM Research

About the company

Lam Research Corporation is a leading U.S.-based supplier of semiconductor manufacturing equipment, specializing in wafer fabrication tools critical for creating advanced microchips. Founded in 1980 and headquartered in Fremont, California, Lam plays a pivotal role in enabling cutting-edge technologies such as AI, 5G, and high-performance computing.

Business Segments

- **Memory** – Manufacturing of NAND and DRAM technology for memory integration into the chip architectures
- **Foundry** – Provides fabrication of different materials for chip wafer manufacturing.
- **Logic/ Integrated device manufacturing** – Combining the memory and foundry technologies together.
- **Other / Energy and Environmental Solutions** – Focused on emerging technologies and sustainability.



Key Products/Services

Some of the key products by the company are–

- **Etch Systems:** Reactive Ion Etching (RIE) and Atomic Layer Etching (ALE) tools for precise patterning.
- **Chemical Vapor Deposition (CVD)** and **Atomic Layer Deposition (ALD)** systems for uniform thin films.
- **Wet and plasma-based** systems to remove contaminants
- Innovative products like **Argos®**, **Prevos™**, and **Selis®** for high-precision material removal in 3D architectures

Customer Share

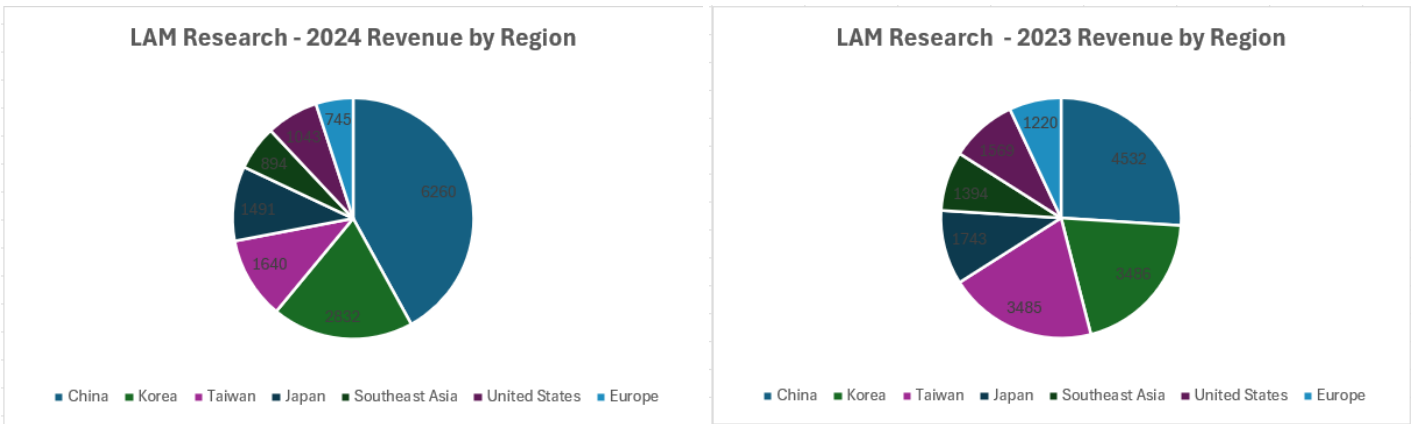
The major customers of LAM are digital appliances and chip manufacturers given the major requirement of semiconductor-based technology for the development of the end-chain products which are sold B2B or B2C.

Some of the biggest customers of Applied Materials are in percentage of new revenue are –

Company	2024	2023
Samsung Inc.	17%	17%
Taiwan Semiconductor Manufacturing	11.3%	14%
Intel	9%	10%

Given the customer share, TSMC’s and Samsung’s share has marginally reduced, giving a signal that LAM is good in terms of chip manufacturing technology development thus leading to its revised estimates of growth.

Revenue Share by region



Business Overview - AMAT

About the company

A well-known American business, Applied Materials, Inc. offers services, software, and equipment to produce solar products, semiconductor chips, and flat panel displays. The corporation, which has its headquarters in Santa Clara, California, is essential to the development of new technologies and electronics.

Business Segments

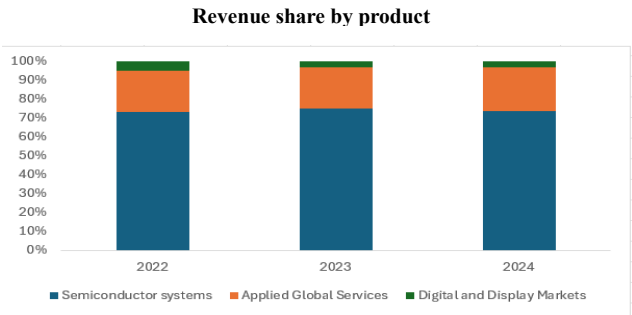
- Semiconductor Systems – Core business involving wafer fabrication equipment used in chip manufacturing (e.g., deposition, etching, inspection, and metrology).
- Applied Global Services (AGS) – Provides aftermarket support including tool upgrades, predictive maintenance, and parts services.
- Display and Adjacent Markets – Supplies equipment for manufacturing displays used in TVs, smartphones, tablets, and more
- Other / Energy and Environmental Solutions – Focused on emerging technologies and sustainability.

Key Products/Services

Some of the key products by the company are –

- **Chemical vapor deposition** and physical vapor deposition systems
- **Etching** and **Ion** implantation rules
- **Metrology** and inspection tools
- **OLED/LED** display manufacturing tools.

Additional corporate services are also provided by AMAT, which contribute to about 1% of the total business share



Customer Share

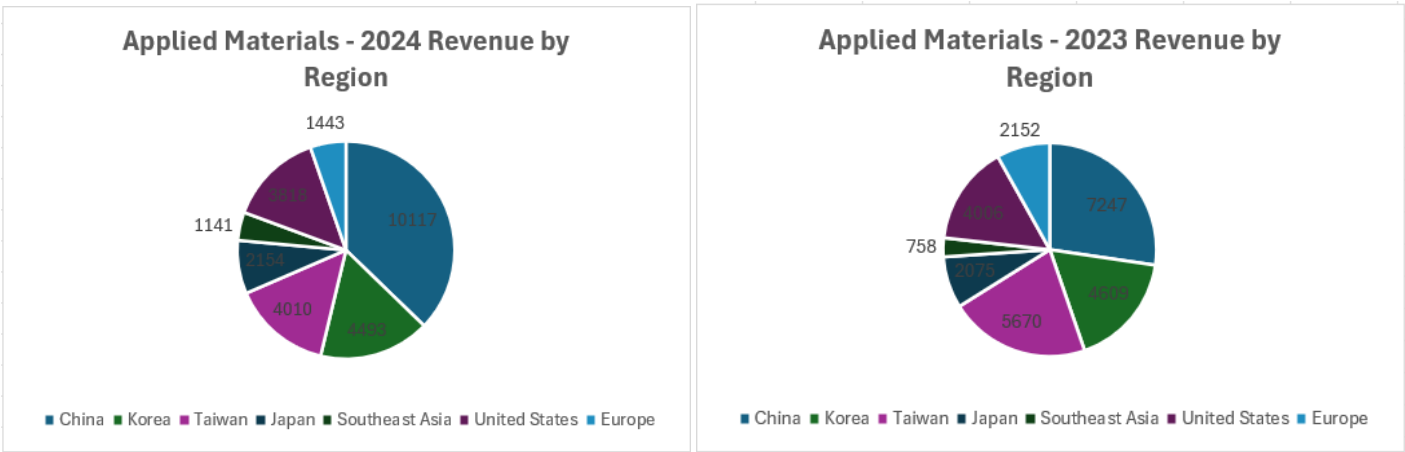
The major customers of AMAT are digital appliances and chip manufacturers given the major requirement of semiconductor-based technology for the development of the end-chain products which are sold B2B or B2C.

Some of the biggest customers of Applied Materials are in percentage of new revenue are –

Company	2024	2023
Samsung Inc.	12%	19%
Taiwan Semiconductor Manufacturing	11%	15%
Intel	10%	8%

Given the customer share, TSMC’s and Samsung’s share has reduced, giving a signal that AMAT is not leading in terms of chip manufacturing technology development thus leading to its revised estimates of growth

Revenue Share by region



Investment Summary

Unified BUY Recommendation | Exposure to Process Complexity, Policy-Driven Capex, and Strong Capital Returns

We issue a BUY recommendation on both Lam Research Corporation (NASDAQ: LRCX) and Applied Materials Incorporated (NASDAQ: AMAT), driven by their central role in enabling semiconductor fabrication amid three defining structural trends. These companies provide indispensable technologies in etch, deposition, and metrology—functions becoming increasingly critical as device architectures grow more complex and traditional transistor scaling slows. Combined, they present a resilient and high-quality investment opportunity supported by recurring service revenue, favorable policy tailwinds, and disciplined capital allocation.

Thesis 1: Process Complexity is Expanding Capital Intensity Across All Nodes

The shift toward advanced chip designs—such as **GAA-FETs, FinFETs, and 3D NAND**—has significantly increased the **equipment intensity per wafer**, particularly in etch and deposition steps. This complexity arises as chipmakers push beyond traditional 2D scaling, moving toward 3D architectures to sustain performance improvements.

- **Lam Research**, with a dominant position in **etch**, and
- **Applied Materials**, offering a **comprehensive full-process portfolio**,

are well-positioned to capitalize on this inflection. As **Moore's Law slows**, both companies act as **mission-critical enablers** for logic and memory manufacturing.

Key tailwinds:

- Capital intensity per process node has **risen by 20–30%**,
- **WFE spending per fab is expected to significantly increase by 2026**, driven by tighter geometries and complex multilayer processes.

Moreover, both companies have strategically built **annuity-like service businesses** (~25–30% of revenue), tied to their massive installed bases. These services generate **high-margin recurring cash flows** that smooth revenue through capex cycles, strengthening both firms' financial resilience.

Thesis 2: Reshoring & CHIPS Act Subsidies Anchor Multi-Year Growth Visibility

With increasing global focus on **supply chain security**, Lam and AMAT stand to benefit from massive **policy-driven fab construction** efforts underway in the U.S., Japan, and India.

Key programs include:

- **U.S. CHIPS and Science Act** – \$52.7B in incentives,
- **Japan's METI program**, and
- **India's PLI scheme**,

all of which represent long-term commitments to semiconductor manufacturing reshoring. Collectively, these initiatives support over **\$200 billion in global WFE investment** over the coming decade.

- **AMAT**, with ~18% of revenue from North America, and
- **LRCX**, with ~22% exposure,

are ideally positioned to secure **early-phase tooling orders** from U.S.-based fabs being built by **Intel, TSMC, Samsung, and Micron**. These incentives shift the industry from traditional boom-bust capex cycles to a more **policy-anchored and regionally diversified buildout**, increasing **forecasting visibility and reducing downside volatility**.

Thesis 3: High Cash Conversion and Capital Returns Create Downside Support

Both Lam and Applied demonstrate **exceptional cash flow efficiency**, with **free cash flow margins consistently above 25%**. This cash strength is the result of lean capex (<5% of revenue), asset-light operating models, and robust service businesses.

In FY2024:

- **LRCX returned \$5.5 billion** via buybacks and dividends,
- **AMAT returned \$7.7 billion**, translating to a **shareholder yield of ~5–6%**.

This shareholder returns strategy offers **built-in downside support**, particularly during downturns, and reflects a strong alignment with long-term investors. Their clean balance sheets and low leverage enable both continued **innovation investment** and **capital distribution**, creating an attractive blend of growth and defensive characteristics.

Conclusion: Compounders Backed by Structural Tailwinds

As capital intensity rises, government funding reshapes supply chains, and capital discipline supports shareholder returns, Lam Research and Applied Materials are well-positioned to **compound value across cycles**. Their entrenched competitive positions, diversified revenue streams, and strong financial stewardship make them compelling long-term investments in the core of the semiconductor value chain

Financial Statement Analysis

Profitability Ratios

AMAT

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Return on Assets %	13.50%	18.68%	18.52%	16.65%	15.10%	15.56%
Return on Capital %	18.73%	26.25%	27.01%	23.70%	20.51%	20.76%
Return on Equity %	38.52%	51.59%	53.39%	48.04%	40.61%	35.19%
Return on Common Equity %	38.52%	51.59%	53.39%	48.04%	40.61%	35.19%

Based on the table above, here's what we can understand for Applied Medical's profitability metrics.

- Return on Assets (ROA) – The Return on Assets rose from 13.50% in 2020 to a peak of 18.68% in 2021 after which there was a steady decline to 15.10% in 2024. This early jump could reflect strong post-pandemic recovery and growth in the semiconductor industry which was then followed by pressure by the margins and a higher asset-based growth which led to a reduction in efficiency.
- Return on Capital (ROC) – The Return on Capital rose from 18.73% in 2020 to a peak of 27.01% in 2022 after which there was consistent decline to 15.10% in 2024. This could suggest that AMAT was very efficient in using their invested capital during the peak tech cycle but faced little to moderate decline due to capital expansion or reduction in profitability.
- Return on Equity (ROE) – The return on Equity rose from 38% in 2020 to 53% in 2022 after which there a decline to 40% in 2024. The high ROW indicates very good shareholder return however the decline from 2022 onwards may reflect failing margins.

LRCX

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Return on Assets %	12.60%	18.40%	20.30%	18.40%	14.40%	17.30%
Return on Capital %	16.40%	25.10%	29.60%	26.50%	19.80%	24.50%
Return on Equity %	45.70%	69.80%	74.80%	62.30%	45.70%	53.10%
Return on Common Equity %	45.70%	69.80%	74.80%	62.30%	45.70%	53.10%

Based on the table above, here's what we can understand for LAM's profitability metrics.

- Return on Assets (ROA) – The Return on Assets grew from 12% in 2020 to 20% in 2022 before tapering down to 14% in 2024. This shows strong efficient use of assets during the semiconductor boom with the decline being due to slower growth.
- Return on Capital (ROC) – Rose sharply from 16% in 2020 to 30% in 2022 after which there was a moderate decline to 20% in 2024. This showcases strong capital efficiency during the growth years but the decline could be due to recent changes in operations.

- Return on Equity (ROE) – Rows sharply from 45% in 2020 to 75% in 2022 after which there was a decline back to 45% in 2024. LRCX has delivered exceptional shareholders returns during the peak years. The symmetry seen in the ROE suggest some form on cyclical performance patterns which might be tied to industry patterns.

To compare AMAT and LRCX: -

- ROA – LRCX outperforms in 2022-2023, however AMAT is more consistent.
- ROC – LRCX peaks higher in 2022, which AMAT shows more stability.
- ROE – LRCX delivered higher shareholder returns across all years.

Solvency Ratios

AMAT

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Total Debt/Capital	35.04%	31.96%	32.34%	26.84%	25.79%	26.13%
LT Debt/Equity	53.35%	46.38%	47.11%	34.94%	30.10%	30.65%
LT Debt/Capital	34.65%	31.56%	31.87%	25.56%	22.33%	22.64%
Total Liabilities/Total Assets	52.68%	52.58%	54.37%	46.80%	44.78%	44.13%

Based on the table above, here's what we can understand for Applied Medical's Solvency metrics

- Total Debt to Capital – The trend suggests that the Total Debt to Capital ratio is declining from 35% in 2020 to 25% in 2024. This suggest that AMAT is reducing their reliance on debt financing (deleveraging), which could be a good sign of their balance sheet strength.
- LT Debt to Equity – The trend suggests that the LT Debt to Equity ratio is declining from 53% in 2020 to 30% in 2024. This again suggests that AMAT is retiring long term debt and/or increasing equity.
- LT Debt to Capital – This is reducing from 34% in 2020 to 22% in 2024, suggesting the share of capital that AMAT is financing through long term debts.
- Total Liabilities to Total Assets – This has been reducing especially since 2022, indicating that their overall reliance on leverage is falling, to enhance financial stability during downturns.

LRCX

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Total Debt/Capital	53.60%	46.20%	45.40%	39.00%	38.20%	32.00%
LT Debt/Equity	98.50%	84.80%	82.20%	63.00%	55.10%	39.20%
LT Debt/Capital	45.70%	45.60%	44.90%	38.50%	34.00%	26.70%
Total Liabilities/Total Assets	64.50%	62.10%	63.50%	56.30%	54.40%	52.40%

Based on the table above, here's what we can understand for LRCX's Solvency metrics

- **Total Debt to Capital** – The trend suggests that the Total Debt to Capital ratio is declining from 53% in 2020 to 32% in 2024. This suggests that LRCX is reducing their reliance on debt financing. Maintaining a Debt to Capital ratio of 40% is considered conservative.
- **LT Debt to Equity** – The trend suggests that the LT Debt to Equity ratio is declining from 98% in 2020 to 39% in 2024. This again suggests that LRCX is reducing long term obligations.
- **LT Debt to Capital** – This is reducing from 45% in 2020 to 26% in 2024, suggesting a shift towards growth and reduction in long-term financial risk.
- **Total Liabilities to Total Assets** – This reflects a more conservative asset structure, ties to better cash flows and retained earnings.

To compare AMAT and LRCX: -

Both companies have a similar financial strategy towards debt and are trying to move towards 1/3 of their capital financed by debt.

Operational Ratios

AMAT

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Total Asset Turnover	0.8x	1.0x	1.0x	0.9x	0.8x	0.9x
Fixed Asset Turnover	10.2x	11.3x	10.5x	9.0x	7.9x	7.7x
Accounts Receivable Turnover	6.0x	5.6x	4.5x	4.6x	5.2x	5.0x
Inventory Turnover	2.6x	3.0x	2.7x	2.4x	2.6x	2.6x

Based on the table above, here's what we can understand for Applied Medical's Operational metrics

- **Total Asset Turnover** – The total Asset Turnover peaked in 2022 after which there has been a steady decline. This suggests that AMAT was most efficiently using its assets during the semiconductor boom, however, the asset growth may have outpaced revenue recently.
- **Fixed Asset Turnover** – The Fixed Asset Turnover shows a gradual decline post 2021. This indicates reduced efficiency while utilizing fixed investments.
- **Accounts Receivable Turnover** – Shows a decline post 2020 but a slight recovery in 2023 onwards. This could suggest it takes a longer time to collect payments, potentially changing client terms or slow payments.
- **Inventory Turnover** – shows that it peaked during 2021 and then declined however, it seems to have stabilized at 2024. AMAT maintains inventory efficiency with a stable performance.

LRCX

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Total Asset Turnover	0.8x	1.0x	1.0x	1.0x	0.8x	0.9x
Fixed Asset Turnover	8.7x	10.7x	10.3x	8.8x	6.5x	7.5x
Accounts Receivable Turnover	5.7x	5.7x	4.7x	4.9x	5.6x	6.3x
Inventory Turnover	3.2x	3.4x	2.8x	2.2x	1.7x	2.0x

Based on the table above, here's what we can understand for LRCX's Operational metrics

- Total Asset Turnover – This peaks and stabilized during 2021-2023 after which there was a slight dip in 2024. This shows that LRCX was consistent in their asset utilization efficiency during its peak years.
- Fixed Asset Turnover – The Fixed Asset Turnover peaked in 2021 after which there has been a gradual decline till 2024 with a modest rebound expected in 2025. This reflects reduced efficiency in utilizing fixed investments.
- Accounts Receivable Turnover – Shows a decline in 2022 after which there has been a slight improvement. This could suggest tightening of the credit policy.
- Inventory Turnover – shows that it has a steady decline since 2021. The slower inventory movement could indicate demand slowing down or excess in their supply chain.

To compare AMAT and LRCX: -

AMAT is better at asset and inventory efficiency doing the best with its capital investments, which LRCX shows stronger receivable management which would suggest tighter credit terms and a better cash flow discipline.

Liquidity Ratios**AMAT**

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Current Ratio	3.0x	2.5x	2.2x	2.6x	2.5x	2.7x
Quick Ratio	2.0x	1.7x	1.2x	1.6x	1.7x	1.8x
Cash from Ops. to Curr. Liab.	0.9x	0.9x	0.7x	1.2x	1.0x	0.9x

Based on the table above, here's what we can understand for Applied Medical's Liquidity metrics

- Current Ratio – There has been a steady decline since 2020 but it has stabilized at over 2.5x. This indicates that AMAT has a strong buffer of current assets over its current liabilities indicating that they are highly liquid and are in a good position to maintain obligations.

- Quick Ratio – There has been decline in 2020 though it has picked and is now stabilized at over 1.5x. Even at its lowest, AMAT maintains a quick ratio over at least 1, indicating a strong sign that AMAT can meet its current obligations.
- Cash from Ops to Current Liabilities – This declined in 2020, peaked in 2022 and then stabilized. This shows that AMAT has strong cash flows that could be used to cover its short-term liabilities.

LRCX

For the Fiscal Period Ending	2020	2021	2022	2023	2024	E 2025
Current Ratio	3.4x	3.3x	2.7x	3.2x	3.0x	2.5x
Quick Ratio	2.8x	2.5x	1.7x	1.9x	1.9x	1.6x
Cash from Ops. to Curr. Liab.	0.7x	1.0x	0.7x	1.2x	1.1x	0.8x

Based on the table above, here's what we can understand for LRCX's Liquidity metrics

- Current Ratio – There has been a slight downturn however, the current ratio is well over 2x. This suggests high liquidity and excellent working capital management.
- Quick Ratio – There has been a decline since 2021 but the ratio is still well over 1.0x. This suggest that excluding inventory, LRCX has sufficient funds to cover its short-term obligations.
- Cash from Ops to Current Liabilities – This has been consistently strong in 2021-24. This shows that cash flows generating from operations has been sufficient to cover current liabilities.

To compare AMAT and LRCX: -

LRCX has a strong liquidity buffer overall, especially during 2020-2024. Both firms maintain healthy liquidity which exceeds the industry benchmarks and are well in hand to meet short term liabilities.

Valuation - LRCX

DCF with 10-year projection period

We valued LRCX using a 10-year DCF model to arrive at a 12- month target price of \$89.71 per share, representing a 20.38% upside from LRCX’s closing price of \$74.52 on May 2, 2025.

Revenue growth

LRCX is a leading supplier of wafer fabrication equipment and services to the semiconductor industry. Its growth has historically been correlated with growth in the US information technology sector. We forecast growth in the business at a 11.54% CAGR to reflect our view on the strong demand for semiconductors fueled by rapid growth in AI workloads and the expanding IoT and edge device ecosystem, boosting chip volume demand. We believe LRCX’s growth will be driven through advancements in semiconductor manufacturing, particularly in smaller nodes and memory scaling. The increasing demand for advanced chips and memory technology supports LRCX’s critical position in the supply value chain. Additionally, rising WFE spending, along with geopolitical initiatives like the CHIPS Act, expands its total addressable market. Ongoing investments in memory fabs to meet growing demand for semiconductor capacity further bolster LRCX’s growth prospects.

WACC

WACC: LRCX is moving towards its target leverage ratio, using a cost of equity of 10.48% with an after-tax cost of debt of 4.48%. This implies a WACC of 10.27% (Figure 17). **This is conservative in relation to Damodaran’s industry average cost of capital for semiconductor equipment of 11.01%.** The implied cost of equity of 10.48%, is relatively lower than LRCX’s average return on equity of 30.38%, reflecting strong real returns generated by the company.

Terminal growth and exit multiple

We assumed a terminal growth rate of 3% to reflect secular demand tailwinds in the semiconductor industry to continue supporting long-term structural growth in cloud computing and the Internet of Things (IoT). These trends should drive sustained investment in advanced semiconductor manufacturing. Our chosen exit multiple is 18x which is a discount to LRCX’s historical 5-year EV/EBITDA multiple of 23x (Figure 18). As a result of LRCX’s attractive free cash flow generation potential and competitive moat, we believe LRCX should trade closer to its all-time high.

Figure 15: Valuation Football Field

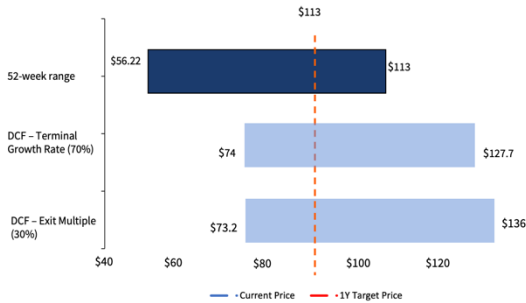


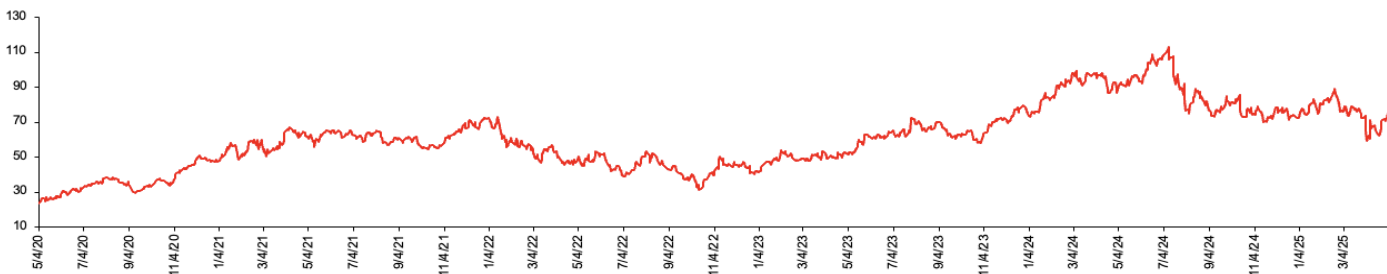
Figure 16: Revenue Growth



Figure 17: WACC Buildup

Pre-tax Cost of Debt	5.1%
Tax Rate	12.2%
After-tax Cost of Debt	4.48%
Risk Free Rate	4.16%
Market Risk Premium	4.0%
Beta	1.58
Cost of Equity	10.48%
WACC	10.27%
Net Debt	4.98B
Market Value of Equity	104B
Enterprise Value	114B

Figure 18: NasdaqGS: LRCX 5Y – Share Pricing



Valuation - AMAT

DCF with 10-year projection period

We valued AMAT using a 10-year DCF model to arrive at a 12- month target price of \$193.26 per share, representing a 20.38% upside from AMAT’s closing price of \$155.04 on May 5, 2025.

Revenue growth

Applied Materials plays a critical role in the semiconductor ecosystem, offering process equipment tailored to the evolving needs of logic and memory manufacturers. We project revenue to grow at a 8.42% CAGR through FY2034, supported by strong demand for semiconductors driven by the rise of AI, cloud computing, and edge devices. AMAT’s diversified customer base positions it to benefit from a rebound in memory capital expenditures and continued investment in advanced logic technologies. The company is also expanding into advanced packaging through hybrid bonding, which is expected to become a key enabler of next-generation chip designs. Analysts estimate hybrid bonding could capture 20–30% of advanced chip packaging by 2030, driven by demand for AI and high-performance computing chips. Rising wafer fab equipment (WFE) spending and structural tailwinds from government policies such as the CHIPS Act further expand AMAT’s addressable market. With approximately 50 new fabs expected globally over the next two years and long-term drivers like IoT and automotive electronics, AMAT is well-positioned to capitalize on both cyclical recovery and secular semiconductor growth.

WACC

WACC: AMAT’s WACC reflects its low financial leverage, using a cost of equity of 10.16% and an after-tax cost of debt of 4.28%. This results in a blended WACC of 9.86%, based on a capital structure of 94.95% equity and 5.05% debt. This is slightly below Damodaran’s estimated industry average WACC of 10.5% for U.S. semiconductor equipment companies. The implied cost of equity of 10.16% is materially lower than AMAT’s FY2024 return on equity of 40.6%, highlighting substantial value creation.

Terminal growth and exit multiple

We assumed a terminal growth rate of 3.0% to reflect enduring secular demand for semiconductors, supported by sustained investment in artificial intelligence, cloud infrastructure, and edge computing. These structural trends underpin long-term revenue expansion across logic, memory, and advanced packaging markets. Our selected exit multiple of 18x EV/EBITDA represents a premium to AMAT’s historical 5-year average of 15.9x, which we view as conservative given the company's strong fundamentals and improved end-market positioning. The discount embedded in the historical multiple may stem from cyclical uncertainty or past memory-driven volatility, but as capital intensity rises across both logic and memory and AMAT expands into advanced packaging, its earnings base is becoming structurally stronger. With a mid-30s operating margin profile and return on equity consistently above 30%, the company’s fundamentals warrant a valuation multiple at or above industry peers. As such, our 18x terminal multiple reflects a balanced view—acknowledging macro risks while allowing for upside if secular growth driveraccelerate beyond base-case expectations.more quickly than expected.

Figure 19: Valuation Football Field

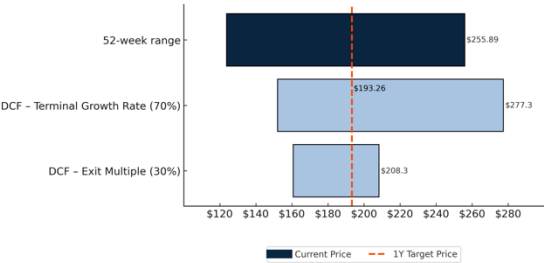


Figure 20: Revenue Growth

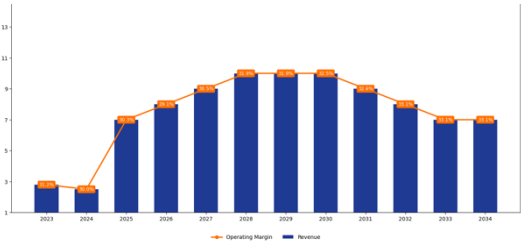


Figure 21: WACC Buildup

Pre-tax Cost of Debt	4.92%
Tax Rate	13.0%
After-tax Cost of Debt	4.28%
Risk Free Rate	4.16%
Market Risk Premium	4.0%
Beta	1.50
Cost of Equity	10.16%
WACC	9.86%
Net Debt	6.58B
Market Value of Equity	158B
Enterprise Value	156B

Figure 22: NasdaqGS: AMAT – Share Pricing



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