Semiconductors/Semi Cap Equipment

2Q26 Preview: 15% Pullback in Stocks Sets the Stage for 2H Outperformance as Upcoming Positive Earnings Revision Cycle to Continue on AI-Led Momentum and Broad Cyclical Recovery

Semiconductors & Semiconductor Capital Equipment / IT Hardware

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We head into 2Q26 earnings season expecting companies to deliver better 2Q results while providing constructive commentary on the outlook for 3Q, alongside better outlooks for CY27, extending the positive earnings-revision cadence of the past several quarters (ex-memory, out-year EPS estimates over the past two earnings seasons have been revised higher by 20-40% for semis/semicaps), and we anticipate this trend to continue — which in turn we think supports continued semis outperformance through CY26, especially after the recent 13-15% pullback in the group. The demand signals underpinning our overall thesis around semis momentum/outperformance have, if anything, strengthened: hyperscalers and AI labs remain capacity-constrained just as agentic-AI inference accelerates, and JPM now models Top-4 US hyperscaler data center capex rising ~80% Y/Y in CY26 (up from 70%+ a few months ago), followed by at least 50% growth in 2027 (biased higher), with AI-accelerator units rising to 16.3M in 2026E (+62% Y/Y) and 23.3M in 2027E (+43%). NVDA's $1T+ Blackwell + Rubin framework and AVGO's path toward/beyond $100B+ of AI revenue in FY27 extend demand visibility into CY27 and beyond, and the sustainability debate has shifted accordingly — less about whether demand is real and more about whether the supply chain (leading-edge foundry, HBM, advanced packaging) and power can keep pace. On a relative basis, we continue to expect custom XPUs to gain share of the accelerator TAM (ASIC/XPU rising from ~32% of units in 2025 to ~42% in 2026E and ~53% in 2027E) as hyperscalers scale TCO-advantaged internal programs. Memory remains one of the more debated calls across semis, and the setup has somewhat shifted over the past few months. Our global team's work (see here) points to structural DRAM/NAND supply-demand tightness now extending through CY28E — conceptually aligning with Micron's recently revised expectation of S/D tightness beyond CY27, up from "beyond 2026" previously (see here), as surging AI/server-driven demand and HBM prioritization keep conventional DRAM and NAND supply tight. Given the convergence in expectations around a protracted supply/demand imbalance, we think the key debate moves from pricing resilience to the structure and terms of new SCAs/LTAs and their ability to dampen historical cyclicality and support a further re-rating for the group. Alongside memory, networking has emerged as one of the fastest-growing layers of the AI stack, led by the 800G→1.6T transition, with AVGO holding ~70% switching share and AI networking revenue growing ~3x this year, and MRVL's optical business up ~70% Y/Y. In semicaps, we see the WFE upcycle both strengthening and lengthening on a historic AI-led fab buildout — we model WFE +28% Y/Y in CY26 and +29% in CY27 (with upside risk), driven by rising process-control/etch/dep intensity at leading-edge nodes, and credible upside to customer capex budgets (underpinned again by AI-led demand). In EDA, rising chip complexity and expanding ASIC/GPU program pipelines should drive solid results and a continuation of the group's beat-and-raise cadence. Set against this AI strength, we see a sharpening bifurcation in consumer/client end markets, where memory-driven BOM inflation is pressuring demand. Our hardware team forecasts 2026 smartphone and PC unit shipments to be down ~11% and ~9% Y/Y,

See page 27 for analyst certification and important disclosures.

respectively, and we expect management teams to carry a more cautious bias into 2H26 even as premium/iPhone sell-through holds up. The broad-based cyclical recovery remains on track and is led by industrial, supported by lean channel inventories, short lead times (now beginning to creep higher), pricing power and tight supply, synchronized end-market growth, and new product cycles, against a supportive macro backdrop (global GDP +2.4% in 2026/2027; June global manufacturing PMI of 53). Net, we expect semi industry revenue to grow 30%+ this year ex-memory), and we continue to favor names with the highest-quality AI exposure and/or clean leverage to the broadening cyclical recovery — OW AVGO, OW MRVL, OW NVDA, OW ADI, OW MU in semis; OW KLAC in semicap; OW SNPS in EDA, plus N MTSI, OW MKSI, and OW ALAB in smid-cap.

- **Anticipating upside to 2Q results and 3Q guidance driven by cyclical recovery trends, pricing power amidst tight supply dynamics across the supply chain, and AI-driven demand growth; the 13-15% pullback pre-earnings served to reset elevated expectations, and we see strong positive earnings revisions and favorable forward commentary supporting stock outperformance through 2H26.** In aggregate, we expect 2Q results (revenues, margins, EPS) to be better than consensus expectations, and we expect companies to guide 3Q outlooks above consensus on further improvements in demand for AI/accelerated compute (which continues to fuel growth throughout the semis value chain) coupled with above-seasonal growth for cyclical segments of the market. Recent industry data corroborates the momentum: WSTS May sales accelerated to +119% Y/Y (+34% Y/Y ex-memory) - up from +106% Y/Y in April, quarterly Q/Q growth has run above its 10-yr seasonal average for ten straight quarters, and earnings beat rates have held above 70% for several consecutive quarters, which raises the bar and shifts focus more toward forward commentary, where we see companies broadly relaying an incrementally better growth outlook for 2H26 and 2027.
- **AI/accelerated compute demand growth continues to outpace supply; multi-year, multi-generation infrastructure capacity planning is expanding and extending backlogs for compute providers beyond CY27; custom XPUs continue to gain share.** Hyperscalers and model labs remain compute constrained amid explosive growth in agentic inference - token volume growth accelerated in June, expanding +70% m/m (vs. +33% in May and +5% in April) and 20x y/y (vs. 12x in May and 15x in April) — see our Hardware team's recent "*Data Center Watch*" report. With these hyperscalers/AI labs already committing to multi-year, multi-generation AI infra capacity build-outs, JPM models Top-4 US hyperscaler DC capex up 80% Y/Y in 2026, followed by at least 50% growth in 2027, with room to move higher given backlog visibility at AVGO/NVDA/MRVL. That said, we do not expect the two hardest questions — (1) can leading-edge foundry, HBM, advanced packaging and, increasingly, power keep pace, and (2) is strong capex growth post 2027 sustainable — to be resolved this earnings season, but we do expect incrementally positive data points on supply readiness and CY27+ bookings. An actionable sub-theme we would highlight is the evolving shift in AI compute mix - as workloads fragment away from one-size-fits-all inference, we expect custom XPUs to continue to take share of the accelerator TAM (ASIC/XPU rising from ~32% of units in 2025 to ~42% in 2026E and ~53% in 2027E).
- **Smartphone/consumer — memory-driven BOM inflation remains the key overhang into 2H; 2Q/3Q should be broadly in-line but commentary will likely be cautious.** We expect smartphone/consumer-exposed names to deliver largely in-line 2Q results and 3Q guidance, supported by resilient premium smartphone/iPhone sell-through and relatively lower exposure to weaker low-/mid-end Android demand, where memory-related pressure has been most acute. That said, the setup remains materially less robust than for AI infrastructure, with higher memory pricing and supply constraints pressuring consumer. The key debate going into 3Q/2H is the extent of demand destruction as OEMs and end customers absorb higher memory costs, particularly in price-sensitive consumer categories. We expect management teams to retain a cautious

bias, while select Apple/premium-content suppliers such as AVGO should remain better positioned on content/share dynamics rather than near-term unit growth.

- **Analog/MCU — recovery is broadening; supply dynamics remain tight and companies are exercising pricing power; 3Q guides should skew constructive, but still more "run-rate normalization" — broad restocking momentum still lies ahead.** We expect analog/MCU names to deliver in-line to modestly better 2Q results and constructive 3Q commentary, driven by improving industrial demand, AI/data-center halo effects across power/control/energy infrastructure, strengthening A&D, lean channel inventories, and continued auto content growth despite a muted unit backdrop. Recent company commentary points to healthier order quality (backlog extending further out, book-to-bill improving, POS/customer counts recovering, and lead times beginning to firm), but companies are still largely framing demand as a return to end-demand/run-rate rather than a full restocking cycle. The key debate for 3Q is whether improving end-demand converts into broader order normalization through 2H, particularly in industrial automation/factory automation, energy infrastructure, A&D, and auto content vectors such as EV, ADAS, zonal/software-defined vehicle architectures, Ethernet/connectivity, radar/BMS and power. Pricing should also provide modest 2H support as companies pass through inflationary input costs, though most are framing actions as cost recovery rather than shortage-driven pricing power.
- **Memory (DRAM/NAND) — Structural S/D tightness to extend through CY28 on broadening AI demand; next leg of re-rating across the sector hinges on structure/terms of SCAs/LTAs and whether they can improve visibility/dampen cyclicality.** Memory remains one of the most widely debated areas within semis, and in this note, we are reiterating our multi-year bullish view on the space. Our global memory team's work over the last 90 days suggests that memory fundamentals remain favorable, supported by persistent supply/demand tightness across DRAM and NAND. Sharp growth in server CPU demand (35-50% CAGR through 2030) is driving significant incremental demand for DRAM, fueled by the proliferation of agentic inference that leans on CPU compute far more heavily than single-shot inference. At the same time, memory supply remains constrained as vendors prioritize capacity towards HBM, which is strategically seen as a key constraint for serving AI-related demand (as a reminder, note that the HBM trade ratio tightens availability for conventional DRAM bits). These conditions should enable memory vendors to continue benefiting from strong bit shipments and higher ASPs, helping companies sustain their positive revision cadence. While the market broadly expects tightness to persist beyond 2027, we see increasing potential for the imbalance to extend closer to our team's 2028E forecast, driven by broadening demand, technological supply constraints brought about by the HBM trade ratio, and the fact that company expectations have already moved in that direction (recall Micron recently indicated S/D tightness would persist beyond 2027, up from its prior expectation of beyond 2026). Although one could argue that much of this cyclical strength has already been accounted for in memory stocks (given the surge in share prices over the last 3 months), we believe there continues to be a disconnect between memory market expectations and memory stock valuations. Thus, we expect investor focus this earnings season to increasingly center on the structure and terms of new SCAs/LTAs and their role in reducing cyclicality, improving revenue visibility, and potentially supporting a further re-rating across the sector.
- **Semicap/WFE — The cycle is strengthening and lengthening on a historic AI-led fab buildout, with supply-chain tightness pulling demand forward and driving visibility to the strongest levels we've seen in over a decade.** Our team's recent checks continue to reinforce our view that WFE outlooks will strengthen through this earnings season, as 2H26 is shaping up to be materially stronger than 1H26 due to customers pulling in demand to secure tool slots for future facilities. Moreover, we expect demand to further accelerate in CY27-28 as more cleanroom additions start ramping up across foundry/

logic and memory customers, creating upside risk to our current WFE forecasts of +29% Y/Y growth in CY27 and +16% Y/Y growth in CY28. In foundry, we expect spending to be primarily driven by TSMC as our global team sees a more aggressive N2/N3 buildout and higher equipment orders from 2Q26 onward, resulting in capex now forecast at $58bn/$78bn/$84bn across CY26E/CY27E/CY28E (up from $56bn/$65bn/$72bn prior). In DRAM, improving economics and expectations of a multi-year shortage are catalyzing broader investments across key memory vendors, and we estimate the industry's aggregate ~$368bn capex over 2026-28 to drive DRAM WSPM higher to ~2.76mn by the end of CY28 (+829k vs. the end of 1Q26). NAND, by contrast, remains more conversion/migration-led in 2026-27 in our view, with greenfield upside layering on in ~2H28 and beyond (JPMe NAND WSPM rising to ~1.44mn by the end of CY28 — +155k vs. the end of 1Q26).

- **Chip design software (EDA)/IP — complexity, custom silicon, and agentic AI workflows should support solid 2Q results/3Q guidance, with the debate shifting from "can AI disrupt EDA?" to "how much incremental TAM can AI unlock?"** We expect EDA/IP fundamentals to remain strong, driven by rising chip and system complexity, accelerating AI accelerator/custom ASIC activity, 3DIC/chiplet adoption, and broader demand for high-value connectivity/memory IP. We view AI as a net positive for the EDA model: agentic workflows should expand the addressable market by automating work previously done manually, increase consumption of underlying "ground truth" verification/signoff tools, and help customers manage an otherwise unsustainable engineering-resource curve as design workloads scale. IP should also become a more important growth and monetization lever as hyperscalers move deeper into custom silicon/COT programs that require differentiated and increasingly customized IP, potentially supporting richer fee structures and royalty participation over time. We also see multi-physics/3DIC simulation and physical-AI workflows as incremental growth vectors, particularly as chips become more system-like and thermal/mechanical constraints move earlier into the design process. In sum, we expect constructive commentary and solid guidance across EDA/IP, with the key investor debates centered on the pace of agentic-AI monetization, customized IP/royalty adoption, and integration/synergy execution in broader system-design portfolios.
- **We continue to expect semis to outperform the broader market through CY26; positive earnings revisions, broadening leadership beyond the AI-pure names, and improving CY27 visibility remain the key pillars.** Semis have outperformed YTD, consistent with the setup we flagged entering the year, and we see the key drivers of further outperformance largely intact. Our view is underpinned by a continued positive earnings revision cycle, strength broadening beyond AI compute/networking into analog/MCU, memory, and semicap/EDA, and improving CY27 visibility across multiple vectors (hyperscale supply commitments and XPU technology roadmaps). Valuation, while no longer "cheap" in absolute terms, remains defensible relative to the group's earnings growth trajectory and is not yet at levels that have historically marked cycle peaks. Key risks we are monitoring: (i) demand destruction in PC/smartphone from further memory-driven BOM inflation, (ii) sustainability of AI capex beyond CY26 and the pace of monetization at the hyperscalers, (iii) China WFE normalization and associated export-control dynamics, and (iv) broader macro. On balance, we remain constructive and reiterate our preference for names with the highest-quality AI exposure and/or clean leverage to the broadening cyclical recovery. Our top picks are: AVGO, MRVL, ADI, MU in semis; KLAC in semicap; SNPS in chip design software/IP; we also favor NVDA, LRCX, CDNS, AMAT, WDC, and ALAB.

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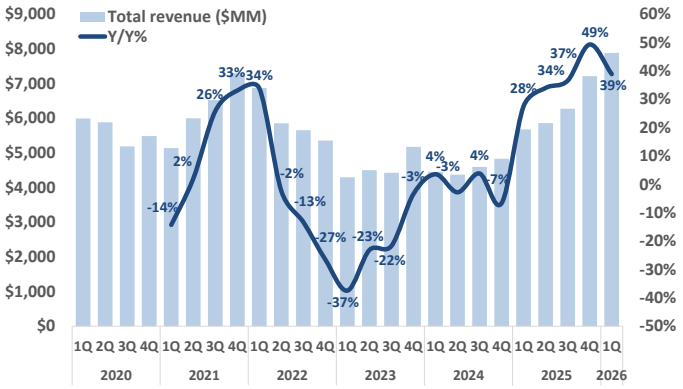
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Accelerating Demand in AI/Datacenter Combined With Broad-Based Cyclical Improvements

PC / Datacenter Compute

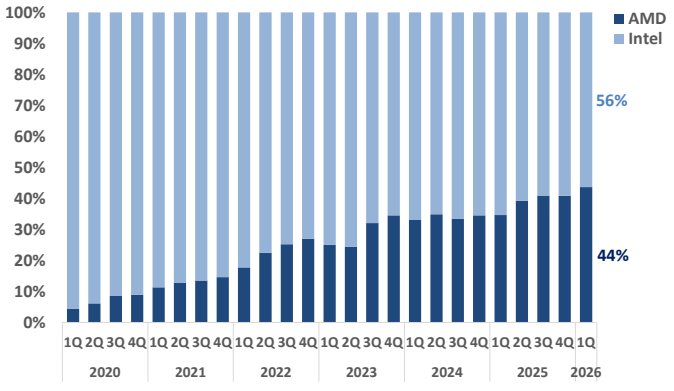
Heading into the 2Q print, we expect the client CPU narrative to reflect above-seasonal 1H demand pulled forward ahead of memory-driven price hikes, setting up softer 2H dynamics that should shape 3Q guidance. We continue to expect PC unit shipments to decline 9% Y/Y in 2026, while server shipments are forecast to grow 25-30%. Key drivers remain (1) the impact of rising memory prices on PC/server demand, and (2) the pull on traditional server CPU compute from AI inference workloads (particularly in relation to reasoning models and agentic workloads). For PC, we believe expectations of continued upward pressure on memory pricing (and shortages) likely fueled above-seasonal CPU sell-in and sell-through in 2Q26 as downstream customers build inventory ahead of further price hikes, followed by below-seasonal quarterly trends later in the year on the back of weaker demand dynamics. For AMD, we expect continued strength in Ryzen sell-through and commercial adoption, with mgmt likely to reiterate that PC shipments soften in 2H while client revenue still grows Y/Y and outperforms the market. For INTC, capacity expansion (18A ramp) and pricing support should, in our view, help to partially offset further share loss to AMD. We hold a much more constructive outlook for server CPU through 2026 and into 2027, as explosive growth in agentic AI inference workloads is also driving demand for traditional compute (including server storage and workload orchestration that is most efficiently handled by CPU vs. GPU). Rapidly evolving agentic AI-led demand for server CPUs has already prompted AMD to frame its $120B+ 2030 server CPU TAM estimate (which implies a ~35% revenue CAGR for 2025-2030) as a "point-in-time" estimate that will likely prove conservative (despite only being introduced a few months ago) - see our AMD pre-QP takeaways report here. We see AMD continuing to hold a competitive advantage in server CPU relative to INTC with its EPYC Gen 5 (Turin) product portfolio (which began ramping on N2 at TSMC in mid-2Q26), as it has with Turin/Gen 4.

Figure 1: x86 Server CPU quarterly revenue



Source: IDC, J.P. Morgan estimates

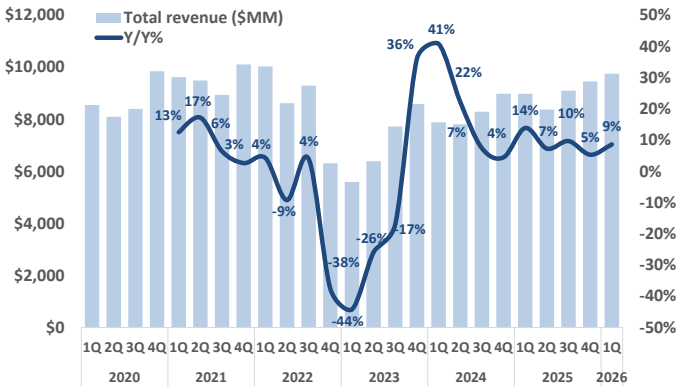
Figure 2: x86 Server CPU quarterly revenue share



Source: IDC, J.P. Morgan estimates

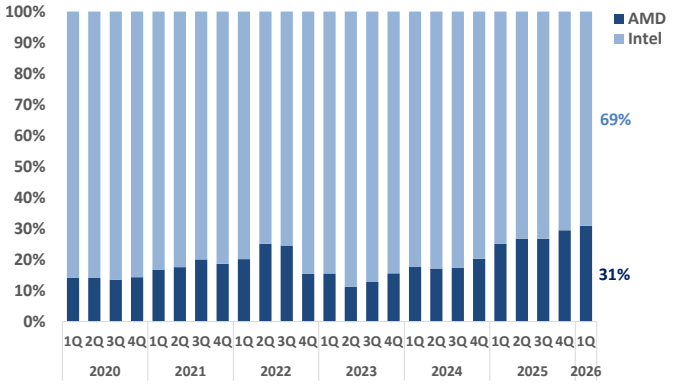
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Figure 3: x86 Client/PC CPU quarterly revenue



Source: IDC, J.P. Morgan estimates

Figure 4: x86 Client/PC quarterly revenue share



Source: IDC, J.P. Morgan estimates

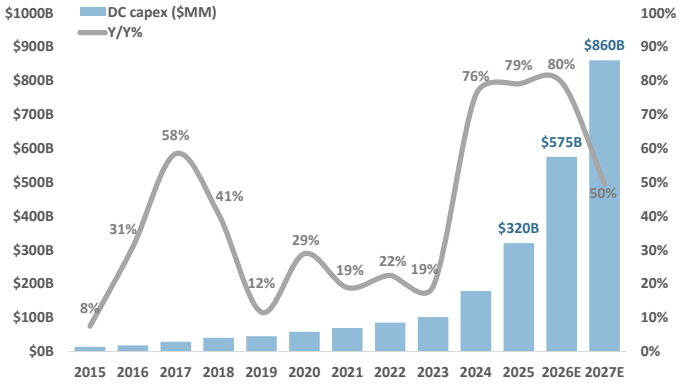
On AI/accelerated compute, we expect hyperscalers to continue to upside on AI infrastructure buildout plans as the 2Q season unfolds - JPM forecasts data center capex estimated to be up ~80% Y/Y in 2026 (up from an estimated 70%+ just a few months ago), followed by at least 50% growth in 2027. Despite underlying concerns around the sustainability of this rapid pace of growth in AI-related DC capex, sentiment around upward revisions to hyperscaler capex budgets remains constructive, with expectations for 2026 and 2027 continuing to push higher. Street consensus now calls for $140B+ additional gross capex in 2027 for the top 4 US hyperscalers relative to just ~3 months ago, implying low-20% Y/Y growth next year (relative to a $675B+ capex base for 2026). Even with current Street aggregate capex estimates at ~$825B for 2027, we would not be surprised to see expectations move materially higher over the next several quarters, given backlog/order visibility at key providers of AI compute and networking (e.g. AVGO, NVDA, MRVL) that point to a significant step-up in customer spending activity next year (we see data center capex growth being substantially higher than current low-20% Y/Y expectations for overall capex in 2027).

Hyperscalers and AI labs/natives remain compute constrained, just as agentic AI-led inference demand accelerates, driving a scramble to secure compute capacity. NVDA and AVGO have both discussed extended visibility into order levels for CY27 - NVDA's $1T+ Blackwell + Rubin revenue framework underwrites strong visibility into CY27 even before considering Vera CPU, LPX, or other ecosystem optionality, and AVGO is on track to approach and potentially exceed $150B of AI revenue in FY27), as customers proactively lock-in capacity well in advance of deployment amid expectations of significant growth in demand for compute. Against this backdrop, an evolving dynamic that we continue to highlight is the shift away from a "one size fits all" approach to inference, where, for example, latency sensitive workloads are increasingly directed towards specialized hardware such as Groq LPUs, Cerebras wafer-scale engines or ASICs. Given this evolution in workload distribution, we maintain our view that on a relative basis, custom AI XPUs will continue to gain share of the overall AI accelerator TAM in CY26/CY27 (relative to GPU), with hyperscalers remaining committed to scaling internal TCO-advantaged custom AI XPU programs to support explosive growth in AI workloads (including low-latency workloads). We are cognizant, though, that upside to current growth forecasts may be crimped by supply chain capacity (ability to support incremental chip/server/system volumes), with 3nm/4nm foundry

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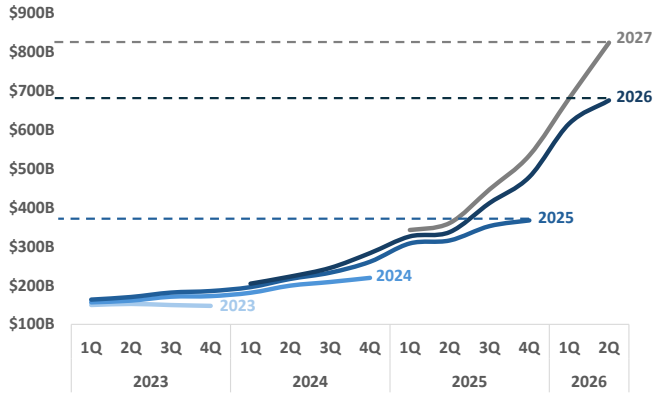
wafer capacity and memory (HBM) supply being the most prominent gating factors, and key themes/debates for this earnings season.

Figure 5: Data center capex for Top 4 U.S. hyperscalers



Source: 650 Group and J.P. Morgan estimates

Figure 6: Street consensus for Top 4 U.S. hyperscaler capex



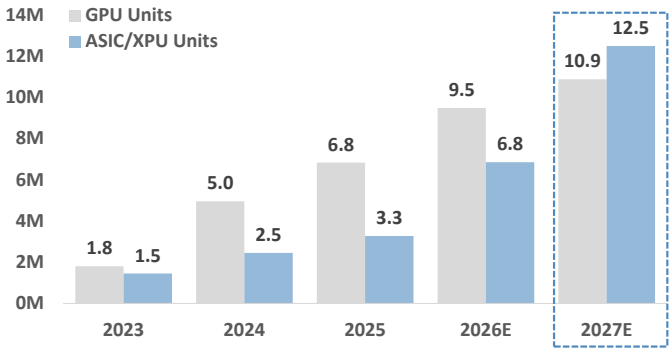
Source: Bloomberg Finance L.P.

Figure 7: AI accelerator annual unit shipment estimates

AI accelerators units (MM)	2023	2024	2025	2026E	2027E
NVIDIA GPUs	1.7	4.5	6.2	8.9	9.9
AMD GPUs	0.1	0.5	0.7	0.6	1.0
Google TPUs	1.2	1.7	1.8	4.5	8.0
AWS Inferenta + Trainium	0.3	0.8	1.5	1.9	3.3
Meta MTIA	0.0	0.0	0.0	0.3	0.5
Microsoft MAIA	0.0	0.0	0.0	0.2	0.7
Total	**3.3**	**7.4**	**10.1**	**16.3**	**23.3**
Growth Y/Y%		*128%*	*36%*	*62%*	*43%*
GPU % total units	55%	67%	68%	58%	47%
ASIC/XPU % total units	45%	33%	32%	42%	53%

Source: Company reports, J.P. Morgan research

Figure 8: GPU vs AI ASIC/GPU unit shipments



Source: Company reports, J.P. Morgan research

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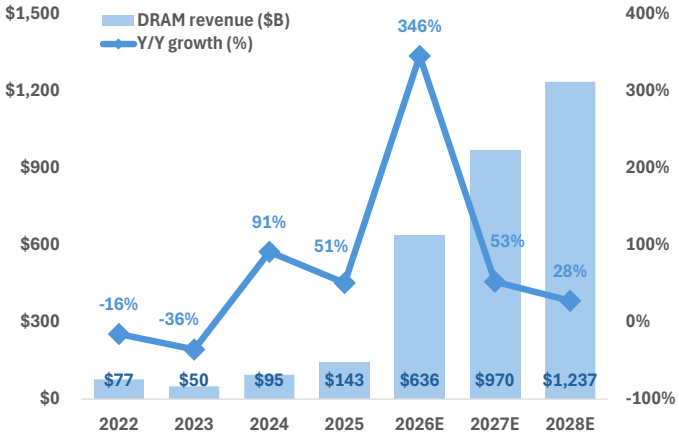
Refer to our global team's most recent Global Memory Update for a more detailed discussion of our memory sector forecasts.

Memory and Storage

We believe the fundamental setup for memory remains largely favorable heading into 2Q26 earnings season, driven by persistent tightness in supply/demand conditions. Demand for memory has significantly expanded over the last twelve months, with growth being predominantly driven by rising memory content (DRAM + NAND) across AI and non-AI server deployments and accelerating CPU-related demand tied to the growing proliferation of agentic-AI (which demands significantly more memory due to the use of iterative reasoning). Supply, on the other hand, has become increasingly constrained as vendors prioritize capacity towards HBM, which is strategically seen as a key constraint for serving AI-related demand. All told, these dynamics have yielded a favorable market environment where memory vendors are benefitting from strong growth in shipment volumes coupled with even stronger growth in ASPs.

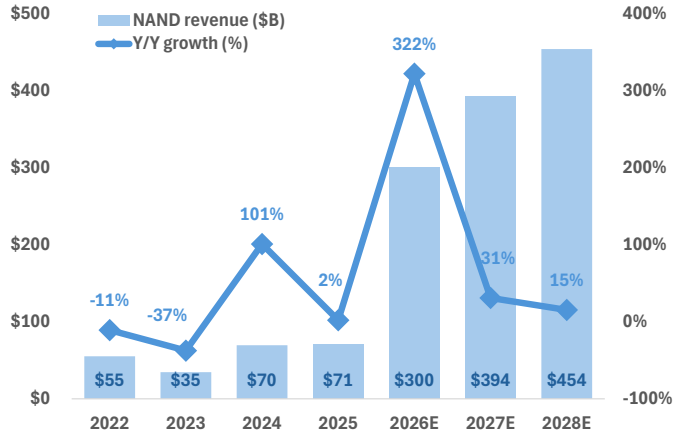
Our global memory team expects this supply/demand tightness across DRAM and NAND to persist through 2028E, resulting in strong, yet moderating, Y/Y DRAM and NAND revenue growth over the next 3 years (*see Figures 9 and 10 for details*). Note that our team's supply/demand forecasts stand directionally in-line with broader sell-side and company expectations — both of which generally call for an imbalance persisting beyond ~2027. However, we believe there is an increasing likelihood that the tightness will extend beyond current consensus expectations (and closer to our team's forecasts) — recall that Micron now anticipates tightness persisting beyond CY27 (a push-out from prior expectations of "beyond 2026"). That said, given the relatively consistent expectation around there being a prolonged, multi-year supply/demand imbalance, we think investor focus this quarter will increasingly center around SCAs/LTAs (Strategic Customer Agreements/Long-Term Agreements) and their ability to drive more stable business conditions in a sector that has historically faced extreme cyclicality. As we look into this upcoming earnings cycle, we expect more memory vendors to take a leaf out of Micron's playbook and provide incremental details on their own LTA contracts (prepayment mechanisms, take-or-pay conditions, etc.), which should act as a positive catalyst and pave the way for a re-rating across the space.

Figure 9: DRAM TAM Forecast



Source: Company reports, J.P. Morgan estimates.

Figure 10: NAND TAM Forecast

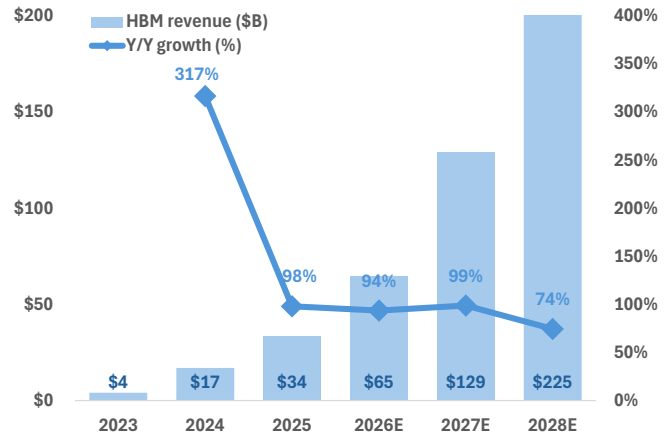


Source: Company reports, J.P. Morgan estimates.

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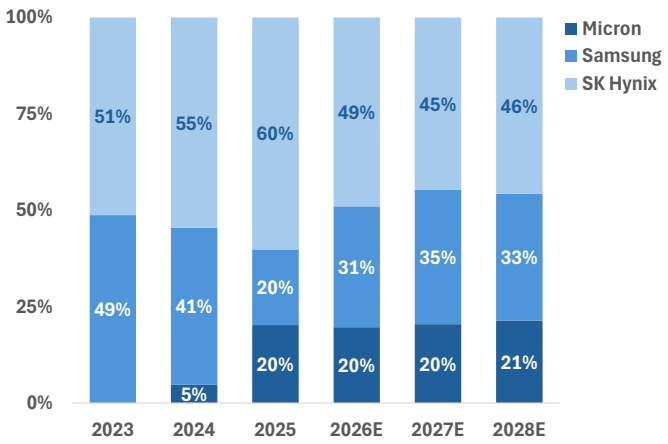
Within DRAM, we model the HBM TAM to strongly grow to $65bn in 2026E (+94% Y/Y), with further expansion to $129bn in 2027E (+99% Y/Y) and $225bn in 2028E (+74% Y/Y). We note that HBM production for CY26 was fully contracted by late-CY25, and our global channel checks suggest planned output for CY27 will likely be fully allocated within the next few months (prior to year-end CY26). The demand read-through from Micron's recent earnings call aligns with our checks, as the company cited that its latest-generation HBM4 12-Hi products are ramping 2x faster than their HBM3E 12-Hi predecessors and that it has already shipped over >$1bn worth of HBM4 chips. That said, we expect HBM bit supply growth to continue trailing HBM bit demand growth, even as wafer capacity allocations towards HBM continue to rise. This should result in a supply/demand imbalance through 2028E, and blended HBM ASP growth of +13% Y/Y in 2026E, +32% Y/Y in 2027E, and +17% Y/Y in 2028E. Note that the step up in our 2027 ASP forecast stems from a mix shift towards HBM4E, which we expect to carry a ~61% pricing premium to HBM3E and a ~28% pricing premium to HBM4 due to continued tightness in the supply-chain.

Figure 11: HBM TAM Forecast



Source: Company reports, J.P. Morgan estimates.

Figure 12: HBM Market Share Forecast



Source: Company reports, J.P. Morgan estimates.

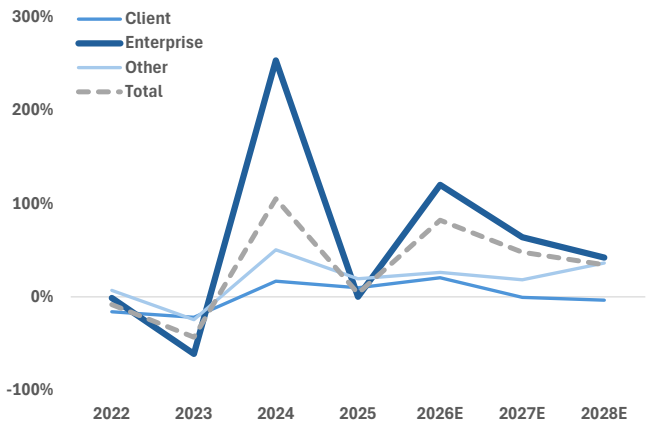
In NAND, eSSDs (Enterprise SSDs) remain the primary driving force behind TAM expansion, and we expect demand for these products to accelerate as major CSPs (Cloud Service Providers) scale their AI infrastructure. There are several factors underpinning why CSP demand for eSSDs is growing, but in our view, the main reasons include:

- AI servers need fast local storage to support dataset staging (pre-positioning training data closer to compute resources) and frequent checkpointing (periodically saving the model's progress during training steps) — both of which are vital to optimizing GPU utilization in larger AI workloads. Naturally, this results in growing eSSD content per GPU rack, especially relative to classic web workloads.
- Ultra-high capacity SSDs reduce storage costs ($/TB) and enable higher storage density, making it an economically superior option for CSPs looking to keep frequently accessed data on fast flash storage as opposed to shifting it to slower storage tiers (which directly affects overall compute efficiency and productivity).

- eSSDs are increasingly being built into standard AI rack designs because training and inference require fast movement of data between storage and servers/GPUs. This transforms SSDs into a more standard component of AI infrastructure as opposed to an optional add-on.

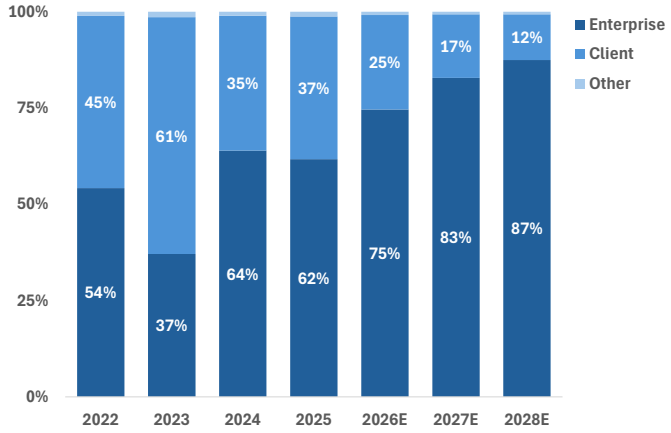
Much like DRAM, we believe NAND supply/demand conditions will also remain tight over the next ~3 years, with Y/Y bit demand growth continuing to outpace Y/Y bit supply growth. Our team specifically forecasts Y/Y bit demand growth to be in the 20-30% range over CY26-CY28, with Y/Y bit supply growth lagging behind in the high-teens to low-20% range over the same period. We expect this to expand the NAND TAM over the next ~3 years (*see Figure 10)* and we expect companies with NAND exposure to continue benefitting from near-term supply tightness and strong pricing. However, note that we do not view the current strength in pricing as a permanent/ structural change as new capacity expected in 2027 onward (via expansions + conversions) could alter the supply/demand imbalance, especially if traditional demand slows. As a result, although earnings may have further upside in the current upcycle, we remain somewhat cautious on the longer-term valuation case as profits could normalize if/when the cycle turns.

Figure 13: SSD Y/Y Revenue Growth by Segment



Source: Company reports, J.P. Morgan estimates.

Figure 14: SSD Revenue Share by Segment



Source: Company reports, J.P. Morgan estimates.

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Communications Infrastructure / Networking

Cloud/hyperscale datacenter capex and AI cluster build-outs continue to move higher, with networking emerging as one of the most important layers in the AI infrastructure stack. Our recent work on Broadcom and Marvell reinforces our view that high-performance Ethernet switching/routing, optical DSPs, retimers/AECs, CPO/NPO, and XPU attach silicon should remain among the fastest-growing pockets of semiconductor content through CY26/CY27, driven by the transition from 800G to 1.6T optical connectivity and the increasing scale-out/scale-up networking requirements of large AI clusters.

For Broadcom, the networking silicon outlook has strengthened materially. The company continues to maintain the #1 share position in cloud/hyperscale switching/routing silicon at ~70%, and we estimate the market can grow at a 50%+ CAGR over the next several years as AI clusters scale toward 1M+ XPUs and require faster switching throughput, lower power, better congestion management, telemetry, load balancing, and AI-specific routing features. Broadcom's current Tomahawk 5 platform remains well positioned for 800G optical deployments, while the next-generation 3nm Tomahawk 6 platform supports 102.4Tbps switching throughput and 1.6T optics and is ramping in C2H26/CY27, one of the fastest networking product ramps in Broadcom's history. Importantly, we estimate Tomahawk 6 is already nearly sold out for next year and that Broadcom's AI networking revenues can grow >3x this year and >2x next year to $45B+, supported by Tomahawk 6, Jericho 4 scale-across routing, Tomahawk Ultra scale-up Ethernet, and 1.6T PAM4 DSPs.

For Marvell we also see a stronger networking/optical setup into 2H26 and CY27, with 800G/1.6T optical module shipments expected to roughly double to 80–90M in 2026 and then double again to 150–160M in 2027. Marvell has maintained >70%+ market share of PAM4 DSP chipsets for 800G modules and we expect them to maintain strong share at 1.6T (we estimate 60–65% market share). We expect Marvell's optical business to grow ~70% Y/Y in CY26/FY27, while scale-up switching is expected to grow >2x Y/Y.

Looking into CY27, we expect networking leadership to broaden beyond pure optical DSP strength into switching, XPU attach, AEC/UALink/CPO/NPO, and rack-scale connectivity architectures. We forecast MRVL AI custom revenue of ~$1.9B in CY26, up ~25% Y/Y, more than doubling to $4B+ in CY27, supported by the Trainium 3 ramp, Microsoft's 3nm Maia XPU ramp toward the end of this year, and initial next-gen Trainium 4 activity exiting CY27. We estimate Marvell has captured 25+ XPU/XPU attach design wins, with next-generation 2nm programs at AWS and Microsoft and multiple XPU attach ASIC wins on track for CY27/CY28 launches. Broadcom, meanwhile, appears increasingly entrenched across AI compute and networking ASICs, with multi-year, multi-generational customer commitments from Google, Anthropic, OpenAI, Meta, and Apple, reinforcing our view that Broadcom's ASIC/XPU compute/networking franchise is structurally advantaged and increasingly de-risked into FY27/FY28.

Net, we expect 2Q earnings commentary and 3Q guidance across communications infrastructure/networking-exposed names to remain constructive, led by continued AI networking demand, 800G strength, the initial 1.6T transition, and expanding XPU attach/custom silicon pipelines. We continue to favor companies with high-quality exposure to AI networking and custom compute: OW-rated AVGO and OW-rated

MRVL remain best positioned, while ALAB also remains levered to high-speed connectivity/retimer content in AI infrastructure.

Mobile Devices / Consumer

Smartphone and consumer end markets remain pressured by memory supply constraints and memory cost inflation heading into 2Q26 earnings season. Our hardware team continues to forecast an 11% Y/Y decline in smartphone unit shipments this year, reflecting the anticipated impact of higher memory prices and supply constraints on demand. We expect the pressure to remain most acute in low- to mid-end Android smartphones and more price-sensitive consumer/client categories, where memory-related BOM inflation has a larger impact on end demand and vendor purchasing behavior.

For our smartphone-exposed semiconductor names, we expect 2Q results and 3Q guidance to be broadly in-line, supported by resilient premium smartphone demand, continued iPhone sell-through resilience, and relatively lower exposure to weaker low- to mid-end Android demand. That said, we would expect management teams to retain a more cautious bias into 2H26 as memory-driven BOM inflation, component shortages, and softer consumer/client unit demand weigh on shipment trends. Premium smartphone demand has held up better so far, but the broader consumer setup remains less robust than AI infrastructure, and we expect this divergence to remain a key theme through the 2Q earnings season.

Within Apple-exposed content, we would highlight Broadcom as a key beneficiary of long-running relationship depth and content expansion rather than a near-term unit demand call. Broadcom continues to have RF wireless leadership with Apple and a 10+ year custom ASIC relationship across Apple client products, including touch controller ASICs for iPhone, iPad, and MacBook, as well as wireless charging ASICs for iPhone. Both multi-generational ASIC programs remain active across Apple's product portfolio, and we believe Broadcom recently won a new power management ASIC program for Apple client products beginning next year (see here). We also believe the extended technology agreement through 2031 now covers multiple generations and a broader range of ASICs across Apple products, reinforcing Broadcom's content, share, and strategic relationship position with Apple.

Net, premium smartphone and Apple-related content trends remain supportive for select suppliers, but elevated memory pricing, memory supply constraints, and weaker consumer/client unit demand remain the principal risks into 3Q and 2H26.

Automotive and Industrial

Fundamentals across automotive and industrial end markets continue to improve, led by industrial and supported by lean customer/channel inventories, normalized-to-short lead times, synchronized end-market growth, and new product cycles. Companies have generally been shipping closer to end-demand, and broad-based restocking has not yet fully emerged, but we believe the lean inventory backdrop creates the potential for better order patterns if business confidence improves through 2H26.

The macro setup remains supportive of gradual recovery. Our Economics team forecasts global GDP growth of 2.4% in 2026 and 2.4% in 2027 (link), while the global manufacturing PMI was 53 in June, down only slightly from a 5-yr high in May. Against this backdrop, industrial remains the leading area of recovery, helped by

healthier customer/channel inventory positions and improving end-market demand. Auto remains more muted, with a stable but less robust setup than industrial as sluggish unit demand is partially offset by continued semiconductor content growth.

For automotive, we would avoid overstating the pace of acceleration. S&P Mobility expects global light vehicle production to decline 1.8-2.4% Y/Y in 2026. That said, semiconductor content gains remain an important offset, and companies with meaningful auto exposure should continue to benefit from higher content per vehicle even as production trends remain subdued.

For 2Q results and 3Q guidance, we expect auto/industrial-exposed semiconductor companies to deliver broadly in-line to slightly better results and provide constructive 3Q commentary, with the most favorable setup in broad-based analog and MCU names levered to industrial recovery and lean inventories. The key debate is the pace of order normalization/restocking and whether improving end-market demand converts into stronger bookings through 2H26. We would expect management teams to remain constructive but measured, reflecting improving fundamentals without assuming an aggressive restocking cycle.

Companies with meaningful auto/industrial exposure include OW-rated TXN, OW-rated MCHP, OW-rated ADI, N-rated GFS, N-rated NXPI, and N-rated VSH, which are positioned to benefit from content gains and improving demand, though we remain selective given the uneven pace of recovery across industrial sub-segments and the more muted auto production backdrop.

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Semiconductor Capital Equipment & WFE

WFE (Wafer Fabrication Equipment) spending fundamentals should continue to strengthen this earnings season, as several foundries and IDMs are rushing to expand cleanroom capacity in order to support structurally higher levels of AI-related chip demand across the semiconductor ecosystem (AI chip demand is broadening out beyond accelerators). Although most of the incremental capacity stemming from these facilities will come online in a staggered manner over the next 2-3 years, we are seeing elongated supply-chain lead times prompt an increased sense of urgency around WFE tool procurement as customers seek to alleviate ongoing supply constraints and align equipment delivery schedules with future facility starts. Our checks with the equipment companies (back in late May) support this claim and suggest that the WFE environment in 2H26 is shaping up to be materially stronger than that of the first half, with further acceleration in 2027, as more greenfield/brownfield facilities come online (refer to our J.P. Morgan TMC Conference takeaways for more details).

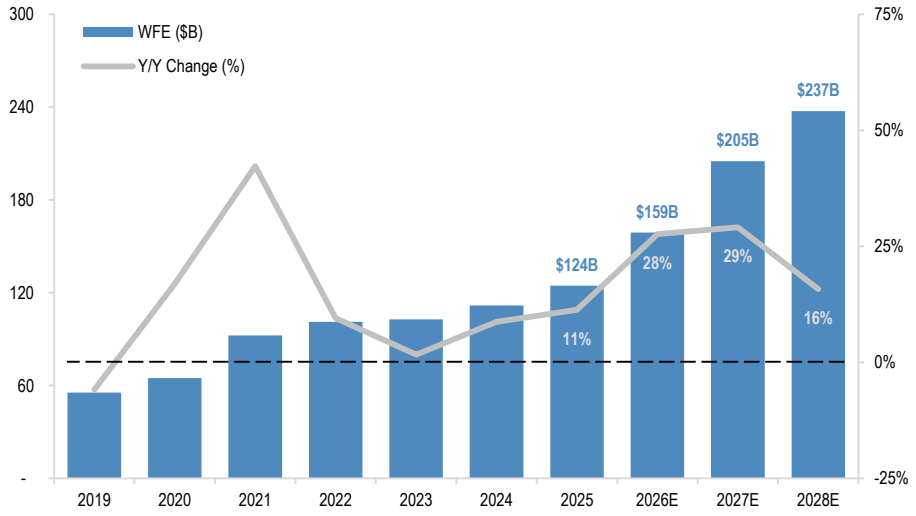
All told, we estimate WFE growth of +28% Y/Y in 2026E, +29% Y/Y in 2027E (with risk to the upside), and +16% Y/Y in 2028E, and embedded in our estimates are strong spending trends across foundry, logic, and memory customers.

- **Foundry WFE should strengthen due to accelerating TSMC capacity buildouts...** On the foundry side, we expect most of the incremental WFE spending to be driven by TSMC given the the breadth and depth of its expansion plans. Moreover, our global team's recent checks indicate that TSMC is turning more aggressive on capacity buildouts and accelerating its N2 + N3 buildout plans, with the construction of multiple new fab shells having kicked off in 1H26 and increased equipment orders from 2Q26 onward (refer to our global team's TSMC preview for more details). That said, our team is now forecasting TSMC capex to be $58bn (2026E), $78bn (2027E), and $84bn (2028E) over the next 3-years — up from their prior estimates of $56bn / $65bn / $72bn, respectively.
- **DRAM WFE should be strong and broadly supported by growing investments across all three major vendors...** In DRAM, we see spending continuing to increase across all three of the core memory vendors as current memory economics and expectations of a multi-year shortage incentivize suppliers to expand capacity. In aggregate, we forecast DRAM capex to total ~ $368bn over 2026-28E, and we expect spending to be predominantly geared towards greenfield fabs being ramped in 2027E onwards (e.g., Micron ID1/2 + Tongluo, etc.). From a WSPM perspective, we expect industry DRAM WSPM to rise to ~2.76mn by the end of CY28 (a +829k increase from the end of 1Q26).
- **NAND WFE should be conversion-driven in the near-term, with greenfield upside from 2H28 onward...** In NAND, we expect WFE spend to be primarily tied to tech migrations and conversions in 2026-27E, with greenfield capacity benefits materializing later in ~2H28/2029 onwards. On a relative-basis, we believe NAND is seen as a lower priority vs. DRAM at the big three memory vendors since DRAM — particularly HBM — often offers higher margins and thus, higher return on incremental capex. Nonetheless, we do expect NAND WFE to rise over the next 3 years, albeit to a lesser extent than that of DRAM, with aggregate NAND capex totaling ~$85bn over 2026-28E and aggregate NAND industry WSPM rising to ~1.44mn by the end of CY28 (a +155k increase from the end of 1Q26).

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The other primary driving force behind WFE spending is increased manufacturing complexity. With Moore's Law slowing and next-generation AI and HPC workloads growing more demanding (compute/energy-wise), chipmakers have been forced to revisit and reinvent their approach to chip design. This has given rise to next-generation technology inflections such as gate-all-around (GAA) transistor structures, backside power distribution, higher layer count 3D NAND, logic-like DRAM architectures, and advanced packaging — all of which carry higher manufacturing complexity, necessitating the need for new, more sophisticated tooling (which typically carry higher ASPs). This is an especially important point to make note of, as it implies that demand for equipment can rise even if wafer volumes are flat (i.e., more complex nodes = more tool-time/process steps per wafer = chipmakers need more tool capacity required to produce the same WSPM). Thus, at a high-level, we believe etch, deposition, and process control intensity should continue to rise across advanced foundry/logic, memory, and advanced packaging process architectures, providing structural demand tailwinds to several semiconductor capital equipment names across our coverage universe. On the large-cap side, we prefer exposure to KLAC (benefits from higher PC intensity and growing exposure to advanced packaging process control), AMAT (acutely benefits from upcoming DRAM fab buildout), and LRCX (benefits from higher deposition/etch intensity in new nodes), whereas on the smid-cap side, we prefer exposure to MKSI (first to benefit from upcoming fab builds given its role as a sub-component supplier).

Figure 15: Wafer Fab Equipment Spending



Note: Data excludes wafer bonders and other wafer-level packaging equipment
Source: Gartner and J.P. Morgan estimates. Data excludes wafer bonders and other wafer-level packaging equipment

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JPM C2Q26 and C3Q26 Estimates vs. Consensus

For companies reporting March quarter results over the next several weeks, we provide our revenue and adjusted EPS estimates vs. consensus estimates below.

Table 1: JPM 2Q26E/3Q26E Revenue Estimates vs Consensus

$ in millions

	C2Q26E			C3Q26E		
Ticker	JPM	Consensus	Δ%	JPM	Consensus	Δ%
ADI	$3,914	$3,914	0.0%	$4,070	$4,060	0.3%
ALAB	$360	$361	-0.3%	$409	$412	-0.7%
AMAT	$8,950	$9,004	-0.6%	$9,426	$9,472	-0.5%
AMD	$11,266	$11,279	-0.1%	$12,814	$12,325	4.0%
AMKR	$1,800	$1,813	-0.7%	$2,095	$2,093	0.1%
ARM	$1,267	$1,265	0.2%	$1,332	$1,352	-1.4%
AVGO	$29,448	$29,386	0.2%	$34,728	$34,695	0.1%
CDNS	$1,574	$1,574	0.0%	$1,533	$1,550	-1.1%
GFS	$1,764	$1,762	0.1%	$1,890	$1,876	0.8%
INTC	$14,361	$14,390	-0.2%	$15,078	$14,999	0.5%
KLAC	$3,581	$3,602	-0.6%	$3,967	$3,936	0.8%
LRCX	$6,600	$6,659	-0.9%	$7,148	$7,051	1.4%
MCHP	$1,456	$1,457	-0.1%	$1,573	$1,555	1.1%
MRVL	$2,716	$2,704	0.5%	$3,026	$3,021	0.2%
MTSI	$335	$333	0.7%	$372	$364	2.3%
NVDA	$92,067	$91,614	0.5%	$99,615	$103,346	-3.6%
NXPI	$3,450	$3,455	-0.2%	$3,720	$3,681	1.0%
ON	$1,585	$1,589	-0.2%	$1,683	$1,663	1.2%
QNT	$8	$8	3.4%	$7	$7	2.1%
QRVO	$721	$742	-2.8%	$878	$904	-2.9%
SLAB	$231	$228	1.4%	$242	$241	0.6%
SNPS	$2,435	$2,439	-0.2%	$2,547	$2,554	-0.3%
SWKS	$925	$925	0.0%	$1,064	$1,025	3.8%
SYNA	$305	$305	-0.1%	$320	$316	1.5%
TXN	$5,200	$5,211	-0.2%	$5,668	$5,570	1.7%
VSH	$890	$895	-0.6%	$917	$925	-0.9%

Source: J.P. Morgan estimates and Bloomberg Finance L.P.



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Table 2: JPM 2Q26E/3Q26E (Non-GAAP) EPS Estimates vs Consensus

$ in millions

	C2Q26E			C3Q26E		
Ticker	JPM	Consensus	Δ%	JPM	Consensus	Δ%
ADI	$3.32	$3.34	-0.5%	$3.50	$3.52	-0.6%
ALAB	$0.69	$0.69	0.3%	$0.81	$0.78	4.3%
AMAT	$3.38	$3.42	-1.1%	$3.62	$3.65	-0.8%
AMD	$1.57	$1.62	-3.0%	$1.99	$1.82	9.4%
AMKR	$0.47	$0.48	-2.7%	$0.63	$0.63	-0.7%
ARM	$0.42	$0.40	3.3%	$0.43	$0.45	-3.4%
AVGO	$3.25	$3.23	0.7%	$3.87	$3.85	0.6%
CDNS	$2.06	$2.06	0.4%	$1.88	$1.95	-3.6%
GFS	$0.44	$0.41	5.4%	$0.51	$0.49	5.6%
INTC	$0.22	$0.21	1.9%	$0.28	$0.27	1.4%
KLAC	$0.99	$1.00	-1.0%	$1.15	$1.13	1.2%
LRCX	$1.65	$1.70	-2.9%	$1.81	$1.82	-0.2%
MCHP	$0.70	$0.70	-0.3%	$0.81	$0.79	2.7%
MRVL	$0.93	$0.93	0.2%	$1.07	$1.07	0.1%
MTSI	$1.33	$1.33	0.3%	$1.60	$1.52	5.6%
NVDA	$2.09	$2.09	-0.1%	$2.27	$2.35	-3.2%
NXPI	$3.50	$3.54	-1.0%	$4.09	$4.00	2.1%
ON	$0.72	$0.71	0.8%	$0.88	$0.83	4.9%
QNT	-$0.23	-$0.23	-0.7%	-$0.33	-$0.45	-27.5%
QRVO	$0.83	$1.09	-24.1%	$1.74	$1.91	-9.0%
SLAB	$0.71	$0.69	3.3%	$0.76	$0.82	-8.1%
SNPS	$3.65	$3.67	-0.5%	$3.99	$4.00	-0.3%
SWKS	$1.00	$1.03	-2.9%	$1.38	$1.31	5.5%
SYNA	$1.20	$1.20	-0.2%	$1.36	$1.25	8.8%
TXN	$1.91	$1.95	-1.8%	$2.24	$2.13	5.2%
VSH	$0.13	$0.14	-9.9%	$0.23	$0.24	-3.8%

Source: J.P. Morgan estimates and Bloomberg Finance L.P.

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2026 Outlook: Expect Another Year Of Stock Outperformance; Continued Strong AI Spending And Accelerating Cyclical Recovery In Industrial/Autos

We maintain our view that long-term investors should continue to focus on the multiyear (1,3, 5,10,15, 20-year) track record of semis stock outperformance driven by (1) the crucial role semis play in the tech value chain, (2) increasing content tailwind opportunities in all applications, and (3) structural profitability/FCF improvements, all of which remain intact. Importantly, secular growth in semiconductor industry revenue is being amplified by strong tailwinds from accelerated growth in data center capex (up ~79% Y/Y in 2025 and forecast to grow at least 80% Y/Y in 2026 and 50%+ in 2027), driven almost entirely by demand for AI data center infrastructure. We expect this wave of spending to be sustained beyond 2026, benefitting the entire semis value chain to varying degrees: providers of accelerated compute, memory and networking technologies are most levered to incremental growth in spending. Concerns around a "bubble" in AI spending are likely to persist for as long as spending remains elevated relative to historical levels, but as we look ahead, we see increasing adoption of AI across consumer and enterprise markets, coupled with rising compute intensity for AI workloads, continuing to drive significant demand for accelerated compute and related infrastructure (e.g., networking). Supply chain capacity will likely remain a gating factor for infrastructure deployments in 2026 (as it has been for the past 2+ years), but the silver lining here is that supply constraints potentially prolong the AI spending cycle, creating a runway of several years of growth that directly benefits the semis industry. We also anticipate further improvements in cyclical trends across most end markets, coupled with a much healthier customer inventory environment, which alongside further strength in AI-related spend will serve as key underpinnings of a constructive growth backdrop for the industry. We expect semi industry revenue to grow 28% Y/Y in 2026 (following ~20% growth in 2025), and continue to favor companies with strong exposure to strategic infrastructure dynamics (i.e., cloud/hyperscaler spending), especially around accelerated compute/AI, custom chips (ASICs), networking, and memory (AVGO, NVDA, MRVL, MU). We believe cyclical segments of the industry (industrial/auto) will drive accelerated positive revenue/EPS revisions driven by improving demand trends combined with low inventory levels (ADI, MCHP, TXN). In semicap we are constructive on WFE spending trends for 2026 and expect 30%+ growth in WFE this year and a further ~30% in 2027 (with upside risk), driven by manufacturing complexity and technology inflections across leading edge foundry/logic, DRAM and NAND (KLAC, LRCX, AMAT). For chip design software/EDA (SNPS, CDNS), we expect a 10-15% revenue growth CAGR driven by increasing EDA intensity and strong design activity in AI/accelerated compute.

Table 3: Semiconductor/Semicap/EDA Stocks Have Outperformed the Market over the Past 1, 3, 5, 10, 20 Years – Four Full Semiconductor Cycles over the Past 10 Years

Annual Stock Returns (CAGR%)	1-year	3-year	5-year	10-year	15-year	20-year
SOX (Semi) Index	**131%**	**54%**	**32%**	**34%**	**26%**	**19%**
Semicap Equipment	**132%**	**57%**	**36%**	**36%**	**26%**	**19%**
Chip Design Software (EDA)	**3%**	**8%**	**15%**	**26%**	**22%**	**16%**
SP500 Index	20%	19%	11%	13%	12%	9%
NASDAQ Composite Index	26%	24%	12%	18%	16%	13%

Source: Bloomberg Finance L.P. Pricing as of 7/9/2026 market close.

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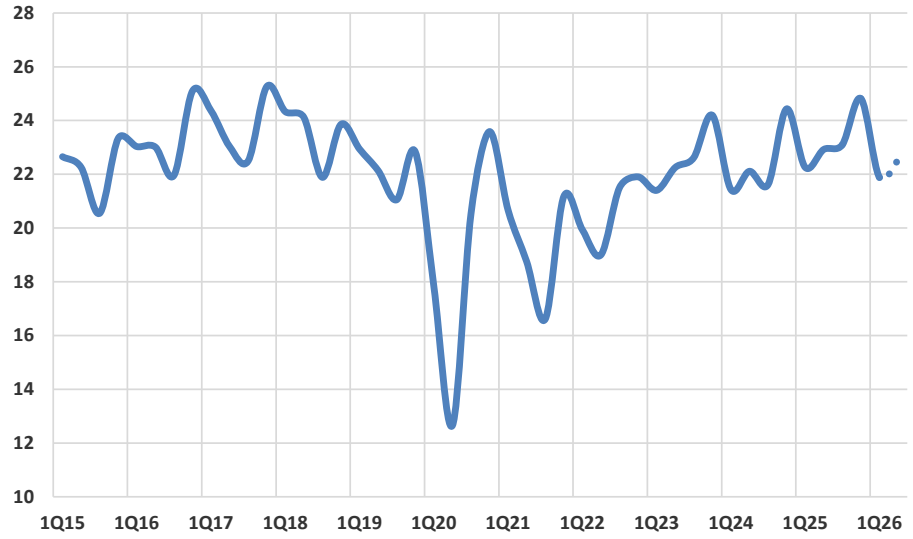
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Industry SIA Data

WSTS semiconductor industry data for the month of May 2026 shows that following a 106% Y/Y increase in industry sales in April 2026 (up 33% Y/Y ex. memory), industry sales growth accelerated to +119% Y/Y (up 34% Y/Y ex. memory) May. On an M/M basis, after a 2% M/M decline in sales in April (-0.7% M/M ex. memory), May industry sales increased 16% M/M (+0.6% M/M ex. memory). Overall units (ex-discretes) were down slightly on a sequential basis (-0.1% M/M) but were still showed strong Y/Y growth (+21% Y/Y), while pricing climbed 17% M/M (and was up 85% Y/Y – a step-up relative to +70% Y/Y in March). Memory pricing improved materially again in May, with DRAM up 14% M/M and flash up 26% M/M, while analog dipped slightly (-3.5% M/M, in line with historical -LSD% M/M trends) and MCU decreased 4.5% M/M (below typical ~flat M/M). Total unit shipments declined ~3% M/M, a touch below seasonal trends, driven by weaker-than-typical sequential performance in analog and DRAM, partially offset by moderately above-seasonal growth in MCU, MPU and flash. On a trailing 3-month basis, semis revenue grew +104% Y/Y (+31% Y/Y ex. memory) – a sizeable improvement from +79% Y/Y (+29% Y/Y ex. memory) in April. With significant momentum coming out of Q1, even if we were to assume Q2/Q3/Q4 growth rates in line with historical seasonal trends (highly conservative, in our view), full-year industry sales would be up >90% Y/Y, and in the range of $1.5-1.6T (representing 5/10-yr CAGRs of ~23%/~16% for the industry). Overall, growth trends are consistent with commentary we have heard from semis companies under our coverage heading into CQ2 earnings season, indicating further uplift in demand momentum, with bookings, backlog, and customer escalations continuing, while pricing in being pushed higher across several products categories. Against this backdrop, we see continued support for our broader 2026 sector/stock outlook thesis that calls for outsized growth in industry revenue, underpinned by continued momentum in AI spending that broadly benefits the semis value chain, with providers of accelerated compute, memory and networking being most favorably levered to incremental growth in spending. We also continue to anticipate improvements in cyclical trends across most end markets, aided by a much healthier customer and channel inventory environment, though we remain cognizant of potential negative impacts of elevated memory pricing and supply shortages on demand within consumer/client-levered end markets (see our global team's latest memory updates here, here and here).

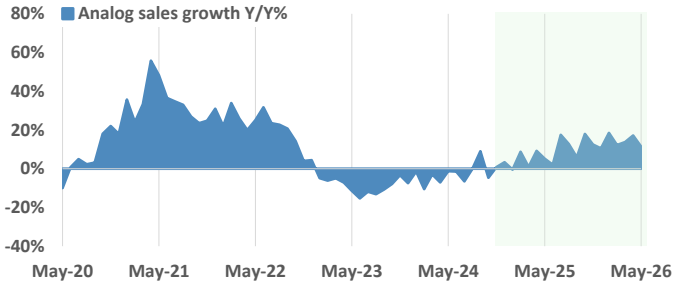
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Figure 16: Quarterly Auto SAAR Trends – Quarterly Global Vehicle Production (in MM units)



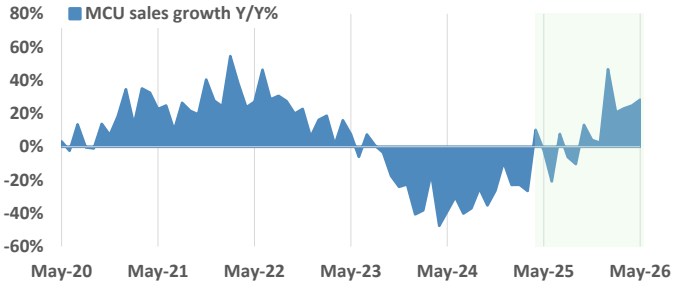
Source: IHS.

Figure 17: Analog Sales



Source: SIA.

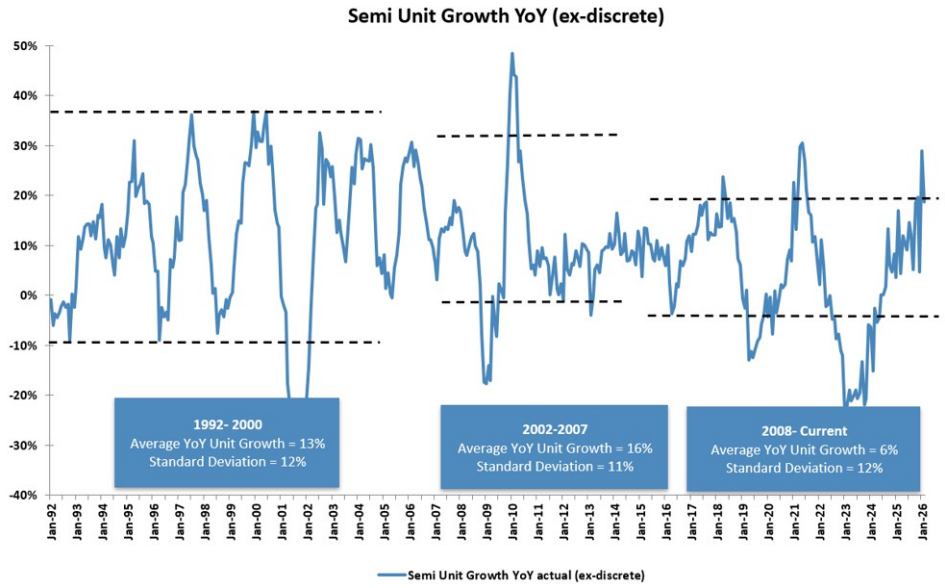
Figure 18: MCU Sales



Source: SIA.

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Figure 19: Semiconductor Industry Thesis – Focus on Scale (Market Leadership), Margin/FCF Expansion, and Capital Allocation



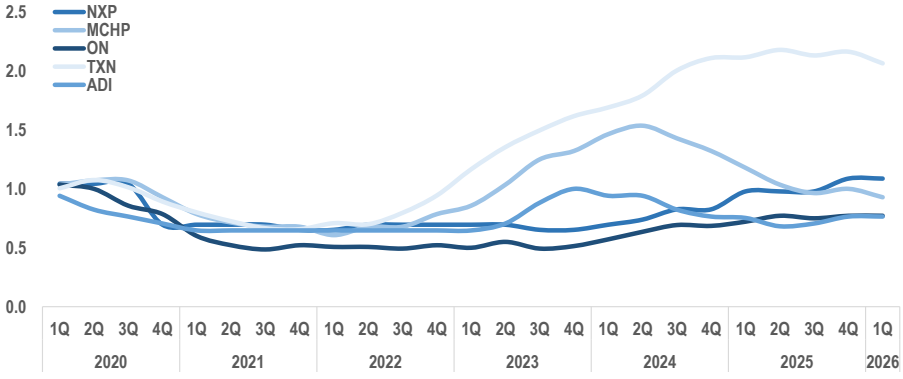
Source: WSTS.

Table 4: Distribution Inventory Remains Lean and Lead Times Remain Short

	Distribution inventory days		Lead time	
	Current	Normal/Target	Current	Normal/Target
ADI	6-7 weeks	6-7 weeks	13 weeks or lower	4-8 weeks
MCHP	26 days	27-47 days	4-8 weeks	4-8 weeks
NXPI	2.5 months	2-3 months	normalized	16 weeks
ON	10.8 weeks	9-11 weeks	26 weeks	8-12 weeks

Source: Company reports from most recently reported quarter.

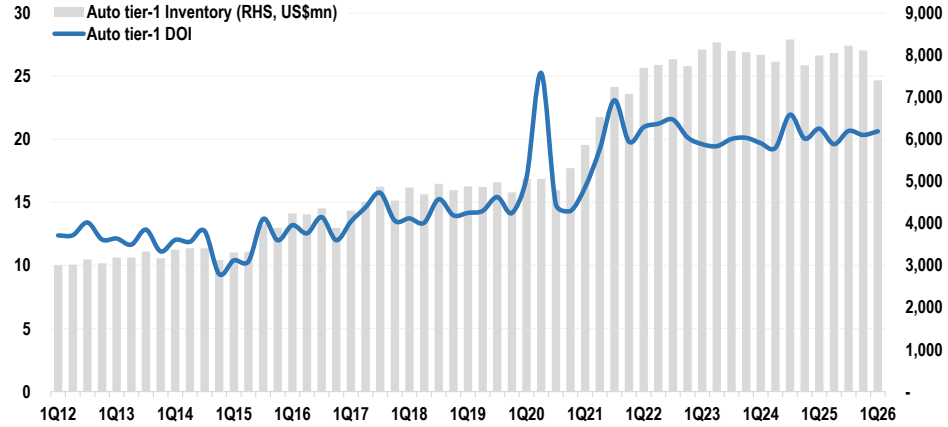
Figure 20: Distribution Inventory Days and Consignment Inventory Dollars (Indexed to 1)



Source: Company reports and J.P. Morgan.

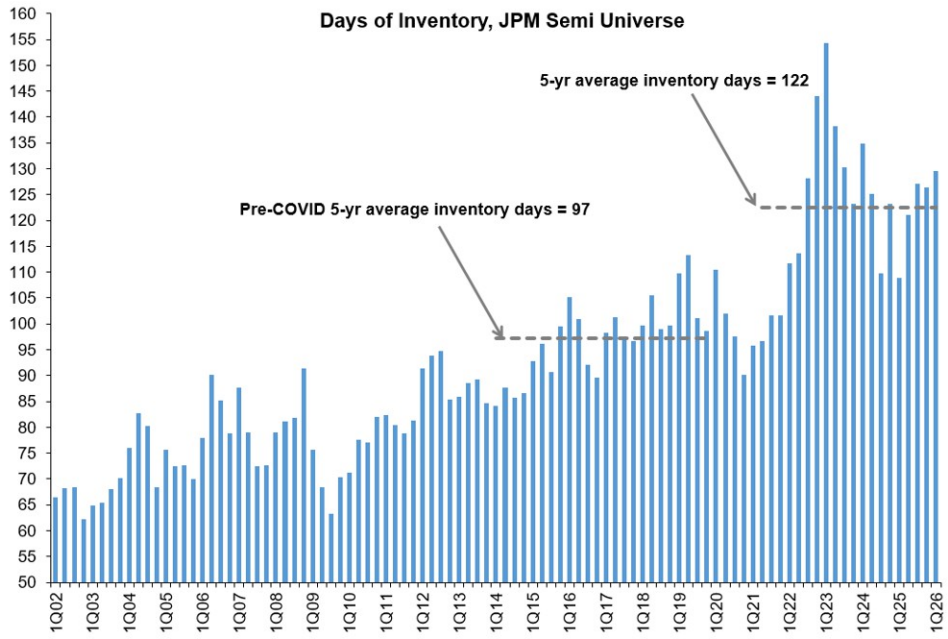
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Figure 21: Auto OEM Raw Materials Inventory – Stable Trends



Source: Company reports. Note: Magna, Hyundai Mobis, Lear, Aptiv, BWA, Autoliv, Adien.

Figure 22: Semiconductor Industry Quarterly Inventory Trends



Source: Company reports, J.P. Morgan

Inventory levels in the channel remain lean as semiconductor companies have spent the past several quarters undershipping end demand to burn off excess customer/distribution inventories, though inventories on semiconductor company balance sheets remain somewhat elevated. At the end of the latest quarter, inventories on semi company balance sheets sat at ~130 days, above the five-year historical trend-line of ~122 days, reflecting a combination of still-normalizing end-market demand, prior underutilization, and companies positioning to support improving order patterns into 2H. Importantly, we believe the customer/channel inventory correction is largely behind us, with recent company commentary pointing to customers ordering closer to run-rate/end-demand rather than rebuilding inventories aggressively. As a result, we see the setup as healthier

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than a typical restocking-driven rebound: channel inventories are lean, lead times remain relatively short but are beginning to firm in pockets, book-to-bill/order visibility is improving, and utilization should continue to recover as demand normalizes. Fundamentals have improved most clearly in industrial, AI/data-center-related analog/power/control, and select auto content vectors, while broader auto/consumer remains more mixed.

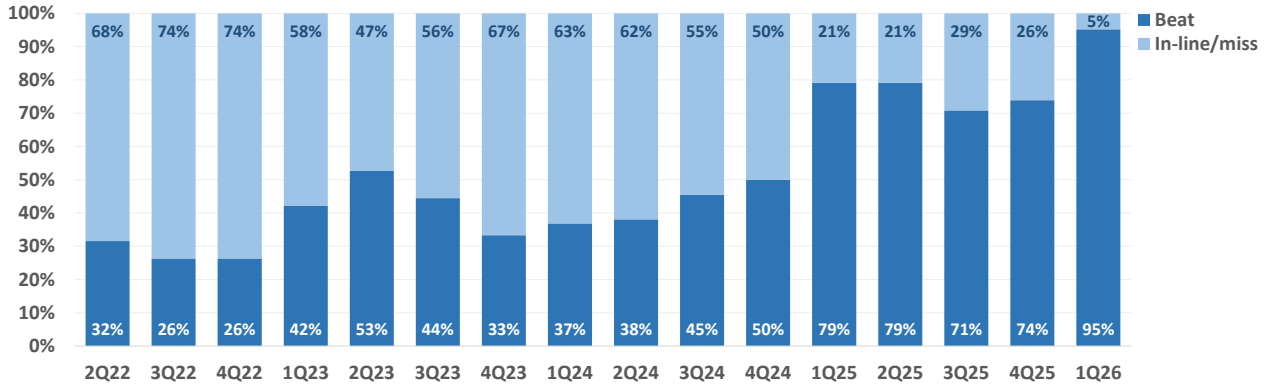
Table 5: Industry Q/Q Growth Above Historical Trends Starting in 4Q23

Quarter	10-year Avg. Q/Q Growth	Actual	Above/Below 10-yr Avg?
1Q19	-6.4%	-10.0%	BELOW
2Q19	-1.9%	0.7%	ABOVE
3Q19	13.2%	8.9%	BELOW
4Q19	-1.4%	1.1%	ABOVE
1Q20	-3.2%	-3.6%	BELOW
2Q20	3.4%	-1.1%	BELOW
3Q20	6.4%	9.8%	ABOVE
4Q20	-1.2%	4.7%	ABOVE
1Q21	-4.0%	3.8%	ABOVE
2Q21	2.7%	9.1%	ABOVE
3Q21	6.8%	8.1%	ABOVE
4Q21	-0.3%	4.9%	ABOVE
1Q22	-3.7%	-0.5%	ABOVE
2Q22	3.7%	-0.8%	BELOW
3Q22	7.2%	-6.3%	BELOW
4Q22	0.9%	-7.2%	BELOW
1Q23	-3.5%	-8.7%	BELOW
2Q23	3.2%	6.0%	ABOVE
3Q23	6.4%	6.3%	BELOW
4Q23	0.2%	8.4%	ABOVE
1Q24	-3.8%	-3.3%	ABOVE
2Q24	3.4%	6.5%	ABOVE
3Q24	6.6%	10.8%	ABOVE
4Q24	1.6%	3.6%	ABOVE
1Q25	-3.8%	-3.4%	ABOVE
2Q25	4.0%	7.9%	ABOVE
3Q25	8.1%	15.8%	ABOVE
4Q25	3.2%	13.6%	ABOVE
1Q26	-0.7%	26.2%	ABOVE

Source: WSTS.

The positive earnings revision trend accelerated in 1Q25 and has remained solidly above 70% for the past several earnings seasons for our covered semiconductor/semiconductor capital equipment companies showing positive revisions. We anticipate this trend will continue into this earnings season. Recent semi industry data points indicate sustained double-digit% Y/Y revenue growth in semiconductor sales, with strength across various sub-segments. Overall, we broadly anticipate companies to deliver in-line or slightly better 2Q results, while providing a constructive tone for 3Q guidance.

Figure 23: Semiconductor Coverage Earnings Revision Trend



Post-quarter 90D returns:	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25	1Q26
SOX	-6%	10%	28%	14%	-7%	22%	17%	10%	-6%	-1%	-14%	30%	16%	9%	7%	83%
SP 500	-6%	7%	7%	8%	-4%	11%	10%	4%	5%	3%	-5%	10%	8%	2%	-5%	14%
SOX vs SP 500	9bps	269bps	2,057bps	539bps	-285bps	1,035bps	732bps	615bps	-1,080bps	-392bps	-966bps	1,937bps	774bps	697bps	1,176bps	6,855bps

Source: Company reports, Bloomberg Finance L.P.

Many Companies Have Attractive Dividend Yields and Strong Share Buyback Programs in Place

As the semiconductor industry matures, we expect companies to focus on shareholder returns and anticipate continued dividend growth and increased share repurchases. We expect continued strong shareholder returns in 2026 through repurchasing activities and dividend increases. Higher dividend yields and share repurchases should help limit downside. Table 6 illustrates dividend yields for select semi companies.

Table 6: Dividend Table

Company	Yield
SWKS	4.4%
MCHP	2.1%
TXN	1.9%
NXPI	1.5%
ADI	1.1%
AVGO	0.7%
AMKR	0.5%
KLAC	0.4%
Average	**1.6%**
S&P Average	**1.1%**

Source: Bloomberg Finance L.P. as of market close on 4/16/2026.

Consolidation in the Semi Industry Likely to Continue and Provide Valuation Support

Based on Bloomberg data and company reports, semi and semicap deal volume stands at ~$47B in 2025, ~$30B in 2024, ~$25B in 2023, ~$18B in 2022, ~$41B in 2021, ~$88B in 2020, ~$31B in 2019, ~$48B in 2018, ~$140B in 2017, and ~$141B in 2016. In our view, deal/M&A activity will be a key component of capital allocation and supportive of valuations in 2026 and beyond. Table 7 illustrates announced M&A since the beginning of 2017.

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Table 7: We Expect More M&A in the Long Term as Industry Consolidation Should Continue to Support Valuations

Date	Buyer	Target	Deal Value ($M)	Status
4/14/2026	Credo Technology	DustPhotonics	846	Pending
2/4/2026	Texas Instruments	Silicon Labs	7,174	Pending
2/4/2026	SiTime Corp	Renesas Electronics timing division	2,965	Pending
2/3/2026	Infineon Technologies	ams-OSRAM non-optical analog mixed signal sensor business	673	Pending
1/26/2026	IonQ Inc	SkyWater Technology	1,733	Pending
1/6/2026	Marvell Technology Inc	XConn Technologies	540	Completed
12/2/2025	Marvell Technology Inc	Celestial AI Inc	3,358	Completed
10/27/2025	Skyworks Solutions Inc	Qorvo Inc	10,072	Pending
10/1/2025	Veeco Instruments Inc	Axcelis Technologies Inc	1,848	Pending
7/25/2025	STMicroelectronics NV	NXP Semiconductors NV (MEMS sensor business)	900	Completed
6/9/2025	Alphawave IP Group PLC	QUALCOMM Inc	2,085	Completed
4/14/2025	Silver Lake Management	Altera (Intel's FPGA business)	4,463	Completed
4/8/2025	Infineon Technologies	Marvell Automotive ethernet business	2,500	Completed
3/2/2025	ON Semiconductor Corp.	Allergro MicroSystems Inc	6,500	Terminated
1/15/2025	ASMedia Technology Inc	Techpoint	390	Completed
2/10/2025	NXP Semiconductors	Kinara.ai	307	Completed
1/7/2025	NXP Semiconductors	Ttech Auto AG	625	Completed
12/9/2024	Onsemi	Qorvo (Silicon Carbide JFET)	115	Completed
8/19/2024	AMD	ZT Systems	4,900	Completed
2/15/2024	Renesas Electronics	Altium	5,900	Completed
1/11/2024	Renesas Electronics	Transphorm	339	Completed
8/22/2023	Macom	Wolfspeed's RF division	125	Completed
8/7/2023	Renesas Electronics	Sequans	230	Terminated
3/3/2023	Infineon Technologies	Gan Systems	880	Completed
8/15/2022	Navitas Semioncductor	GeneSic Semiconductor	227	Completed
5/26/2022	Broadcom	Vmware	61,000	Completed
5/5/2022	MaxLinear	Silicon Motion	3551	Terminated
4/4/2022	AMD	Pensando	1900	Completed
3/14/2022	Alphawave IP	OpenFive (SiFive)	210	Completed
2/15/2022	Intel	Tower Semiconductor	5400	Terminated
2/14/2022	Murata	Resonant	296	Completed
12/15/2021	Entegris Inc.	CMC Materials	6500	Completed
9/20/2021	Thomas Lee Partners	Brooks Automation (Semiconductor Solutions)	3000	Completed
8/30/2021	Synaptics	DSP Group	421	Completed
8/25/2021	ON Semiconductor	GT Advanced Technologies	N/A	Completed
8/3/2021	Marvell Technology Group Ltd	Innovium	1100	Completed
6/30/2021	Texas Instruments	Micron Lehi Fab	900	Completed
5/10/2021	MKS Instruments	Photon Control	387	Completed
4/21/2021	Skyworks	Silicon Labs' Infrastructure and Automotive Business	2750	Completed
2/8/2021	Renesas	Dialog Semiconductor	5900	Completed
1/13/2021	Qualcomm	NUVIA	1,400	Completed
10/28/2020	Marvell Technology Group Ltd	Inphi	8,200	Completed
10/27/2020	Advanced Micro Devices	Xilinx	35,000	Completed
9/13/2020	NVIDIA Corp.	ARM Ltd.	40,000	Terminated
7/13/2020	Analog Devices	Maxim Integrated	21,300	Completed
7/7/2020	Synaptics Inc.	Broadcom's Wireless IoT Connectivity Business	250	Completed
4/6/2020	MaxLinear	Intel's Connected Home Business	150	Completed
2/20/2020	Dialog Semiconductor	Adesto Technologies	358	Completed
12/16/2019	Intel	Habana Labs	2,000	Completed
8/8/2019	Broadcom	Symantec's Enterprise Security Business	10,700	Completed
7/9/2019	Cisco Systems	Acacia Communications Inc.	2,600	Completed
7/1/2019	Applied Materials	Kokusai Electric	2,200	Terminated
6/24/2019	Nanometrics Inc	Rudolph Technologies	N/A	Completed
6/10/2019	Intel	Barefoot Networks	N/A	Completed
6/3/2019	Infineon Technologies	Cypress	10,000	Completed
5/29/2019	NXP Semiconductors	Marvell's Connectivity Business	1,760	Completed
5/20/2019	Marvell Technology Group Ltd	Avera Semiconductor LLC	650	Completed
5/6/2019	Marvell Technology Group Ltd	Aquantia Corp	452	Completed
4/10/2019	Qorvo Inc.	Active-Semi International	325	Completed
3/27/2019	ON Semiconductor Corp.	Quantenna Communications Inc.	1,070	Completed
3/15/2019	Ideal Industries	Cree Huizhou Solid State Lighting Co Ltd	310	Completed
3/11/2019	NVIDIA Corp.	Mellanox Ltd.	6,900	Completed
12/18/2018	Cisco Systems	Luxtera	660	Completed
10/30/2018	MKS Instruments	Electro Scientific Industries	1,000	Completed
9/11/2018	Renesas	Integrated Device Technology	6,700	Completed
7/11/2018	Broadcom Inc.	CA Technologies	18,900	Completed
5/8/2018	Cohu	Xcerra Corp	796	Completed
3/19/2018	KLA-Tencor Corp.	Orbotech Ltd.	3,200	Completed
3/6/2018	Cree	Infineon RF Power	428	Completed
3/1/2018	Microchip Technology	Microsemi Corp	10,150	Completed
11/20/2017	Marvell Technology Group Ltd	Cavium Inc	6,018	Completed
10/5/2017	Dialog Semiconductor	Silego technology	276	Completed
9/22/2017	Canyon Bridge Capital	Imagination Technologies	743	Completed
6/12/2017	Synaptics Inc	Conexant Systems	341	Completed
3/29/2017	MaxLinear Inc.	Exar Corp	446	Completed
3/13/2017	Intel	Mobileye	15,300	Completed
2/13/2017	IDT	Gigpeak	250	Completed
2/2/2017	Veeco	Ultratech	815	Completed

Source: Bloomberg Finance L.P. and company data.

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Table 8: Semiconductor Group and Comp Valuation

$ in millions, except for EPS

	JPM Rating	Market Cap	7/9/26 Price	Non-GAAP EPS C25	Non-GAAP EPS C26E	P/E C25	P/E C26E	Revenues C25	Revenues C26E	P/S C25	P/S C26E	Consensus Non-GAAP EPS C25	Consensus Non-GAAP EPS C26E	Consensus Non-GAAP EPS C27E	Consensus Revenues C25	Consensus Revenues C26E	Consensus Revenues C27E	Consensus P/E C25	Consensus P/E C26E	Consensus P/E C27E	Consensus P/S C25	Consensus P/S C26E	Consensus P/S C27E
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PC Semiconductors																							
INTC	UW	$573,922	$112.91	$0.43	$1.14	264.8x	99.0x	$52,853	$58,953	10.9x	9.7x	$0.43	$1.09	$1.57	$52,853	$58,555	$65,330	264.8x	104.1x	72.0x	10.9x	9.8x	8.8x
NVDA	OW	$4,914,421	$201.49	$4.77	$8.73	42.3x	23.1x	$215,938	$382,230	22.8x	12.9x	$4.77	$8.62	$12.59	$215,938	$379,848	$549,768	42.3x	23.4x	16.0x	22.8x	12.9x	8.9x
AMD	N	$914,438	$554.21	$4.18	$7.70	132.6x	72.0x	$34,639	$50,046	26.4x	18.3x	$4.18	$7.28	$13.22	$34,639	$49,688	$75,586	132.6x	76.1x	41.9x	26.4x	18.4x	12.1x
Memory																							
MU	OW	$1,162,942	$1,015.67	$11.21	$103.46	90.6x	9.8x	$42,244	$172,887	27.5x	6.7x	$11.21	$112.71	$166.52	$42,244	$186,787	$266,638	90.6x	9.0x	6.1x	27.5x	6.2x	4.4x
Enterprise/Networking/Datacenter Semiconductors																							
MRVL	OW	$220,391	$246.72	$2.85	$4.04	86.6x	61.0x	$8,195	$11,528	26.9x	19.1x	$2.85	$3.89	$6.21	$8,195	$11,104	$16,292	86.6x	63.5x	39.7x	26.9x	19.8x	13.5x
AVGO	OW	$1,921,656	$394.11	$7.28	$13.71	54.2x	28.7x	$68,282	$123,235	28.1x	15.6x	$7.28	$12.94	$20.47	$68,282	$116,397	$182,760	54.2x	30.5x	19.2x	28.1x	16.5x	10.5x
ALAB	OW	$66,262	$425.85	$1.84	$3.04	231.5x	140.1x	$853	$1,535	77.7x	43.2x	$1.84	$3.01	$4.42	$853	$1,549	$2,219	231.4x	141.3x	96.3x	77.7x	42.8x	29.9x
Mobile Devices																							
SWKS	N	$9,090	$60.36	$5.87	$5.15	10.3x	11.7x	$4,054	$4,049	2.2x	2.2x	$5.87	$4.87	$5.26	$4,054	$3,928	$4,113	10.3x	12.4x	11.5x	2.2x	2.3x	2.2x
QRVO	N	$7,939	$85.71	$6.73	$6.55	12.7x	13.1x	$3,740	$3,363	2.1x	2.4x	$6.73	$6.76	$7.92	$3,740	$3,376	$3,669	12.7x	12.7x	10.8x	2.1x	2.4x	2.2x
IoT																							
SLAB	N	$7,219	$218.99	$0.92	$2.72	237.3x	80.5x	$785	$931	9.2x	7.8x	$0.92	$2.78	$4.14	$785	$920	$1,069	237.3x	78.9x	52.9x	9.2x	7.8x	6.8x
SYNA	NR	$5,215	$134.42	$4.22	$5.11	31.9x	26.3x	$1,144	$1,251	4.6x	4.2x	$4.22	$4.90	$5.81	$1,144	$1,244	$1,373	31.9x	27.5x	23.1x	4.6x	4.2x	3.8x
Analog/Microcontrollers																							
TXN	OW	$284,016	$310.74	$5.45	$8.16	57.0x	38.1x	$17,682	$21,474	16.1x	13.2x	$5.45	$7.70	$9.19	$17,682	$20,999	$23,303	57.0x	40.3x	33.8x	16.1x	13.5x	12.2x
ADI	OW	$193,270	$394.06	$8.62	$13.41	45.7x	29.4x	$11,757	$15,698	16.4x	12.3x	$8.62	$13.07	$15.23	$11,757	$15,262	$17,174	45.7x	30.1x	25.9x	16.4x	12.7x	11.3x
NXPI	N	$74,507	$293.89	$11.81	$14.93	24.9x	19.7x	$12,269	$14,169	6.1x	5.3x	$11.81	$14.75	$17.72	$12,269	$14,074	$15,581	24.9x	19.9x	16.6x	6.1x	5.3x	4.8x
MCHP	OW	$49,070	$89.56	$1.18	$2.94	76.0x	30.5x	$4,372	$5,960	11.2x	8.2x	$1.18	$2.87	$3.84	$4,372	$5,895	$6,969	76.0x	31.2x	23.3x	11.2x	8.3x	7.0x
Diversified/Consumer/Standard Components/Other																							
ON	NR	$40,142	$101.86	$2.35	$3.23	43.4x	31.5x	$5,995	$6,539	6.7x	6.1x	$2.35	$3.09	$4.31	$5,995	$6,470	$7,198	43.4x	33.0x	23.7x	6.7x	6.2x	5.6x
VSH	N	$6,258	$45.53	N/A	$0.69	N/A	65.8x	$3,069	$3,563	2.0x	1.8x	N/A	$0.74	$1.54	$3,069	$3,594	$3,993	N/A	61.5x	29.5x	2.0x	1.7x	1.6x
MTSI	N	$25,151	$324.30	$3.71	$5.81	87.5x	55.8x	$1,021	$1,394	24.6x	18.0x	$3.71	$5.51	$6.94	$1,021	$1,354	$1,651	87.5x	58.9x	46.7x	24.6x	18.6x	15.2x
Foundries																							
GFS	N	$39,834	$71.01	$1.73	$1.91	41.1x	37.2x	$6,791	$7,192	5.9x	5.5x	$1.73	$1.92	$2.55	$6,791	$7,265	$8,070	41.1x	37.1x	27.8x	5.9x	5.5x	4.9x
OSAT																							
AMKR	OW	$18,069	$72.40	$1.51	$1.66	48.1x	43.7x	$6,708	$7,427	2.7x	2.4x	$1.51	$2.09	$2.42	$6,708	$7,607	$8,477	48.1x	34.6x	29.9x	2.7x	2.4x	2.1x
Semiconductor Capital Equipment																							
AMAT	OW	$487,766	$610.47	$9.44	$13.76	64.7x	44.4x	$28,233	$36,263	17.3x	13.5x	$9.44	$13.31	$17.94	$28,233	$35,479	$44,463	64.7x	45.9x	34.0x	17.3x	13.7x	11.0x
LRCX	OW	$444,647	$353.65	$4.90	$7.01	72.2x	50.5x	$20,561	$27,686	21.6x	16.1x	$4.90	$6.96	$9.06	$20,561	$27,065	$33,573	72.2x	50.8x	39.0x	21.6x	16.4x	13.2x
KLAC	OW	$309,810	$235.15	$3.54	$4.39	66.3x	53.5x	$12,745	$15,307	24.3x	20.2x	$3.54	$4.36	$5.79	$12,745	$15,282	$19,088	66.3x	53.9x	40.6x	24.3x	20.3x	16.2x
MKSI	OW	$26,565	$373.64	$7.88	$12.36	47.4x	30.2x	$3,930	$4,936	6.8x	5.4x	$7.88	$11.74	$15.22	$3,930	$4,808	$5,559	47.4x	31.8x	24.5x	6.8x	5.5x	4.8x
Chip Design Automation Software																							
ARM	OW	$357,887	$335.10	$1.72	$1.92	195.2x	174.7x	$4,671	$5,524	76.6x	64.8x	$1.72	$2.01	$2.79	$4,671	$5,634	$7,340	195.2x	167.1x	120.0x	76.6x	63.5x	48.8x
CDNS	OW	$104,092	$380.28	$7.14	$8.00	53.3x	47.5x	$5,297	$6,213	19.7x	16.8x	$7.14	$7.96	$9.38	$5,297	$6,204	$7,025	53.3x	47.8x	40.5x	19.7x	16.8x	14.8x
SNPS	OW	$84,008	$437.22	$13.73	$15.13	31.9x	28.9x	$8,008	$9,899	10.5x	8.5x	$13.73	$15.12	$17.83	$8,008	$9,805	$10,821	31.9x	28.9x	24.5x	10.5x	8.6x	7.8x
Large Cap Semi Average						**87.5x**	**41.1x**			**19.2x**	**12.1x**							**87.5x**	**42.8x**	**29.5x**	**19.2x**	**12.4x**	**9.3x**
Small-Mid Cap Semi Average						**62.2x**	**39.6x**			**6.7x**	**5.6x**							**62.2x**	**38.8x**	**28.0x**	**6.7x**	**5.7x**	**4.9x**
Semi Group Average (ex-outliers)						**55.3x**	**35.1x**			**13.0x**	**11.2x**							**45.3x**	**35.6x**	**30.8x**	**16.5x**	**10.9x**	**8.4x**
SOX Index			**13,168**	**184**	**436**	**71.5x**	**30.2x**			**11.3x**	**8.8x**							**71.5x**	**30.2x**	**21.2x**	**15.6x**	**11.3x**	**8.8x**
S&P500			**7,516**	**256**	**342**	**29.4x**	**22.0x**			**3.4x**	**3.2x**							**29.4x**	**22.0x**	**18.8x**	**3.7x**	**3.4x**	**3.2x**

Source: Company reports, Bloomberg Finance L.P., and J.P. Morgan estimates. Pricing as of 7/9/2026 intraday.