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AI capex cycle: war-proof for now

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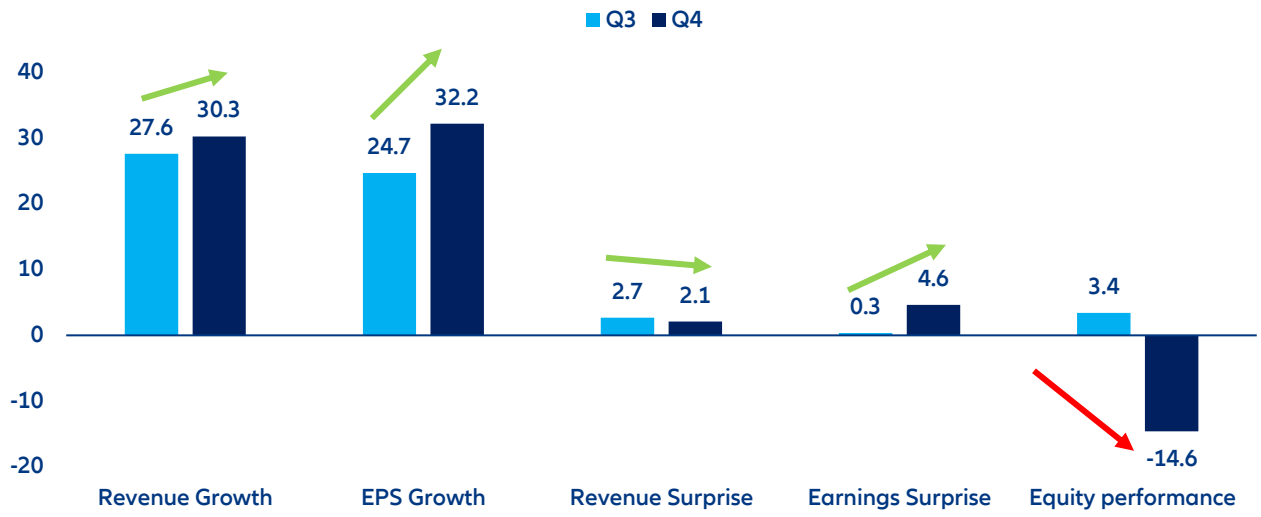
In Summary

- **AI hype deflates amid the capex-monetization debate.** Despite strong recent earnings, investor focus has shifted from profitability boost to revenue growth trajectory and cash-flow visibility, particularly given hyperscalers' elevated capex plans (≈USD575bn, +50% expected in 2026) and weakening sentiment toward software amid risks of AI-driven revenue dilution. Our AI Bubble Risk Monitor continues to signal moderate bubble pressures: exuberant positioning has cooled, but widening credit spreads send signals of a higher market sensitivity over balance-sheet quality. Rising geopolitical tensions in the Middle East have further reinforced a rotation away from high-valuation tech as risk-off dynamics regain prominence.
- **The higher volatility regime will test the AI development regime, but the capex supercycle remains intact for now, supported by strong, counter-cyclical demand.** Technology capex has historically been sensitive to the macroeconomic environment and notably energy shocks as new inflationary pressure often results in higher interest rates, and consequently higher investment costs. In the US, tech is among the capital-intensive sectors most negatively impacted by severe energy price variations (~-30% correlation) but unlike energy, basic materials and utilities, the drop in investment does not result from windfall benefits stirred up by price effects. Nevertheless, hyperscalers' dominant market positions and substantial cash reserves reduce sensitivity to macroeconomic and geopolitical shocks. In parallel, public-sector investment is accelerating, driven by digital sovereignty and infrastructure build-out agendas. The data-center pipeline is robust (x2 at ~200GW by 2030) and momentum remains resilient despite geopolitical tensions, as illustrated by Germany's plan to double its capacity over the same horizon.
- **Energy volatility may reshape capex allocation rather than overall scale**. While near-term spending levels appear secure, the current concentration in data centers and cloud infrastructure could evolve. AI-related orders benefit from priority access within semiconductor supply chains, limiting immediate exposure to potential disruptions in South Korea and Taiwan linked to LNG and helium supply risks. However, a further ~50% increase in chip costs – as seen in Q1 2026 – could delay project timelines and accelerate the shift toward leasing models to share capital intensity (with estimated savings of 20–30%). At the same time, the case for expanding critical equipment and raw material production outside Asia is strengthening as current tensions expose the risks of supply-chain concentration and may rebalance investment away from the current bias toward software and computing services.
- **How are markets trading the "AI theme"? Focus is shifting from efficiency gains to revenue delivery.** While consensus broadly reflects current momentum, it is increasingly exposed to execution risk on both capex discipline and revenue realization. Valuations – mid-20s P/E for large caps – remain broadly justified but are vulnerable to short-term rotations in a high-volatility environment. The long-term outlook remains supportive, with capex anchored in tangible infrastructure orders that are partly decoupled from the pace of AI adoption. However, value creation is likely to be uneven across the technology stack, with relative winners in semiconductors and telecom equipment, and more challenged segments in software and consumer electronics.

AI cycle: capex monetization debate steals the show during last earnings season

The Q4 2025 earnings season confirmed the fundamental resilience and growth of the global technology sector. The NYSE FANG+ Index – our preferred gauge for tech and tech-enabled growth companies – showed robust financial performance in the most recent quarter. Aggregate results extended on previous strong delivery on expectations, with revenues rising by roughly +17% year-on-year and earnings by around +25%. Each of the leading tech firms exceeded estimates, on average by about 0.5% on sales and 1.6% on earnings across all constituents. Corporate guidance remained constructive, best highlighted by Meta's 5-10% upward revision to its sales outlook. Software companies also highlighted the fundamental potential of AI amid amplified concerns about the potential cannibalization of traditional service lines in areas such as legal, consulting and financial services.

Figure 1: Large-cap tech earnings season compared to past quarter (to end February i.e. pre-Iran war)



Note: Equity performance refers to the three-month period to the end of reporting season and relative to S&P Equal Weighted. Sources: Bloomberg, Allianz Research

Table 1: Earnings & revenue surprise and annual growth among listed US technology firms

	EPS			Revenue		
	Surprise	YoY%	Next quarter rev.	Surprise	YoY%	Next quarter rev.
Computer Hardware	7%	11%	0.0%	3%	7%	0.0%
Computer svs	8%	15%	-2.1%	1%	11%	0.0%
Consumer digital svs	11%	23%	-1.0%	1%	10%	0.0%
Consumer non-digital svs	1%	-11%	-9.4%	0%	15%	-0.4%
Consumer electronics	16%	33%	2.2%	4%	14%	1.7%
Electrical & Electronic Components	7%	32%	0.0%	3%	17%	0.0%
Electronic equip.	4%	8%	-0.1%	2%	8%	0.0%
Tech equip. manufacturing	6%	2%	1.9%	2%	8%	1.9%
B2B Services	5%	14%	-0.6%	1%	6%	0.0%
Semiconductor	6%	29%	0.1%	1%	16%	0.0%
Software	8%	20%	0.0%	2%	14%	0.1%
Telecommunications equip.	12%	19%	0.6%	2%	19%	0.4%
Telecom svs	1%	68%	0.0%	1%	2%	-0.1%
Transaction Processing Services	11%	22%	0.2%	2%	11%	0.2%

Data as of 10 March 2025 based on a sample of 383 companies. Sources: LSEG Datastream, Allianz Research

AI capex is set to continue increasing further in 2026, alongside investors' concerns. AI capex remains the defining market debate in 2026 as technology leaders race to build computing capacity they believe will secure – and deepen – their dominant position in a world where data and processing power are becoming strategic geopolitical assets. After rising ~60% in 2025, US Big Tech investment is expected to climb another +50%, surpassing USD600bn and lifting capex intensity to roughly 23% of revenue, more than double pre-ChatGPT levels. Tech now operates with higher capital intensity than telecom operators, whose investment ratios have declined as innovation shifts toward specialized satellite startups. Yet concerns are mounting: monetization timelines remain uncertain, power infrastructure expansion is lagging data-center demand (utilities capex +20% in 2025, +15% in 2026) and investors increasingly question funding massive spending cycles without the dividends or buybacks traditionally used to compensate capital-heavy business models.

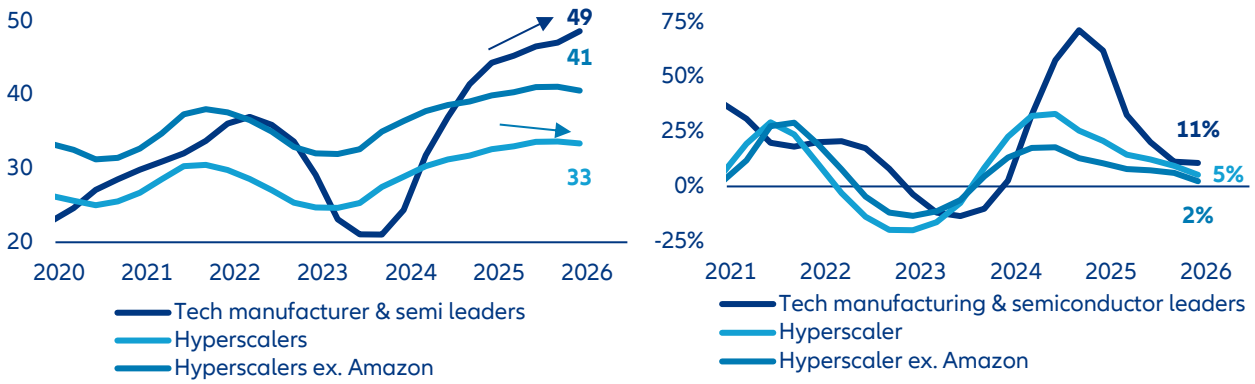
Table 2: Capex growth and intensity over revenue from top 50 biggest spenders within S&P 500 index, per industry breakdown

Industry	End-2023		End-2024		End-2025		End-2026	
	Capex ratio	YoY	Capex ratio	YoY	Capex ratio	YoY	Capex ratio	YoY
Technology*	11%	-4%	14%	44%	19%	58%	23%	50%
Telecom**	16%	-8%	15%	-4%	14%	0%	13%	-5%
Utility***	41%	11%	43%	4%	46%	20%	50%	15%

Sources: LSEG Datastream, Allianz Research

Markets are now questioning how long exceptional margins can last. Investors increasingly doubt the sustainability of profits boosted by quasi-monopolistic positioning and temporary demand–supply imbalances. Early signs from hyperscalers point to easing profit momentum, while Q4 2025 results – despite a +7% median earnings surprise and +17% annual growth – triggered no upward revisions to next-quarter estimates, reinforcing the idea of a profitability cap. Revenue growth remains solid but uninspiring (+2% median surprise vs. +12% for annual growth), reflecting expectations of gradual AI adoption constrained by regulation, costs, trust gaps and skill shortages. As margin expansion normalizes, markets are shifting attention to whether revenue acceleration can compensate, with IT and telecom services seen as most exposed to substitution risks and profit dilution.

Figure 2: Operating margin & profit-revenue growth gap of AI tech leaders* and hyperscalers



**Nvidia (chip design), ASML (chip equipment), TSMC (foundry), SK Hynix (memory chip manufacturer). Data as of Q4 2025. Sources: LSEG Datastream, Allianz Research*

Our AI Bubble Risk Monitor continues to hint at moderate bubble pressures, though the underlying drivers have changed to some extent. Fundamental developments around adoption momentum, data center vacancy rates and GPU product-cycle dynamics remain reassuring. Energy-market developments need watching but see no increase in risk. Meanwhile, exuberant expectations have deflated somewhat reducing the risk of an abrupt market setback triggered, for instance, by an earnings disappointment. In fact, equity positioning, the bear market indicator and 12m forward PE have all come down to more moderate levels over the past three months. Financial risks are on the rise – albeit moderately – and market signals are now flashing red when it comes to US investment grade tech spreads, which have recently moved to bubble-like territory, likely reflecting AI challenging software firms. But overall, bubble risks look less pronounced compared to a month ago. At this stage, tail risks over the long run remain contained but some shadow areas on the pace of capex monetization and rapid cash balance deterioration require monitoring, especially because capex is expected to continue increasing at a rapid pace this year, and because imbalances generated by this massive flow of funds could be broader than cashflow.

Table 3: AI Bubble Risk Monitor

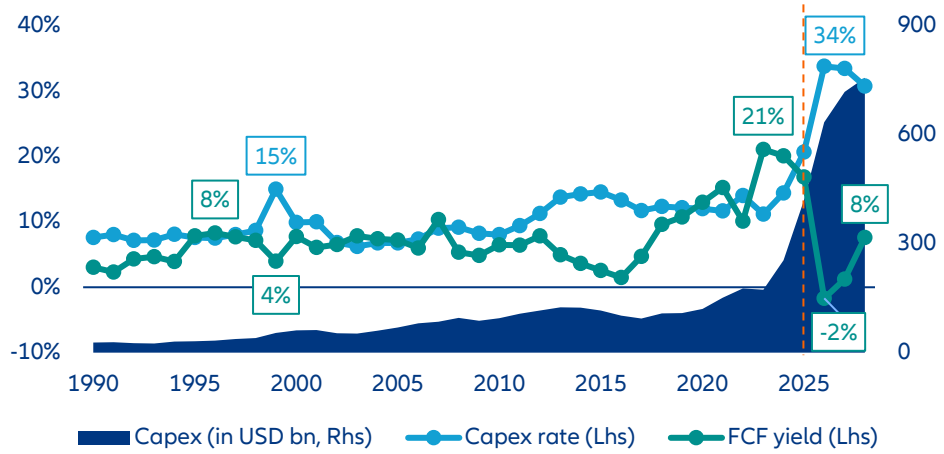
	Indicator	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Latest (Feb 25)
Market Signals	12M price return	2	1	1	1	0	0	0	0	1
	S&P 500 12M yoy breadth	0	0	0	0	0	0	0	0	0
	Data Center Spreads	0	0	0	0	0	0	0	0	0
	US IG Tech spread	0	0	0	0	0	0	0	0	0
	US HY Tech spread	0	0	0	0	0	0	0	0	0
	US HY Tech vs HY spread	0	0	0	0	0	0	0	0	1
	US IG Tech vs IG spread	0	0	0	0	0	0	1	2	3
	S&P 500 1Y implied vola	0	0	0	0	0	0	0	0	0
	10Y Treasury Yield	1	2	0	1	2	1	1	0	1
	S&P 500 Put/Call-ratio	0	0	0	0	1	0	0	0	0
Exuberant Expectations	Long-term earnings growth	0	0	0	0	0	0	0	0	0
	Earnings revisions (3M)	3	3	3	3	3	3	3	3	3
	Tech EPS forecast dispersion	0	0	0	0	0	0	0	1	1
	EQ positioning	1	0	0	1	0	0	1	2	0
	Bear market indicator	0	0	1	2	3	3	3	3	2
	12M forward PE	1	1	1	1	1	0	1	1	0
Financial Risks	Net-debt-to-equity ratio	0	0	0	0	0	0	0	0	0
	Cash on balance sheet as % of market value	0	1	1	1	1	1	1	1	1
	TED spread	0	0	0	0	0	0	0	0	0
	Cryptocurrency volatility	1	0	1	1	0	0	0	0	1
	Hyperscalers CapEx/Cash flow from operating activities	0	0	0	0	0	1	1	2	2
	US 5Y5Y Forward Expected Inflation	0	0	0	0	0	0	0	0	0
Fundamentals	Current Usage of AI	1	1	0	1	0	0	0	0	0
	Expected Usage of AI	2	1	0	0	0	0	0	0	0
	DC power demand vs generation supply growth							2	2	2
	Power capacity queues	1	1	1	1	1	1	1	1	1
	Electricity prices	0	0	0	0	0	0	0	0	0
	Operational Health	0	0	0	0	0	0	0	1	0
	Capex-to-sales level	1	1	1	1	2	2	2	2	2
	Data center pipeline (construction vs. commited)	0	0	0	0	0	0	0	0	0
	Data center vacancy	0	0	0	0	0	0	0	0	0
	Product cycle of GPUs	1	1	1	1	1	1	1	1	1
	Legend	normal		elevated		overheated		bubble-like		

Source: Allianz Research. Note: In addition to general market indicators, where applicable we also monitor AI sub-segments via equity baskets. The monitor assigns scores to each signal 0 = normal, 1 = elevated, 2 = overheated and 3 = bubble-like to help aggregate and compare diverse developments within and across dimensions. Thresholds for scores are derived statistically where long-time data series are available but also via expert judgement

Investment cycle: resilient to geopolitical tensions but watch for an allocation shift

Holding the capex intensity no matter what. The five largest US technology spenders are on course to commit over USD600bn in capital expenditure in 2026 alone – part of an estimated USD2.1trn deployment across 2026–2028 – driving capex intensity to 34% of revenue, more than double the 15% peak seen at the height of the 1990s internet buildout. Figure 3 tells the story starkly: absolute capex is now in vertical ascent, free cash flow is turning negative for the first time in 35 years and the inflection is sharper than anything in the modern history of listed US firms. Growth in capital spending will decelerate – from 51% in 2026 to 13% in 2027 and roughly 5% in 2028 – but that deceleration reflects the natural digestion of an extraordinary base, not a change of conviction. These firms are deliberately engineering a year of negative free cash flow because they have concluded that the revenue potential of AI justifies the sacrifice: technology penetration into enterprise and consumer segments is inherently gradual, and the returns on infrastructure laid today will accrue over years, not quarters.

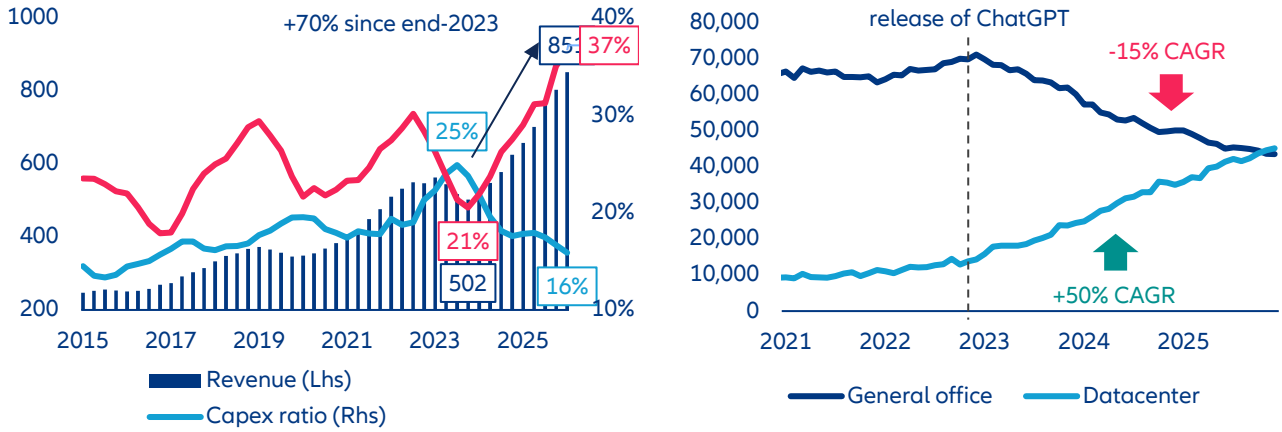
Figure 3: Capital expenditure (amount and intensity over revenue) and free-cash-flow yield of top five US capex contributors among listed firms



Note: The composition of top five capex leaders changes every year. Sources: LSEG Datastream, Allianz Research

AI benefits are already visible, but not yet broad-based. Hyperscalers are committing hundreds of billions of dollars to a technology cycle whose return horizon remains fiercely debated, and skepticism is rational. Yet, reducing this debate to a binary verdict – productive investment or reckless speculation – misses what the data already shows on the ground. US construction spending on data centers has exploded since 2023, while office construction continues its structural decline, a physical reallocation of capital that is reshaping the built economy in real time. Semiconductor revenues tell a similar story: Industry sales surged roughly 70% from end-2023, with operating margins expanding sharply even as capital expenditure intensity hit multi-decade highs. These are not paper gains – they reflect real backlogs, real pricing power and real profit flowing through the supply chain. The distribution of those gains is, admittedly, narrow: A handful of firms with defensible technology edges – in advanced logic, memory bandwidth, cooling and power infrastructure – are capturing a disproportionate share of the AI cake. But the notion that AI investment is generating only financial abstraction, widening inequality without creating tangible economic output, is countered by capacity-utilization rates, order books and the income statements of those positioned at the infrastructure layer. The more pressing question, then, is not whether AI capex is producing returns – it clearly is, for some – but whether those returns are being recycled in ways that build a genuinely durable and expansive ecosystem, or whether they are accruing narrowly and compounding existing structural asymmetries.

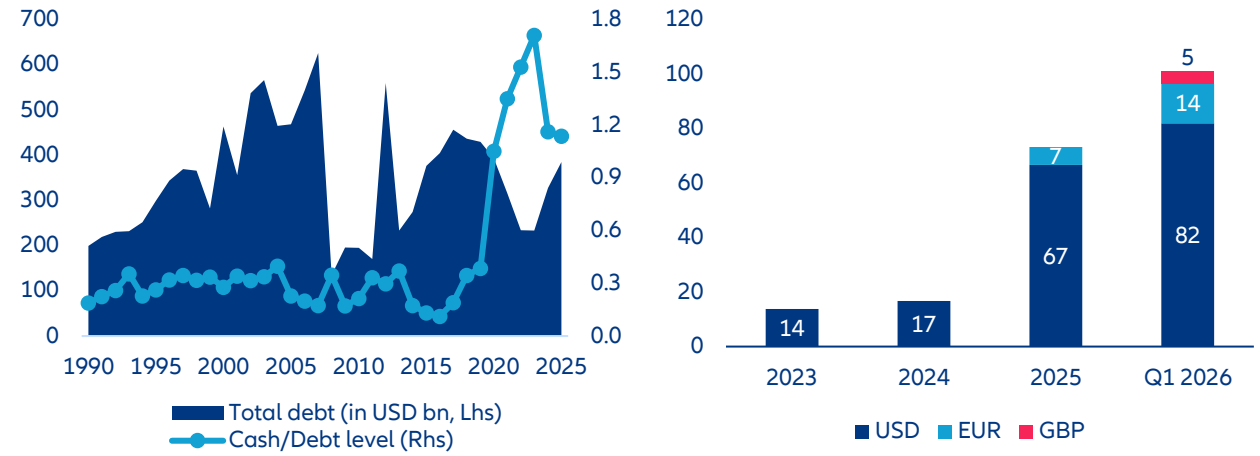
Figures 4 & 5 : Global semiconductor industry revenue, margin and capex intensity / Value of private construction spending in general office and datacenter in USA (annualized rate, in USD bn)



Right chart: November and December 2025 are preliminary data. Sources: US Census bureau, LSEG Datastream, Allianz Research

Solvency risks are overdone but rising debt still needs to be monitored. The parallel with heavy telecom investment in the late 1990s is imperfect as that was largely debt-funded and ended in widespread capital destruction; this round is being funded from the strongest corporate balance sheets in history, by firms with demonstrated monetization engines. But while solvency risks are not a major concern, we cannot overlook the ongoing shift of funding architecture and the increasing volume of AI-labeled debt since 2025. Even among hyperscalers who ignored the debt market for a decade, we note a structural pivot that is gaining more momentum in 2026 as they had already issued as of mid-March more debt than during the full year of 2025 (over USD100bn vs. ~USD80bn). With a total of USD385bn of debt reported in end-2025, the top US capex providers show a leverage ratio around -20% below their "high spender" peers in 2000, so ongoing rising leverage is not a matter of concern in the short term. However, the uptrend will be scrutinized by investors, alongside the downtrend on free-cash-flow.

Figures 6 & 7: Cash ratio & total debt level of top five largest US capex contributors / Corporate debt issuance of US hyperscalers* since 2023

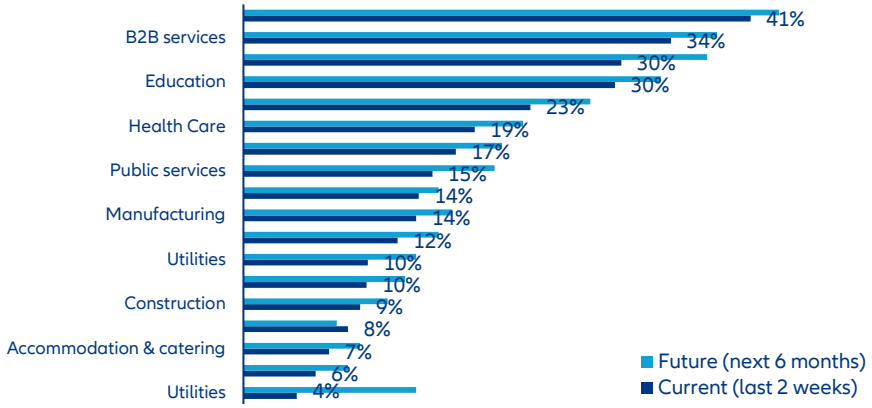


Left chart: data as of Q4 2025 / Right chart: data as of 18 March 2025. Sources: LSEG Datastream, Allianz Research

Beyond the noise: what actually shapes the AI capex cycle. The debate around AI investment has been too often reduced to market valuation stories – a narrative of soaring multiples, crowded trades and the occasional correction fueling breathless commentary about bubbles and busts. The more consequential discussion is industrial, structural and slower-moving. Four fault lines are quietly shaping how – and whether – current levels of AI capital expenditure can be sustained and productively absorbed. First, the pace of corporate and consumer adoption, which is tracking a natural learning curve rather than the vertical inflection that capital deployment implicitly assumes – a structural lag with direct consequences for return horizons. Second, a growing concern around misallocation: the breakneck pace of AI infrastructure buildout is not matched by equivalent investment in the underlying industrial capacity – power generation, grid infrastructure, advanced manufacturing – needed to underpin it, creating tangible shortage risks and inflating input costs across the supply chain. Third, a question of circularity: whether AI profits are genuinely creating new economic value or merely consolidating the dominance of a handful of firms, raising the specter of systemic spillover and contagion risks should any major actor stumble. Finally, new tensions in the Middle East, where energy supply disruptions could reignite inflationary pressure, complicate the rate outlook and dent the investor confidence on which this investment cycle critically depends. Taken together, these fault lines do not make the AI capex story one of inevitable disappointment but they do make it one that demands far more industrial rigor and strategic honesty than the market narrative has so far supplied.

1) **Gradual adoption is fueling monetization debate, not calling into questions capex itself**. The professional adoption of AI remains gradual, exploratory and uneven – and that is not necessarily a bad signal. Corporates broadly recognize AI's long-term potential, yet the transition is proceeding cautiously for structurally sound reasons: firms still need clearer visibility on implementation costs, measurable productivity gains, cybersecurity risks and an evolving regulatory framework before committing to large-scale deployment. Psychological barriers compound the technical ones as companies remain reluctant to build deep dependency on providers lacking long operational track records. The result is that most organizations are currently engaged in incremental process improvements rather than transformative reinvention – a pattern entirely consistent with how major technological shifts have always unfolded. Early gains are predictably concentrated in digitally mature sectors such as consulting, finance and insurance, while construction, utilities or agrifood show only limited impact so far. Financial transfer costs further widen this gap, with adoption among very small enterprises running nearly 10pps behind large corporates. Rather than the binary outcome between automation and employment destruction that dominates media narratives, AI is more likely to act as a complementary technology enhancing existing tasks and business models – with capex implications already shifting visibly toward staff training, compliance, cybersecurity and data infrastructure, the unglamorous but essential prerequisites for durable migration. For technology companies, this pace differential between capital deployed and returns materializing is not merely an investor-relations inconvenience – it is a strategic constraint that demands greater investment discipline and a genuine rethink of how financial risk is shared across the ecosystem. A measured adoption curve is not evidence of deterrence; it is the bedrock on which a solid and sustainable industry gets built.

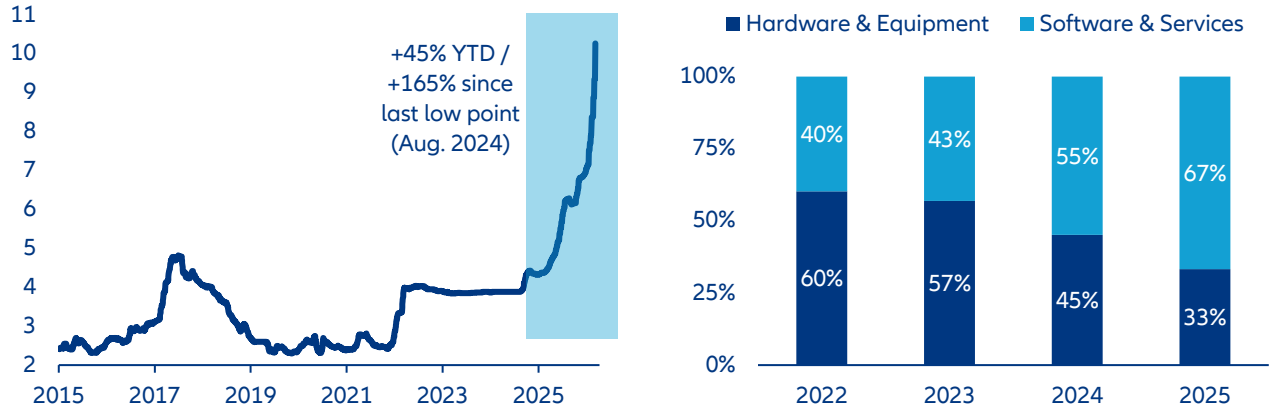
Figure 8: Survey of US firms about their current and expected use of AI technology, per sector breakdown



Data as of 22 February 2026. Sources: US Census bureau (biweekly survey on business trends and outlook), Allianz Research

2) **AI cannibalization of global supply raises question on industrial capacity capex lag**. A disproportionate share of global supply is being absorbed by the AI value chain – particularly for GPUs, high-bandwidth memory, advanced substrates, power electronics, silicon wafers and electronic manufacturing equipment. The result is tightening availability and rising input costs for other sectors. Memory chip prices, for instance, have more than doubled since last summer (see Figure 8) as limited fabrication capacity has been redirected almost exclusively toward AI-oriented demand, creating pass-through inflation for downstream customers and, in some cases, tangible shortage risks. Consumer electronics manufacturers, robotics and IoT producers, and especially the automotive industry – where software and semiconductor content per vehicle has surged in recent years – appear particularly exposed to these side effects. Higher component costs would compress industrial margins and/or raise final retail prices, potentially dampening end-demand for tech hardware. We estimate that manufacturers would have to increase retail prices by +7% for smartphones and +15% for premium laptops to protect half of current profit margins in case of doubling memory chip input costs. In turn, elevated equipment premiums may slow consumer adoption cycles, paradoxically constraining the diffusion of AI-enabled devices. While current AI usage among households remains largely concentrated in writing and search applications, scaling the technology into more embedded, hardware-intensive use cases requires affordable, dedicated equipment; inflationary pressures along the supply chain risk delaying that broader penetration and limiting the real economy spillovers that AI proponents anticipate. If we observe some lag in the capex programs of ICT equipment manufacturers, most of the capital is being captured by data-center development programs as industrial priorities are primarily focused on computing-capacity expansion (current 33%/67% allocation of capex between ICT hardware & manufacturing and ICT services – see Figure 9). Over the next two years, we see a change of capex structure and a stronger allocation of technology-related investment funds into new ICT hardware and equipment industrial capacity, narrowing the capex structure gap with digital & IT services toward a 50/50 ratio, like in 2024.

Figures 9 & 10: Memory chip spot price in USD (Flash NAND 64GB) / Capex distribution between technology hardware & equipment manufacturers and digital & software services providers

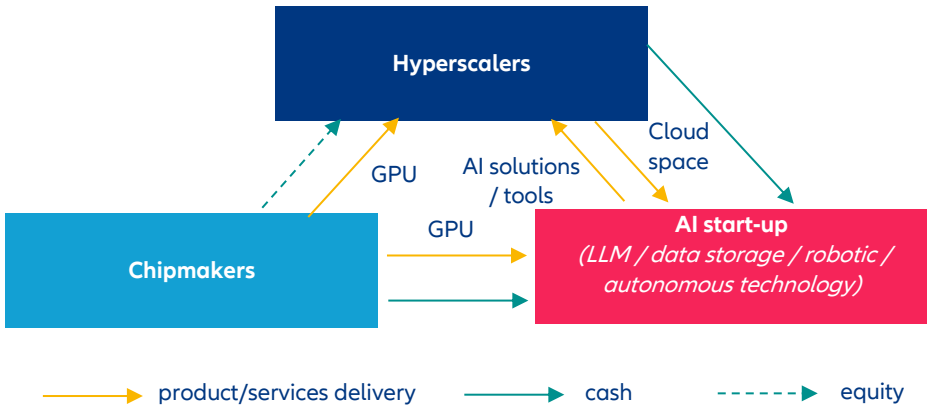


Sources: LSEG Datastream, Allianz Research

3) **Capital circularity casts doubts about the productive role of capex**. In the meantime, circular capital is increasingly dominating the AI ecosystem, especially across chips and cloud, creating a powerful – but potentially fragile – perception of strength along the entire supply chain. Semiconductor leaders such as Nvidia, TSMC or ASML sit at the core of this expansion, riding a +60% CAGR industry revenue surge since end-2022 and benefiting from multi-billion-dollar hyperscaler contracts, 30%+ CAGR cash accumulation and a global market revenue that could hit a USD1trn milestone this year if strong demand remains in check. Yet, beneath the surface, inventory growth among the top US chipmakers (+80% annually) is outpacing already explosive revenue gains, while part of demand stems from structurally unprofitable AI players reliant on external funding, raising questions about the durability of the cycle.
More concerning is that this revenue boom has not translated into proportional industrial reinvestment: capex intensity among the top five global foundries slowed last year to a five-year low at 24% (and hardly 2% for the top three US chipmakers), or almost 10pps below its 2023 peak. In the meantime, capex intensity

among top US designers stayed relatively flat at 2%, with profits being distributed to shareholders, invested in start-ups in early stages of development or directly to business partners to fund new data-center infrastructure. With hyperscalers and tech service providers now absorbing roughly two-thirds of total AI spending, capital allocation appears heavily skewed toward data-center infrastructure, exposing a systemic imbalance. Behind circularity stories, there is a deeper issue within the AI ecosystem: a strong capital interconnection between each key actor of the chain whose funding has been gradually outsourced to financial markets and private investors. That holds seamlessly as long as the AI monetization narrative holds. The moment investors seriously question the timeline – and the friction-heavy reality of enterprise technology adoption gives them every reason to – liquidity assumptions could crack across cash, credit and equity simultaneously, with spillover effects that would reach well beyond the technology sector.

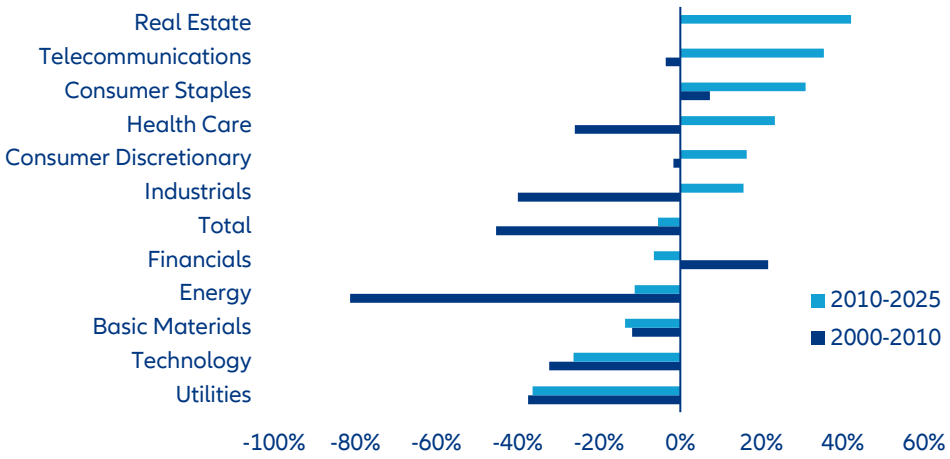
Figure 11: Circularity of investments from the AI ecosystem



Source: Allianz Research

4) **Middle-East tensions revive bad memories: a double chokepoint to monitor.** The re-escalation of Middle East tensions introduces two distinct but mutually reinforcing pressure points on the AI investment cycle – one financial, one industrial – neither of which the market has fully priced in. On the funding side, an energy-driven inflationary shock would complicate the rate outlook at precisely the wrong moment. Under already-intense scrutiny over capex monetization, higher-for-longer rates would give investors and lenders legitimate cover to tighten standards, demand stronger return guarantees and quietly stall the most speculative infrastructure projects. Given the extreme capital intensity of AI – where a single hyperscaler data center can absorb several billion dollars before generating a dollar of revenue – even a modest repricing of risk appetite could trigger meaningful investment pauses across the pipeline. This is not a theoretical sensitivity: the correlation between energy price volatility and technology sector capex in the US is among the strongest across all S&P 500 industries over both the 2000–2010 and 2010–2025 periods, suggesting that energy shocks reliably translate into investment hesitation across the tech supply chain. The silver lining, if there is one, is that capital discipline tends to accelerate efficiency: constrained funding historically pushes R&D toward leaner architectures, and the current cycle would likely see inference optimization and cost-efficient model deployment prioritized over brute-force training at scale.

Figure 12 : Correlation between capex and energy prices among US firms, per industry breakdown (S&P 500 benchmark)

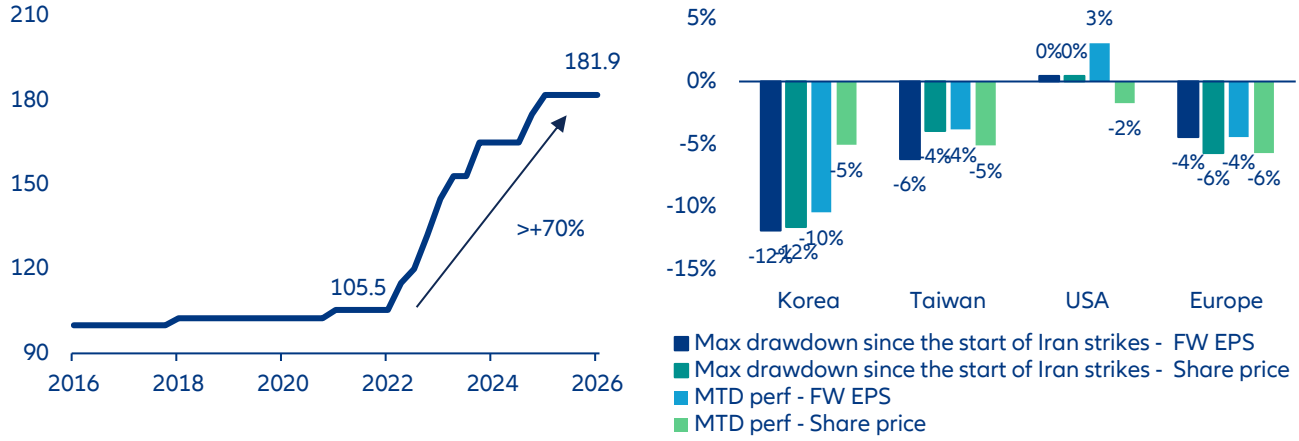


Data as of March 2026. Sources: LSEG Datastream, Allianz Research

The industrial pressure point is more immediate and more concrete. South Korea's industrial power price has surged over +70% since 2022, and both South Korea and Taiwan – home to the world's most critical semiconductor fabrication capacity – remain structurally dependent on Qatari LNG and helium supply as primary inputs for producing wafers. Any supply disruption or price spike flowing from Middle East instability hits Asian chip manufacturers directly in their cost base, compressing margins and risking output constraints at the worst possible moment for an AI ecosystem already running on tight GPU supply.

Is the capex cycle at risk from a chip/critical material shortage? At this stage we consider that risks of disruption in the super investment cycle are limited for two reasons: 1) capex is mostly driven by cash-rich and counter-cyclical companies whose revenue is less dependent on the macroeconomic outlook and 2) AI-related demand remains the top priority across the semiconductor supply chain. Regarding that second point, even moderate disruptions in wafer output are unlikely to materially derail ongoing capex dedicated to AI infrastructure. However, such constraints would limit any near-term acceleration in investment. They could also delay project timelines and increase implementation costs. However, a more volatile market environment will likely reinforce investor caution, particularly regarding datacenter monetization and the visibility of sustainable AI-driven revenue growth. The geopolitical stress does, however, carry one structural positive: it intensifies the urgency of supply-chain diversification, opening a credible investment case for semiconductor capacity in Europe and the US – a rebalancing that could, over time, reduce the systemic concentration risk that currently makes the entire AI buildout hostage to a handful of facilities in a narrow geographic corridor.

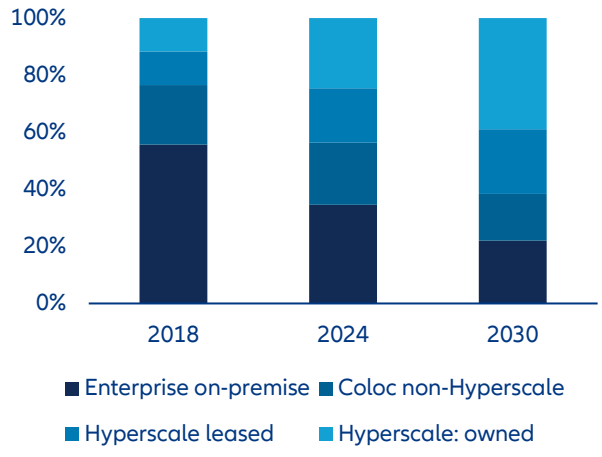
Figures 13 & 14 : Industrial power price in South Korea / EPS & share price variation of tech stocks since 27 Feb.



Data as of March 2026. Sources: Public statement from KEPCO, LSEG Datastream, Allianz Research

Smaller but smarter: monetization debate might lead further rationalization. Slowing AI adoption, compressing returns and volatile markets will inevitably test the conviction behind current capex programs. Yet reducing investment is not a credible option: pulling back signals retreat, cedes ground to competitors and risks losing the momentum that separates infrastructure leaders from fast followers. The capex expansion continues – but its risk profile is quietly being renegotiated. The scale of what is being built is extraordinary. Global data center capacity is on course to double by 2030, from roughly 130 GW today toward 260 GW, with hyperscalers as the overwhelmingly dominant engine – their share of total IT load expanding nearly 20pps to exceed 60%. At a 23% capacity CAGR, that implies approximately 100 GW of net new hyperscale deployment over five years. Applying current AI GPU cost structures and next-generation energy intensity assumptions, GPU procurement alone runs at roughly USD16bn per GW – implying a gross annual capex requirement approaching USD960bn if hyperscalers were to fund every megawatt themselves. But they won't bear that financial burden alone. Assuming current leasing ratios hold – where hyperscalers procure IT equipment directly but lease shell and core infrastructure – the annual capital commitment compresses to approximately USD730bn, a figure that aligns squarely with consensus estimates of USD760bn for 2028 alone. The next strategic frontier is pushing that ratio further: higher leasing penetration, more aggressive cost-sharing with co-investment partners and procurement structures that strengthen the AI service arsenal while keeping the balance sheet breathing.

Figures 15 & Table 4 : Distribution of current and future data center IT power load capacity per company profile breakdown / Simulation of yearly capex requirement from hyperscalers over the period 2026-2028 to fund datacenter estimated expansion



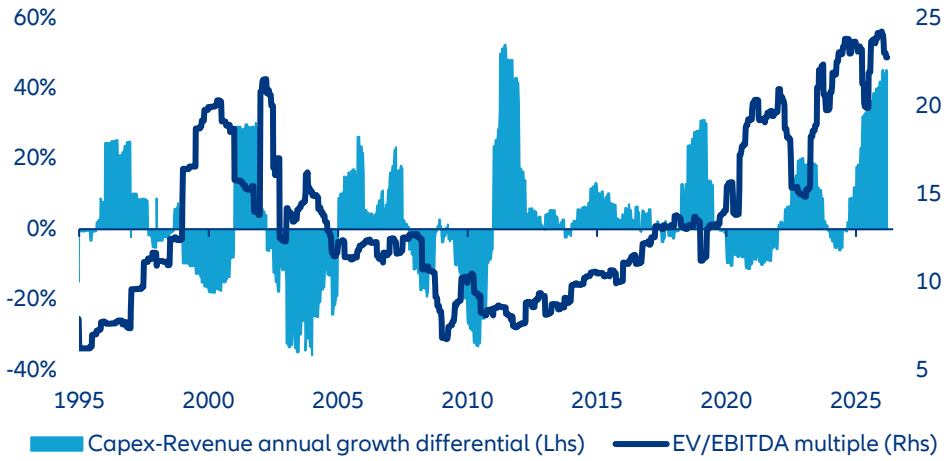
GPU ratio in total DC construction cost / DC full ownership ratio	40%	30%	Average
100%	827	1102	964
75%	703	909	806
63%	645	819	**732**
60%	628	793	711
50%	579	716	647
40%	529	639	584
30%	479	562	521

Sources: Synergy Group Research, Allianz Research

The changing economics of Big Tech: AI investment, profitability and valuation

Too highly valued? Capex monetization is the new compass for market mood. Despite the recent correction, US technology and AI equities remain richly valued relative to earnings, with EV/EBITDA multiples near 25x, close to historical extremes and above telecom valuations preceding the 2000 dot-com peak. The core issue is no longer AI potential but timing: capex is expanding far faster than revenues, with a ~46% growth gap between investment and sales, exceeding the 32% divergence observed during the 2001 telecom excess cycle. Infrastructure is scaling ahead of monetization, forcing investors to question whether current valuations already price in profits that remain distant. As early expectations of rapid AI earnings acceleration fade, markets are recalibrating toward execution risk and cash-flow delivery. This cooling of sentiment may ultimately mark a healthy transition – from narrative-driven valuation to discipline anchored in tangible returns.

Figure 16: Relative valuation and growth differential of revenue and investment from US technology industry

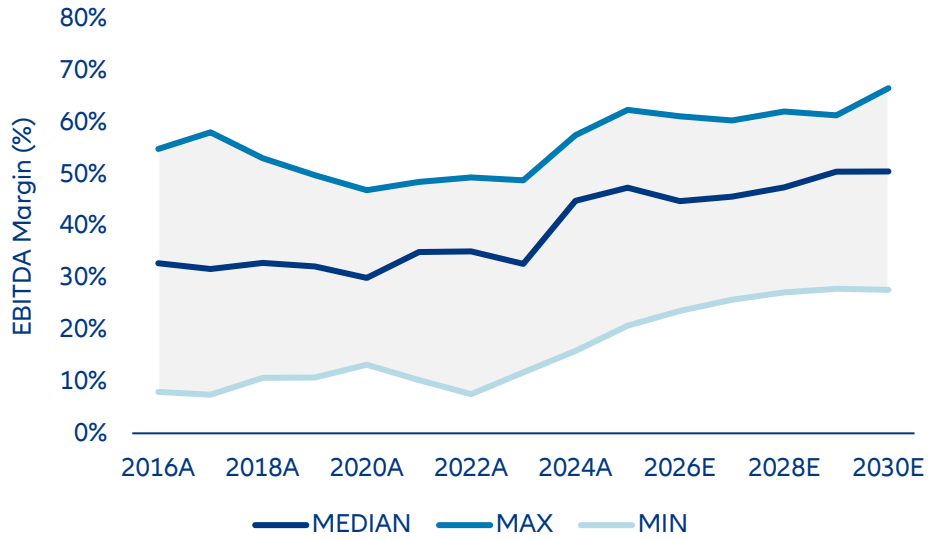


Data as of 16 march 2026. Sources: LSEG Datastream, Allianz Research

What are investors in Big Tech implying for AI growth and profitability? Assessing the profitability of AI-related activities remains challenging at the current stage of development. We are not trying to forecast the growth and profitability of AI companies but to form an opinion on legacy business contribution vs. AI expectations. We are also not trying to assess individual winners or losers but gauge sensitivities of the AI-complex to key assumptions. As a starting point we take consensus and past dynamics of legacy businesses. Segment disclosures and SEC filings (Forms 10-K and 10-Q) can be used to model legacy business activities separately, enabling a consistent projection of underlying operating performance. Given ongoing uncertainty surrounding AI monetization, particular emphasis is eventually placed on sensitivity analysis across key financial variables, with return on equity (ROE) serving as the central link between operating performance and valuation outcomes.

The changing capital intensity increasingly shapes the outlook for profitability. We focus on ROE which best combines the trade-off between capex and monetization. As illustrated in Figure 15, EBITDA margin development suggests that the expansion phase observed in previous years is gradually moderating. Amazon is an outlier at the lower bound, reflecting the still significant contribution of its lower-margin retail business, while hyperscalers remain influenced by the ongoing capex expansion cycle. Profitability remains structurally elevated, yet incremental improvements appear limited. This reflects the structural characteristics of large technology companies, many of which already operate with comparatively low cost bases and optimized operating structures. In fact, somewhat higher EBITDA margins are to be expected for a more capital-intense business and still imply lower net profitability. However, we can resonate cloud margins with the insights we have on existing cloud businesses, e.g. from cloud providers. The sensitivity analysis shown in Figure 18 highlights what we see as key drivers for financial performance and investor assessment via valuation. Variations in EBITDA margins exert a slightly lower influence on long-term outcomes, whereas changes in revenue growth assumptions more materially affect projected profitability as measured in ROE. This is also reasonable as transparency on data center profitability can already be better judged from existing operations than the unknown revenue potential from additional AI adoption and speed.

Figure 17: EBITDA margin development and peer range (2016–2030E)



Sources: Bloomberg Intelligence, Allianz Research

With the profitability engine under scrutiny, ROE sensitivity will gain attention on top of sales growth. Within our financial analysis, capex monetization via revenue growth therefore emerges as the primary focus channel for financial performance, which we gauge by ROE. At the same time, the analysis highlights a delicate balance between investment intensity and returns. Our capex-to-sales sensitivity further illustrates this trade-off, as higher investment intensity would reduce ROE across identical growth scenarios, with returns declining from around c.25% to c.23–24%, even before considering potential margin pressure from faster hardware depreciation. In this framework, a capex-to-revenue ratio of around 23%, as discussed in the previous analysis of AI investment dynamics, would broadly correspond to the +5% capex scenario in our sensitivity table and therefore reflects a moderate 0.4pp increase in investment intensity relative to the base case. At the same time, the previously discussed estimate of around 200bps margin compression from faster hardware depreciation would broadly be captured by the -2% EBIT margin scenario in the sensitivity analysis and would translate into roughly a 1pp reduction in ROE, broadly consistent with the sensitivity illustrated in our framework. This indicates that expanding the capital base alone does not enhance profitability unless supported by sufficient revenue monetization. Big Tech companies rush into capex to ensure market share in the structural growth trend. This comes at the risk of higher capital base with insufficient monetization. A lower capital expenditure ratio combined with stronger revenue realization support higher ROE outcomes. Big Tech companies therefore appear to operate along a narrow path between sustained investment and maintaining stable return expectations.

Table 4: ROE sensitivity to growth, margin and capex assumptions

ROE		EBIT-Margin Increase				
		-5%	-2%	0%	2%	5%
5Y Sales CAGR	-5%	21.81%	22.59%	23.11%	23.63%	24.41%
	-2%	22.10%	22.89%	23.42%	23.94%	24.73%
	0%	22.29%	23.09%	23.62%	24.15%	24.94%
	2%	22.49%	23.29%	23.82%	24.36%	25.16%
	5%	22.78%	23.59%	24.13%	24.67%	25.48%

ROE		5Y Sales CAGR				
		-10%	-5%	0%	5%	10%
CAPEX	-10%	24.35%	24.86%	25.36%	25.87%	26.37%
	-5%	23.92%	24.43%	24.93%	25.44%	25.94%
	0%	23.50%	24.00%	24.51%	25.01%	25.51%
	5%	23.07%	23.57%	24.08%	24.58%	25.09%
	10%	22.64%	23.14%	23.65%	24.15%	24.66%

Source: Allianz Research

ROE is key – beyond being a profitability indicator it is also one driver for fair valuation. Forward valuation metrics based on consensus estimates suggest broadly stable to slightly moderating P/E ratios from c. 35x this year to c. 23-24x in three years. Technology equities therefore remain premium-valued, yet forward multiples indicate limited scope for further expansion. Market expectations appear increasingly focused on realized earnings delivery rather than additional valuation rerating. In this environment, future equity performance is likely to depend more strongly on the successful monetization of AI-related investments and sustained top-line growth, while multiple expansion plays a diminishing role and rests on long-term growth. High ROE is a key determinant for investors to inform a "fair" valuation multiple because it directly drives future earnings growth from retained earnings. What actually matters is the spread between ROE and cost of equity. The latter is also influenced by AI reshaping companies' capex and sales via increased leverage and potentially higher revenue growth variability. Beta has increased from below 1.2 in 2016-24 to 1.5 in 2024-26. We apply our analysis on ROE to evaluate potential PE ranges for Big Tech and conclude that current valuations appear fair under current assumptions but with some sensitivity to sales and capex intensity. Via this multiplier, future financial performance will add an even higher impact for share price performance. The framework presented in Figure xx illustrates a sensitivity analysis, showing how different assumptions for five-year sales CAGR and capex intensity translate into varying long-term valuation outcomes, with the indicated PE centering around a c. 23x earnings multiple by 2030, consistent with a structurally strong but more mature profitability profile. Sensitivity on sales growth is highest and above implication from capex which anyhow is unlikely to drop notably soon while upside surprises are more likely and can be expected to dampen both, EPS and ROE via higher depreciation as well as PE.

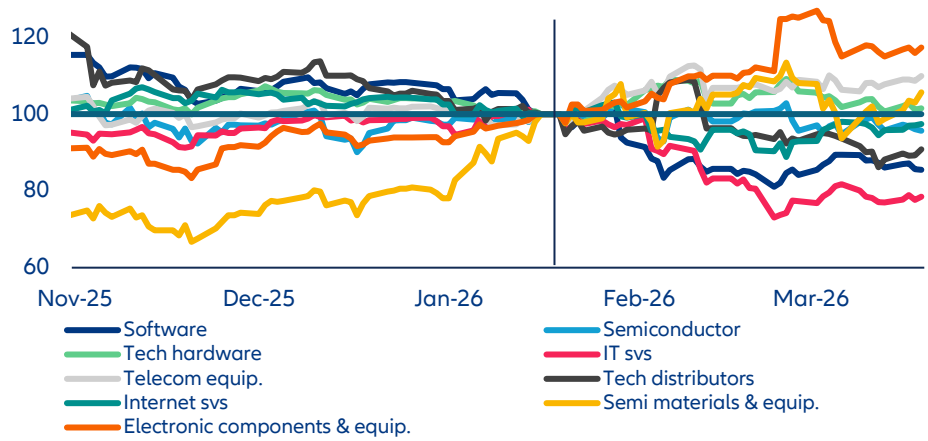
Table 5: Impact of growth and capital intensity on long-term valuation

P/E		Sales CAGR (surprise p.a.)						
		-9%	-6%	-3%	0%	3%	6%	9%
CAPEX (surprise p.a.)	-10%	23x	24x	25x	27x	28x	29x	31x
	-5%	22x	23x	24x	25x	26x	27x	29x
	0%	21x	21x	22x	23x	24x	25x	27x
	5%	20x	20x	21x	22x	23x	24x	25x
	10%	19x	19x	20x	21x	22x	22x	23x

Source: Allianz Research

The long-term outlook of the tech industry still looks rosy but uneven and inequal. We expect a more uneven performance trajectory for US technology stocks, with downside risks driven by valuation pressure and a broader shift toward risk-off positioning. Rotation away from megacap tech had already begun ahead of the Middle East escalation, suggesting that recent geopolitical events are amplifying, rather than initiating, the correction. Investor scrutiny is intensifying around the long-term monetization of elevated capex, particularly among hyperscalers, where the scale and timing of AI-related returns remain uncertain. At the same time, sentiment toward parts of the software sector is deteriorating, reflecting concerns over business model dilution as AI capabilities become more commoditized across corporate ecosystems. This combination is likely to sustain a degree of multiple compression and limit near-term upside for the most richly valued names. However, the outlook is not uniformly negative. Select segments within the tech value chain, notably semiconductors and infrastructure suppliers, continue to benefit from strong datacenter demand, with pricing dynamics potentially reinforced by rising commodity costs linked to geopolitical tensions. These areas appear structurally better positioned to capture near-term earnings visibility. In parallel, US leadership in AI infrastructure could attract incremental capital reallocation, particularly from Middle Eastern investors whose domestic investment pipelines may face delays. Over the longer term, the structural case for US tech remains intact, supported by innovation leadership and sustained demand for AI capabilities. That said, performance is likely to become more selective, with greater dispersion across subsectors and a less uniformly supportive environment than in previous cycles.

Figure 18: US equity performance of technology subsectors (rebased to 100 on 19 January)



Data as of 19 March 2026. Sources: LSEG Datastream, Allianz Research

These assessments are, as always, subject to the disclaimer provided below.

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(v) persistency levels, (vi) particularly in the banking business, the extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the EUR/USD exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures,
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