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Global Technology

NAND Industry Outlook: Diverging Trends

WHAT'S CHANGED

	From	To
Shenzhen Longsys Electronics Co Ltd (301308.SZ)		
Price Target	Rmb300.00	**Rmb673.00**
Silicon Motion (SIMO.O)		
Price Target	US$155.00	**US$400.00**
Phison Electronics Corp (8299.TWO)		
Price Target	NT$2,248.00	**NT$2,588.00**

AI continues to create shortages in the NAND industry into 2027, while supply and demand dynamics depend on supply discipline moving into 2028 and beyond. We still like suppliers for LTA downside protection and enhanced shareholder returns, and are starting to see consumer pricing plateau.

What's changed? We update our global NAND supply and demand forecast for 2026-27 and conducted a scenario test on greenfield expansion vs. AI demand growth for 2028. Our calculation shows significant shortages should persist into 2027. Moving into 2028, node migration and greenfield expansion may ease some supply tightness (-5% shortage if 60% YoY AI NAND growth with current base case capacity expansion), while in a bear case scenario where both China restrictions and supply discipline ease, there is potential risk of oversupply.

Bifurcation – AI vs. consumer: We see overall server demand remaining strong as LTAs have provided downside protections on pricing. On the consumer side, inventory levels have increased at module makers and distributors, and smartphone and PC customers are facing increasing pressure on the volume vs. margin trade-off. This is not new to the market, but we have begun to see actual order cuts after 2Q26 price hikes, indicating pricing for consumer products might hit a ceiling very soon while volume remains muted as suppliers shift capacity to AI.

Stock implications: We remain bullish on the memory cycle and continue to like supplier names with LTA supporting valuation expansion and shareholder returns. Tactically, we prefer DRAM over NAND due to better LTA terms, higher demand visibility, supply discipline capped by EUV and a potential HBM4E capacity squeeze. In NAND, we prefer suppliers over module makers, reflecting margin durability.

Global perspective: In DRAM, **Samsung Electronics** is Asia Tech team's Top Pick for its market leadership and potentially stronger shareholder returns. In NAND, **Kioxia** is our Japan Semi team's Top Pick for solid FCF generation and shareholder return potential while **Macronix** is our GC Semi team's Top Pick. We remain OW on **Micron**, **SK hynix** and **SanDisk** amid a durable memory cycle, as well as **Fadu**, a key eSSD controller supplier to SanDisk. We raise our **SIMO** PT to reflect the eSSD opportunity. We remain EW on **Longsys** and **Phison** on concerns around muted volume growth but raise our PTs on stronger pricing and margin assumptions.

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S. KOREA TECHNOLOGY

Asia Pacific	
Industry View	**Attractive**

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Global Perspectives

Sandisk/Micron

Joseph Moore

We remain OW on Sandisk and MU, as supply demand outcomes continue to look compelling for both NAND and DRAM. With AI now the principal driver of memory bits and little to no inventory across the supply, the biggest risk to memory stocks is a broader AI capex slowdown, which we do not expect to peak in the near term, supporting a path to higher earnings power well beyond 2027 (when consensus currently assumes pricing will begin to normalize). We expect continued upward revisions to estimates, and at <10x P/E for both SNDK and MU multiples should still have room to benefit from extended visibility. LTAs are part of what's enabling that higher level of visibility, and are symptomatic of a market that could should stay tight for another 2-3 years. Meanwhile, MU and Sandisk should continue to be attractive capital return stories, as we expect both to pursue meaningful buybacks in 2027.

KIOXIA

Kazuo Yoshikawa

We maintain KIOXIA as our Top Pick within our Japan semiconductor coverage, reflecting solid FCF generation and shareholder return potential.

KIOXIA appears well positioned to capture AI-driven storage demand with a broad SSD lineup. The CM Series addresses high-throughput, low-latency KV cache needs for inference AI, while the GP Series targets Super High IOPS applications that can complement HBM. The LC Series supports large-scale AI storage demand with 245TB QLC SSDs, with mass-production shipments already underway.

On capital allocation, KIOXIA plans to use FCF for both growth investments and shareholder returns. We see scope for stronger returns, supported by expected annual FCF generation of ¥4.0-5.0trn in FY3/27-3/28 even under our conservative ASP assumptions, and management's indication that a substantial portion of excess accumulated FCF could potentially be returned to shareholders.

KIOXIA is also progressing LTA discussions, mainly with data center and enterprise customers. LTAs are expected to cover more than 50% of CY27 shipments, while CY28 coverage is likely to remain around 50% to preserve flexibility.

Samsung Electronics/SK hynix

Shawn Kim

We maintain OW ratings for both Samsung Electronics (Top Pick) and SK hynix as key beneficiaries to AI compute and agentic AI trends (see Agentic AI – The Surge Begins). We estimate more than 20-30% DRAM price hikes in 3Q26, enough to keep the YoY rate of change accelerating. Pricing power is translating into earnings revisions that in turn support P/E stability, at 5.2x 2027e earnings.

However, we are mindful of the rate of change that still matters for memory stocks. With YoY pricing likely to plateau in 4Q26 vs. supply discipline visibility in 2028, we believe

stocks might lack near-term cyclical catalysts until supply and demand dynamics become more clear into 2028 and beyond. That said, multiples could continue to re-rate on the back of favorable LTAs.

Longsys

Duan Liu

We have significantly raised our estimates for Longsys on better-than-expected pricing trends and high conviction levels on 2027 shortages. We expect Longsys's long-term margin profile to improve due to its better product mix. Its TCM business model will likely bring a more stable margin profile over the long term (25-35%) as inventory pressure is shifted to customers, and the company's in-house controller development could further increase the value add on firmware and customized services. We are slightly concerned about muted volume growth due to suppliers' shifting capacity to CSP customers, which should cap near-term volume growth, but this should be well understood by the market and already in the price.

Phison

Charlie Chan

2Q26 preliminary results were a strong beat vs. estimates, driven by more resilient pricing hike intervals and shipments than expected. 3Q26 is expected to be the peak quarter of the year, supported by additional supply support from Kioxia's dummy die, which could drive around 20% QoQ revenue growth and a better-than-feared flat QoQ margin. However, this strength appears cyclical rather than sustainable; gross margin expansion is still expected to peak around 2Q26–3Q26 as low-cost NAND inventory is depleted and higher-cost supply begins to flow through under FIFO accounting. By 4Q26, emerging weakness in consumer tech and a more moderate pricing environment are expected to drive revenue down around 20% QoQ, with margins normalizing to roughly 50%. Although the better 2026 pricing environment supports stronger-than-expected profitability into 2027, this upside is partially offset by continued R&D investment and broader structural risks, including constrained NAND supply, weakening consumer SSD demand, limited raw NAND supplier support, modest eSSD revenue contribution of only around 10–20% for most Asia-based SSD vendors and hyperscalers' tendency to purchase directly from NAND fab owners or negotiate long-term supply agreements, which may limit the long-term addressable market for module vendors such as Phison.

SIMO (PT increases to US$400 from US$155)

Tiffany Yeh

For FY2026, the company expects record revenue, sequential growth every quarter, margin expansion, and an improving mix. Some important incremental growth vectors are:
1) Boot drive storage, where SIMO is expanding from current DPU boot-drive shipments into broader next-gen AI GPU/CPU platform content, including DPU, Ethernet, and NVLink-related switch opportunities. We expect boot drive and other SSD solutions to account for 23%/26% of SIMO's 2026e/2027e total revenue, see more detailed analysis in AI Module: Boot Drive Bottom-up Updates section.
2) Enterprise SSD / MonTitan: SIMO's enterprise SSD business, MonTitan, has started production with two customers. The company expects to add five more Tier 1 CSPs by late

2026 and targets MonTitan to contribute 5–10% of expanded 2026 revenue on an exit run-rate basis. However, as we see SIMO continuing to make progress, we expect its eSSD (MonTitan) business to account for 5%/13%/19% of SIMO's total revenue in 2026e/ 2027e/2028e, as besides off-the-shelf eSSD controllers, we also see the possibility for SIMO to customize eSSD controllers for CSPs in the long run.
3) Although overall consumer demand remains lukewarm, we continue to see SIMO gaining market share in mobile, PC and edge AI products even into 2H26. As a result, we raise our price target to US$400 from US$155, implying 23x 2027e EPS, above its historical average of 20x since 2019. We view this as justifiable as SIMO is diversifying into more AI-exposed areas. Overall, we expect to see continual upward inflection in SIMO's enterprise/AI storage strategy, with 2026 the first meaningful ramp year and 2027-28 as the scaling phase.

Fadu

Ryan Kim

We believe Fadu is gradually transitioning from a recovery story to a structurally scaling AI storage semiconductor story. Although the company remains relatively small in absolute revenue today, management commentary increasingly suggests the key uncertainty is shifting away from demand visibility and toward execution/ramp timing. Importantly, management now frames 2026 revenue of W300bn+ as effectively secured, supported by hyperscaler-related enterprise SSD controllers, while also guiding for meaningful operating leverage due to a controller-heavy mix and limited incremental SG&A. The broader debate is no longer whether hyperscaler exposure exists, but rather how far the company can penetrate AI-centric storage architectures over the next 3-5 years. The company believes it can eventually cover 3-4 of the top global hyperscalers through indirect and direct engagement models. If realized, this could materially expand both the revenue visibility and valuation frameworks vs. historical perceptions.

Macronix, Winbond, GigaDevice

Daniel Yen

For SLC/MLC NAND, we have seen supply tightness for a while with mainstream vendors existing the market and only a handful of legacy players able to maintain or even increase capacity. In addition, we are now seeing demand upside. High-density SLC NAND can support datacenter eSSD as they have fast reading and writing speeds (link). In addition, given the MLC NAND shortfall, enterprise HDDs are likely shifting to high-density SLC NAND. Enterprise HDDs previously used MLC NAND for firmware, hot data and defect mapping. We believe strong pricing momentum will continue into 4Q, following 50–60% increases in 3Q.

We remain OW on Macronix (Top Pick; SLC/MLC NAND), Winbond (SLC NAND) and GigaDevice (SLC NAND).

Exhibit 1: Order of Preference

	Fadu 440110.KQ	Macronix 2337.TW	Winbond 2344.TW	Silicon Motion SIMO.O	Kioxia 285A.T	Samsung Electronics 005930.KS	GigaDevice 603986.SS	Micron MU.O	SK hynix 000660.KS	SanDisk SNDK.O	Phison 8299.TWO	Longsys 301308.SZ
Rating	Overweight	Overweight	Overweight	Overweight	Overweight	Overweight	Overweight	Overweight	Overweight	Overweight	Equal-Weight	Equal-weight
Trading Currency	KRW	TWD	TWD	USD	JPY	KRW	CNY	USD	KRW	USD	TWD	CNY
Price Target	186,000.0	226.0	289.0	460.0	110,000.0	381,000.0	868.0	1,200.0	2,600,000.0	1,750.0	2,980.0	67.0
Current Price	82,800.0	143.5	192.0	317.0	88,130.0	314,500.0	772.0	1,114.3	2,160,000.0	2,273.7	2,770.0	66.74
Upside/(Downside) (%)	82%	57%	52%	45%	25%	21%	12%	8%	2%	-23%	14%	1%
Market Cap (in USD mns)	2,566.2	8,145.8	24,952.1	10,645.9	300,468.2	1,446,786.3	75,944.5	341,580.7	1,578,295.8	32,854.0	14,605.9	40,637.2
Avg Daily Traded Val (in USD mns)	30.0	280.7	50.40	78.6	3,860.9	2,464.3	1,467.3	12,895.8	7,368.7	6,388.8	276.5	667.7
Street View: Ratings												
Buy/Overweight	100%	90%	100%	100%	90%	91%	92%	91%	90%	79%	92%	100%
Hold/Equalweight	0%	0%	0%	0%	0%	9%	8%	9%	10%	21%	8%	0%
Sell/Underweight	0%	10%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
Bull Case Value	200,000.0	366.0	342.0	580.0	150,000.0	430,000.0	1,542.0	1,800.0	3,000,000.0	2,835.0	3,400.0	85.0
Upside (%)	142%	147%	80%	83%	70%	37%	100%	43%	17%	16%	50%	28%
Bear Case Value	49,000.0	130.0	118.0	175.0	55,000.0	190,000.0	648.0	675.0	1,100,000.0	1,190.0	1,250.0	58.0
Downside (%)	-41%	-9%	-39%	-45%	-38%	-40%	-16%	-40%	-49%	-52%	-45%	-13%
Risk/Reward Skew	3.5	15.7	2.1	1.9	1.9	0.9	6.2	1.0	0.3	0.3	1.1	2.3
Morgan Stanley Estimates												
FY26e	KRW	TWD	TWD	USD	JPY	KRW	CNY	USD	KRW	USD	TWD	CNY
Sales	311,953	77,854	259,908	1,898	8,541,709	736,817,539	26,399	128,883	347,835,062	19,480	260,963	65,852
EBITDA	58,068	30,271	134,605	387	7,145,993	461,905,627	13,300	100,861	295,571,444	11,953	84,035	29,908
EBIT	48,530	22,733	118,564	357	6,802,293	420,718,910	13,050	97,375	277,967,250	11,288	85,985	29,805
EPS	1,814.98	9.84	21.27	9.44	8,784.37	53,984.91	16.68	73.30	318,486.81	65.03	340.56	59.86
FY27e												
Sales	604,243	143,216	432,740	2,566	9,487,908	1,025,374,254	46,296	260,867	515,353,708	48,826	260,963	85,504
EBITDA	133,106	64,657	234,811	723	7,950,991	695,982,873	23,646	243,477	448,532,938	40,589	32,787	21,412
EBIT	109,312	58,187	214,835	693	7,569,791	639,337,811	23,386	230,431	419,982,814	39,913	32,891	21,371
EPS	2,137.84	25.02	38.25	17.54	9,862.41	74,381.23	30.27	168.52	469,011.81	214.73	132.83	42.62
FY26 MSe vs. Consensus Mean												
Sales	0.4%	-4.0%	8.7%	-22.2%	-8.1%	4.0%	37.8%	0.2%	0.1%	-0.3%	-23.9%	73.5%
EBITDA	-8.7%	-7.3%	-2.7%	-24.8%	-7.7%	11.0%	42.1%	-1.1%	3.0%	3.6%	-31.0%	217.0%
EBIT	-12.5%	-22.6%	6.8%	-25.4%	-26.0%	NA	38.8%	1.1%	3.9%	-3.3%	-34.9%	1811.4%
EPS	-8.3%	-27.6%	-0.8%	-25.8%	-8.5%	17.4%	58.9%	0.5%	1.6%	0.2%	-36.0%	83.2%
FY27 MSe vs. Consensus Mean												
Sales	7.5%	16.9%	22.9%	15.7%	17.0%	11.7%	87.1%	7.6%	0.5%	7.1%	-30.6%	106.3%
EBITDA	-6.9%	-7.1%	6.2%	2.5%	-14.1%	24.7%	115.0%	7.5%	5.0%	24.0%	-34.9%	208.3%
EBIT	-10.8%	1.7%	30.1%	4.9%	-33.8%	NA	107.1%	14.4%	4.7%	15.7%	-43.1%	264.1%
EPS	-16.4%	-17.9%	17.3%	3.3%	-16.8%	15.8%	131.3%	8.7%	1.8%	15.5%	-44.1%	216.2%
Valuation Multiples at Last Close												
FY26e												
P/E	61.4x	14.6x	8.9x	48.4x	10.0x	5.8x	46.3x	15.7x	8.0x	35.0x	11.4x	11.2x
EV/EBIT	82.1x	13.6x	6.8x	35.4x	6.8x	5.0x	38.1x	13.3x	8.4x	28.4x	8.1x	8.8x
EV/EBITDA	68.6x	10.2x	6.0x	35.0x	6.4x	4.8x	37.4x	12.1x	8.0x	26.8x	8.1x	8.7x
EV/Sales	12.8x	4.0x	3.0x	8.2x	5.4x	2.9x	17.5x	10.1x	5.1x	15.4x	2.4x	4.0x
FCF Yield	1.6%	14.3%	3.1%	-0.1%	5.2%	4.2%	1.8%	4.0%	1.0%	2.8%	10.5%	8.4%
FY27e												
P/E	38.6x	9.7x	5.0x	29.1x	8.9x	4.2x	25.5x	6.8x	5.6x	10.6x	19.4x	15.7x
EV/EBIT	33.3x	4.4x	3.0x	23.0x	5.5x	3.1x	20.6x	5.0x	3.9x	7.2x	12.8x	11.8x
EV/EBITDA	30.1x	4.0x	2.8x	21.8x	5.3x	2.8x	20.4x	4.8x	3.6x	7.1x	12.8x	11.8x
EV/Sales	6.6x	1.8x	1.5x	6.5x	4.4x	1.9x	10.4x	4.3x	3.1x	5.9x	2.4x	2.9x
FCF Yield	0.5%	21.0%	20.4%	1.8%	11.0%	9.5%	3.8%	10.4%	8.5%	9.0%	5.1%	3.6%

Source: Company data, Morgan Stanley Research (e) estimates. Data as of June 30, 2026

Global NAND Supply & Demand Model

In this note, we update our global NAND supply and demand model. Our calculations indicate that AI-related NAND demand will increase by 60% YoY, or a 9% demand-supply gap (supply shortage) in 2027.

- We rely on ASIC/GPGPU shipment data published by our Greater China Semiconductor team (AI Supply Chain: Preliminary 2027 TSMC CoWoS Allocation) as the basis for our AI NAND consumption calculation.
- In practice, CSP usually has 8-16TB eSSD per ASIC tray for the in-rack eSSD deployment, while the externally attached/CMS-like rack can have 16-64 TB eSSD per tray, depending on the application scenario. We group datalake-related demand into QLC usage, which is capped by supply allocation.
- For Nvidia NAND usage, we include CSP's extra attachment in practice (which is equivalent to 64TB per 4GPU compute node in total) when they deploy the BlackWell rack, while other assumptions follow the company's official configurations.
- For smartphone and PC NAND demand, we assume content will be flat while units decrease in line with our US hardware team's model. For enterprise's eSSD usage, we assume 10% growth YoY for both 2026 and 2027 due to AI adoption.
- For NAND supply estimates, we leverage our US SPE analyst Shane Brett's estimates for 2026-27. He sees 27% YoY bit growth in 2027 and early signs of NAND WFE acceleration emerging (see Raising our memory WFE forecasts (mainly DRAM). Our 2025 supply numbers also include excessive inventory across the supply chain carried from the last down cycle.

Exhibit 2: AI NAND demand

	2025	2026e	2027e
ASIC			
AWS Trainium (k units)	1,285	1,700	2,380
ASIC per compute tray	4	4	4
AWS Tray # (k units)	321	425	595
eSSD per tray (TB)	32	32	32
Total eSSD (EB)	***10***	***14***	***19***
Meta MTIA (k units)	50	150	550
ASIC per compute tray	4	4	4
MTIA Tray # (k units)	13	38	138
eSSD per tray (TB)	64	64	64
Total eSSD (EB)	***1***	***2***	***9***
Google TPU (k units)		4,080	8,168
TPU per compute tray		4	4
Google Tray # (k units)		1,020	2,042
eSSD per tray (TB)		16	16
Total eSSD (EB)		***16***	***33***
Total ASIC eSSD usage (EB)	***11***	***32***	***61***
GPGPU			
Nvidia (k units)			
B200/B300	5,819	5,460	560
R200		2,080	5,920
R300			1,040
In-rack eSSD			
GPU per compute tray	4	4	4
Total # of compute tray	1,455	1,885	1,880
eSSD per tray (TB)	18	18	18
Total eSSD (EB)	**26**	**34**	**34**
Blackwell extra (CSP deployment) per tray	46	46	46
Total eSSD (EB)	**67**	**63**	**6**
STX CMS Context Memory Platform			
# of NVL72 Rack		28,889	96,667
# of CMS vs NVL72 Rack		0.125	0.125
# of storage tray (unit)		16	16
eSSD per tray (TB)		32	32
Total eSSD (EB)		**2**	**6**
AMD (k units)			
MI300/MI308	180	36	-
MI325/350/375	540	84	288
MI400		650	1,920
MI500			96
GPU per compute tray	4	4	4
Total # of compute tray	180	193	576
eSSD per tray (TB)	64	64	64
Total eSSD (EB)	**12**	**12**	**37**
Total GPGPU eSSD usage (EB)	**105**	**111**	**83**
CPU Rack			
Vera CPU		1,030	2,270
eSSD per CPU (TB)		8	8
Total eSSD (EB)		**8**	**18**
Others			
China CSP usage (EB)	80	120	180
QLC usage (EB)	-	100	230
CSP Inventory buffer %	5%	10%	10%
Total AI NAND demand (EB)	**205**	**400**	**609**

Source: Company data, Gartner, Morgan Stanley Research estimates

Exhibit 3: Global NAND supply and demand still point to shortage in 2027

	2025	2026e	2027e
Total AI NAND demand (EB)	**205**	**400**	**609**
Other Applications (EB)			
non-AI SSD (general server, PC, enterprise etc)	396	387	401
PC SSD	209	181	175
Enterprise SSD (non-AI)	187	206	226
Smartphones	337	291	301
Tablets	34	34	34
Flash Cards	15	15	15
USB Flash Drives	10	10	10
Other	113	113	113
Total non-AI NAND demand (EB)	**905**	**850**	**874**
Total NAND demand (EB)	1,111	1,250	1,484
Total NAND supply (EB)	1,128	1,058	1,347
Sufficiency Ratio (%)	***2%***	***(15%)***	***(9%)***
AI as % of NAND demand (EB)	*18%*	*32%*	*41%*

Source: Company data, Gartner, Morgan Stanley Research estimates

2028 Scenario Test

We think the biggest swing factor for 2028 and beyond could be related to YMTC. This Chinese NAND supplier currently has Fab4 and Fab5 under construction at the same time, with each having 100kwpm planned capacity. If they decide to dedicate all of that to NAND, with the announced five fabs, they could eventually take 24% market share in the global NAND industry (see Chipflation – Navigating A Memory Crisis).

In our base case scenario, we assume 5% YoY growth for non-AI NAND demand, and the rest of the supplier's capacity expansion to be the same as in our US Semiconductor team's forecast. We assume AI SSD demand will grow by another 30-60% YoY in 2028 vs. YMTC capacity ranging from 310kwpm (current base case) to 470kwpm (potential max capacity of all announced five fabs).

In conclusion, we still see NAND supply remaining tight into 2028 if AI capex continues to grow and YMTC keeps a more disciplined approach on expansion. However, if YMTC or other players accelerate greenfield expansion, there will likely be potential risks of oversupply.



Exhibit 4: YMTC capacity expansion vs. AI SSD growth scenario test

YMTC Capacity kwpm in 2028e \ AI SSD demand growth % YoY in 2028	30%	40%	50%	60%
310	-1%	-2%	-4%	-6%
330	0%	-1%	-3%	-4%
350	2%	0%	-2%	-3%
370	3%	1%	-1%	-2%
390	4%	2%	1%	-1%
410	5%	4%	2%	0%
430	7%	5%	3%	1%
450	8%	6%	4%	3%
470	9%	7%	5%	4%

Source: Company data, Morgan Stanley Research

What's not included in our analysis?

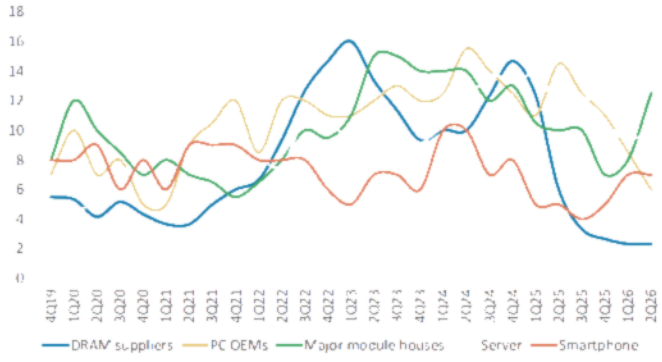
- Potential wafer consumption and capacity squeeze from "Super High IOPS" SSD designed for AI inference workloads: If these new products enter volume production in 2028, they will likely consume 3x more capacity than a normal SSD would do, significantly tightening overall industry supply.
- New technology and AI applications that requires more SSD than we currently estimate.
- Potential demand upside from edge AI devices, or traditional cycle recovery.

Channel Checks

- **3Q26 NAND pricing** is tracking at +30% QoQ for TLC eSSD while up only slightly for consumer grade NAND products due to pricing pressure weighing on smartphone and PC customers' margin.
- **3Q26 DRAM pricing** is tracking at +20% QoQ for server grade products as consumer customers face similar pressure. Legacy DRAM products such as DDR3/4 tracking are much higher at +30-40% QoQ due to continued tightening supply and growing demand from AI related products (see Old Memory: Better to buy more)
- **LTAs** among memory suppliers and key major customers are still under negotiations. Micron announced in their past earnings that LTAs have both ceiling and floor prices that cap potential upside for pricing trends. According to our channel checks, customers are more willing to pay for the DRAM pricing to secure supply, while NAND pricing has received some push back.
- At the end of 2Q26, supplier **inventory levels** remain at historical lows. Module makers inventory levels increased significantly from both DRAM and NAND, consistent with their inventory building strategy. Server customers' inventory level improved marginally while smartphone makers are receiving more DRAM inventory. PC markers' inventory levels continued to fall for DRAM while remaining flat for NAND.
- According to our channel checks, inventory levels for consumer grade (PC, smartphone) memory products are elevated at some **Chinese memory distributors,** while server products remain tight. Distributors noted that pricing levels are high (and their costs are also high given the aggressive price hikes in the past three quarters), discouraging mid-small buyers in the market. They do not think demand is fundamentally getting worse, but volume shrinkage leads to pressure from holding inventories for too long.

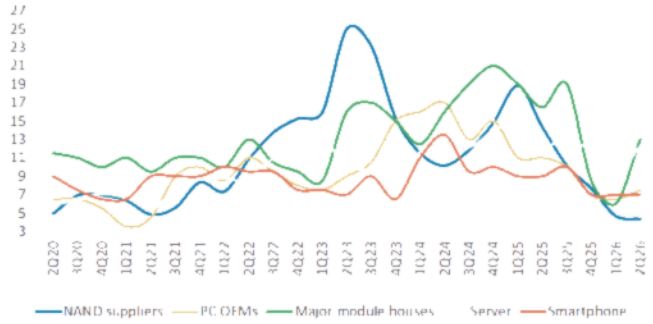
Based on our calculations, supply and demand dynamics will not reverse in the near term. However, increasing pricing pressure at the supply chain, customers' unwillingness/incapability to take higher prices and increasing levels of inventory at module makers/distributors indicate that mainstream consumer products pricing might hit a ceiling soon.

Exhibit 5: DRAM Inventory Level



Source: TrendForce, Morgan Stanley Research

Exhibit 6: NAND Inventory Level



Source: TrendForce, Morgan Stanley Research

Module Makers: A Less Cyclical Business Model

The classic playbook: In the past decade, the memory industry has typically faced 4-6 quarters of upcycle, with inflection when new capacity comes online to meet demand. The cycle hasn't remained at an elevated level due to reinforced customer behavior – chase and add more orders - hence, exaggerating the shortage in an upcycle when pricing increases every quarter, while de-committing during the downcycle expecting pricing to be lower in the next quarter.

Traditionally, low cost inventory plays an important role in a module maker's business model. Module makers hoard low cost inventories at cycle troughs and sell into upcycles with greater margin elasticity. This business model also influences module makers' share price reactions – usually when low cost inventory is depleted, margin peaks and the stock price corrects.

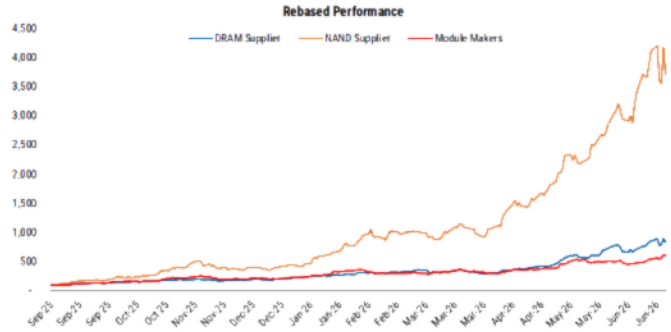
Is this time different? Under a scenario where the memory industry faces prolonged shortage due to the AI demand boom, memory prices could remain at elevated levels for the next 3-5 years through LTAs. We believe this would fundamentally change the module maker business model in a more durable upcycle as well.

1. Stable margin vs. cyclical volatility: Low cost inventory will likely be depleted at some point this year (Longsys currently holds 2-3 quarters of inventory). With consumer memory pricing hikes narrowing into 2H26 and seen remaining at elevated levels, margins should gradually return to more normalized levels and become more stable than what we've seen in previous years.

2. Limited supply: We expect muted volume growth for module makers in both 2026 and 2027 as suppliers' allocations are being shifted to CSP customers. Moving into 2028, aggressive greenfield capacity expansion from domestic Chinese suppliers could be a tailwind for volume growth, but at the same time, they could present challenges on pricing support in a scenario of oversupply.

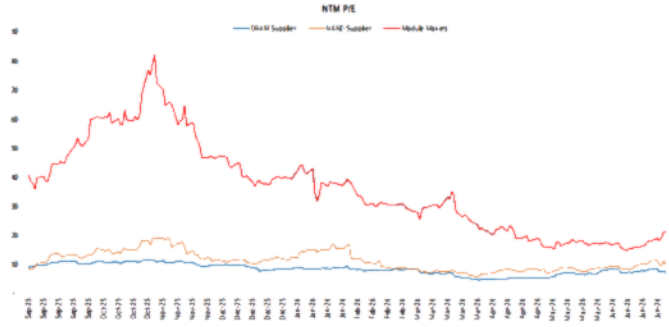
3. EPS lift through mix shift and margin expansion: In an environment where volume growth limited and market pricing is stable, module makers would be challenged to differentiate themselves through premium product mix shifts and new growth engines that can increase ASPs, hence the earnings to support valuation and share price performance.

Exhibit 7: NAND suppliers have outperformed significantly in this supercycle



Source: FactSet, Morgan Stanley Research

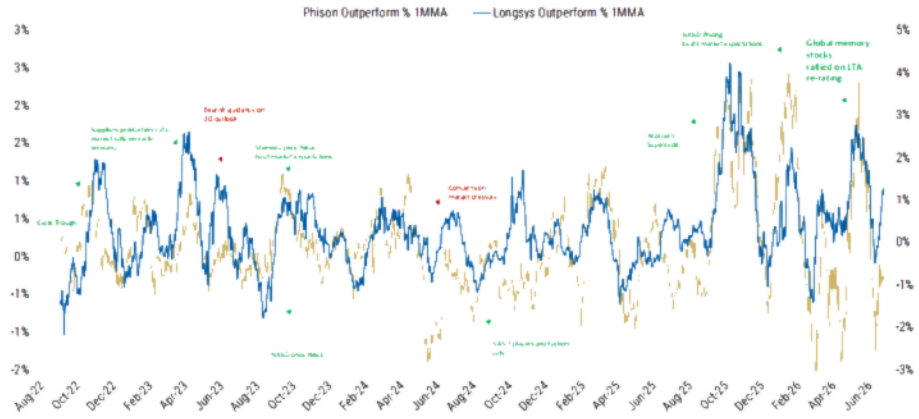
Exhibit 8: Module makers' valuation has contracted to a more reasonable level after significant upward earnings revisions



Source: FactSet, Morgan Stanley Research

Exhibit 9:

Module makers relative performance vs. respective country index



Source: FactSet, Morgan Stanley Research

AI Module: Boot Drive Bottom-up Updates

In our February Phison downgrade report, we published a bottom-up analysis for our boot drive model for the growing AI market. As there is now more visibility into 2027's AI GPU, CPU and ASIC chip shipments, together with ongoing price increases for boot drive modules, we further update our bottom-up analysis:

Boot drive modules are a foundational, but often overlooked, component in modern server racks, particularly in large-scale AI and cloud infrastructure. While they do not participate directly in model training or inference workloads, boot drives are mission-critical for system availability, orchestration and recoverability. At a high level, boot drives provide the persistent local storage required to initialize hardware, load operating systems, and maintain essential control-plane functions across compute nodes, switches, and management servers within a rack.

Core Functions of Boot Drive Modules

- **System Initialization and Hardware Bring-Up:** Boot drives store the system firmware, boot loader, and operating system images required to power on servers, switches, and management nodes. Without a local boot device, hardware cannot reliably initialize, even in disaggregated or network-booted environments.
- **Control Plane and OS Persistence:** In modern AI racks, boot drives host: 1) containerized operating systems; 2) device drivers (GPU, NIC, NVLink, accelerators); 3) system services and orchestration agents. This ensures each node can operate autonomously and recover independently from network or storage disruptions.
- **Configuration, Logs, and Telemetry Storage:** Boot drives retain system configuration files, event logs, and telemetry data critical for debugging, compliance and fleet-level monitoring. This function is particularly important in hyperscale and AI factory environments where rapid fault isolation is required.
- **Fast Recovery and Operational Resilience:** Local boot drives enable rapid reboot and redeployment, Isolation of failures to individual nodes, reduced dependency on shared storage during recovery events. This materially improves system uptime and operational efficiency.

While boot drives represent a smaller share of total storage capacity compared with data cache or training storage, their ubiquity and mandatory nature make them a stable and scalable demand driver. As system software footprints expand due to containerization, monitoring, and local inference workloads, boot drive capacity requirements continue to rise, increasing cumulative storage content per rack.

We try to gauge the TAM for NVIDIA's Blue Field 3 and upcoming Blue Field 4 boot drive, based on the rack shipments we see as reasonable in the near term. We also try to size other boot drive markets, as general servers and ASIC server racks also require boot drives to function.

SIMO and Solidigm are the major providers of the Blue Field 3 boot drive module. However, we see SIMO as having 100% market share in controllers, as the other module maker pairs its SSD with SIMO's solution. We estimate the GB200/300 server rack and Blue Field 3 boot drive will contribute 2.3%/0.9% of total revenue to SIMO in

2026/2027e.

As NVIDIA decided to increase and standardize the boot drive content in its upcoming Vera Rubin rack, we have seen multiple module, controller and raw NAND vendors joining the supply for Blue Field-4 boot drives. These include, SIMO, Phison and Realtek.

As a general server, AMD's GPU and other ASIC server racks would also require boot drive modules/controllers inside the system, we calculate the TAM for non-boot drives needed based on our current estimates for shipments.

Exhibit 10: Gauging the TAM for boot drives in Vera Rubin Rack: SIMO to see around 3%/7% of total revenue coming from Vera Rubin rack in 2026e/2027e; But we see the revenue contribution remaining quite limited for Phison into 2027e

Boot Drive Content per Vera Rubin rack				
Tray name	Tray numbers	Boot drive per SSD	SSD required spec.	boot drive demand
Compute Tray	18	1	1 92 TB M 2 NVMe	18
Switch Tray (NVLink)	9	1	240G-960G M.2	9
ToR Switch (IB/Eth)	3	1	128G+256G M 2	3
Management Server	1	2	480G-960G M.2 (RAID1)	2
Total boot drive demand per rack				32
ASP per M.2 SSD module (US$)				150

	2026e	2027e
Total BlueField 4 boot drive content per rack	32	32
Rubin (R200) chip shipment (mn units)	2,080	5,920
Rubin Ultra (R300) chip shipment (mn units)		1,040
Implied Vera Rubin (Ultra) shipment (k units)	29	97
Module ASP (US$)	150	200
Controller ASP (US$)	20	20
Module Market Shares		
Phison	30%	30%
Silicon Motion	30%	30%
Others	40%	40%
Phison module revenue (US$mn)	42	186
Phison total revenue (US$mn)	2,009	1,607
% of total Phison revenue	2.1%	11.5%
SIMO module revenue (US$mn)	42	186
SIMO total revenue	1,698	2,566

Source: Company data, Morgan Stanley Research estimates

Exhibit 11: Gauging the TAM for boot drives in CMS racks

	2026e	2027e
Rubin (R200) chip shipment (mn units)	2,080	5,920
Rubin Ultra (R300) chip shipment (mn units)		1,040
Implied Vera Rubin (Ultra) shipment (k units)	29	97
STX CMS Context Memory Platform		
Storage tray (units)	16	16
Boot drive (units)	2	2
Content per 8 units of VR rack	1	1
Total CMS Boot Drive Consumption (k units)	116	387
Boot Drive ASP (US$)	150	200
SIMO market shares	30%	30%
Revenue contribution to SIMO (US$mn)	5	23

Source: Company data, Morgan Stanley Research estimates

Exhibit 12: Gauging the TAM for boot drives in general servers and ASIC: SIMO to benefit most, with revenue contribution likely to reach 10%/12% in 2026e/2027e even with our conservative market share estimates of 5% in the overall TAM

	2026e	2027e
Other application requiring boot drive		
General Server shipment (k units)	21,097	27,426
General Server shipment Y/Y	30.0%	30.0%
AMD - MI series (k units)	770	2,304
GPU per compute tray	4	4
AMD Tray # (k units)	193	576
ASIC - AWS Trainium (k units)	1,700	2,380
ASIC per compute tray	4	4
AWS Tray # (k units)	425	595
ASIC - Meta MTIA (k units)	150	550
ASIC per compute tray	4	4
MTIA Tray # (k units)	37.5	137.5
Google TPU (k units)	4,080	8,168
ASIC per compute tray	4	4
Google Tray # (k units)	1,020	2,042
Number of boot drive needed per tray	1	1
Total boot drive consumption in general server and ASICs (k units)	22,772	30,776
ASP for boot drive module	150	200
ASP for boot drive controller	20	20
Market share analysis		
Phison	5%	5%
SIMO	5%	5%
Others	90%	90%
Revenue contribution		
Phison module revenue (US$mn)	171	308
Phison total revenue (US$mn)	8,699	6,949
% of total Phison revenue	2.0%	4.4%
SIMO module revenue (US$mn)	171	308
SIMO total revenue (US$mn)	1,698	2,566
% of total SIMO revenue	10.1%	12.0%

Source: Company data, Morgan Stanley Research estimates

Exhibit 13: We expect AI boot drives to contribute 2%/7% of Phison's 2026e/2027e total revenue, while SIMO sees 15%/21% in the same period

	2026e	2027e
Phison Revenue (US$mn)		
Vera Rubin and BlueField 4 Boot Drive Module	42	186
General server, AI GPU, ASIC and other Boot Drive Module	171	308
Total Revneue contribution from Boot Drive Module	212	493
Phison total revenue (US$mn)	8,699	6,949
% of total Phison revenue	2%	7%
SIMO Revenue (US$mn)		
Grace Blackwell and BlueField 3 Boot Drive Module	39	24
Vera Rubin and BlueField 4 Boot Drive Module	42	186
General server, AI GPU, ASIC and other Boot Drive Module	171	308
STX CMS Context Memory Boot Drive Module	5	23
Total Revneue contribution from Boot Drive Module	256	541
SIMO total revenue (US$mn)	1,698	2,566
% of total SIMO revenue	15%	21%

Source: Company data, Morgan Stanley Research estimates

SIMO: Earnings Revision Estimates, Valuation Methodology and Quarterly Financials

We factor in actual 1Q26 results and lift GAAP EPS by 59% and 66% for 2026e and 2027e, and introduce 2028e estimates: We factor in the better-than-expected 1Q26 result and strong 2Q26 and 2026 full-year guidance, as the company is seeing market share gains in the consumer tech area and enterprise SSD front. We also factor in our estimates for the boot drive TAM analysis in this report. For gross margin, we raise our assumptions for the SSD module business, but lower our gross margin estimates for boot drives given the elevated raw NAND costs. The difference between GAAP and non-GAAP earnings primarily reflects unrealized investment gains recorded in recent quarters.

Exhibit 14: SIMO: Earnings estimate revisions

US$ mn, in GAAP	New '26E	Old '26E	Diff.	New '27E	Old '27E	Diff.	New '28E
Net sales	1,698	1,268	34%	2,566	1,586	62%	3,485
Gross profit	825	621	33%	1,298	816	59%	1,843
Operating profit	357	247	44%	693	431	61%	1,104
Pretax Income	385	255	51%	700	439	59%	1,110
Net income	324	204	59%	581	351	65%	922
GAAP EPS (US$)	**9.55**	**6.01**	**59%**	**17.13**	**10.35**	**66%**	**27.17**
Non-GAAP EPS (US$)	**9.44**	**6.54**	**44%**	**17.54**	**10.88**	**61%**	**27.58**
Margins							
Gross margin	48.6%	49.0%		50.6%	51.4%		52.9%
Operating margin	21.0%	19.5%		27.0%	27.2%		31.7%
Pretax margin	22.7%	20.1%		27.3%	27.7%		31.9%
Net margin	19.1%	16.1%		22.6%	22.1%		26.4%

Source: Company data, Morgan Stanley Research estimates

Exhibit 15: SIMO: Quarterly financials

US$ in million	1Q26	2Q26E	3Q26E	4Q26E	1Q27E	2Q27E	3Q27E	4Q27E	1Q28E	2Q28E	3Q28E	4Q28E	2024	2025	2026E	2027E	2028E
Total Revenues	342	414	452	490	588	614	679	705	767	836	919	973	804	886	1,698	2,566	3,485
Sequential Change	22.9%	21.1%	9.0%	8.5%	15.9%	8.1%	10.7%	3.8%	7.4%	10.4%	10.0%	5.8%					
Change vs Year Ago	103.5%	108.5%	86.6%	70.9%	65.9%	48.1%	50.5%	44.0%	33.4%	36.2%	35.3%	38.0%	25.7%	10.2%	91.7%	51.1%	35.8%
Cost of Sales - GAAP	181	212	231	249	282	304	335	347	381	397	431	455	435	458	872	1,268	1,643
Percent of Revenues	53%	51%	51%	51%	50%	50%	49%	49%	46%	47%	47%	47%	54%	52%	51%	49%	47%
Cost of Sales - non GAAP	181	211	231	249	282	304	335	347	361	397	431	455	434	458	872	1,268	1,643
Percent of Revenues	53%	51%	51%	51%	50%	50%	49%	49%	48%	47%	47%	47%	54%	52%	51%	49%	47%
Gross Profit - GAAP	161	203	221	241	306	310	344	358	387	439	489	518	369	428	825	1,298	1,843
Gross Margin GAAP %	47.1%	48.9%	48.9%	49.2%	50.4%	50.5%	50.7%	50.7%	52.4%	52.5%	53.2%	53.3%	45.9%	48.3%	48.6%	50.6%	52.9%
Gross Profit - non GAAP	161	203	221	241	286	310	344	358	387	439	489	518	369	428	825	1,298	1,843
Gross Margin non GAAP %	47.2%	48.9%	48.9%	49.2%	50.4%	50.5%	50.7%	50.7%	52.4%	52.5%	53.2%	53.3%	46.0%	48.3%	48.7%	50.6%	52.9%
Total Opex - GAAP	109	115	125	119	135	156	161	152	158	179	199	202	278	334	468	665	739
Percent of Revenues	31.9%	27.7%	27.7%	24.4%	23.0%	25.4%	23.8%	21.5%	20.6%	21.4%	21.7%	20.8%	34.6%	37.8%	27.6%	25.9%	21.2%
Total Opex - non GAAP	99	111	122	116	132	153	158	149	155	176	196	199	261	309	450	591	725
Percent of Revenues	29.0%	26.9%	27.0%	23.7%	23.3%	24.9%	23.3%	21.1%	20.2%	21.0%	21.3%	20.4%	32.5%	34.9%	26.5%	23.0%	20.8%
R&D - GAAP	86	91	101	96	110	130	135	125	130	150	170	172	218	261	374	500	622
Percent of Revenues	25.2%	22.1%	22.5%	19.4%	19.4%	21.2%	19.9%	17.7%	17.2%	17.9%	18.5%	17.7%	27.1%	29.4%	22.0%	19.5%	17.8%
R&D - non GAAP	81	91	101	96	110	130	135	125	130	150	170	172	207	243	369	500	622
Percent of Revenues	23.8%	22.1%	22.5%	19.4%	19.4%	21.2%	19.9%	17.7%	17.2%	17.9%	18.5%	17.7%	25.7%	27.4%	21.8%	19.5%	17.8%
SG&A - GAAP	23	23	24	24	25	26	26	27	28	29	29	30	60	74	94	165	117
Percent of Revenues	6.7%	5.6%	5.3%	5.0%	4.3%	4.2%	3.9%	3.8%	3.6%	3.5%	3.2%	3.1%	7.5%	8.3%	5.6%	4.1%	3.4%
SG&A - non GAAP	19	20	20	21	22	23	23	24	25	26	26	27	55	66	80	91	103
Percent of Revenues	5.7%	4.8%	4.5%	4.3%	3.9%	3.7%	3.4%	3.3%	3.3%	3.1%	2.8%	2.7%	6.8%	7.4%	4.7%	3.5%	3.0%
Operating Income - GAAP	52	88	96	122	151	154	183	206	238	260	289	316	91	93	357	693	1,104
Percent of Revenues	15.3%	21.2%	21.1%	24.8%	26.6%	25.1%	26.9%	29.2%	31.0%	31.1%	31.5%	32.5%	11.3%	10.5%	21.0%	27.0%	31.7%
Change vs Year Ago	435%	293%	227%	283%	189%	75%	92%	69%	58%	69%	58%	54%	128%	2%	284%	94%	59%
Operating Income - non GAAP	62	91	99	125	154	157	186	209	242	264	293	320	108	119	376	707	1,118
Percent of Revenues	18.2%	22.1%	21.9%	25.5%	27.2%	25.6%	27.4%	29.7%	31.9%	31.6%	31.8%	32.8%	13.4%	13.5%	22.2%	27.6%	32.1%
Change vs Year Ago	319%	261%	159%	133%	148%	72%	88%	67%	57%	68%	57%	53%	76%	10%	215%	88%	58%
Total Non-operating Income/(Loss)	23	2	4	2	2	2	2	2	2	2	2	2	17	47	28	8	8
Profit Before Taxes	76	89	97	123	152	155	185	207	240	262	291	318	107	140	385	700	1,110
Percent of Revenues	22%	22%	22%	25%	27%	25%	27%	29%	32%	31%	32%	33%	13%	16%	23%	27%	32%
Taxes	9	15	17	21	26	26	31	35	41	45	49	54	18	17	61	119	189
Tax Rate	11.6%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	16.9%	12.5%	15.9%	17.0%	17.0%
Net Income - GAAP	67	74	81	102	126	129	153	172	199	217	241	264	89	123	324	581	922
Percent of Revenues	20%	18%	18%	21%	22%	21%	23%	24%	26%	26%	26%	27%	11%	14%	19%	23%	26%
Change vs Year Ago	243%	355%	106%	114%	89%	74%	90%	69%	57%	69%	58%	52%	69%	37%	164%	79%	59%
Net Income - non GAAP	64	78	84	106	130	132	157	176	203	221	245	267	101	107	320	595	935
Percent of Revenues	18%	19%	19%	22%	23%	22%	23%	25%	27%	26%	27%	27%	13%	12%	19%	23%	27%
Diluted Earnings per ADS (US$, GAAP)	1.97	2.19	2.38	3.01	3.73	3.80	4.52	5.08	5.87	6.41	7.12	7.78	2.65	3.63	9.55	17.13	27.17
Change vs Year Ago	243%	350%	165%	114%	89%	74%	90%	69%	57%	69%	58%	53%	69%	37%	163%	79%	59%
Diluted Earnings per ADS (US$, non GAAP)	1.59	2.29	2.48	3.12	3.83	3.91	4.62	5.18	5.97	6.51	7.22	7.88	3.01	3.19	9.44	17.54	27.58
Change vs Year Ago	165%	235%	147%	148%	141%	70%	86%	66%	56%	67%	56%	52%	64%	5%	196%	86%	57%

Source: Company data, Morgan Stanley Research estimates

We increase our price target from US$155 to US$400: This reflects the changes in our 2026-27 earnings estimates and also introduced 2028e estimates. We also roll forward our RI base from 2025 to 2026e. We keep other RI assumptions unchanged, including a cost of equity of 9.5% (risk-free rate 2.0%, risk premium 6%, beta of 1.25), payout ratio of

62%, intermediate-term growth rate of 8.6%, and long-term growth rate of 4%. Our bull and bear case also increase from US$225 and US$68 to US$580 and US$175, respectively, implying 33x and 10x 2027e EPS.

Exhibit 16: SIMO: RI model

US$million	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E
Total Equity	1,106	1,557	2,246	2,707	3,207	3,750	4,339	4,980	5,675	6,431	7,251	8,142
Net Profit	324	581	922	1,001	1,087	1,180	1,282	1,392	1,512	1,642	1,783	1,937
ROAE	33.5%	43.6%	48.5%	40.4%	36.8%	33.9%	31.7%	29.9%	28.4%	27.1%	26.1%	25.2%
Residual Income	199	377	606	694	737	783	831	883	938	998	1,063	1,133
Spread	23.9%	34.1%	38.9%	30.9%	27.2%	24.4%	22.2%	20.3%	18.8%	17.6%	16.5%	15.6%
Ending Equity Capital	1,106											
PV of Forecast Period	4,664											
PV of Continuing Value	7,818											
Equity Value	13,578											
No. of Shares	34											
Projected Price	400											

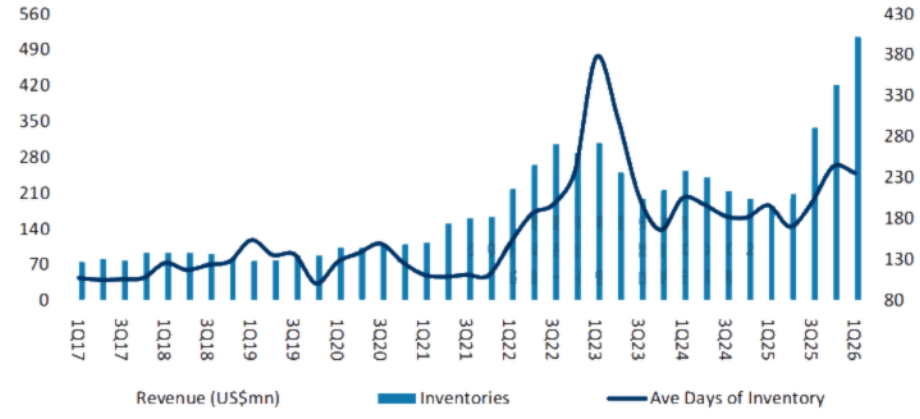
Source: Company data, Morgan Stanley Research estimates

Exhibit 17: SIMO: P/E band



Source: Company data, Factset, Morgan Stanley Research estimates

Exhibit 18: SIMO: DOI



Source: Company data, Factset, Morgan Stanley Research estimates

Risk Reward – Silicon Motion (SIMO.O)

More eSSD opportunities from 2026; OW

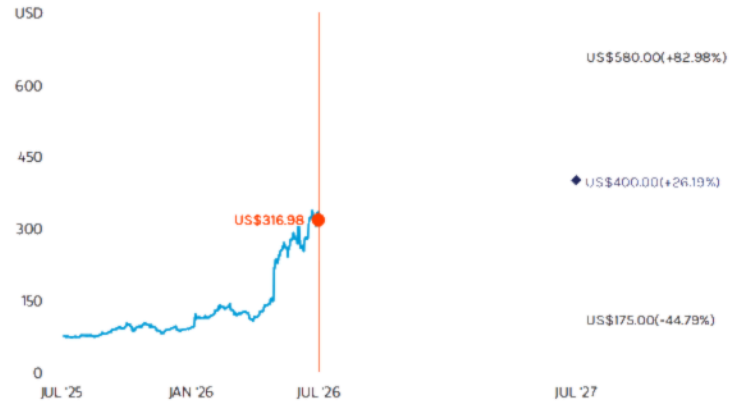
PRICE TARGET US$400.00

Base case, residual income model. Key assumptions: cost of equity of 9.5% (risk-free rate 2.0%, risk premium 6%, beta of 1.25), payout ratio of 62%, intermediate-term growth rate of 8.6%, and long-term growth rate of 4%.

Consensus Price Target Distribution



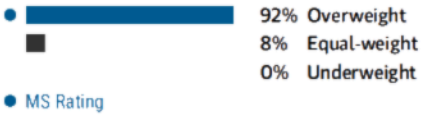
RISK REWARD CHART



OVERWEIGHT THESIS

- We expect SIMO to enjoy better pricing power and earnings visibility, supported by a growing backlog and more business opportunities in the AI era.
- We believe SIMO can enjoy AI-era trends. 1) AI PCs can be a catalyst accelerating notebook market growth. 2) We see QLC and TLC NAND business potential for enterprise servers and smartphone customers in the US and China. 3) NVIDIA's Blue Field ecosystem offers new TAM in AI.
- We expect further margin expansion in 2026-27, reaching the company's target of 48-50%.
- We expect the stock to trade to 23x 2027e EPS, given the better outlook for 2026, more outsourced opportunities from NAND players and new opportunities in AI boot drives and NVIDIA.

Consensus Rating Distribution



Risk Reward Themes

New Data Era: *Positive*

here

BULL CASE US$580.00

33x 2027e EPS

Rapid SSD controller IC growth: SSD controller ICs enjoy fast adoption in EM. The eMMC business also grows via new design wins. SSD solutions show strong growth momentum given increasing demand from data center customers. The consumer tech and PC market recovers faster than expected. Inventory problems are also resolved.

BASE CASE US$400.00

23x 2027e EPS

Stronger revenue momentum along with GM expansion: SSD penetration ramps up as expected, providing downside support, and UFS secures sustained design wins in the next few years. Better-than-expected momentum into 2H26 as we see some green shoots in PC OEMs on low inventory levels. We see more outsourcing opportunities from NAND players and new opportunities at NVIDIA.

BEAR CASE US$175.00

10x 2027e EPS

Key customer moves UFS in-house; slower PCIe gen 4 development: Customers successfully introduce in-house UFS controller ICs and allocate less than 50% of orders to Silicon Motion. SSD controller ICs do not gain widespread adoption amid price declines due to lukewarm EM demand, while SIMO's own product migration slows. China's data center demand slows significantly and the economy recovers later than expected. The inventory issues are more severe than expected.

Risk Reward – Silicon Motion (SIMO.O)

KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
Revenue from eMMC + UFS (US$, mn)	336	625	676	698
Revenue from SSD Controllers (US$, mn)	468	665	1,216	1,872
Revenue from Removable Memory Card (US$, mn)	40	0	0	0
Revenue from SSD solutions (Shannon+ Ferri) (US$, mn)	37	382	666	908

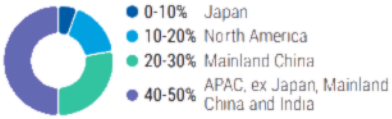
CATALYST CALENDAR

Date	Event
23 Sep 2026 - 27 Sep 2026	Silicon Motion Technology Corp Annual Shareholders Meeting

INVESTMENT DRIVERS

- SSD market growth and new customer wins
- Enterprise SSD solution business development
- Progress in eMMC business

GLOBAL REVENUE EXPOSURE



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RISKS TO PT/RATING

RISKS TO UPSIDE

- New acquisition deals announced
- Significantly increased penetration of SSD
- Traction for open channel module
- eSSD share gain

RISKS TO DOWNSIDE

- Weaker-than-expected penetration of SSD
- Open channel module loses traction with weaker-than-expected demand
- eSSD share loss

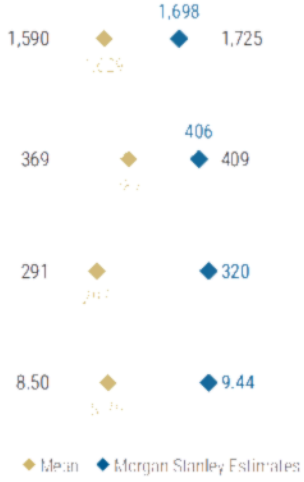
OWNERSHIP POSITIONING

Inst. Owners, % Active	84.1%
HF Sector Long/Short Ratio	2.1x
HF Sector Net Exposure	29.5%



MS ESTIMATES VS. CONSENSUS

FY Dec 2026e



SIMO: Financial Summary

Income Statement

US$mn (Years End Dec)	2024	2025E	2026E	2027E	2028E
Net sales	804	886	1,698	2,566	3,485
COGS	(434)	(458)	(872)	(1,268)	(1,643)
Gross profit	369	428	826	1,298	1,843
Operating expenses	(278)	(335)	(469)	(605)	(739)
Operating income	**91**	**93**	**357**	**693**	**1,104**
Non-operating income	17	47	28	6	6
Pre-tax income	107	140	385	700	1,110
Income tax	18	17	61	119	189
Reported net income	**89**	**123**	**324**	**581**	**922**
Adj.wtd.avg.shrs(m)	34	34	34	34	34
Earnings per ADS (US$, GAAP)	**2.65**	**3.63**	**9.55**	**17.13**	**27.17**
Earnings per ADS (US$, non GAAP)	**3.01**	**3.16**	**9.44**	**17.54**	**27.58**
Modelware EPS (US$)	**3.01**	**3.16**	**9.44**	**17.54**	**27.58**

Balance Sheet

US$mn (Years End Dec)	2024	2025E	2026E	2027E	2028E
Cash	276	202	72	48	257
Mkt Securities	0	0	0	0	0
AR/NR	234	212	532	805	1,093
Inventory	199	422	597	868	1,125
Other	88	108	108	108	108
Current Assets	**797**	**943**	**1,310**	**1,829**	**2,583**
Long-term investments	17	30	30	30	30
Fixed assets	188	219	201	183	164
Deferred assets	0	0	0	0	0
Other assets	30	31	31	31	31
Total Assets	**1,033**	**1,223**	**1,571**	**2,072**	**2,807**
S/T borrowings	0	0	0	0	0
AP/NP	18	35	108	157	204
Other ST liabilities	182	305	305	305	305
LT debt	0	0	0	0	0
Other LT liabilities	60	52	52	52	52
Common shares	0	0	0	0	0
Total Liabilities	**259**	**392**	**466**	**515**	**561**
Additional capital	0	0	0	0	0
Retained earning	0	0	275	726	1,415
Other shareholders' equity	774	831	831	831	831
Total Equity	**774**	**831**	**1,106**	**1,557**	**2,246**
Total Liab. & Shrhldr's Equity	**1,033**	**1,223**	**1,571**	**2,072**	**2,807**

E = Morgan Stanley Research Estimates

Source: Morgan Stanley Research, Company Data

Cash Flow Statement

US$mn (Years End Dec)	2024	2025E	2026E	2027E	2028E
Cashflow from Operations	**77**	**61**	**(69)**	**117**	**453**
Net profits	89	123	324	581	922
Depreciation	25	30	30	30	30
Working Capital Change	(60)	(190)	(423)	(494)	(498)
Other adjustments	22	99	0	0	0
Cashflow from Investing	**(44)**	**(27)**	**(12)**	**(12)**	**(12)**
Capex	(43)	(27)	(12)	(12)	(12)
Change of LT Investment	0	0	0	0	0
Change of ST Investment	0	0	0	0	0
Other adjustments	(1)	0	0	0	0
Cashflow from financing	**(71)**	**(92)**	**(49)**	**(130)**	**(232)**
Increase in L/T debt	0	0	0	0	0
Increase in S/T debt	0	0	0	0	0
Cash Dividend Paid	(67)	(67)	(49)	(130)	(232)
Dir& Emp Bonus Paid	0	0	0	0	0
Issuance of stock	0	0	0	0	0
Other adjustments	(4)	(24)	0	0	0
Exchange rate adjustment	0	(17)	0	0	0
Net change in cash	**-38**	**-74**	**-130**	**-24**	**209**

Financial Ratios

	2024	2025E	2026E	2027E	2028E
Growth(%)					
Turnover	25.7	10.2	91.7	51.1	35.8
Operating profits	127.9	2.4	283.8	94.2	59.2
Pretax profits	75.9	30.5	175.0	81.7	58.6
Net profits	68.8	37.4	164.1	79.4	58.6
EPS	64.0	5.3	198.3	85.8	57.3
Margins (%)					
Gross Margin	46.0	48.3	48.7	50.6	52.9
Operating Margin	11.3	10.5	21.0	27.0	31.7
Pretax Margin	13.4	15.8	22.7	27.3	31.9
Net Profit	11.1	13.8	19.1	22.6	26.4
Return (%)					
ROAE	11.8	15.3	33.5	43.6	48.5
ROAA	8.7	10.9	23.2	31.9	37.8
Gearing (%)					
Net Debt/Equity	(35.7)	(24.3)	(6.5)	(3.1)	(11.4)
Liabilities/Equity	33.5	47.2	42.1	33.1	25.0
Ratios (X)					
Current ratio	4.0	2.8	3.2	4.0	5.1
Quick ratio	2.6	1.2	1.5	1.8	2.7
Others					
AR/NR Turnover (days)	114	114	114	114	114
Inventory Turnover (days)	250	250	250	250	250
AP Turnover (days)	45	45	45	45	45
Cash Conversion (days)	319	319	319	319	319

Longsys: Estimate Revisions

We previously forecast a downcycle from 2H27 onward, with shortages persisting in 2027. We now delay our downcycle assumption to 2H28, partially offset by volume shipment increases in a scenario where China domestic supply catches up.

We expect Longsys to continue to enhance its product mix profile and shift memory cost pressures through the TCM business (customers secure memory supply by themselves while Longsys provides customized module design and assembly services). Its R&D for the controller business will likely further enhance its margin profile over the long term through cost efficiency and firmware value-added services. Hence, we increase our long-term margin assumption to 25-38%, from the high teens previously.

As such, our 2026-28 EPS estimates increase by 299%, 247% and 244%, respectively. Our residual income based model implied price target is now Rmb673, up from Rmb300 previously, implying 15.8x 2027e P/E.

In a bull case scenario where AI PC takes off and triggers investment sentiment on potential business upside, we raise our scenario value to Rmb852, from Rmb435, implying 20x 2027e P/E.

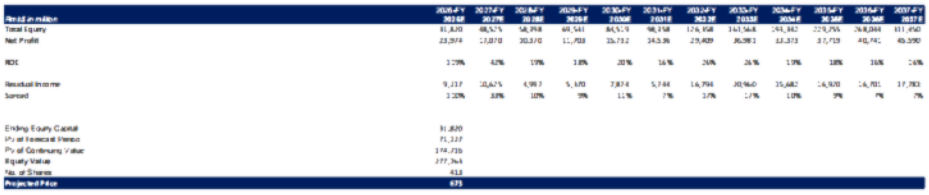
In a bear case scenario where edge AI demand recovery is weaker than expected due to shortage created from CSP capacity crowding-out effects, pricing likely remains at elevated levels. We raise our scenario value to Rmb587, from Rmb90, implying 5.0x 2027e P/B.

Exhibit 19: Estimate revisions

	2026E			2027E			2028E		
(RMB mm)	Prior	New	Change	Prior	New	Change	Prior	New	Change
Total Sales	**36,899**	**65,852**	**78%**	**40,850**	**85,564**	**109%**	**48,745**	**81,251**	**67%**
Embedded Storage	20,912	24,865	19%	23,224	30,894	33%	27,579	29,263	6%
Mobile Memory	4,457	19,719	342%	5,061	24,317	380%	5,695	22,645	298%
Solid-State Drive	7,932	14,462	82%	8,631	21,115	145%	10,659	20,504	92%
Memory Module	3,384	6,690	98%	3,710	9,102	145%	4,581	8,673	89%
Others	213	116	(46%)	224	136	(39%)	231	165	(28%)
Total GP	**11,605**	**36,052**	**211%**	**10,364**	**29,928**	**189%**	**8,835**	**21,610**	**145%**
Embedded Storage	6,443	13,135	104%	5,342	9,924	86%	5,516	7,376	34%
Mobile Memory	2,488	11,815	375%	2,025	10,295	408%	1,139	7,854	590%
Solid-State Drive	1,744	7,595	335%	1,985	6,805	243%	1,492	4,563	206%
Memory Module	851	3,463	307%	927	2,854	208%	596	1,757	195%
Others	78	44	(44%)	85	50	(41%)	92	61	(34%)
GP Margin	**31%**	**55%**	**23.7 pp**	**25%**	**35%**	**10.0 pp**	**18%**	**27%**	**8.5 pp**
Embedded Storage	31%	53%	21.8 pp	23%	32%	9.1 pp	20%	25%	5.2 pp
Mobile Memory	56%	60%	3.9 pp	40%	42%	2.3 pp	20%	35%	14.7 pp
Solid-State Drive	22%	53%	30.5 pp	23%	32%	9.2 pp	14%	22%	8.3 pp
Memory Module	25%	52%	26.8 pp	25%	31%	6.4 pp	13%	20%	7.3 pp
Others	37%	38%	1.0 pp	38%	37%	(1.0)pp	40%	37%	(3.0)pp
NP	**6,169**	**23,974**	**289%**	**5,057**	**17,070**	**238%**	**3,025**	**10,370**	**243%**
EPS (RMB$)	14.99	59.86	299%	12.28	42.62	247%	7.33	25.19	244%

Source: Company data, Morgan Stanley Research (E) estimates

Exhibit 20: Residual Income model



Source: Company data, Morgan Stanley Research (E) estimates

Exhibit 21: Financial Summary

Income Statement

(RMB mm)	2023	2024	2025	2026E	2027E	2028E
Sales	**10,125**	**17,463**	**22,766**	**65,852**	**85,564**	**91,251**
Cost of Sales	9,296	14,136	18,349	29,800	55,637	59,641
Gross Profit	829	3,327	4,417	36,052	29,928	21,610
Operating Expenses	1,516	2,287	2,566	6,217	8,556	8,938
Operating Income	**(686)**	**1,040**	**1,852**	**29,835**	**21,371**	**12,673**
EBITDA	(1,220)	656	1,736	28,511	20,136	12,067
Non-Operating Income	(371)	(450)	(107)	(391)	(421)	(290)
Net Interest Income	288	249	326	326	327	327
Pre-Tax Income	(1,058)	590	1,744	29,444	20,950	12,382
Income Tax	(221)	84	247	4,731	3,352	1,981
Minority Interest	(9)	7	74	739	528	31
Net Income	**(827)**	**499**	**1,423**	**23,974**	**17,070**	**10,370**
Reported EPS (RMB)	**(2)**	**1.2**	**3.6**	**59.9**	**42.6**	**26.2**
Growth Rates						
Sales	22%	72%	30%	189%	30%	(5%)
Operating Income	(440%)	NM	78%	1511%	(28%)	(41%)
EBITDA	NM	NM	165%	1543%	(29%)	(40%)
Net Income	(1237%)	NM	185%	1585%	(29%)	(39%)

Cash Flow Statement

(RMB mm)	2023	2024	2025	2026E	2027E	2028E
Cash Flow from Operations	**(2,798)**	**(1,190)**	**(1,201)**	**24,185**	**10,611**	**11,281**
Net Income	(837)	505	1,497	24,713	17,598	10,401
Depreciation and Amortization	117	322	392	133	41	43
Change in Working Capital	(1,894)	(1,123)	(3,661)	(661)	(7,028)	837
Other Non-Cash Items	(185)	(895)	571	0	0	0
Cash Flow from Investing	**(1,661)**	**(1,102)**	**(968)**	**(257)**	**(274)**	**(292)**
Capital Expenditure	(1,455)	(601)	(544)	(167)	(176)	(184)
Increase in LT Investment	(36)	(331)	(192)	(94)	(104)	(114)
Increase in ST Investment	582	(180)	141	(10)	(10)	(10)
Other Adjustments	(732)	10	(374)	14	15	16
Cash Flow from Financing	**3,718**	**2,141**	**2,625**	**(292)**	**185**	**636**
Increase in LT Debt	1,842	424	1,861	438	482	530
Increase in ST Debt	1,841	780	1,548	524	577	635
Cash Dividend Paid	(37)	(25)	(76)	(1,254)	(893)	(529)
Issuance of Common Stock	0	3	3	0	0	0
Other Adjustments	72	958	(711)	0	0	0
Net Change in Cash	**(742)**	**(151)**	**456**	**23,635**	**10,502**	**11,625**

Balance Sheet

(RMB mm)	2023	2024	2025	2026E	2027E	2028E
Cash & Cash Equivalents	1,219	1,025	1,478	25,114	35,616	47,240
Marketable Securities	0	180	39	49	59	69
Accounts and Notes Receivables	1,345	1,672	2,040	5,413	6,564	5,565
Inventories	5,893	7,833	11,678	9,797	17,529	17,974
Other Current Assets	608	974	1,373	985	1,111	1,156
Current Assets	9,065	11,683	16,608	41,357	60,878	72,004
LT Investments	419	750	942	1,036	1,139	1,253
Property and Equipment	2,019	2,423	2,661	2,685	2,830	2,971
Intangible Assets	465	424	431	431	431	431
Deferred Tax Assets	446	538	504	504	504	504
Other Assets	1,265	1,078	1,606	1,606	1,606	1,606
Total Assets	13,680	16,897	22,751	47,628	67,388	78,769
ST Debt	2,916	3,696	5,245	5,769	6,346	6,981
Accounts Payable	1,147	1,141	2,017	2,449	4,420	4,739
Other ST Liabilities	870	2,386	2,462	2,472	2,482	2,492
LT Debt	2,092	2,517	4,377	4,815	5,297	5,826
Other LT Liabilities	265	257	288	303	318	334
Total Liabilities	7,230	9,997	14,389	15,808	18,863	20,371
Paid-In Capital	4,491	4,832	4,713	4,713	4,713	4,713
Retained Earnings	1,319	1,714	3,135	26,584	43,298	53,172
Other Shareholder's Equity	639	354	513	513	513	513
Total Equity	6,449	6,900	8,362	31,820	48,525	58,398
Total Liab and Equity	13,680	16,897	22,751	47,628	67,388	78,769

Financial Ratios

(RMB mm)	2023	2024	2025	2026E	2027E	2028E
Return						
ROE	(13%)	7%	19%	119%	42%	19%
ROA	(7%)	3%	7%	68%	30%	14%
Return on Sales	(8%)	3%	6%	36%	20%	13%
Margin						
Gross Margin	8%	19%	19%	55%	35%	27%
Operating Margin	(7%)	6%	8%	45%	25%	16%
Pre-Tax Margin	(10%)	3%	8%	45%	24%	15%
Net Income Margin	(8%)	3%	6%	36%	20%	13%
Gearing						
Current Ratio	2	2	2	4	5	5
Debt to Equity	78%	90%	115%	33%	24%	22%
Net Debt to Equity	59%	75%	97%	(46%)	(49%)	(59%)
Turnover						
Asset Turnover	0.7	1.0	1.0	1.4	1.3	1.0
Days Receivable	41	35	31	30	28	25
Days Inventory	189	130	135	120	115	110
Days Payables	36	36	35	30	29	29
Per Share						
EPS	(2.03)	1.22	3.63	59.86	42.62	25.19
Consensus EPS	(2.03)	2.37	2.59	1.30	1.30	1.30
BVPS	15.62	16.71	20.25	77.07	117.53	141.45
DPS	0.09	0.06	0.18	2.99	2.13	1.26

Source: Company data, Morgan Stanley Research (E) estimates

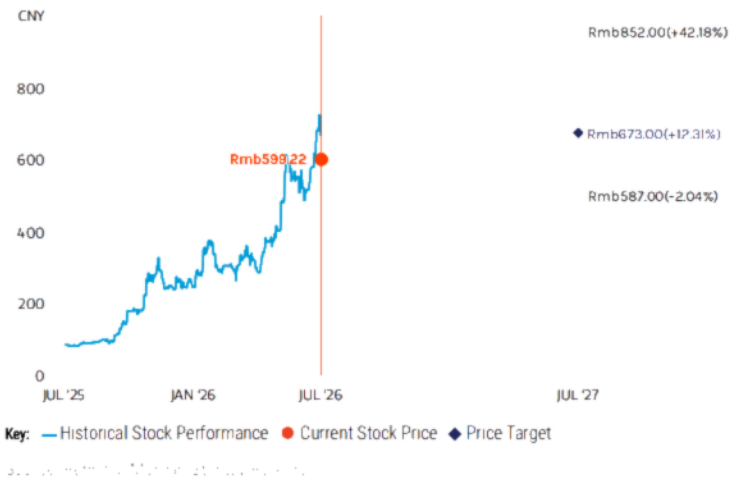
Risk Reward – Shenzhen Longsys Electronics Co Ltd (301308.SZ)

Lack of near-term catalysts; await more clarity on 2027 pricing and margin; EW

PRICE TARGET Rmb673.00

Base case, derived from residual income model. We assume a cost of equity of 9.10% (risk-free rate of 2.5%, risk premium of 5.5%, beta of 1.2) and a terminal growth rate of 6.3%.

RISK REWARD CHART



EQUAL-WEIGHT THESIS

- The AI era has finally come to NAND, with shortages seen extending into 2027.
- We like the company's medium- to long-term growth story through enterprise business expansion and a mix shift to a TCM model.
- Continued supply discipline, normalized domestic customers' inventory levels, and Longsys's self-help should help the stock re-rate.
- Our price target implies 15.8x 2027e P/E, in-line with its A-share peers and significantly lower than its historical average of 30x P/E, reflecting robust and more durable earnings upward revision in the NAND upcycle.

Risk Reward Themes

Secular Growth:	*Positive*
Self-help:	*Positive*

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BULL CASE Rmb852.00

20x 2027e P/E

Aggressive growth supported by AI tailwinds: We assume: 1) overall supply discipline and CSPs' aggressive AI spending continue; and 2) edge AI devices trigger strong demand recovery for the smartphone and PC markets, creating a shortage for NAND into 2028 and beyond.

BASE CASE Rmb673.00

15x 2027e P/E

Risk/reward appears balanced, reflecting 1) NAND's secular growth, supported by AI and China's localization, and 2) Longsys' self-help in enterprise business, overseas expansion and TCM&PTM business models likely enhancing its medium-/long-term growth and margin profile.

BEAR CASE Rmb587.00

5.0x 2027e P/B

Weaker-than-expected market growth: We assume: 1) a weaker edge AI cycle moving into 2028 and beyond and 2) pricing starting to decline in 2H28.

Risk Reward – Shenzhen Longsys Electronics Co Ltd (301308.SZ)

KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
Embeded Storage ASP Growth (%)	(1.6)	162.3	27.2	(8.5)
Mobile Memory ASP Growth (%)	27.6	314.3	41.4	1.1
SSD ASP Growth (%)	(13.8)	183.9	46.0	0.6
Memory Module ASP Growth (%)	4.7	214.3	35.7	(1.3)

INVESTMENT DRIVERS

- Commodity memory pricing cycle
- eSSD business expansion progress

GLOBAL REVENUE EXPOSURE



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MS ALPHA MODELS

3/5 MOST — 3 Month Horizon

RISKS TO PT/RATING

RISKS TO UPSIDE

- Better-than-expected consumer demand recovery in 2H26
- Better-than-expected eSSD market expansion, which would support revenue and margin improvement during the down-cycle

RISKS TO DOWNSIDE

- Prolonged commodity down-cycle that drags down memory prices and margins
- Share loss to new entrants in the Chinese memory market

OWNERSHIP POSITIONING

Inst. Owners, % Active 85.3%

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e

Sales / Revenue (Rmb, mn)	◆ 65,852.3
Net income (Rmb, mn)	◆ 23,974
EPS (Rmb)	◆ 59.9

◆ Mean ◆ Morgan Stanley Estimates

Phison: Estimate Revisions

We raise our 2026, 2027 and 2028 EPS estimates by 71%, 13% and 8%, respectively: We factor in stronger-than-expected 2Q26 results. 2Q26 delivered a strong beat vs. our forecasts, driven by more resilient pricing hike intervals and shipments than expected. We expect 3Q26 to be the peak of the year, supported by more support from Kioxia's dummy die, leading to around 20% QoQ revenue growth and a better-than-feared (flat Q/Q) margin. In 4Q26, we expect emerging weakness from consumer tech and a more moderate pricing environment to result in 4Q revenue declining 20% QoQ, with margins normalizing to ~50%. Reflecting the better pricing environment seen for 2026, this leads to stronger-than-expected profitability in 2027, partially offset by the ongoing R&D investments.

Exhibit 22: Phison: Estimate revisions

NT$ mn	Current 2026E	Previous 2026E	Diff. %	Current 2027E	Previous 2027E	Diff. %	Current 2028E	Previous 2028E	Diff. %
Net sales	260,963	169,828	54%	208,459	165,204	26%	154,119	130,255	18%
Gross profit	155,833	91,990	69%	90,396	71,566	26%	60,900	54,074	13%
Operating profit	85,965	49,614	73%	32,691	31,077	5%	12,077	13,463	-10%
Pretax Income	90,915	52,976	72%	35,646	31,484	13%	15,031	13,870	8%
Reported net income	75,050	43,940	71%	29,229	25,817	13%	12,326	11,373	8%
Reported EPS	**340.55**	**199.39**	**71%**	**132.63**	**117.15**	**13%**	**55.93**	**51.61**	**8%**
Margins									
Gross margin	59.7%	54.2%		43.4%	43.3%		39.5%	41.5%	
Operating margin	32.9%	29.2%		15.7%	18.8%		7.8%	10.3%	
Pretax margin	34.8%	31.2%		17.1%	19.1%		9.8%	10.6%	
Net margin	28.8%	25.9%		14.0%	15.6%		8.0%	8.7%	

Source: Company data, Morgan Stanley Research (E) estimates

Exhibit 23: Phison: Quarterly financials

NT$ in million	1Q26	2Q26E	3Q26E	4Q26E	1Q27E	2Q27E	3Q27E	4Q27E	2024	2025	2026E	2027E	2028E
Total Revenues	**40,967**	**69,547**	**83,483**	**66,965**	**53,747**	**55,548**	**53,301**	**45,862**	**58,936**	**72,664**	**260,963**	**208,459**	**154,119**
Sequential Change	*79.7%*	*69.8%*	*20.0%*	*-19.8%*	*-19.7%*	*3.4%*	*-4.0%*	*-14.0%*					
Change vs Year Ago	*196.0%*	*288.7%*	*360.3%*	*193.7%*	*31.2%*	*-20.1%*	*-36.2%*	*-31.5%*	*22.2%*	*23.3%*	*259.1%*	*-20.1%*	*-26.1%*
Cost of Sales	15,849	25,190	30,444	33,646	28,580	31,121	31,365	26,988	39,837	47,806	105,129	118,062	93,219
Percent of Revenues	*39%*	*36%*	*36%*	*50%*	*53%*	*56%*	*59%*	*59%*	*68%*	*66%*	*40%*	*57%*	*60%*
Gross Profit	**25,118**	**44,357**	**53,039**	**33,320**	**25,168**	**24,427**	**21,936**	**18,875**	**19,099**	**24,858**	**155,833**	**90,396**	**60,900**
Percent of Revenues	*61.3%*	*63.8%*	*63.5%*	*49.8%*	*46.8%*	*44.0%*	*41.2%*	*41.2%*	*32.4%*	*34.2%*	*59.7%*	*43.4%*	*39.5%*
Incremental Margin	*86%*	*67%*	*62%*	*NM*	*NM*	*-41%*	*NM*	*NM*	*28%*	*42%*	*70%*	*NM*	*NM*
Total Opex	10,277	17,075	21,691	20,826	13,257	14,333	15,239	14,876	15,566	16,591	69,869	57,705	48,823
Percent of Revenues	*25.1%*	*24.6%*	*26.0%*	*31.1%*	*24.7%*	*25.8%*	*28.6%*	*32.4%*	*26.4%*	*22.8%*	*26.8%*	*27.7%*	*31.7%*
R&D	8,671	14,000	18,000	18,000	11,000	12,000	13,000	12,950	12,586	13,775	58,671	48,950	42,350
Percent of Revenues	*21.2%*	*20.1%*	*21.6%*	*26.9%*	*20.5%*	*21.6%*	*24.4%*	*28.2%*	*21.4%*	*19.0%*	*22.5%*	*23.5%*	*27.5%*
General & administrative	830	1,409	1,691	1,357	1,075	1,111	1,065	917	1,286	1,169	5,287	4,169	3,082
Percent of Revenues	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.2%*	*1.6%*	*2.0%*	*2.0%*	*2.0%*
Selling & marketing	776	1,666	1,999	1,470	1,182	1,222	1,173	1,009	1,694	1,647	5,911	4,586	3,391
Percent of Revenues	*1.9%*	*2.4%*	*2.4%*	*2.2%*	*2.2%*	*2.2%*	*2.2%*	*2.2%*	*2.9%*	*2.3%*	*2.3%*	*2.2%*	*2.2%*
Operating Income	**14,841**	**27,283**	**31,348**	**12,493**	**11,901**	**10,094**	**6,697**	**3,998**	**3,533**	**8,266**	**85,965**	**32,691**	**12,077**
Percent of Revenues	*36.2%*	*39.2%*	*37.6%*	*18.7%*	*22.1%*	*18.2%*	*12.6%*	*8.7%*	*6%*	*11%*	*33%*	*16%*	*8%*
Change vs Year Ago	*NM*	*1952.9%*	*2101.0%*	*274.7%*	*-19.8%*	*-63.0%*	*-78.6%*	*-68.0%*	*-2%*	*134%*	*940%*	*-62%*	*-63%*
Total Non-operating Income (Loss)	3,057	416	739	739	739	739	739	739	6,216	1,939	4,950	2,956	2,956
Profit Before Taxes	**17,898**	**27,699**	**32,087**	**13,232**	**12,640**	**10,833**	**7,436**	**4,737**	**9,749**	**10,206**	**90,915**	**35,646**	**15,031**
Percent of Revenues	*44%*	*40%*	*38%*	*20%*	*24%*	*20%*	*14%*	*10%*	*17%*	*14%*	*35%*	*17%*	*10%*
Taxes	2,723	4,986	5,776	2,382	2,275	1,950	1,338	853	1,795	1,465	15,866	6,416	2,706
Tax Rate	*15.2%*	*18.0%*	*18.0%*	*18.0%*	*18.0%*	*18.0%*	*18.0%*	*18.0%*	*18%*	*14%*	*17%*	*18%*	*18%*
Net Income, Cont Ops	15,175	22,713	26,311	10,850	10,365	8,883	6,097	3,884	7,954	8,741	75,049	29,229	12,326
Percent of Revenues	*37%*	*33%*	*32%*	*16%*	*19%*	*16%*	*11%*	*8%*	*13%*	*12%*	*29%*	*14%*	*8%*
Net Income (incl. Emp. Bonus Expense)	15,175	22,713	26,311	10,850	10,365	8,883	6,097	3,884	7,955	8,743	75,050	29,229	12,326
Percent of Revenues	*37%*	*33%*	*32%*	*16%*	*19%*	*16%*	*11%*	*8%*	*13.5%*	*12.0%*	*28.8%*	*14.0%*	*8.0%*
	0%	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Reported Income (TW GAAP)	**15,175**	**22,713**	**26,311**	**10,850**	**10,365**	**8,883**	**6,097**	**3,884**	**7,955**	**8,743**	**75,050**	**29,229**	**12,326**
Percent of Revenues	*37%*	*33%*	*32%*	*16%*	*19%*	*16%*	*11%*	*8%*	*13%*	*12%*	*29%*	*14%*	*8%*
Change vs Year Ago	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*119%*	*10%*	*758%*	*-61%*	*-58%*
Reported EPS (NT$, TW GAAP)	**68.86**	**103.06**	**119.39**	**49.23**	**47.03**	**40.31**	**27.67**	**17.63**	**35.68**	**39.70**	**340.56**	**132.63**	**55.93**
Change vs Year Ago	*123.3%*	*293.7%*	*1087%*	*13.4%*	*-32%*	*-61%*	*-77%*	*-64%*	*102%*	*11%*	*758%*	*-61%*	*-58%*

Source: Company data, Morgan Stanley Research (E) estimates

Phison: Valuation Methodology

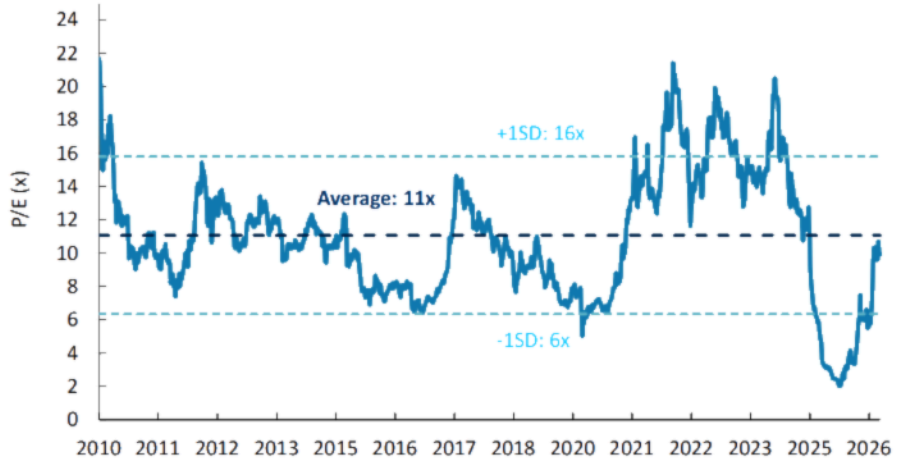
We raise our price target from NT$2,248 to NT$2,588, reflecting our estimate changes. Our other RI parameters are unchanged, including a cost of equity of 9.0%, a medium-term growth rate of 9.0%, a terminal growth rate of 4.0% and a dividend payout ratio assumption of 51.2%. We increase our bull and bear case values from NT$3,090 and NT $1,125 to NT$3,400 and NT$1,250, respectively, implying 10x 2026e and 26x 2027e EPS in the bull case and 4x 2026e and 9x 2027e EPS in the bear.

Exhibit 24: Phison: RI model

NT$million	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2035E
Total Equity	**130,690**	**121,591**	**118,989**	**138,089**	**158,908**	**181,601**	**206,336**	**233,298**	**262,686**	**294,718**	**329,634**
Net Profit	**75,050**	**29,229**	**31,860**	**34,727**	**37,853**	**41,260**	**44,973**	**49,021**	**53,433**	**58,241**	**63,483**
ROAE	**78.7%**	**23.2%**	**26.5%**	**27.0%**	**25.5%**	**24.2%**	**23.2%**	**22.3%**	**21.5%**	**20.9%**	**20.3%**
Residual Income	41,895	18,561	21,298	21,474	22,813	24,256	25,816	27,506	29,339	31,331	33,496
Spread	**69.7%**	**14.2%**	**17.5%**	**18.0%**	**16.5%**	**15.3%**	**14.2%**	**13.3%**	**12.6%**	**11.9%**	**11.4%**
Ending Equity Capital	130,690										
PV of Forecast Period	143,241										
PV of Continuing Value	296,882										
Equity Value	**570,813**										
No. of Shares	221										
Projected Price	**2,588**										

Source: Company data, Morgan Stanley Research (E) Estimates

Exhibit 25: Phison: P/E multiple



Source: Company data, Morgan Stanley Research estimates

Risk Reward – Phison Electronics Corp (8299.TWO)

AI Boosts NAND Market, but Module Makers Face Hurdles; EW

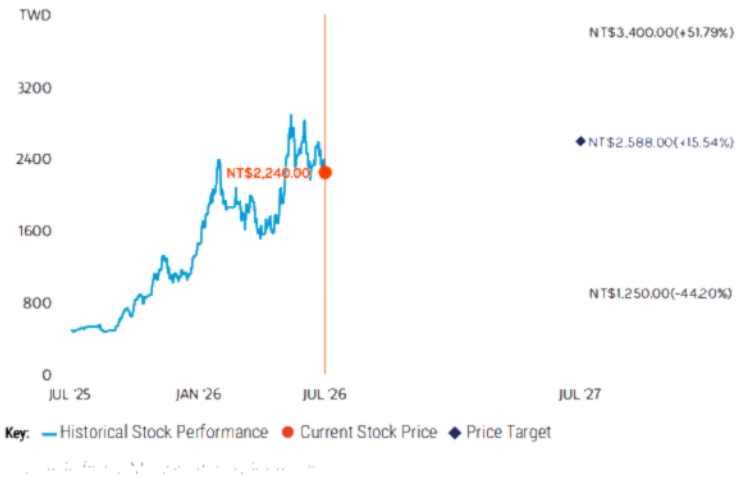
PRICE TARGET NT$2,588.00

Base case, residual income model. Key assumptions: a cost of equity of 9.0%, a medium-term growth rate of 9.0%, a terminal growth rate of 4.0%, and a dividend payout ratio assumption of 51.2%.

Consensus Price Target Distribution NT$2,240.00 NT$2,321.09 MS PT NT$4,130.00

◆ Mean ◆ Morgan Stanley Estimates

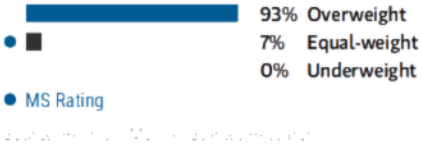
RISK REWARD CHART



EQUAL-WEIGHT THESIS

- AI-driven storage demand is extending the industry upcycle, but we see limited upside for module vendors given constrained NAND supply, FIFO-driven margin normalization, and weakening consumer SSD demand amid elevated NAND prices.
- Although eSSD and AI-related storage represent meaningful growth opportunities for Asian module house vendors such as Phison and Longsys, we believe the scale remains insufficient to offset broader consumer SSD weakness.
- We see risks on the execution as raw NAND suppliers are looking to further cut support to module houses as they would like to prioritize their other customers first. Industry average sees -40% YoY on shipments, which could create risks for Phison

Consensus Rating Distribution



Risk Reward Themes

Secular Growth: *Positive*

here

BULL CASE NT$3,400.00

26x 2027e EPS

Growing SSD demand and limited supply growth prompt NAND flash shortages; SSD market growth accelerates: 1) Revenue increases at a CAGR of >40% over 2024-28; 2) gross margin rises to 90% in 2026 from 34% in 2025; 3) flash controller IC revenue increases 50% Y/Y in 2026.

BASE CASE NT$2,588.00

19x 2027e EPS

A good year for NAND modules in 2026, but we doubt it can be sustained into 2027: 1) Revenue increases at a CAGR of 27% Y/Y over 2024-28e; 2) gross margin increases to 59.7% in 2026 from 33.4% in 2023 from the price hike benefit; 3) flash module revenue rises 355% Y/Y in 2026 vs. -20% in 2027; 4) flash controller IC revenue increases 24% Y/Y in 2026.

BEAR CASE NT$1,250.00

9x 2027e EPS

No outsourcing from Micron, low SSD market growth, NAND flash price drops more than in our base case: 1) Revenue increases at a CAGR of <10% in 2024-28; 2) gross margin faces more significant erosion, to <40% in 2026 vs. 33.4% in 2023; 3) flash controller IC revenue increases 10% Y/Y in 2026.

Risk Reward – Phison Electronics Corp (8299.TWO)

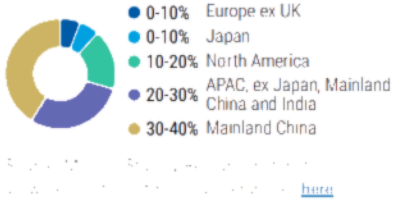
KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
Flash module revenue Y/Y (%)	22.0	354.9	(19.8)	(28.1)
Flash controller IC revenue Y/Y (%)	44.7	23.9	(29.1)	(3.1)
Flash module gross margin (%)	33.5	60.6	43.3	39.1
Flash controller IC gross margin (%)	43.9	45.3	43.3	43.3

INVESTMENT DRIVERS

- Rising NAND flash prices
- Higher SSD penetration rate
- Adoption of solution by key OEMs

GLOBAL REVENUE EXPOSURE



MS ALPHA MODELS

1/5 MOST — 3 Month Horizon

RISKS TO PT/RATING

RISKS TO UPSIDE

- Faster-than-expected eMMC controller IC outsourcing rate
- Faster SSD market growth
- Market share gain in ultrabooks and SSDs

RISKS TO DOWNSIDE

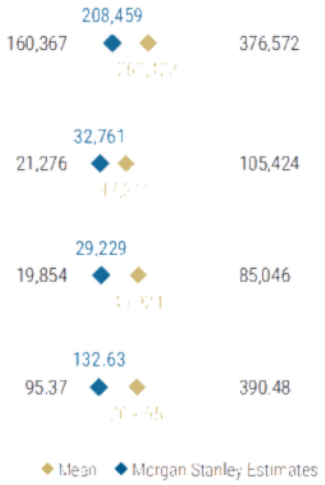
- Weaker-than expected NAND demand
- Milder impact on global NAND supply
- Non-acceptance of price hikes on NAND modules

OWNERSHIP POSITIONING

Inst. Owners, % Active 57.9%

MS ESTIMATES VS. CONSENSUS

FY Dec 2027e



Phison: Financial Summary

Income Statement

NT$mn (Years End Dec)	2024	2025E	2026E	2027E	2028E
Net sales	58,936	72,664	260,963	208,459	154,119
COGS	(39,837)	(47,806)	(105,129)	(118,062)	(93,219)
Gross profit	19,099	24,858	155,833	90,396	60,900
Operating expenses	(15,566)	(16,591)	(69,869)	(57,705)	(48,823)
Operating income	**3,533**	**8,266**	**85,965**	**32,691**	**12,077**
Non-operating income	6,216	1,939	4,950	2,955	2,955
Pre-tax income	9,749	10,206	90,915	35,646	15,031
Income tax	1,795	1,465	15,866	6,416	2,706
Reported net Income	**7,954**	**8,741**	**75,049**	**29,229**	**12,326**
Adj wtd avg shrs(m)	204	207	221	221	221
Reported EPS (NT$)	**35.68**	**39.70**	**340.55**	**132.63**	**55.93**

Balance Sheet

NT$mn (Years End Dec)	2024	2025E	2026E	2027E	2028E
Cash	19,982	16,275	77,837	73,148	81,190
Mkt Securities	784	1,475	1,475	1,475	1,475
AR/NR	8,011	13,689	32,634	26,068	19,273
Inventory	24,614	35,609	29,945	33,629	26,553
Other	649	1,432	1,432	1,432	1,432
Current Assets	**54,041**	**68,480**	**143,322**	**135,752**	**129,922**
Long-term investments	651	1,171	1,171	1,171	1,171
Fixed assets	3,783	3,883	3,983	4,083	4,183
Deferred assets	701	629	629	629	629
Other assets	10,164	11,593	11,593	11,593	11,593
Total Assets	**69,339**	**85,756**	**160,698**	**153,228**	**147,497**
S/T borrowings	41	0	0	0	0
AP/NP	1,309	8,878	13,239	14,867	11,739
Other ST liabilities	12,870	16,417	16,417	16,417	16,417
LT debt	6,054	352	352	352	352
Other LT liabilities	0	0	0	0	0
Common shares	2,058	2,180	2,180	2,180	2,180
Total Liabilities	**20,273**	**25,648**	**30,008**	**31,637**	**28,508**
Additional capital	13,054	19,104	19,104	19,104	19,104
Retained earning	34,283	39,151	109,734	100,634	98,032
Other shareholders' equity	(329)	(327)	(327)	(327)	(327)
Total Equity	**49,066**	**60,108**	**130,690**	**121,591**	**118,989**
Total Liab. & Shrhldr's Equity	**69,339**	**85,756**	**160,698**	**153,228**	**147,497**

E = Morgan Stanley Research Estimates

Source: Morgan Stanley Research, Company Data

Cash Flow Statement

NT$mn (Years End Dec)	2024	2025E	2026E	2027E	2028E
Cashflow from Operations	**2,094**	**1,598**	**66,200**	**33,810**	**23,139**
Net profits	7,955	8,743	75,050	29,229	12,326
Depreciation	695	755	70	70	70
Working Capital Change	(3,895)	(9,886)	(8,920)	4,510	10,743
Other adjustments	(2,661)	1,986	0	0	0
Cashflow from Investing	**3,903**	**(1,908)**	**(170)**	**(170)**	**(170)**
Capex	(955)	(1,397)	(170)	(170)	(170)
Change of LT Investment	(705)	(529)	0	0	0
Change of ST Investment	(53)	(402)	0	0	0
Other adjustments	5,616	420	0	0	0
Cashflow from financing	**(673)**	**(3,109)**	**(4,468)**	**(38,329)**	**(14,928)**
Increase in L/T debt	5,681	(5,701)	0	0	0
Increase in S/T debt	41	(41)	0	0	0
Cash Dividend Paid	(2,661)	(5,172)	(4,468)	(38,329)	(14,928)
Dir& Emp Bonus Paid	0	0	0	0	0
Issuance of stock	0	0	0	0	0
Other adjustments	(3,733)	7,806	0	0	0
Exchange rate adjustment	437	(288)	0	0	0
Net change in cash	**5,762**	**-3,707**	**61,562**	**-4,689**	**8,041**

Financial Ratios

	2024	2025E	2026E	2027E	2028E
Growth(%)					
Turnover	22.2	23.3	259.1	-20.1	-26.1
Operating profits	-2.5	134.0	939.9	-62.0	-63.1
Pretax profits	137.8	4.7	790.8	-60.8	-57.8
Net profits	119.5	9.9	758.6	-61.1	-57.8
EPS	102.4	11.3	757.9	-61.1	-57.8
Margins (%)					
Gross Margin	32.4	34.2	59.7	43.4	39.5
Operating Margin	6.0	11.4	32.9	15.7	7.8
Pretax Margin	16.5	14.0	34.8	17.1	9.8
Net Profit	13.5	12.0	28.8	14.0	8.0
Return (%)					
ROAE	17.3	16.0	78.7	23.2	10.2
ROAA	11.8	11.3	60.9	18.6	8.2
Gearing (%)					
Net Debt/Equity	(28.3)	(26.5)	(59.3)	(59.9)	(67.9)
Liabilities/Equity	41.3	42.7	23.0	26.0	24.0
Ratios (X)					
Current ratio	3.8	2.7	4.8	4.3	4.6
Quick ratio	2.0	1.2	3.7	3.2	3.6
Others					
AR/NR Turnover (days)	46	46	46	46	46
Inventory Turnover (days)	104	104	104	104	104
AP Turnover (days)	46	46	46	46	46
Cash Conversion (days)	104	104	104	104	104

Risk Reward Reference links

1. View explanation of Options Probabilities methodology - Options_Probabilities_Exhibit_Link.pdf
2. View descriptions of Risk Rewards Themes - RR_Themes_Exhibit_Link.pdf
3. View explanation of regional hierarchies - GEG_Exhibit_Link.pdf
4. View explanation of Theme/Exposure methodology - ESG_Sustainable_Solutions_External_Link.pdf
5. View explanation of HERS methodology - ESG_HERS_External_Link.pdf