

Technology Hardware

September 2025



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Sector Overview

The Technology Hardware sector is the backbone of the global digital economy, covering the design, manufacturing, and distribution of the physical infrastructure that powers computation, connectivity, and automation. Unlike software, it is capital-intensive, cyclical, and highly dependent on consumer demand, business investment, and government support.

Beyond consumer products, hardware underpins critical systems in data centers, telecommunications, transportation, and industrial manufacturing. Historically, it has driven technological revolutions such as personal computing in the 1980s, smartphones in the 2000s and the current boom of AI, cloud infrastructure, next-generation connectivity, electric vehicles, industrial automation, and immersive technologies such as augmented and virtual reality.

Semiconductors at the Core

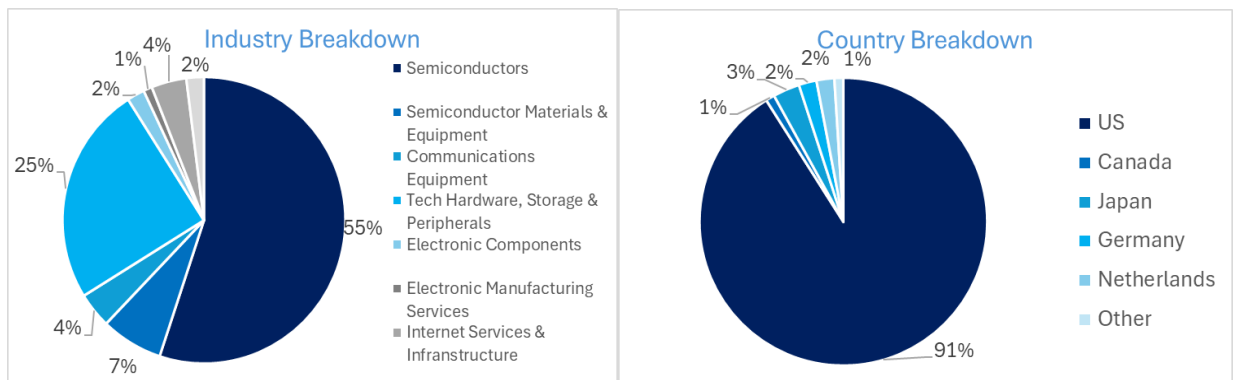
Semiconductors, the “organs” of modern electronics, lie at the heart of the sector. Advances in chip architecture, fabrication, and equipment production drive faster processing, greater storage, and more energy-efficient systems. With a 33.76% weight in the MSCI World Information Technology Index (USD), semiconductors are central to AI, cloud computing, next-generation connectivity, electric vehicles, and immersive technologies.

Market Size and Growth

The computer hardware market is growing steadily, from \$714.77 billion in 2024 to an estimated \$760.98 billion in 2025, representing a 6.5% CAGR. Hardware companies account for over 60% of the \$20.468 trillion MSCI World Information Technology Index market capitalization, with Nvidia (\$4.34 trillion) and Apple (\$3.12 trillion) among the largest. The top 10 companies hold 70.53% of the sector’s weight, highlighting its concentration.

Geographical Exposure

The sector is heavily U.S.-centric (91.63% country weight), exposing it to geopolitical and supply chain risks, although Japan, Germany, the Netherlands, and Canada contribute to global supply. The current AI investment boom is driving unprecedented demand for high-performance chips and infrastructure but also increases sensitivity to macroeconomic shifts and policy changes.



Subsectors and Performance Indicators

Hardware can be broadly divided into two categories: End User Hardware and Semiconductor Supply Chain, separating the industry into the consumer facing side and the upstream infrastructure side that enables innovation, respectively.

End User Hardware

Computer Hardware

Manufacturers of PCs, servers, workstations, and peripherals such as monitors, keyboards, and printers, serving both consumer and enterprise markets.

Key Players: **Dell, HP, Lenovo**

KPIs: *Global PC shipments, Server shipment growth, Enterprise IT spending*

Storage Devices

Firms producing hard disk drives (HDDs) and solid-state drives (SSDs) for consumer, enterprise, and cloud applications.

Key Players: **Micron, Seagate, Western Digital**

KPIs: *NAND/DRAM pricing, Data center storage demand, Cloud provider CapEx*

Consumer Electronics

Producers of smartphones, tablets, laptops, TVs, and wearables for everyday consumer use.

Key Players: **Apple, Samsung, Sony**

KPIs: *Global smartphone/PC shipments, Consumer demand indices, Replacement cycle length.*

Networking Equipment

Manufacturers of routers, switches, modems, and fiber optic components for global connectivity.

Key Players: **Cisco, Huawei, Lumentum**

KPIs: *Telecom CapEx, Broadband penetration, Network traffic growth*

Industrial Automation & Robotics

Companies producing programmable logic controllers (PLCs), robotics, and sensors for industrial automation.

Key Players: **Siemens, Fanuc, ABB**

KPIs: *Global manufacturing CapEx, Robot installation rates, Labor cost indices*

Audio & Visual Equipment

Firms producing headphones, speakers, microphones, projectors, and AR/VR headsets.

Key Players: **Bose, Sennheiser, Cirrus Logic**

KPIs: *AR/VR headset shipments, Consumer electronics spending, Entertainment device adoption rates*

Semiconductor Supply Chain

This can be segmented into those who supply the tools needed for manufacturing, those who create the designs, and those who do the actual manufacturing of chips.

Semiconductor Equipment - (Provide tools/machinery to manufacture)

Companies producing machinery and tools for chip and wafer fabrication. This process is made up of eight steps including lithography, etching, deposition, and inspection systems, each of these require different machinery and different companies specialise in different steps of this process, for example ASML has a monopoly on the machinery for photolithography.

Key Players: ASML, Applied Materials, Tokyo Electron

KPIs: *Equipment shipments, Advanced node tool adoption, CapEx by semiconductor manufacturers*

Fabless Manufacturers (Create entire chip design)

Companies that design semiconductor chips but outsource manufacturing to specialized foundries.

Key Players: NVIDIA, AMD, Qualcomm

KPIs: *Chip design adoption, Revenue from licensing/IP, Market share of leading designs*

Architecture/IP Core Providers (Create reusable blocks used within design)

Firms that own and license chip architectures or intellectual property, creating foundational designs and standards used by various manufacturers. (Do not make entire chip designs, just reusable blocks such as GPU cores)

Key Players: ARM, Intel, Imagination Technologies

KPIs: *Licensing revenue, Adoption of architecture, Number of IP cores deployed*

Pure Foundries (Manufacturers)

Companies specializing in manufacturing chips designed by other firms; they do not design chips themselves.

Key Players: TSMC, GlobalFoundries, Samsung

KPIs: *Wafer capacity utilization, Revenue from contract manufacturing, Advanced node production share*

Integrated Device Manufacturers (IDMs – Design and manufacture)

Firms that design and manufacture their own chips in-house, managing the full process from design to fabrication.

Key Players: Samsung, SK Hynix, Texas Instruments

KPIs: *In-house production volume, Revenue from proprietary chips, Advanced node adoption.*

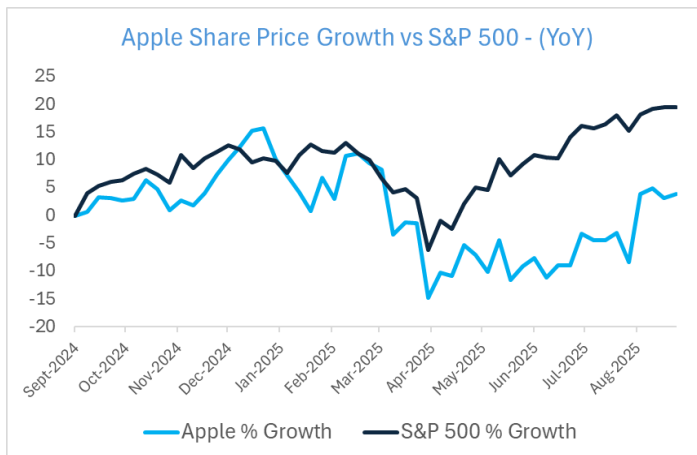
Current Holdings

Apple(NASDAQ: APPL)

Apple remains one of the world’s largest technology company, with a resilient ecosystem spanning hardware, software, and services. Its consumer product cycles continue to dominate revenue, while growth increasingly stems from Services (iCloud, App Store, Apple Music) and emerging categories such as AR/VR (Vision Pro).

Investment Thesis

- **Recurring revenue and customer loyalty** - Apples services and products foster remarkable customer loyalty, especially regarding iPhone's where apple brags an impressive 92% retention rate among iPhone customers. This is especially important when considered alongside the fact that in Q1 2024 iPhone sales accounted for approximately 50.65% of apple’s total revenue.
- **Innovation Pipeline** - While iPhone sales are plateauing in China, Apple’s Vision Pro headset and integration of “Apple Intelligence” (AI features) point to diversification beyond smartphones. Also, expansion in India will mitigate the China plateau as Apple capture more of the consumer base there with rapidly expanding size of the middle class and purchasing power.
- **Valuation & Risk** - At a forward P/E of 28.74x , up from the average of about 21x over the last 10 years, Apple trades at a premium, with risks stemming from weak Chinese demand, regulatory scrutiny in the U.S./EU, and declining replacement cycles (2 years now becoming 3-4 years).



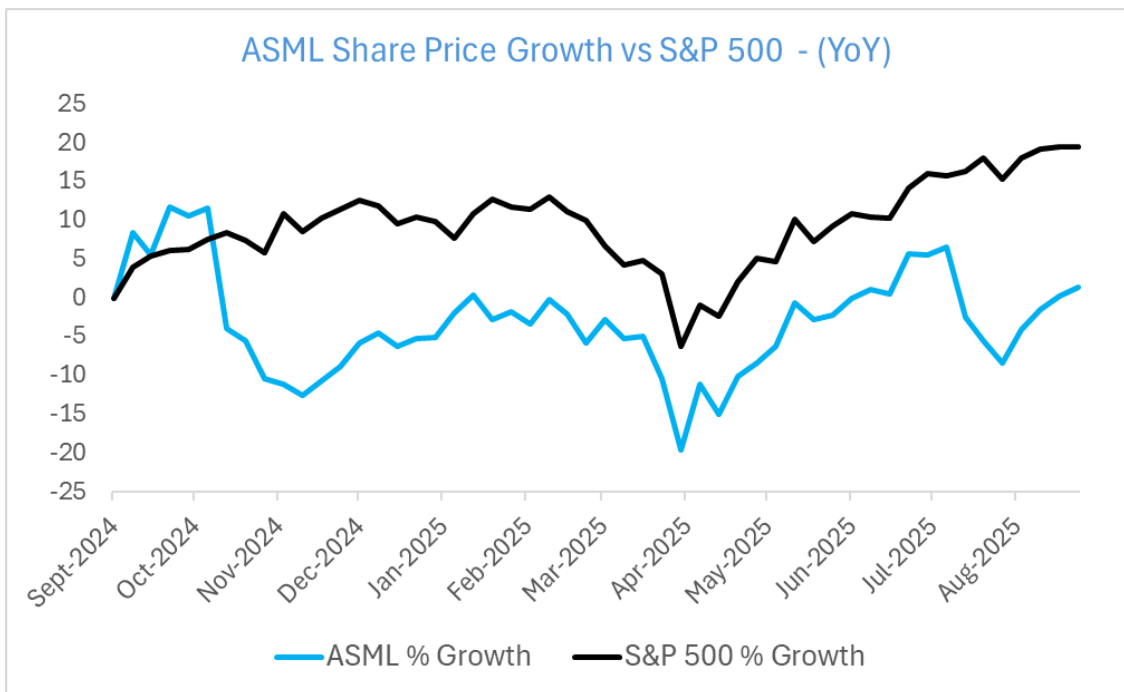
Apple’s stock this year started well as it rose from \$227.94 in August 2024 to a high of \$260.10 in December 2024 but fell after three major events: the "Liberation Day" tariffs in April 2025, which threatened Apple’s Chinese manufacturing and caused an 8.8% drop; concerns over incremental iPhone 17 upgrades and slow AI adoption, prompting an analyst downgrade; and ongoing geopolitical tensions affecting global supply chains. Offsetting these declines, gains were supported by strong iPhone 17 preorders, positive AI hardware outlook, and Apple’s \$600 billion U.S. Investment commitment .

ASML (ENXTAM: ASML)

ASML is the anchor of global semiconductor manufacturing, being a company that is one of the rare few to have a monopoly. They hold this monopoly in EUV lithography equipment, required for leading-edge chips (sub-5nm). Demand is structural, as foundries expand AI-capable fabrication capacity.

Investment Thesis

- **Unrivaled Monopoly** - ASML controls 100% of the EUV lithography market, making it indispensable for firms like TSMC, Intel, and Samsung. Barriers to entry are nearly insurmountable given the complexity of EUV systems and the massive capital needed for each machine with the most advanced High-NA EUV lithography machines costing about \$400 million.
- **AI-Driven Demand** - Expansion of high-performance computing, AI training, and advanced foundry builds is driving record CapEx orders, ensuring multi-year revenue visibility.
- **Geopolitical Risk Manageable** - While U.S. export controls limit sales to China, demand from fabs located elsewhere more than offsets this risk. Subsidies in Europe, the U.S. (Chips Act), and Japan also support long-term resilience.



As seen here, it has been a relatively volatile year for ASML, with declines driven by disappointing Q3 2024 earnings (lowering the 2025 sales outlook) and market weakness around Liberation Day in April 2025. However, while not performing as well as the S&P 500, the stock has since rebounded, delivering positive year-on-year growth.

Global Outlook

The global outlook for the technology hardware sector is being shaped by two dominant forces: the acceleration and sustainability of the AI super cycle, and the changing dynamic of geopolitics in determining supply chains, valuations, and competitive positioning.

AI Buildout – What innings are we in?

AI remains the dominant catalyst within the technology hardware sector, influencing both near-term growth and longer-term market expectations. Nvidia project that large AI companies could spend \$3-4 trillion on infrastructure over the next 5 years, and that Nvidia could capture up to 70% of that TAM. AI system supply continues to lag demand, with bottlenecks at TSMC, in HBM and some switches. The market has concerns that demand will eventually peak or start to slow. There is also the China risk posed by DeepSeek's UE8M0 FP8 potential ecosystem. The broader question the market is asking is where do we currently stand within the AI super cycle? Many technology hardware stocks currently have huge forward earnings multiples and are very sensitive to any negative news or sentiment. With this being said, it remains true that with most of the market's megacaps in this sector, there are very limited options for investors to leave for other sectors which offer both growth and scale.

Geopolitical Dynamics and Foundry

The geopolitical backdrop for the semiconductor subsector is increasingly defined by the strategic importance of foundries and the extent of U.S. government intervention. The CHIPS Act in 2020 marked the beginning of a concerted push by the U.S. to incentivise advanced foundry capacity on U.S. soil, primarily to ensure the security of supply chains and to hedge against geopolitical risk, particularly regarding China-Taiwan tensions. Since the rise of generative AI applications such as ChatGPT, and now under the direction of the Trump administration, these efforts have accelerated sharply. The administration's extraordinary recent decision to take a 10% stake in Intel defines this shift, characterising a move which would likely have been viewed as unthinkable only a year ago. This change in policy direction may have significant implications for valuations across the technology sector, with stock performance now shaped as much by geopolitical manoeuvring as by earnings expectations. The competitive landscape remains dominated by TSMC, with Samsung seeking to recover their position of 3 or 4 years ago, while U.S. policy looks to position Intel as its national champion. Within this environment, the foundry business is thus increasingly exposed to both risks and opportunities on the back of changing geopolitical catalysts.

Sector Drivers

AI Growth

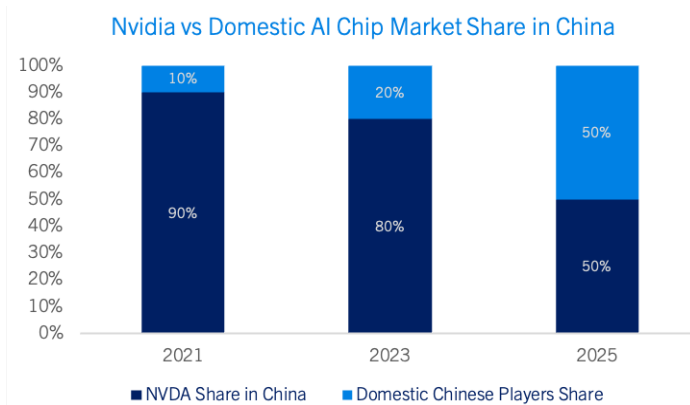
As mentioned previously, AI remains the key driver of the technology hardware sector. In particular, the accelerating maturity of the AI super cycle is now the dominant force within the tech landscape.

AI workloads demand vast, ultra-fast compute capacity, propelling increased adoption of high-performance GPUs (notably Nvidia's Blackwell and Hopper lines), custom accelerators, networking infrastructure, and AI-optimised servers, pressuring global supply chains and reshaping capex priorities across the sector. While advanced GPUs remain the backbone of AI infrastructure, early exploration of alternative architectures such as photonic and neuromorphic systems points to diversification.

China

China's push to develop its own AI platform is emerging as a key sector driver. The potential development of DeepSeek's UE8M0 FP8 ecosystem would allow domestic platforms to scale rapidly, with progress in local compute, foundry capacity and accelerator design threatening to alter global TAM expectations, particularly for firms such as Nvidia.

While still constrained by leading-edge technology access, momentum in China's AI ecosystem introduces a structural risk to incumbent earnings projections and global market share assumptions.



Cyclicality

Cyclicality remains a core driver of the Tech Hardware sector, reflecting its capital intensity and sensitivity to shifts in demand. As of Q3 2025, the industry is positioned within the middle stages of an upcycle, supported by AI-driven infrastructure buildouts and renewed momentum in memory pricing. The DRAM market in particular has moved decisively into recovery, with supply discipline and surging AI workloads reinforcing expectations of a multi-year super cycle.

Investment Themes

ASICs

ASICs (Application-specific integrated circuits) are emerging as a key investment theme within the tech hardware sector, underpinned by surging demand for advanced packaging such as CoWoS (Chip-on-wafer-on-substrate), which could see growth of up to 50% YoY in 2026. Broadcom (AVGO) appears well positioned, benefiting from an expected significant ramp at Meta, while Taiwanese suppliers like Mediatek and Alchip are set to capture additional share as hyperscalers seek to diversify supply chains. Much of the ASIC opportunity is being driven by companies who want to lessen their dependence on Nvidia (and their monopoly profits). But also, smaller firms see opportunities to develop their smaller targeted models with their own specific silicon.

Accelerated IPO Volumes

The IPO market has regained momentum after a volatile start to FY2025. It opened the year strong before slowing amid the market sell-off and the introduction of 'Liberation Day' tariffs, but growth accelerated meaningfully in Q3, driving year-to-date deal volume up 59% YoY. Looking ahead, a robust pipeline is expected into Q4 as companies move to capitalize on strong demand and renewed investor risk appetite. AI-related listings have been particularly notable, with CoreWeave (CRWV) pricing at \$40 per share and rallying more than 50% in its first week, while Figma (FIG) surged from its \$33 IPO price to close its first trading day near \$115.

Use Cases

Despite heightened uncertainty tied to Trump's trade war, AI adoption is pushing ahead rapidly as companies race to scale infrastructure and avoid falling behind competitors. The Mag 7 have guided FY2025 capex nearly 58% higher YoY to roughly \$380bn following Q2 2025 results, with consensus estimates now 15.5% above pre-Q1 2025 levels and projecting continued growth through 2028. Beyond tech, enterprises across finance, healthcare, and manufacturing are also ramping spend, suggesting AI investment is broadening well outside hyperscalers. McKinsey has identified 63 core AI use cases today, but the list is expanding rapidly, with generative AI, autonomous systems, and AI-driven productivity tools set to unlock hundreds more. Importantly, the investment is not just in hardware but also in energy and data centre infrastructure, with power constraints and supply chain bottlenecks increasingly shaping deployment timelines. The result is an arms race dynamic: companies are willing to invest heavily even in an uncertain macro backdrop, betting that the long-term productivity gains from AI will outweigh near-term volatility.

Risks

- 1) Escalating geopolitical tensions
- 2) Government Policy and industrial fragmentation
- 3) Extreme supply chain concentration
- 4) Critical human capital deficits

1 - Escalating geopolitical tensions:

At the core of the current industry turbulence is the intensifying geopolitical rivalry between the United States and China. The cause of this tension can be traced back to a desire for technological and economic dominance between the two nations, with the semiconductor industry emerging as the decisive battleground between these two titans of power. This rivalry has led to a strategic weaponization of the semiconductor industry. The US government has already issued multiple export-restrictions, these are targeted measures aimed as part of a broader strategy to slow Chinese progress towards self-sufficiency in the semiconductor industry.

This struggle for control has inadvertently drawn many other countries into this hybrid conflict for control including most notably the Netherlands, home to ASML, the sole manufacturer of the most critical extreme ultraviolet (EUV) lithography machines. With increasing pressure on the Netherlands to limit exports to China, this power struggle places a significant strain on international collaboration.

The pivotal role of Taiwan in the semiconductor ecosystem further exposes the cracks in the security of this sector. Taiwan Semiconductor Manufacturing Company (TSMC) produces over 50% of the World's chips, however more critically, the island nation is home to over 92% of the industry's advanced manufacturing capacity for the most advanced "technologically critical" semiconductor chips.

This arguably makes Taiwan "the single point of failure" for the entire world's economy and critical infrastructure. Hence, concerns over a potential conflict with its hostile neighbor China which views the island democracy as a rogue breakaway region and who's politicians have long promised to bring back into the Chinese sphere of influence, openly stating with no hesitancy that they would resort to military action if necessary.

Concerns over a potential conflict have prompted companies such as TSMC to move their operations further afield by building major manufacturing facilities in Japan and most notably in Arizona, USA. However, they do appear very reluctant to move abroad their most advanced manufacturing capabilities as this global reliance is often referred to as the island nation's "silicon shield" as due to the immense reliance of western nations on Taiwan's technology they would be obligated out of economic self-interest to involve themselves in a military conflict with China to ensure the survival of the island nation.

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2 - Government policy and Industrial fragmentation

In response to the aforementioned vulnerabilities, governments worldwide from Berlin to Beijing have initiated significant policy enactments to reshape the industry.

The most well-known of which would be the US CHIPS Act, which provided tens of billions of dollars to incentivize companies to boost their domestic chip manufacturing and production in the United States and to diversify from the East Asian chokehold of the Taiwanese strait. Similar incentives were also seen from the European Union's own "Chips Act" as well as Japan's own version, all of which aim to achieve the same binary outcome, reduce the world's dependence on Taiwanese manufacturing capabilities.

However, while on the surface this appears as a very reasonable and well-meaning western initiative it also introduces a new layer of risk into the industry. The industry is creeping slowly but surely from a model optimized for global efficiency to one which prioritizes national security and resilience. Research from the Boston Consulting Group discovered that a fully sufficient local supply chain in each region would lead to the overall price for chips increasing by 35% to 65%.

This would suggest that the pursuit of national resilience comes at the cost of traditional economies of scale, potentially leading to higher costs for consumers of these chips and creating far-reaching complex logistical obstacles for companies. The potential modification of existing policies by changing administrations in the United States poses significant policy risks to companies contemplating multi-billion-dollar investments.

This coupled with the possibility of new tariffs on the semiconductor manufacturing industry further complicates the financial outlook for the sector and could force companies to either absorb higher costs in the short term or pass them on to consumers. The absence of a stable and clear policy framework introduces a new degree of uncertainty that did not previously exist, especially in relation to the United States, which complicates long term strategic planning for capital intensive projects.

3- Supply Chain Vulnerabilities and Concentration Risk

The sector's supply chain stands out among other sectors as one of extreme geographical concentration with an aforementioned "single point of failure" that could be disrupted not only by Chinese military aggression but also by less malignant events such as natural disasters, domestic political upheaval, or infrastructure shutdowns. It is important to note that the island of Taiwan alongside key sector powerhouse South Korea are located in a region highly susceptible to seismic activity and geopolitical tensions excluding China, including an increasingly more desperate and dangerous regime in North Korea. This risk is particularly consequential for the most advanced chips (nodes under 10nm) where 100% of the global supply chains capacity is located within a highly confined geographical pocket.

This concentration makes the industry exceptionally vulnerable to events such as the 7.4 magnitude earthquake which struck Taiwan in April 2023, which forced major manufacturers to evacuate facilities and raised long term strategic concerns about future production continuation. This all takes place to the backdrop of increasingly frequent and more severe climate-related events, such as the droughts in Taiwan which have affected the supply of ultra-pure water needed for manufacturing, further increasing associated vulnerabilities.

4- Critical human capital deficit

Despite the industries immense growth, there is a significant and intensifying global talent shortage which poses a long-term threat to innovation and operational stability. According to analysts the USA faces a projected 67'000 workers shortfall in the semiconductor industry by 2030. This deficit is compounded by an ageing workforce, particularly in the US and Europe, making it difficult for companies to attract and retain necessary talent. This also has very far-reaching impacts on government reshoring initiatives as they simply do not have the workforce to run many planned manufacturing facilities. There appears to be a fundamental disconnect between the policy-driven ambition to expand domestic manufacturing and the practical reality of a human capital deficit needed to staff these new facilities. This would imply that without a parallel investment in workforce development and government initiatives to attract talent, the intended short-term benefits of reshoring may not materialize as quickly as anticipated due to a lack of individuals with the necessary skillsets.

Case Study: Micron Technology (NASDAQ : MU)

Micron Technology is a traditional leader in memory chip manufacturing , it is at a crucial strategic inflection point, moving beyond its historical exposure to the semiconductors industries cyclical nature. Fuelled by an unprecedented demand for AI technology ,

Micron is strategically transforming its business model.

The semiconductor market is undergoing a significant structural change, with growth being driven disproportionately by the AI sector. This explosive growth of AI industry is creating a massive demand for advanced memory solutions , a need that traditional NAND and DRAM products simply cannot meet.

Micron has capitalised on this expected industry requirement by focusing extensively on HBM (high bandwidth memory).The company has publicly stated that its entire HBM supply for 2025 is already sold out on existing orders , demonstrating extreme demand. This tight supply has allowed Micron to command higher prices, with margins for HBM projected to be around 55%-60% , a significant increase compared to the margins of traditional memory components made by Micron.

This is also all occurring against recent claims by Micron that their leading HBM product consumes 30% less energy than its nearest competitor's products which would be a massive incentive for buyers as cooling and energy comprises a significant amount of data centres costs.

Beyond its technological pivot Micron is also implementing a major reshoring strategy to mitigate the risks associated with geographically concentrated supply chains. Micron is currently implementing a massive US expansion plan , supported by federal funding from the CHIPS Act , the initiative includes the construction of two leading edge manufacturing plants in Idaho and up to four in New York , with a total US infrastructure investment of up to \$200 billion.

The company's goal is to produce 40% of its DRAM products in the United States which is expected to enhance domestic supply while also strengthening national security by reducing international dependency.

Micron is a perfect example of a company in this sector which is successfully navigating the delicate strategy of coupling technological innovation with strategic operational restructuring.

The company's dominance in the high-value HBM market has already translated into record breaking financial performance and the company is positioning itself to be a crucial enabler of future AI development.

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References

(1) MSCI. (2024). MSCI World Information Technology Index (USD).

Chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.msci.com/documents/10199/69aaf9fd-d91d-4505-a877-4b1ad70ee855

(2) The Business Research Company. (2025, March). Computer Hardware market report.

<https://www.researchandmarkets.com/reports/5781320/computer-hardware-market-report>

(3) Euro news. (October 2024) ASML shares plunge 15.7% after early earnings leak, worst drop since IPO

<https://www.euronews.com/business/2024/10/15/asml-shares-plunge-157-after-early-earnings-leak-worst-drop-since-ipo>

(4) ASML (October 2023) 6 Crucial Steps in Semiconductor Manufacturing

<https://www.asml.com/en/news/stories/2021/semiconductor-manufacturing-process-steps>

(5) Business of Apps (August 2025) Apple Statistics 2025.

<https://www.businessofapps.com/data/apple-statistics/>

(6) Investing.com (2025) Apple/ASML/S&P 500 price stats

<https://www.investing.com/equities/apple-computer-inc-historical-data>

(7) Deloitte 2025 Global semiconductor industry outlook

<https://www.deloitte.com/us/en/Industries/tmt/articles/2025-global-semiconductor-industry-outlook.html>

References cont'd

(8) Morningstar Global semiconductor industry outlook 2025

<https://dbrs.morningstar.com/research/446004/global-semiconductor-2025-outlook-carrying-over-momentum-from-2024>

(9) KPMG global semiconductor industry outlook 2025

<https://kpmg.com/kpmg-us/content/dam/kpmg/pdf/2025/global-semiconductor-industry-outlook-2025.pdf>

(10) Semiconductors.org global sector outlook report

<https://www.semiconductors.org/strengthening-the-global-semiconductor-supply-chain-in-an-uncertain-era/>

(11) Ciaccia, C. (2 June, 2025), Broadcom pops as Morgan Stanley expects ASIC growth inflection, *Seeking Alpha*, <https://seekingalpha.com/news/4454387-broadcom-pops-as-morgan-stanley-expects-asic-growth-inflection>

(12) Ostian, J. (18 August, 2025), The Semiconductor Investment Landscape: Demand Will Grow, But Cycles Define The Game, *Seeking Alpha*, <https://seekingalpha.com/article/4814526-the-semiconductor-investment-landscape-demand-will-grow-but-cycles-define-the-game>

(13) Yee, L., Chui, M., Roberts, R., Smith, S. (22 July, 2025), McKinsey Technology Trends Outlook 2025, *McKinsey*, <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-top-trends-in-tech>

(14) Tech war: DeepSeek's 'UE8M0 FP8' innovation seen as boost for China's AI self-sufficiency (22 August, 2025), *South China Morning Post*, <https://finance.yahoo.com/news/tech-war-deepseeks-ue8m0-fp8-093000816.html>

(15) Struta, I. (22 July, 2025), Tech IPOs on track for 2025 rebound from post-pandemic slump, *S&P Global*, <https://www.spglobal.com/market-intelligence/en/news-insights/articles/2025/7/tech-ipos-on-track-for-2025-rebound-from-postpandemic-slump-91528068>

(16) Hansen, S. (25 August, 2025), The IPO Market Is Heating Up. Here's What Investors Should Be Watching, *Morningstar*, <https://www.morningstar.com/markets/ipo-market-is-heating-up-heres-what-investors-should-be-watching>