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2025 global semiconductor industry outlook

Chip sales are set to soar in 2025, led by generative AI and data center build-outs, even as demand from PC and mobile markets may remain muted

The semiconductor industry had a robust 2024, with expected double-digit (19%) growth, and sales of US$627 billion for the year.[1] But that's even better than the earlier forecast of US$611 billion.[2] And 2025 could be even better, with predicted sales of US$697 billion,[3] reaching a new all-time high, and well on track to reach the widely accepted aspirational goal of US$1 trillion in chip sales by 2030. This suggests the industry only needs to grow at a compound annual growth rate of 7.5% between 2025 and 2030 (figure 1).[4] Assuming the industry continues to grow at that rate, it could reach US$2 trillion in 2040.

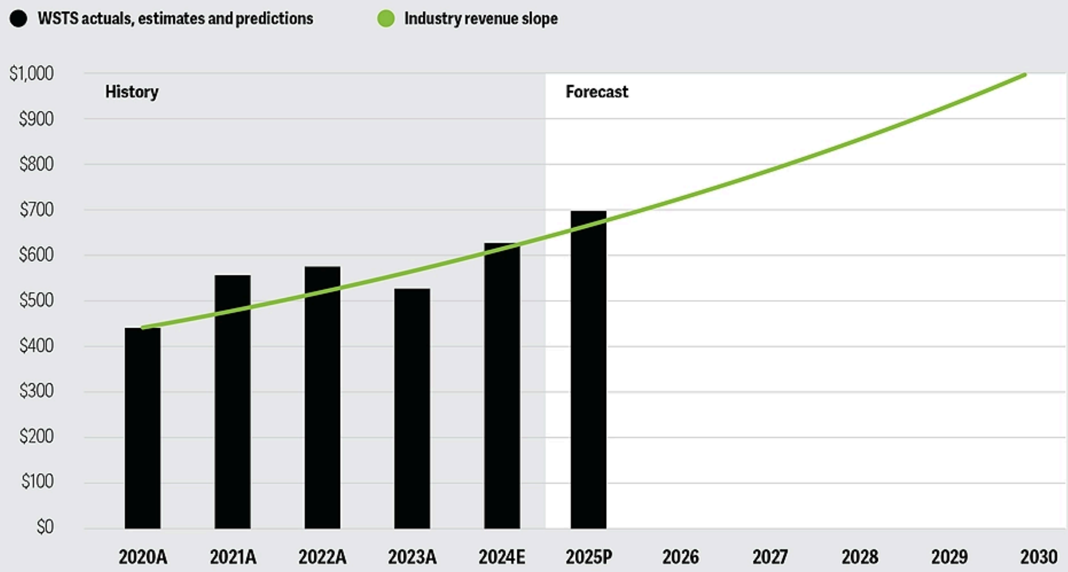
The stock market is often a leading indicator of industry performance: As of mid-December 2024, the combined market capitalization of the top 10 global chip companies was US$6.5 trillion—up 93% from US$3.4 trillion in mid-December 2023 and 235% higher than the US$1.9 trillion seen in mid-November 2022.[5] That said, it is worth noting that "average" chip stock performance in the last two years has been a "tale of two markets": Companies involved in the generative AI chip market outperformed that average, while companies without that exposure (automotive, computer, smartphone, and communications semiconductor companies, for example) underperformed.[6]

One driver of industry sales has been the demand for gen AI chips: a mix of CPUs, GPUs, data center communications chips, memory, power chips, and more. **Deloitte's 2024 TMT Predictions report** predicted that those gen AI chips collectively would be worth "more than" US$50 billion,[7] which was a much too conservative forecast, as the market was likely worth over US$125 billion in 2024—and represented over 20% of total chip sales for the year.[8] At the time of publication, we predict that gen AI chips will be over US$150 billion in 2025.[9] Further, Lisa Su, chief executive officer at AMD, moved her estimate for the total addressable market for AI accelerator chips up to US$500 billion in 2028—a number larger than sales for the entire chip industry in 2023.[10]

Figure 1

Revenues indicate the possibility of the chip industry hitting US$1 trillion in 2030

The path to $1 trillion in semiconductor revenues ($Billions)



Note: A = Actual, E = Estimate, P = Prediction.
Source: Deloitte analysis and extrapolation based on data from World Semiconductor Trade Statistics.

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In terms of end markets, after being flat at around 262 million units over 2023 and in 2024, PC sales are expected to grow in 2025 by over 4% to about 273 million units.[11] Meanwhile, smartphone sales are expected to grow at low single digits in 2025 (and beyond) to reach an estimated 1.24 billion units in 2024 (6.2% year-over-year growth).[12] These two end markets are important for the semi industry: In 2023, communication and computer chip sales (which include data center chips) made up 57% of overall semiconductor sales for the year compared to auto and industrial (which accounted for only 31% of sales combined, for example).[13]

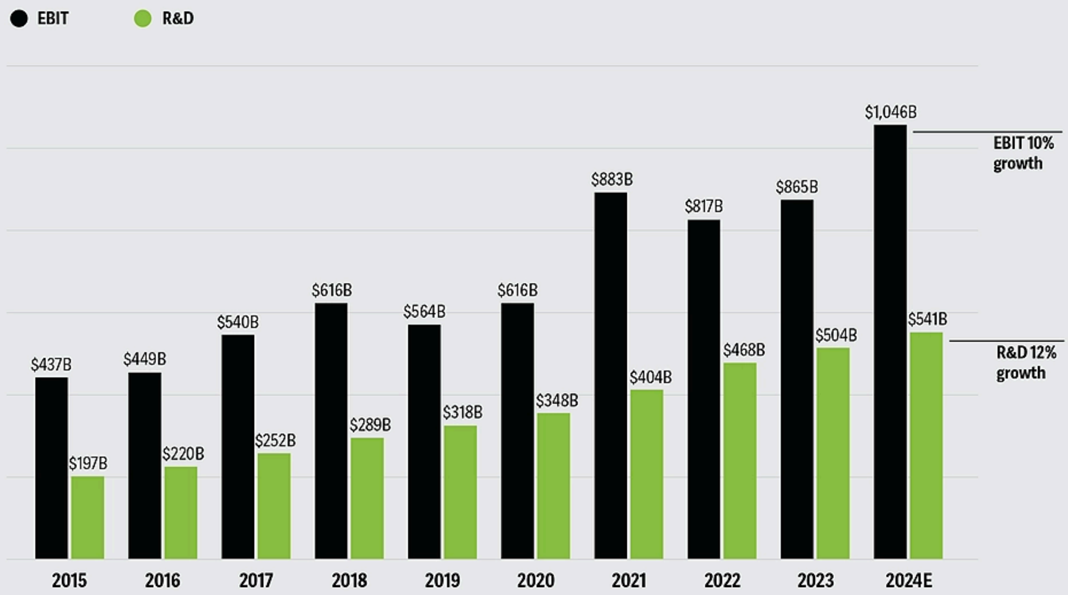
One challenge for the industry is that while gen AI chips and associated revenues (memory, advanced packaging, communications, and more) are responsible for outsized revenues and profits, they represent a small number of very high-value chips, meaning that wafer capacity—and therefore utilization—for the industry as a whole isn't as high as it might appear. In 2023, nearly a trillion chips were sold at an average selling price of US$0.61 per chip.[14] At a rough estimate, although gen AI chips might account for 20% of revenues in 2024, they were less than 0.2% of total wafers.[15] Even though global chip revenues for 2024 were forecast to rise 19%, silicon-wafer shipments for the year actually *declined* an estimated 2.4% for the year.[16] That number is expected to grow by almost 10% in 2025, fueled by demand for components and technologies used largely in gen AI chips, such as chiplets, as mentioned in our 2025 TMT Predictions report.[17] Of course, silicon wafers are not the only kind of capacity to track: Advanced packaging is growing even faster. As an example, some analysts estimate that TSMC's CoWoS (chip-on-wafer-on-substrate) 2.5D advanced packaging production capacity will reach 35,000 wafers per month (wpm) in 2024 and could increase to 70,000 wpm (100% year-over-year) and further by 30% year-over-year to 90,000 wpm by end of 2026.[18]

Further, driving innovation in the industry is not cheap. In 2015, the overall chip industry average for spending on research and development was 45% of its earnings before interest and taxes (EBIT), but by 2024, it was an estimated 52% of the same.[19] R&D seems to be growing at a 12% CAGR, white EBIT is only growing at 10% (figure 2).[20]

Figure 2

The semiconductor ecosystem now invests over half of its EBIT in driving innovation

R&D and EBIT growth, semiconductor ecosystem, 2015–2024E



Note: EBIT = Earnings before interest and taxes; E = Estimate.

Source: Graphic prepared by Deloitte based on ASML Investor Day presentation, Pg. 8 of "Small Talk 2024: Global market trends, Industry & ASML's technology roadmap, ESG," November 14, 2024. Analysis based on ASML Corporate Marketing (CMKT) analysis and company reports.

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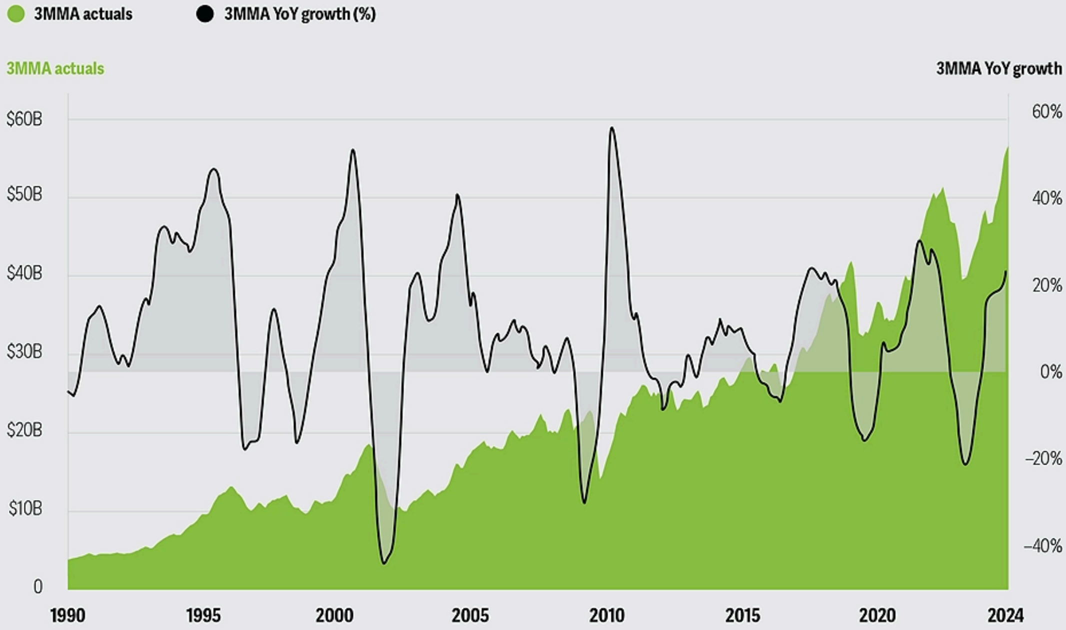
Finally, it’s worth reminding readers that the chip industry can be notoriously cyclical. The industry has flipped from growth to shrinkage nine times in the last 34 years (figure 3).[21] So it may seem that the industry is seeing less extreme growth or shrinkage in the last 14 years, compared to 1990 to 2010, but the frequency of contractions seems to have increased. The year 2025 looks solid for now, it’s hard to tell what 2026 will bring.

Figure 3

The global chip industry has been extremely cyclical, flipping up and down over the past 34 years

Global semiconductor industry—historic billings monthly



Note: 3MMA = Three-month moving average; the average YoY growth during this period was 10.5%.
Source: World Semiconductor Trade Statistics Historical billings report as of October 2024.

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These trends and others play into our 2025 semiconductor industry outlook, where we drill down into four big topics for the year ahead: generative AI accelerator chips for PCs and smartphones and the enterprise edge; a new "shift-left" approach to chip design; the growing global talent shortage; and the need to build resilient supply chains amid escalating geopolitical tensions.

About Deloitte's TMT center outlooks

Deloitte's 2025 global semiconductor industry outlook seeks to identify the strategic issues and opportunities for semiconductor companies and other parts of the semiconductor supply chain to consider in the coming year, including their impacts, key actions to consider, and critical questions to ask. The goal is to help equip companies across the semiconductor ecosystem with information and foresight to better position themselves for a robust and resilient future.

Generative AI chips in PCs, smartphones, the enterprise edge, and the Internet of Things

Many of the chips that are being used for training and inference of gen AI cost tens of thousands of dollars and are destined for large cloud data centers. In 2024 and 2025, these chips or lightweight versions of these chips are also finding homes in the enterprise edge, in computers, in smartphones, and (over time) in other edge devices such as IoT applications. To be clear, in many cases, these chips are being used for either gen AI, traditional AI (machine learning) or, increasingly, a combination of both.

The enterprise edge market was already a factor in 2024, but the question in 2025 will be about smaller, cheaper, less powerful versions of these chips becoming a key part of computers and smartphones. What they lack in per-chip value, they can make up for in volume: PC sales are expected to be over 260 million units in 2025, while smartphones are expected to be over 1.24 billion units.[22] Sometimes, the "gen AI chip" can be a stand-alone single piece of silicon, but more commonly it's a few square millimeters of dedicated AI processing real estate that is tiny part of a much larger chip.

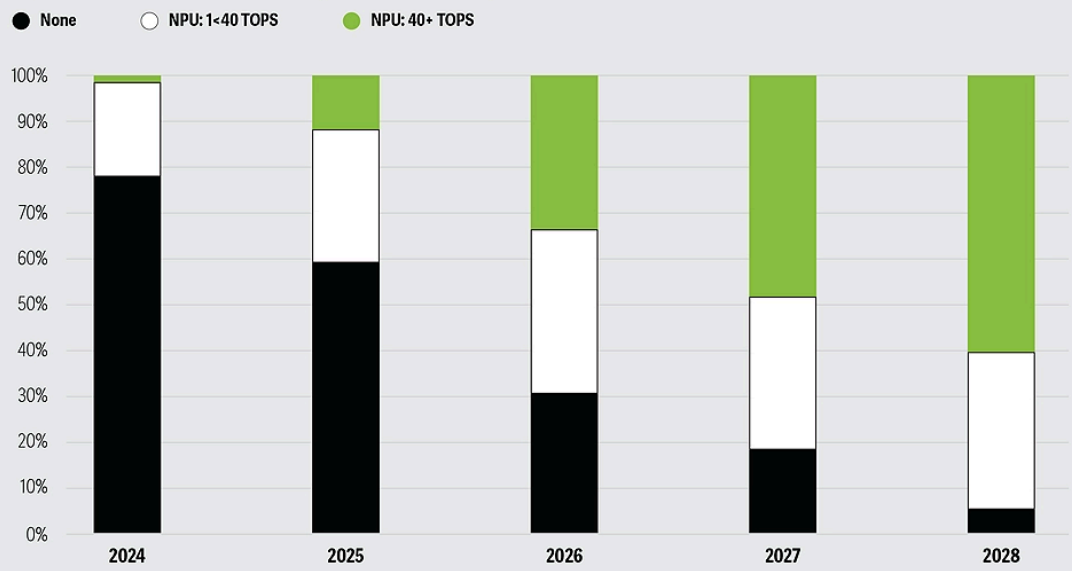
Enterprise edge: Although gen AI via the cloud will likely continue to be a dominant option for many enterprises, about half of the enterprises worldwide are predicted to add AI data-center infrastructure on-premises—an example of enterprise edge computing.[23] This could be, in part, to help protect their intellectual property and sensitive data and comply with data sovereignty or other regulations, but also to help them save money.[24] These chips are largely the same as those found in hyperscale data centers, with server racks costing millions of dollars and requiring hundreds of kilowatts of power. Although smaller than hyperscale chip demand, we estimate the chips for enterprise edge servers will likely be worth tens of billions of dollars globally in 2025.[25]

Personal computers: Sales of gen AI–powered PCs are predicted to comprise half of all PCs in 2025,[26] with some forecasts suggesting that almost all PCs will have at least some onboard gen AI processing—also known as neural processing units (NPUs)—by 2028 (figure 4).[27] These NPU-powered machines are expected to command a price premium of 10% to 15%,[28] but it's important to note that not all gen AI PCs are equal. There's a dividing line at the 40 TOPS (trillion operations per second) level, following a recommendation from major PC ecosystem companies that only computers with more than 40 TOPS be considered true AI-enabled PCs.[29] As at the time of writing, some buyers are cautious about these new PCs, either unwilling to pay the premium, or waiting until more powerful gen AI NPUs are introduced in the second half of 2025.[30]

Figure 4

Almost all PCs are expected to have some gen AI processing—also known as neural processing units (NPUs)—by 2028

Expected sales of NPU-enabled PCs of all PCs worldwide from 2024 to 2028



Note: TOPS = trillion operations per second.
Source: International Data Corporation Worldwide Quarterly Personal Computing Device Tracker, September 2024.

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As of December 2024, many of the installed base of PCs were running on x86 CPUs, with the balance being on CPUs based on the Arm architecture. MediaTek, Microsoft, and Qualcomm announced in 2024 that they would make Arm-powered PCs, specifically gen AI PCs.[31] It's unclear how successful these machines will be in the next 12 months, but it will likely be a key issue for the various chipmakers, with Qualcomm predicting it will sell US$4 billion worth of PC chips annually by 2029.[32]

Smartphones: Where PC NPUs might be worth tens of dollars in value, smartphone-equivalent gen AI chips may be worth much less, and we estimate the silicon on next-generation smartphone processors to be under US$1.[33] Even though the smartphone market is over a billion units sold annually, and even though we predict gen AI smartphones will be 30% of phones sold in 2025,[34] the semiconductor impact is likely smaller than PCs in dollar terms. Instead, an interesting angle for chipmakers could be to see if consumers are excited enough about new gen AI phones and features to shorten the replacement cycle. Consumers have been keeping phones longer before upgrading, and sales have been flat for years now.[35] If gen AI enthusiasm causes an uptick in smartphone sales, it could benefit all kinds of chip companies, not just those that make the gen AI chips themselves.

IoT: A gen AI chip in a data center might cost US$30,000. A gen AI chip on a PC might cost US$30. A gen AI chip on a smartphone might be US$3. For gen AI chips to work on the low-cost IoT market, they should cost about US$0.3. That's unlikely to happen anytime soon, but with the possibility of tens of billions of IoT endpoints needing AI processors, this is a market to watch for the longer term.

Strategic questions to consider

- Although gen AI chips for data centers are in demand now, given their importance to industry growth, are there any signs that demand is weakening, or that processing is moving away from data centers to edge devices?
- Given the success of gen AI chips in data centers, the market potential for various edge chips may drive mergers and acquisitions and attract further private equity, venture capital, and sovereign wealth fund interest: Chip companies are already aligning with financial players. Could we see more of this in 2025?
- Some analysts expect the market for gen AI inference to grow faster than training in 2025 and beyond: What implications could this have on various semiconductor sectors and players? As the cost of AI inference reduces at a faster pace, how can it affect semiconductor chips?
- With greater focus on sustainability and the heightening stress on power consumption due to an AI-driven surge in electricity demand, how can the industry strike a balance between power efficiency and performance in small form factors including laptops, mobile phones, and IoT devices?

Chip design 'shifts left' and calls for a greater collaboration across the industry

Deloitte predicted that, by 2023, AI would emerge as a powerful aid to human semiconductor engineers, assisting them on extremely complex chip-design processes, and enabling them to find ways to improve and optimize PPA (power, performance, and area).[36] As of 2024, gen AI has enabled rapid iterations to enhance existing designs and discover entirely new ones that can do it in less time.[37] In 2025, there will likely be more emphasis toward "shift left"—an approach to chip design and development where testing, verification, and validation are moved up earlier in the chip design and development process[38]—as optimization strategies could evolve from simple PPA metrics to system-level metrics like performance per watt, FLOPs (or "floating point operations per second") per watt, and thermal factors.[39] And the combination of advanced AI capabilities—graph neural networks and reinforcement learning—will likely continue to help design chips that are more power-efficient than typical chips produced by human engineers.[40]

Domain-specific and specialized chips are expected to continue to gain prominence over general-purpose ones, as several industries (such as automotive) and certain AI workloads would require customized approaches to designing chips.[41] However, a widespread adoption of application-specific integrated circuits[42] remains less clear, as the development and maintenance of such hardware can be costly and could divert focus from other AI advancements.[43] But here's where gen AI tools can allow companies to design more specialized and competitive products including custom silicon.[44]

3D ICs and heterogeneous architectures are introducing challenges related to arranging, assembling, validating, and testing the various chiplets, which can sometimes be preassembled.[45] This shift toward system design over individual product design can incorporate software and digital twins early on—stressing the importance of early and frequent testing.[46] By 2025, synchronizing hardware, system, and software development upstream in the process will likely help redefine future systems engineering and enhance overall efficiency, quality, and time to market.

To evolve and keep pace with the changing face of design, the industry may want to consider new ways to handle complex design processes. Already, the chip industry is exploring digital twins to emulate and visualize complex design processes step by step, including the ability to move around or swap chiplets to measure and assess performance of a multi-chiplet system.[47] And digital twins could increasingly be used to give a visual representation (via 3D modeling) of the physical end-device or the system to assist with all aspects of design, including mechanical as well as electrical (software and hardware). Designers should work with electronic design automation (EDA) and other hi-tech computer-aided design/computer-aided engineering companies to strengthen design, simulation, and verification and validation tools and capabilities for hybrid and complex heterogenous systems.[48] And they also should consider using and adapting model-based system engineering tools as part of the broader EDA “shift-left” approach.[49]

As design and software are expected to play crucial roles in the development of next-generation advanced chip products, bolstering cyber defense becomes more important, heading into 2025.[50] To help align with the shift-left approach, chip designers should integrate security and safety testing early in the chip-design process. They should implement redundancy and error-correction and -detection mechanisms to help ensure that systems can continue to operate even when some of the components fail, and hardware-based security features such as secure boot mechanisms and encryption engines.[51]

Strategic questions to consider

- As AI in chip design becomes more prevalent and common and EDA becomes more and more AI-enabled, how can the industry proactively ensure trust and transparency in the complex design process by always keeping human engineers in the loop and giving them a major role in the overall process?
- In the case of custom silicon design, what’s the nature of the relationship between original equipment manufacturers for devices, product designers, and chip designers? And what are some differentiating factors for chip companies and end customers? Does increased customization give scale advantages in terms of product pricing, or lower the cost to produce a prototype or accelerate prototype production?
- New tools and methodologies may require the broader chip industry, including EDA and design houses, to consider long-term direction and goals. In this context, what aspects should semi companies address from the standpoints of systems engineering and chip development/R&D?
- How might the growing demand to more quickly design more complex chips and at an increasingly faster pace affect manufacturing capabilities and capacity, especially for the back-end players (advanced packaging foundries and outsourced semiconductor assembly and test)?

The intensifying talent challenges in semiconductor industry

In **Deloitte’s 2023 semiconductor industry outlook**, we estimated that the industry needs to add a million skilled workers by 2030, or more than 100,000 every year.[52] Two years after, not only does that forecast hold good, but the talent challenge is expected to intensify further in 2025. Globally, countries are not producing enough skilled talent to meet their workforce needs.[53]

From core engineering to chip design and manufacturing, operations, and maintenance, AI may help alleviate some engineering talent shortages, but the skill gap looms (figure 5).[54] Attracting and retaining talent will likely continue to be a challenge for many organizations in 2025, and a big part of the problem is an aging workforce, which is more prominent in the United States and even Europe.[55] Add the complex geopolitical landscape and supply chain fragility to this equation, and it becomes clear that the availability of talent supply is under stress globally.[56]

With onshoring and reshoring of fabrication, assembly, and test in the United States and Europe, there will likely be pressure on chip companies and foundries as they source more of the talent locally in 2025. For example, talent challenges are contributing to delays in opening new plants.[57] On a related note, "friendshoring" (collaborating with companies from countries considered to be allies) can provide stability and resilience to supply chains, especially for the United States and European Union. But it also demands scouting for the right skills to help meet new capacity demands and talent roles in destinations such as Malaysia, India, Japan, and Poland.[58]

Chip companies can't continue to wrestle over the same finite talent pool and still expect to match up to the industry's pace of technological advancement and capacity expansion. So, what can semiconductor companies do in 2025 to address the talent conundrum?

To help attract AI and chip talent, chip companies should consider offering a sense of trust, stability, and projected market growth. With this, they can help make the industry more appealing to recent high school grads and fresh entrants to help reinvigorate talent pipelines.[59]

Countries aiming to benefit from their respective domestic chips acts should consider weaving in strategic goals and aspects related to workforce development and activation. Some examples could include training programs, expanded vocational and professional education, and employment opportunities that their local chip companies would commit to in order to receive funding. Semi companies should consider collaborating with educational institutions (high schools, technical colleges, and universities) and local government organizations to leverage chip funds to develop and curate targeted workforce training and development programs aligned with specific industry needs in the region.

Semi companies should design flexible upskilling and reskilling programs for career path flexibility to help address future workforce skills and gaps. Additionally, they should implement and leverage advanced tech and AI-based tools to assess diverse talent related factors such as supply, demand, and current and projected spend, to perform complex workforce scenario modeling to support strategic talent decision-making.[60]

Strategic questions to consider

- How should the workforce be characterized and segmented based on specialization areas, for example, design and intellectual property, and manufacturing, operator, engineering, and technical roles? And how can the industry customize talent sourcing and skill development strategies based on these roles, as well as based on specific geographic regions where hiring takes place?

- An emerging trend is agentic AI:[61] Could multimodal, multiagent AI be a partial solution to the looming talent shortage?

- When integrating new talent into a mainstream workforce, what nuances and factors should be considered to ensure a consistent corporate culture? And what associated risks and pitfalls related to talent retention issues and talent pipeline development gaps should be tackled?

- As part of future talent pipeline development, what adjacent skilled workforce types should be considered and what should the overall talent mix be, including full-time and gig workers, to help position the company strongly in the next one to two years?

Figure 5

Semiconductor talent shortage is a global issue and presents distinct challenges to the industry

80%

...of graduates in the **US** with a master's degree in semiconductor-related engineering fields do not stay in the country after completing their graduation.

90%

...of companies surveyed in **APAC** highlighted talent acquisition and development as a top priority to sustain industry growth and competitiveness.

63%

...of companies surveyed in **APAC** highlighted talent capability and retention as major industry risks.

Source: Sergey Shchemelev et al, "The global semiconductor talent shortage," Deloitte Global, October 2024.

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Building resilient supply chains amid geopolitical tensions

Deloitte's 2024 semiconductor outlook already talked about geopolitical tensions in depth, so what's new for 2025?

The same … but even more. As one example, in December of 2024, the outgoing administration issued a new list of US export restrictions mainly still focused on advanced nodes (despite some speculation that restrictions might be broadened to include some relatively less advanced nodes). These restrictions now include separate additional categories around advanced inspection and metrology.[62] Additionally, many (over 100) new entities (mainly Chinese) have been added to the restricted entity list.[63]

As part of these restrictions, the United States seems to be adopting the "small yard, high fence" approach toward semiconductor export restrictions.[64] This aims to impose a high level of restrictions on a relatively small subset of chip technologies, with a focus on those that defense, including advanced weapon systems, and advanced AI used in military applications.[65]

The new restrictions (if implemented by the new administration) go on to flag that AI advancements are increasingly being viewed as matters of national security. The day after those new restrictions, China announced further restrictions on the export of gallium and germanium (as well as other materials), both key for the manufacture of multiple semiconductors.[66] As we predicted in 2024, ongoing materials restrictions will likely pose a challenge for the chip industry, but also an imperative for the industry to do more recycling of e-waste.[67]

In mid-January 2025, the outgoing administration announced the Interim Final Rule on AI Technology Diffusion. The Interim Final Rule will impose new controls for chip exports.[68]

At the time of writing, it is unknown whether the incoming administration will roll back the December and January restrictions, modify them, or even propose additional restrictions.

Additionally, the new administration has proposed increasing its use of tariffs, including tariffs on goods from China, Mexico, and Canada.[69] Given the global nature of most semi supply chains, the proposed new AI-related chip-export controls (by the outgoing administration) and the planned higher tariffs would likely have an impact and could make supply chains more complex to administer, shifting profits, costs, and more. And the impact could be felt across the supply chain—including R&D and manufacturing—as well as affecting how industry policies are shaped across countries and regions.

Of course, there are additional geopolitical risks or changes: Conflicts in Ukraine/Russia and the Middle-East continue, potentially affecting semiconductor manufacturing, supply chains, and critical raw materials. But the chip industry has other vulnerable points: The December martial law order in South Korea highlighted the global supply chain's dependency on and concentration of certain types of semiconductors, especially in the most advanced technologies.[70] As an example of concentration, almost 75% of DRAM memory chips globally are made in South Korea.[71]

It's not just geopolitics that can interrupt key materials: 2024's Hurricane Helene briefly shut down two mines in North Carolina, which are sources for nearly all of the world's ultra-high-purity quartz, essential for making crucibles which are a key part of the chipmaking process.[72] With hurricanes, typhoons, and other extreme weather events projected to become more frequent and intense due to climate change, expanding sources for key materials is likely to remain a supply chain priority.[73]

It is worth noting that, as of late 2024, a key part of the export restrictions from the United States and allies is having an effect: The restrictions around extreme ultraviolet lithography machines seem to be posing a barrier, preventing Chinese companies from making advanced-node chips at scale and with acceptable yields. Although there are 7 nanometer and 6 nanometer chips being made in limited numbers using older deep ultraviolet technology, the volumes are low, yields are uneconomical, and that situation is expected to persist at least until 2026.[74]

To be clear, semiconductor supply chains worked well in 2024, even as the industry grew by almost 20%. At this time, there's no reason to believe 2025 supply chains will be less resilient, but as always, the risk is there. And given how important gen AI chips are expected to be in 2025 and beyond (up to 50% of sales, perhaps[75]) and the relatively higher concentration of processor, memory, and packaging required for cutting-edge chips, the industry may be more vulnerable to supply chain disruptions than ever before. Although the industry is likely to become less concentrated geographically thanks to various chips acts—and initiatives like onshoring, reshoring, nearshoring, and friendshoring are all still in their early days—the industry remains highly vulnerable for the next year or two, at least.

Strategic questions to consider

- Given the fluid geopolitical environment and escalating export restrictions, what should be the mix of reshoring versus offshoring? And how should the industry factor potential disruptions to any existing supply chain channel partner relationships in erstwhile friendly countries and allies—that is, friendshoring?
- As unpredictable climate-driven disruptions affect materials and components supplies, how could this aspect—coupled with an already complex geopolitical landscape—impact both the front-end wafer fab and back-end assembly and test, and packaging plants that are being ambitiously planned and rolled out in dozens of countries worldwide?
- If the trade wars continue to escalate, what could it mean for talent sourcing and availability? Can export restrictions further extend to, and eventually cascade into a much broader talent mobility challenge for countries locking horns in the chip race?
- How might countries with chip manufacturing capacity respond to potential additional US tariffs, given the incentive to shift activities to the United States? Can higher-value-add activities be ideal candidates to be shifted to the United States, given the higher cost, and might US-based companies rethink their offshore manufacturing investments and activities?

Signposts for the future

For 2025, semiconductor industry executives should be mindful of the following signposts:

1. There is currently a mismatch between very high spending on semiconductors for gen AI, and companies being able to monetize their gen AI offerings. For 2025, the argument of "the risk of underinvesting is greater than the risk of overinvesting" seems to be still dominant, but if that attitude shifts, demand for gen AI chips could become weaker than predicted.

2. Competition from agile chip startups could intensify, challenging incumbents in the broader semiconductor industry. Notably, AI chip startups secured a cumulative US$7.6 billion in venture capital funding globally during the second, third, and last quarter of 2024,[76] and several of these startups offer specialized solutions including customizable RISC-V-based applications, chiplets, LLM inference chips, photonic ICs, chip design, and chip equipment.

3. With interest rates in the United States and other major markets likely to drop further,[77] a favorable credit environment could act as a tailwind for the chip industry's M&A scene, which has already seen an uptick in 2024.[78] Moreover, with two different chip markets evolving—one for AI chips and one for all other types of chips—the industry may experience M&A and consolidation, especially if companies with valuable IP lag their peers and are seen as attractive targets. Nonetheless, potential tighter regulations and trade conflicts, globally, could potentially dampen the deal environment.

4. As geopolitical challenges ripple across the globe, chip companies should brace themselves for further disruptions. Traditional channel partner models and allyships could get upended, even as reshoring, friendshoring, and nearshoring have gained momentum. Prolonging regional conflicts and wars could further impact the flow of vital materials and inventories. All of these could disrupt semi companies' demand planning, requiring them to be more agile and adapt supply chain and sourcing contracts, and pricing terms.

5. A significant part of capex spending and revenues was driven by AI and the advanced wafers needed to produce those highly advanced AI chips. However, wafer demand from auto, industrial, and consumer segments continue to be lackluster, while there's some uptick in demand from mobile handset and other consumer products. Through 2025 and 2026, though overall revenue and capex seem to continue trending upward (at least for the next nine to 12 months), any downward movement in AI-related spending and components shortage could have an adverse impact ripping through the broader global semiconductor and electronics supply chain.

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