Morgan Stanley | RESEARCH

IDEA

June 24, 2026 07:05 AM GMT

Global Unichip Corp | Asia Pacific

Winning more CSP projects; upgrade to OW

WHAT'S CHANGED

Global Unichip Corp (3443.TW)	From	To
Rating	Equal-weight	**Overweight**
Price Target	NT$4,888.00	**NT$5,688.00**

The company's partnership with TSMC in CPO should also strengthen its position in the future AI ASIC design service for the US CSPs. We raise our price target to NT$5,688.

GUC 60k CoWoS booking at TSMC likely related to new CSP project design wins: Our latest AI supply chain tracker noted that GUC booked 60k CoWoS wafers with TSMC for 2027. We believe this should relate to new CSP design wins since none of GUC's existing projects would request such significant CoWoS demand. We note that GUC has been actively engaging potential new customers including Meta (MTIA) and/or another US CSP (AI accelerator). Assuming 10–20 chips per CoWoS wafer, we now forecast additional revenue from these projects of US$500-600mn for 2H27 and US$1.5-1.6bn for 2028.

CPO could serve as potential upside in the following years: GUC announced its partnership with Lightmatter by integrating Lightmatter's Passage CPO platform into its ASIC designs. Given the relationship with TSMC, we believe GUC could also have better collaboration on TSMC COUPE technology or directly license IP/PDK for future optical design, serving as another long-term driver. During Computex, GUC also showcased its CPO solution with AyarLabs and Wiwynn (covered by Howard Kao). We expect GUC's CPO-related strategic partnership will help it to gain traction for more CSP's XPU or switch networking ASIC.

Besides, China automotive chip also shows volume upside: Our recent industry checks suggest volume and revenue could be larger than we initially forecast from Horizon Robotics (covered by Tim Hsiao). We now expect around 2mn units during the lifecycle (2027-28) with chip ASP around US$500, leading to US$500mn revenue in 2027/2028, respectively. See Exhibit 5 for our GUC revenue bottom-up model.

Upgrade to OW: A month ago, we downgraded GUC to EW due to potential market share losses in Google CPU and Tesla projects. We believe that the negatives have been digested by the market, as the stock has performed in line with the Taiex in the subsequent period (up 3% and 5% respectively). We think the new US CSP projects wins, growing Arm-based CPU TAM (from Google Axion and Microsoft Cobalt), and CPO opportunities can together drive a re-rating of GUC. All told, we raise our price target by 16% to NT$5,688 and upgrade to OW.

MORGAN STANLEY TAIWAN LIMITED+
Charlie Chan
Equity Analyst
Charlie.Chan@morganstanley.com +886 2 2730-1725

Daniel Yen, CFA
Equity Analyst
Daniel.Yen@morganstanley.com +886 2 2730-2863

MORGAN STANLEY ASIA LIMITED+
Daisy Dai, CFA
Equity Analyst
Daisy.Dai@morganstanley.com +852 2848-7310

MORGAN STANLEY TAIWAN LIMITED+
Tiffany Yeh
Equity Analyst
Tiffany.Yeh@morganstanley.com +886 2 7712-3032

Lucas Wang
Research Associate
Lucas.Wang@morganstanley.com +886 2 2730-2875

Global Unichip Corp (3443.TW, 3443 TT)

Greater China Technology Semiconductors | Taiwan

Stock Rating	**Overweight**
Industry View	**Attractive**
Price target	NT$5,688.00
Up/downside to price target (%)	17
Shr price, close (Jun 24, 2026)	NT$4,880.00
52-Week Range	NT$5,950.00-1,035.00
Mkt cap, curr (mn)	NT$658,175
Avg daily trading value (mn)	NT$7,054

Fiscal Year Ending	12/25	12/26e	12/27e	12/28e
EPS (NT$)**	27.95	44.04	124.37	189.50
Prior EPS (NT$)**	-	58.13	100.85	134.39
EPS (NT$)§	27.83	46.99	89.52	122.37
Revenue, net (NT$ mn)	34,141	61,536	148,903	240,937
P/E	76.0	110.8	39.2	25.8

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework
** = Based on consensus methodology
§ = Consensus data is provided by Refinitiv Estimates
e = Morgan Stanley Research estimates

Strong chip demand from CPU and AI business

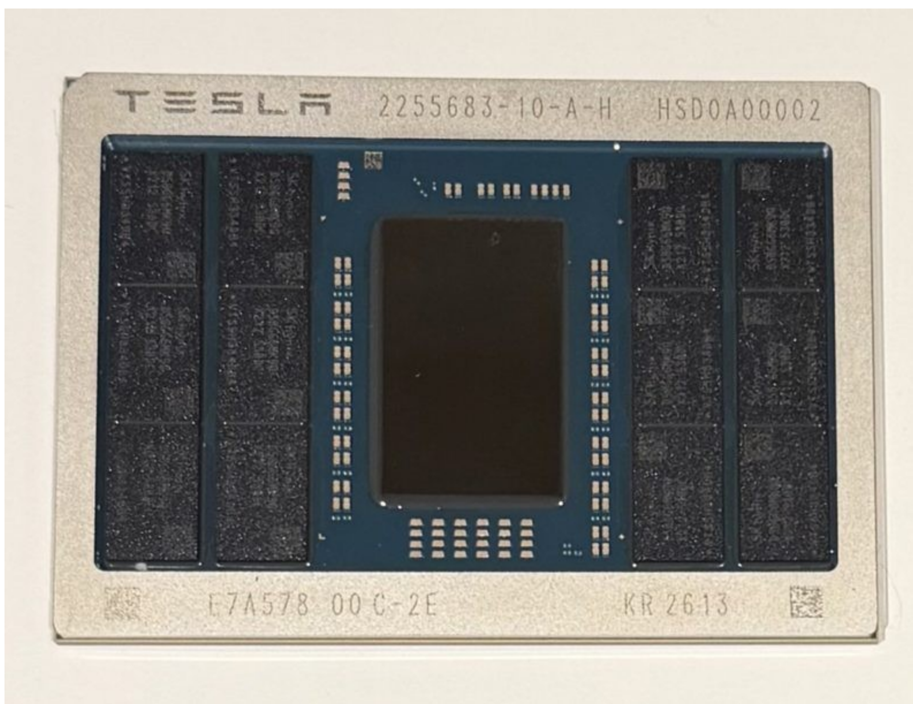
How GUC could participate in TSMC's automotive chip foundry service

In TSMC: Thoughts about auto semi foundry dynamics; OW (1 Aug 2025), we noted that the new AI5 would be manufactured using TSMC's 3nm process node and is expected to deliver 4-5x higher performance than its predecessor, AI4. GUC could help with the design by working closely with TSMC. We believe the Tesla AI project will only get bigger when the new generation chip is introduced. For the next-generation Tesla chip, the project size could be even bigger, and we expect GUC to get involved as well.

However, given leading-edge capacity shortages and higher TSMC wafer costs, our recent industry checks indicate the AI5 packaging configuration (HW5) could shift from two AI5 chips to one AI5 plus a co-packaged backup AI4 built on Samsung 5nm, which it might cap upside for GUC AI5 volume.

In the same report, we noted that TSMC is the major autonomous driving chip foundry for merchant chip suppliers such as Horizon Robotics and Nvidia (e.g., the Thor chip). We have already seen some of those auto merchant chips go through design service to ensure time to market.

Exhibit 1: Tesla AI5



Source: Tesla

Strong Arm-based CPU revenue to dilute gross margin, but still be positive for GUC's EPS

CPU turnkey revenue carries a low gross margin – likely in the single digits – because this is a “Turnkey 2 or 3” project, where GUC provides advanced packaging design support (e.g., silicon interposer and ABF substrate) but does not own the photomasks for the ASIC designs. Our checks suggest that Google CPU gross margin could be 2-3ppts better than our previous anticipation of 5% due to better order scale at TSMC.

GUC also helps with the Cobalt 200 CPU for Microsoft, an Arm-based design tailored for Microsoft Cloud. Our checks indicate strong demand for Cobalt at >1mn units in 2027 and onward. We forecast US$500-600mn revenue contribution from this in 2027-28.

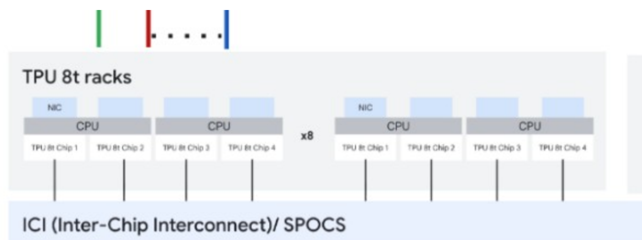
Customer diversification - we expect 3-4 customers to reach US$1bn revenue milestone by 2027/28: We think 3-4 customers could contribute US$1bn revenue by 2027/28, including but not limited to Google, Tesla, Meta (or the other new US CSP), and Chinese ADAS customers. Separately, Microsoft could also generate >US$500mn of revenue, in our view, suggesting better revenue growth stability in the future. See Exhibit 5 for revenue breakdown.

Exhibit 2: Both Google 8t and 8i are adopting Axion Arm-based CPU

Feature	TPU 8t	TPU 8i
Primary Workload	Large-scale pre-training	Sampling, serving, and reasoning
Network Topology	3D torus	Boardfly
Specialized Chip Features	SparseCore (Embeddings) & LLM Decoder Engine	CAE (Collectives Acceleration Engine)
HBM Capacity	216 GB	288 GB
On-Chip SRAM (Vmem)	128 MB	384 MB
Peak FP4 PFLOPs	12.6	10.1
HBM Bandwidth	6,528 GB/s	8,601 GB/s (~1.3x of TPU 8t)
CPU Header	Arm Axion	Arm Axion

Source: Google

Exhibit 3: TPU/CPU ratio within TPU 8t rack could be 2:1



Source: Google

Exhibit 4:

We expect US CSP projects to contribute >50% of GUC's 2026 revenue

Revenue (US$ mn)	2025e	2026e	2027e	2028e	2025 Y/Y	2026 Y/Y	2027 Y/Y	2028 Y/Y
NRE								
Normal NRE projects	76	130	150	160	-49%	71%	15%	7%
Ship-outs	185	108	110	120	68%	-42%	2%	9%
Total NRE	**261**	**238**	**260**	**280**	**0%**	**-9%**	**9%**	**8%**
Turnkey								
US CSPs	210	1,080	3,050	6,000	600%	414%	182%	97%
Others	621	619	1,400	1,352	31%	0%	126%	-3%
Total turnkey	**831**	**1,699**	**4,450**	**7,352**	**65%**	**104%**	**162%**	**65%**
Others								
IP	8	17	17	17	-43%	113%	0%	0%
Total revenue	**1,100**	**1,954**	**4,727**	**7,649**	**41%**	**78%**	**142%**	**62%**

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

Exhibit 5: GUC: Major customer breakdown

Revenue (US$ mn)	2025e	2026e	2027e	2028e	2025 Y/Y	2026 Y/Y	2027 Y/Y	2028 Y/Y
NRE								
Normal NRE projects	76	130	150	160	-49%	71%	15%	7%
Ship-outs	185	108	110	120	68%	-42%	2%	9%
Total NRE	**261**	**238**	**260**	**280**	**0%**	**-9%**	**9%**	**8%**
Turnkey								
Microsoft	60	80	150	400	100%	33%	88%	167%
Google	150	1,000	1,500	2,500	NA	567%	50%	67%
Korean AI Start-up	0	20	0	0	NA	NA	-100%	NA
Tesla	0	0	800	1,500	NA	NA	NA	88%
US CSPs	0	0	600	1,600	NA	NA	NA	NA
Amazon Lab 126	0	50	100	100	NA	NA	100%	0%
SK Hynix	50	10	10	10	-38%	-80%	0%	0%
Sandisk	0	20	250	250	NA	NA	1150%	0%
Horizon	0	20	500	500	NA	NA	2400%	0%
Suzhou Centec	54	27	14	7	-50%	-50%	-50%	-50%
Macronix	56	68	81	98	30%	20%	20%	20%
DJI	35	10	5	5	-31%	-71%	-50%	0%
Aspeed	105	121	139	150	50%	15%	15%	8%
Sony	29	26	23	21	-10%	-10%	-10%	-10%
Other turnkey	292	247	278	212	221%	-15%	12%	-24%
Total turnkey	**831**	**1,699**	**4,450**	**7,352**	**65%**	**104%**	**162%**	**65%**
Ex-US CSP turnkey	621	619	2,000	2,952	31%	0%	223%	48%
IP								
Google (GLink)	2	5	5	5	NA	150%	0%	0%
Microsoft (HBM3E)	4	5	5	5	0%	25%	0%	0%
Others	2	7	7	7	-80%	250%	0%	0%
Total revenue	**1,100**	**1,954**	**4,727**	**7,649**	**41.2%**	**77.6%**	**141.9%**	**61.8%**

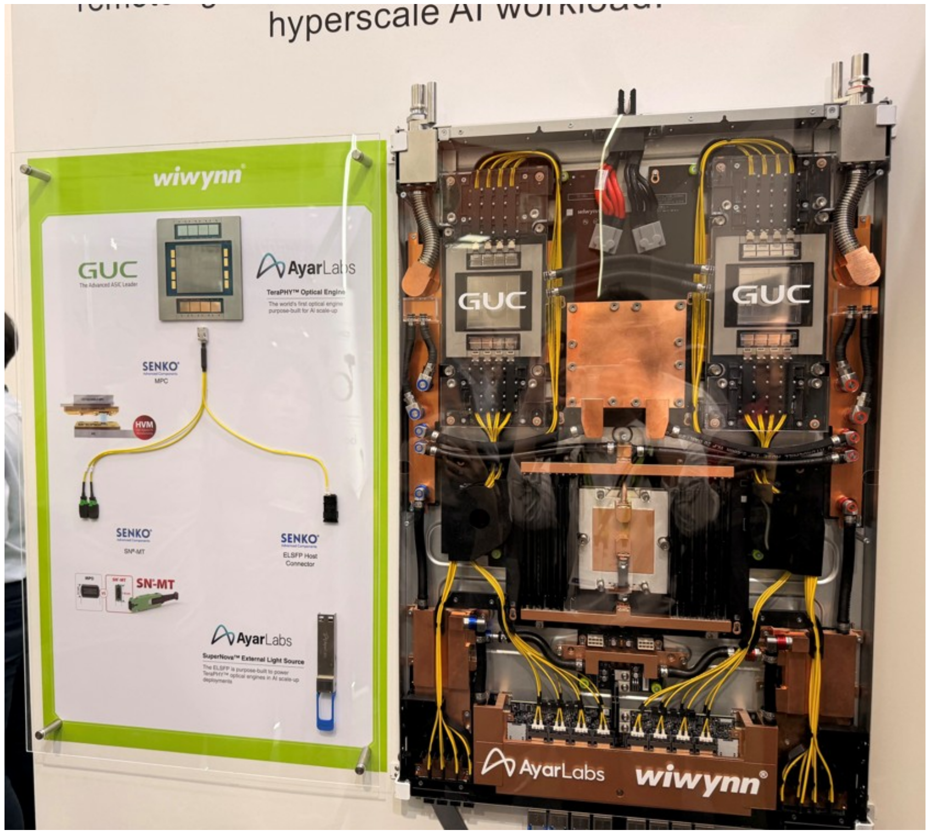
Source: Company data, Morgan Stanley Research (e) estimates

Other major projects in 2026/2027

GUC has indicated that it will have three AI-related projects with US cloud service providers (CSPs) active in 2026. We believe these CSP projects could account for over 50% of 2026 revenue and look for crypto-related momentum to continue at least through 1H26, as the company has already secured foundry capacity support. In our view, this underscores the importance of strong foundry relationships in obtaining scarce leading-edge capacity. Including GUC's other AI start-up engagements and IP licensing, we estimate AI-related revenue will exceed 50% of total revenue in both 2026 and 2027.

- **Microsoft:** In a previous report, we indicated that GUC supports a Microsoft 3nm AI accelerator (Maia 200) TK2. Our industry checks suggest that Maia 200 has already taped out , with mass production in 2026. GUC also helps with the Cobalt 200 CPU, an Arm-based design tailored for Microsoft Cloud.
- **Amazon AI inference chips:** GUC is helping AWS build the inference chip for AI speakers, which could also start revenue contribution in 2026 and reach around US$100mn in 2027.
- **SanDisk and Kioxia SSD controllers:** From our industry checks, GUC has also been working with SanDisk on SSD controllers, which should start to contribute some NRE revenue in 2026, and then ~US$250mn in turnkey revenue in 2027.
- **Horizon ADAS:** In addition, GUC's auto customers are not limited to Tesla only. Horizon could also contribute revenue by 2026 and ramp in 2027.
- **GLink IP licensing:** In 2026, we expect GUC to keep licensing its die-to-die GLink IP to Google's CPU project, which we estimate could generate US$3-5mn in annualized revenue.
- **Potential CPO collaboration:** Both AyarLabs and Lightmatter are partners with GUC on CPO solution by leveraging TSMC COUPE technology.

Exhibit 6: GUC showcased CPO solution with AyarLabs and Wiwynn during Computex



Source: Wiwynn

GUC's new management is helping with foundry capacity and new project sourcing

Before joining GUC, Lie-Szu Juang, current vice chairperson of GUC, worked at TSMC covering North American customers from 1996 to 2006. We think her strong relationship with both TSMC and US customers could bring more opportunities for GUC in coming years.

Estimate revision summary

We cut our 2026 EPS estimate 24%, but raise 2027 and 2028 by 23%, and 41%, respectively: Our 2026 cuts are due mostly to the Google CPU project, for which we think our previous forecasts were too aggressive. However, we expect 2027 and 2028 revenue to grow strongly from several CSP projects as well as Chinese ADAS customers. With turnkey revenue share seen increasing in both 2026 and 2027, we now assume that gross margin will fall from 19.8% in 2026 to 15.9% in 2028.

Exhibit 7: GUC: Estimate revision summary

NT$ mn	New '26e	Old '26e	Diff.	New '27e	Old '27e	Diff.	New '28e	Old '28e	Diff.
Net sales	61,536	80,419	-23%	148,903	128,426	16%	240,937	173,534	39%
NRE	*8,032*	*8,465*	*-5%*	*8,728*	*9,453*	*-8%*	*9,349*	*10,369*	*-10%*
Turnkey	*53,504*	*71,696*	*-25%*	*140,175*	*118,714*	*18%*	*231,588*	*162,907*	*42%*
Gross profit	12,164	14,131	-14%	25,909	21,564	20%	38,340	27,493	39%
Operating profit	6,576	8,842	-26%	19,485	15,770	24%	29,820	21,091	41%
Pretax Income	6,976	9,224	-24%	19,733	16,002	23%	30,068	21,323	41%
Net income	5,939	7,840	-24%	16,773	13,602	23%	25,558	18,125	41%
Reported EPS	**44.04**	**58.13**	**-24%**	**124.37**	**100.85**	**23%**	**189.50**	**134.39**	**41%**
Margins									
Gross margin	19.8%	17.6%		17.4%	16.8%		15.9%	15.8%	
Opex ratio	9.1%	6.6%		4.3%	4.5%		3.5%	3.7%	
Operating margin	10.7%	11.0%		13.1%	12.3%		12.4%	12.2%	
Net margin	9.7%	9.7%		11.3%	10.6%		10.6%	10.4%	

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

Exhibit 8: GUC: Quarterly financials

(NT$ mn)	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26e	3Q26e	4Q26e	2024	2025	2026e	2027e	2028e
Total revenues	**7,024**	**6,105**	**8,613**	**12,400**	**11,448**	**13,606**	**16,000**	**20,482**	**25,044**	**34,141**	**61,536**	**148,903**	**240,937**
Q/Q Change	*16.6%*	*-13.1%*	*41.1%*	*44.0%*	*-7.7%*	*18.9%*	*17.6%*	*28.0%*					
Y/Y Change	*23.4%*	*-9.2%*	*30.3%*	*105.9%*	*63.0%*	*122.9%*	*85.8%*	*65.2%*	*-4.6%*	*36.3%*	*80.2%*	*142.0%*	*61.8%*
Cost of Sales	**5,051**	**4,071**	**6,527**	**10,038**	**8,335**	**11,013**	**13,095**	**16,930**	**16,937**	**25,687**	**49,372**	**122,994**	**202,596**
Percent of Revenues	*71.9%*	*66.7%*	*75.8%*	*81.0%*	*72.8%*	*80.9%*	*81.8%*	*82.7%*	*67.6%*	*75.2%*	*80.2%*	*82.6%*	*84.1%*
Gross Profit	**1,973**	**2,034**	**2,086**	**2,361**	**3,113**	**2,593**	**2,905**	**3,553**	**8,108**	**8,454**	**12,164**	**25,909**	**38,340**
Gross Margin	***28.1%***	***33.3%***	***24.2%***	***19.0%***	***27.2%***	***19.1%***	***18.2%***	***17.3%***	***32.4%***	***24.8%***	***19.8%***	***17.4%***	***15.9%***
Total Opex	**878**	**1,090**	**1,031**	**1,105**	**1,289**	**1,358**	**1,422**	**1,518**	**4,305**	**4,104**	**5,587**	**6,424**	**8,521**
Percent of Revenues	*12.5%*	*17.9%*	*12.0%*	*8.9%*	*11.3%*	*10.0%*	*8.9%*	*7.4%*	*17.2%*	*12.0%*	*9.1%*	*4.3%*	*3.5%*
R&D	800	837	813	880	1,013	1,033	1,068	1,129	3,223	3,330	4,244	4,791	6,055
Percent of Revenues	*11.4%*	*13.7%*	*9.4%*	*7.1%*	*8.9%*	*7.6%*	*6.7%*	*5.5%*	*12.9%*	*9.8%*	*6.9%*	*3.2%*	*2.5%*
General & Adm Exp.	-18	159	125	129	151	156	171	181	674	395	660	740	1,020
Percent of Revenues	*-0.3%*	*2.6%*	*1.5%*	*1.0%*	*1.3%*	*1.1%*	*1.1%*	*0.9%*	*2.7%*	*1.2%*	*1.1%*	*0.5%*	*0.4%*
Selling Expenses	97	94	93	96	125	169	182	208	407	379	684	893	1,446
Percent of Revenues	1.4%	1.5%	1.1%	0.8%	1.1%	1.2%	1.1%	1.0%	1.6%	1.1%	1.1%	0.6%	0.6%
Operating Income	**1,095**	**944**	**1,055**	**1,257**	**1,824**	**1,235**	**1,483**	**2,035**	**3,803**	**4,350**	**6,576**	**19,485**	**29,820**
Operating Margin	*15.6%*	*15.5%*	*12.2%*	*10.1%*	*15.9%*	*9.1%*	*9.3%*	*9.9%*	*15.2%*	*12.7%*	*10.7%*	*13.1%*	*12.4%*
Total Non-operating Income (loss)	**48**	**-15**	**-40**	**99**	**101**	**100**	**100**	**100**	**260**	**93**	**399**	**248**	**248**
Profit Before Taxes	**1,143**	**929**	**1,015**	**1,356**	**1,925**	**1,334**	**1,583**	**2,134**	**4,062**	**4,443**	**6,976**	**19,733**	**30,068**
Percent of Revenues	*16.3%*	*15.2%*	*11.8%*	*10.9%*	*16.8%*	*9.8%*	*9.9%*	*10.4%*	*16.2%*	*13.0%*	*11.3%*	*13.3%*	*12.5%*
Taxes	**181**	**147**	**148**	**196**	**278**	**200**	**237**	**320**	**612**	**673**	**1,036**	**2,960**	**4,510**
Tax Rate	15.9%	15.9%	14.6%	14.5%	14.5%	15.0%	15.0%	15.0%	15.1%	15.2%	14.9%	15.0%	15.0%
Minor interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Net Income to Parent	**961**	**782**	**867**	**1,160**	**1,646**	**1,134**	**1,345**	**1,814**	**3,451**	**3,770**	**5,939**	**16,773**	**25,558**
Percent of Revenues	*13.7%*	*12.8%*	*10.1%*	*9.4%*	*14.4%*	*8.3%*	*8.4%*	*8.9%*	*13.8%*	*11.0%*	*9.7%*	*11.3%*	*10.6%*
Reported Basic EPS (NT$, TW GAAP)	**7.13**	**5.80**	**6.43**	**8.60**	**12.21**	**8.41**	**9.97**	**13.45**	**25.63**	**27.95**	**44.04**	**124.37**	**189.50**
Y/Y Change	*45%*	*-14%*	*-16%*	*37%*	*71%*	*45%*	*55%*	*56%*	*-2%*	*9%*	*58%*	*182%*	*52%*

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

Price target rises 16% to NT$5,688

This reflects our 2027-28 estimate revisions. Besides cutting our intermediate growth rate from 17% to 14.5% due to margin dilution, our other key valuation assumptions are unchanged, including cost of equity of 9.2% (a beta of 1.2, a risk premium of 6%, and a risk-free rate of 2%), and terminal growth of 5.0%.

Our bull and bear case values rise by similar magnitudes, to NT$7,730 and NT$3,500, respectively.

Exhibit 9: GUC: Residual income model

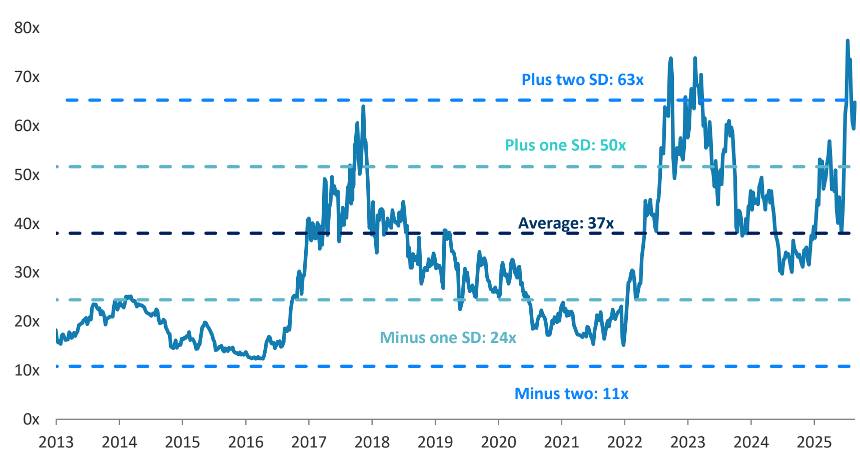
NT$million	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036e	2037e
Total Equity	**16,806**	**30,355**	**46,808**	**59,229**	**73,451**	**89,736**	**108,381**	**129,730**	**154,175**	**182,164**	**214,212**	**250,906**
Net Profit	**5,939**	**16,773**	**25,558**	**29,264**	**33,507**	**38,366**	**43,929**	**50,298**	**57,591**	**65,942**	**75,504**	**86,452**
ROAE	**40.0%**	**71.1%**	**66.2%**	**55.2%**	**50.5%**	**47.0%**	**44.3%**	**42.2%**	**40.6%**	**39.2%**	**38.1%**	**37.2%**
Residual Income	3,973	10,408	17,316	21,530	24,466	27,780	31,539	35,817	40,698	46,271	52,640	59,924
Spread	**30.8%**	**61.9%**	**57.0%**	**46.0%**	**41.3%**	**37.8%**	**35.1%**	**33.0%**	**31.4%**	**30.0%**	**28.9%**	**28.0%**
Ending Equity Capital	16,806											
PV of Forecast Period	176,540											
PV of Continuing Value	568,972											
Equity Value	**762,319**											
No. of Shares	134											
Projected Price	**5,688**											

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

Relative valuation

Our price target of NT$5,688 implies 45x our 2027 EPS estimate, lower than +1 SD from GUC's historical NTM P/E since 2013. We maintain our view that the design service market will proliferate with AI ASIC outgrowing AI GPU in the long term, and therefore believe further re-rating would be justified with project wins likely to come. Despite slower recovery of non-AI business, we continue to appreciate GUC's growing exposure to cloud AI semis (including AI accelerators, AI server CPU, and BMC chips).

Exhibit 10: GUC: NTM rolling P/E



Source: Company data, FactSet, Morgan Stanley Research estimates

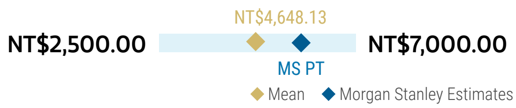
Risk Reward – Global Unichip Corp (3443.TW)

Winning more CSP projects

PRICE TARGET NT$5,688.00

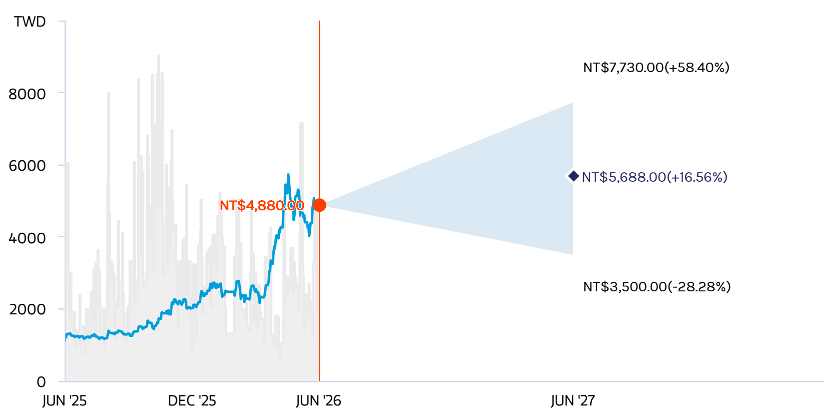
Base case, residual income model. Key assumptions: a cost of equity of 9.2%, an intermediate growth rate of 14.5%, and a terminal growth rate of 5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



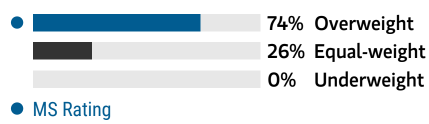
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Besides strong Google CPU revenue contribution in 2026, we see 2027 revenue upside from Tesla AI5, Amazon edge AI chips, and SanDisk SSD controllers.
- We think the stock should rebound after new CPS projects design wins, now trading at 38x our 2027 EPS estimate.
- We maintain our view that the design service market will proliferate with AI ASIC outgrowing AI GPU in the long term.
- Despite slower recovery of non-AI business, we still appreciate GUC's growing exposure to cloud AI semis (including AI accelerators, AI server CPU, and BMC chips).

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

New Data Era:	*Positive*
Pricing Power:	*Negative*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE NT$7,730.00

62x 2027e EPS

Multiple leading-edge NRE projects successfully translate into volume production with healthy margin profiles. Many AI chipsets or other projects start to proliferate with substantial end demand, with customers' interest in migrating to more advanced nodes. Networking switch demand is stronger than expected, while SSD controller project contributions are sustainable in 2026. 3/5nm turnkey revenue growth is stronger than expected in 2026 and beyond.

BASE CASE NT$5,688.00

45x 2027e EPS

Networking switch turnkey projects volume remains stable. A few new leading-edge turnkey projects start to show decent shipments. TSMC's leading-edge tape-out numbers increase steadily, while some "turnkey 2/3" (TK2 and TK3) projects contribute to NRE and turnkey revenue. CSP (AI) revenue contribution should be the major growth driver for 2026 and 2027, as well as the auto chip and SSD controller projects.

BEAR CASE NT$3,500.00

28x 2027e EPS

AI chipsets and other projects lack concrete end demand, resulting in delayed tape-outs. TSMC's leading-edge tape-out numbers decrease or some customers turn directly to TSMC. BMC and SSD project losses arise from customers' in-sourcing. Fiercer-than-expected talent competition leads to higher opex to retain R&D engineers. High volume turnkey projects carry lower-than-expected gross margin.

Risk Reward – Global Unichip Corp (3443.TW)

KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
NRE revenue Y/Y (%)	(4.8)	(0.0)	8.7	7.1
Turnkey revenue Y/Y (%)	59.2	107.9	162.0	65.2
Turnkey revenue (NT$, mn)	25,736	53,504	140,175	231,588
Turnkey revenue contribution (%)	75.4	86.9	94.1	96.1

INVESTMENT DRIVERS

- ASIC/ASSP industry demand
- Technology migration to more advanced nodes
- New projects driven by China's semi localization efforts

GLOBAL REVENUE EXPOSURE

- 0-10% Europe ex UK
- 10-20% Japan
- 10-20% Mainland China
- 20-30% North America
- 30-40% APAC, ex Japan, Mainland China and India

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

3/5 MOST | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- 5nm, 3nm and advanced packaging customers decide to accelerate tape-outs.
- AI and other high-growth projects gain substantial customer traction.
- 5nm turnkey momentum is stronger than expected.

RISKS TO DOWNSIDE

- AI and other high-growth projects lose significant customer traction.
- Customers' inventory correction is longer than expected.
- 5nm and below ASIC projects contribution is lower than expected.

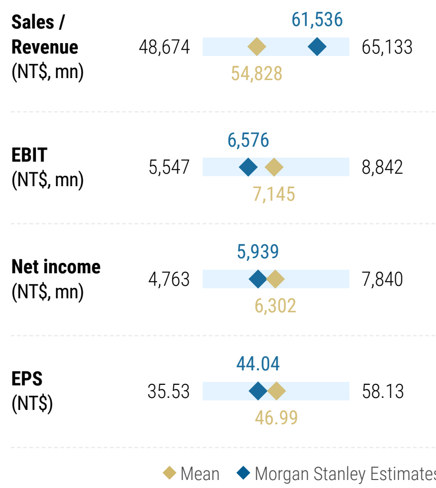
OWNERSHIP POSITIONING

Inst. Owners, % Active 63.7%

Source: Refinitiv, Morgan Stanley Research

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e



Source: Refinitiv, Morgan Stanley Research

Financial summary

Income Statement

NT$mn (Years End Dec)	2024	2025	2026e	2027e	2028e
Net sales	25,044	34,141	61,536	148,903	240,937
COGS	(16,937)	(25,687)	(49,372)	(122,994)	(202,596)
Gross profit	8,108	8,454	12,164	25,909	38,340
Operating expenses	(4,305)	(4,104)	(5,587)	(6,424)	(8,521)
Operating income	**3,803**	**4,350**	**6,576**	**19,485**	**29,820**
Non-operating income	260	93	399	248	248
Pre-tax income	4,062	4,443	6,976	19,733	30,068
Income tax	612	673	1,036	2,960	4,510
Minority Interest	0	0	0	0	0
Reported net Income	**3,451**	**3,770**	**5,939**	**16,773**	**25,558**
Adj.wtd.avg.shrs(m)	134	134	134	134	134
Reported EPS (NT$)	**25.63**	**27.95**	**44.04**	**124.37**	**189.50**
Modelware EPS (NT$)	**25.63**	**27.95**	**44.04**	**124.37**	**189.50**

Balance Sheet

NT$mn (Years End Dec)	2024	2025	2026e	2027e	2028e
Cash	10,427	6,650	6,868	6,276	12,889
Mkt Securities	2,980	2,082	2,082	2,082	2,082
AR/NR	2,007	3,417	4,889	11,830	19,142
Inventory	2,794	10,148	13,817	29,353	40,895
Other	6,271	3,440	3,440	3,440	3,440
Current Assets	**24,480**	**25,737**	**31,095**	**52,981**	**78,448**
Long-term investments	0	0	0	0	0
Fixed assets	942	1,347	1,347	1,347	1,347
Deffered assets	37	24	24	24	24
Other assets	850	1,335	1,335	1,335	1,335
Total Assets	**26,309**	**28,443**	**33,801**	**55,687**	**81,154**
S/T borrowings	0	0	0	0	0
AP/NP	1,691	4,126	5,591	13,927	22,941
Other ST liabilities	12,977	10,907	10,907	10,907	10,907
LT debt	73	169	169	169	169
Other LT liabilities	273	328	328	328	328
Common shares	1,340	1,340	1,340	1,340	1,340
Total Liabilities	**15,015**	**15,530**	**16,995**	**25,331**	**34,345**
Additional capital	1,812	2,158	2,158	2,158	2,158
Retained earning	8,145	9,431	13,324	26,873	43,326
Other shareholders' equity	(3)	(16)	(16)	(16)	(16)
Total Equity	**11,294**	**12,913**	**16,806**	**30,355**	**46,808**
Total Liab. & Shrhldr's Equity	**26,309**	**28,443**	**33,801**	**55,687**	**81,154**

E = Morgan Stanley Research Estimates

Source: Morgan Stanley Research, Company Data

Cash Flow Statement

NT$mn (Years End Dec)	2024	2025	2026e	2027e	2028e
Cashflow from Operations	**6,242**	**(1,143)**	**2,537**	**2,905**	**15,991**
Net profits	3,451	3,770	5,939	16,773	25,558
Depreciation	247	273	273	273	273
Working Capital Change	1,925	(5,930)	(3,675)	(14,141)	(9,839)
Other adjustments	619	744	0	0	0
Cashflow from Investing	**(1,522)**	**(398)**	**(273)**	**(273)**	**(273)**
Capex	(471)	(840)	(273)	(273)	(273)
Change of LT Investment	0	0	0	0	0
Change of ST Investment	(850)	688	0	0	0
Other adjustments	(201)	(246)	0	0	0
Cashflow from financing	**(1,962)**	**(2,227)**	**(2,046)**	**(3,224)**	**(9,105)**
Increase in L/T debt	(40)	96	0	0	0
Increase in S/T debt	0	0	0	0	0
Cash Dividend Paid	(1,876)	(2,144)	(2,046)	(3,224)	(9,105)
Dir& Emp Bonus Paid	0	0	0	0	0
Issuance of stock	0	0	0	0	0
Other adjustments	(46)	(178)	0	0	0
Exchange rate adjustment	31	(10)	0	0	0
Net change in cash	**2,790**	**-3,778**	**218**	**-592**	**6,614**

Financial Ratios

	2024	2025	2026e	2027e	2028e
Growth(%)					
Turnover	-4.6	36.3	80.2	142.0	61.8
Operating profits	-4.2	14.4	51.2	196.3	53.0
Pretax profits	-2.2	9.4	57.0	182.9	52.4
Net profits	-15.8	9.2	57.6	182.4	52.4
EPS	-1.5	9.1	57.6	182.4	52.4
Margins (%)					
Gross Margin	32.4	24.8	19.8	17.4	15.9
Operating Margin	15.2	12.7	10.7	13.1	12.4
Pretax Margin	16.2	13.0	11.3	13.3	12.5
Net Profit	13.8	11.0	9.7	11.3	10.6
Return (%)					
ROAE	32.9	31.1	40.0	71.1	66.2
ROAA	14.6	13.8	19.1	37.5	37.4
Gearing (%)					
Net Debt/Equity	(92.3)	(51.5)	(40.9)	(20.7)	(27.5)
Liabilities/Equity	132.9	120.3	101.1	83.4	73.4
Ratios (X)					
Current ratio	1.7	1.7	1.9	2.1	2.3
Quick ratio	0.8	0.7	0.7	0.7	0.9
Others					
AR/NR Turnover (days)	29	29	29	29	29
Inventory Turnover (days)	82	92	82	72	62
AP Turnover (days)	36	41	41	41	41
Cash Conversion (days)	75	80	70	60	50

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

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared or are disseminated by Morgan Stanley Asia Limited (which accepts the responsibility for its contents) and/or Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research), and/or Morgan Stanley Taiwan Limited and/or Morgan Stanley & Co International plc, Seoul Branch, and/or Morgan Stanley Australia Limited (A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents), and/or Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents), and/or Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at Altimus, Level 39 & 40, Pandurang Budhkar Marg, Worli, Mumbai 400018, India; Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: tejarshi.hardas@morganstanley.com; Grievance officer details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com which accepts the responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research, and their affiliates (collectively, "Morgan Stanley"). Morgan Stanley India Company Private Limited (MSICPL) may use AI tools in providing research services. All recommendations contained herein are made by the duly qualified research analysts.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/eqr/disclosures/webapp/generalresearch, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Charlie Chan; Daisy Dai, CFA; Daniel Yen, CFA.

.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Regulatory Disclosures on Subject Companies

As of May 29, 2026, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: ACM Research Inc, Advanced Micro-Fabrication Equipment Inc, Advanced Wireless Semiconductor Co, Alchip Technologies Ltd, AllRing Tech Co., AP Memory Technology Corp, ASE Technology Holding Co. Ltd., ASMPT Ltd, Aspeed Technology, Cambricon Technology Corporation, Dosilicon Co Ltd, FOCI Fiber Optic Communications Inc, GigaDevice Semiconductor Beijing Inc, **Global Unichip Corp**, GlobalWafers Co Ltd, Gudeng Precision, Hon Precision, Hua Hong Semiconductor Ltd, King Yuan Electronics Co Ltd, Macronix International Co Ltd, MediaTek, Montage Technology Co Ltd, Nanya Technology Corp., NAURA Technology Group Co Ltd, Nuvoton Technology Corporation, Parade Technologies Ltd, Phison Electronics Corp, Realtek Semiconductor, Shanghai Fudan Microelectronics, Silergy Corp., Silicon Motion, TSMC, UMC, Vanguard International Semiconductor, WIN Semiconductors Corp, Winbond Electronics Corp, WinWay Technology Co Ltd, WPG Holdings, WT Microelectronics Co. Ltd..

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Montage Technology Co Ltd, Powerchip Semiconductor Manufacturing Co.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from ASMPT Ltd, Montage Technology Co Ltd, Powerchip Semiconductor Manufacturing Co.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Advanced Micro-Fabrication Equipment Inc, Alchip Technologies Ltd, AP Memory Technology Corp, ASE Technology Holding Co. Ltd., ASMedia Technology Inc, ASMPT Ltd, Aspeed Technology, Espressif Systems, GigaDevice Semiconductor Beijing Inc, GlobalWafers Co Ltd, Gudeng Precision, Himax Technologies Inc, Hua Hong Semiconductor Ltd, Iluvatar CoreX Semiconductor Co., Ltd., Innoscience, King Yuan Electronics Co Ltd, Macronix International Co Ltd, MediaTek, MetaX Integrated Circuits, Montage Technology Co Ltd, Novatek, Phison Electronics Corp, Powerchip Semiconductor Manufacturing Co, Realtek Semiconductor, Shenzhen Longsys Electronics Co Ltd, Silergy Corp., Silicon Motion, TSMC, UMC, Vanguard International Semiconductor, Winbond Electronics Corp, WinWay Technology Co Ltd, WPG Holdings, WT Microelectronics Co. Ltd..

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from ASE Technology Holding Co. Ltd., King Yuan Electronics Co Ltd, MediaTek, Nanya Technology Corp., Novatek, Nuvoton Technology Corporation, Realtek Semiconductor, Silicon Motion, SMIC, TSMC, UMC, Universal Scientific Ind. (Shanghai), Winbond Electronics Corp, WT Microelectronics Co. Ltd..

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Advanced Micro-Fabrication Equipment Inc, Alchip Technologies Ltd, AP Memory Technology Corp, ASE Technology Holding Co. Ltd., ASMedia Technology Inc, ASMPT Ltd, Aspeed Technology, Espressif Systems, GigaDevice Semiconductor Beijing Inc, GlobalWafers Co Ltd, Gudeng Precision, Himax Technologies Inc, Hua Hong Semiconductor Ltd, Iluvatar CoreX Semiconductor Co., Ltd., Innoscience, King Yuan Electronics Co Ltd, Macronix International Co Ltd, MediaTek, MetaX Integrated Circuits, Montage Technology Co Ltd, Novatek, Phison Electronics Corp, Powerchip Semiconductor Manufacturing Co, Realtek Semiconductor, Shenzhen Longsys Electronics Co Ltd, Silergy Corp., Silicon Motion, TSMC, UMC, Vanguard International Semiconductor, Winbond Electronics Corp, WinWay Technology Co Ltd, WPG Holdings, WT Microelectronics Co. Ltd..

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: ASE Technology Holding Co. Ltd., King Yuan Electronics Co Ltd, MediaTek, Montage Technology Co Ltd, Nanya Technology Corp., Novatek, Nuvoton Technology Corporation, Realtek Semiconductor, Silicon Motion, SMIC, TSMC, UMC, Universal Scientific Ind. (Shanghai), Winbond Electronics Corp, WT Microelectronics Co. Ltd..

Morgan Stanley & Co. LLC makes a market in the securities of ACM Research Inc, Himax Technologies Inc, Silicon Motion.

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of May 31, 2026)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1542	42%	465	51%	30%	707	43%
Equal-weight/Hold	1571	43%	369	40%	23%	723	44%
Not-Rated/Hold	3	0%	0	0%	0%	1	0%
Underweight/Sell	551	15%	86	9%	16%	201	12%
Total	3,667		920			1632	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

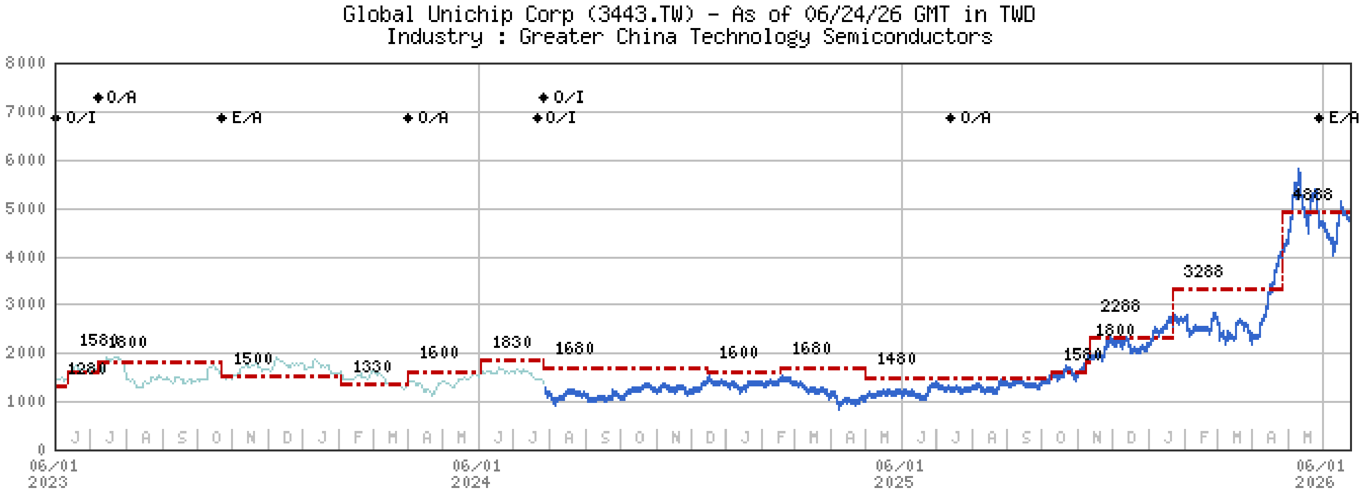
Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Stock Price, Price Target and Rating History (See Rating Definitions)



Stock Rating History: 6/1/21 : U/I; 10/12/21 : U/C; 10/4/22 : U/A; 10/28/22 : O/A; 12/28/22 : E/A; 2/22/23 : E/I; 5/4/23 : O/I; 7/7/23 : O/A; 10/23/23 : E/A; 4/1/24 : O/A; 7/21/24 : O/I; 7/27/24 : O/I; 7/14/25 : O/A; 5/28/26 : E/A

Price Target History: 5/20/21 : 290; 10/29/21 : 450; 10/28/22 : 550; 12/28/22 : 700; 4/6/23 : 888; 5/4/23 : 1280; 6/12/23 : 1580; 7/7/23 : 1800; 10/23/23 : 1500; 2/3/24 : 1330; 4/1/24 : 1600; 6/3/24 : 1830; 7/27/24 : 1680; 12/16/24 : 1600; 2/17/25 : 1680; 5/1/25 : 1480; 10/9/25 : 1580; 11/7/25 : 1800; 11/12/25 : 2288; 1/22/26 : 3288; 4/27/26 : 4888

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) Stock Price (Covered by Current Analyst)
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers

Important disclosures regarding any material conflict of interest that can reasonably be expected to have influenced Morgan Stanley Smith Barney LLC's choice of a third-party research provider or the subject company of a third-party research report, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to https://www.morganstanley.com/eqr/disclosures/webapp/generalresearch.

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (http://www.morganstanley.com/terms.html). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (http://www.morganstanley.com/terms.html). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html). Please use the provided link to review the Terms and Conditions and Most Important Terms and Conditions for Morgan Stanley India Company Private Limited (https://www.morganstanley.com/assets/pdfs/about-us-global-offices/india/Terms_and_conditions.pdf) and the following link to review the audit report (https://ny.matrix.ms.com/eqr/research/webapp/researchdocs/MSICPL_Morgan_Stanley_Research_Audit_Report.pdf).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Certain information in Morgan Stanley Research was sourced by employees of the Shanghai Representative Office of Morgan Stanley Asia Limited for the use of Morgan Stanley Asia Limited. Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at Altimus, Level 39 & 40, Pandurang Budhkar Marg, Worli, Mumbai 400018, India; Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: tejarshi.hardas@morganstanley.com; Grievance officer details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com. Morgan Stanley India Company Private Limited (MSICPL) may use AI tools in providing research services. All recommendations contained herein are made by the duly qualified research analysts; in Canada by Morgan Stanley Canada Limited; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, disseminates in the UK research that it has prepared, and research which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, as amended) may otherwise lawfully be communicated or caused to be communicated. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital

Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.
Morgan Stanley Hong Kong Securities Limited is the liquidity provider/market maker for securities of ASMPT Ltd, Hua Hong Semiconductor Ltd listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: http://www.hkex.com.hk.
The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA) or by Morgan Stanley & Co. International plc (ADGM Branch), regulated by the Financial Services Regulatory Authority Abu Dhabi (the FSRA), and is directed at Professional Clients only, as defined by the DFSA or the FSRA, respectively. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria of a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.
The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.
As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.
The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products.
Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

Registration granted by SEBI and certification from the National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

INDUSTRY COVERAGE: Greater China Technology Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (06/24/2026)
Charlie Chan		
ACM Research Inc (ACMR.O)	O (03/07/2023)	US$99.12
Advanced Micro-Fabrication Equipment Inc (688012.SS)	O (11/06/2023)	Rmb371.72
Advanced Wireless Semiconductor Co (8086.TWO)	U (07/14/2025)	NT$159.50
Alchip Technologies Ltd (3661.TW)	O (05/14/2021)	NT$4,330.00
ASE Technology Holding Co. Ltd. (3711.TW)	O (09/15/2024)	NT$653.00
Cambricon Technology Corporation (688256.SS)	O (04/27/2026)	Rmb1,413.00
Global Unichip Corp (3443.TW)	O (06/24/2026)	NT$4,880.00
GlobalWafers Co Ltd (6488.TWO)	E (05/19/2026)	NT$1,010.00
Gudeng Precision (3680.TWO)	O (11/25/2025)	NT$537.00
Hua Hong Semiconductor Ltd (1347.HK)	E (03/12/2026)	HK$166.30
Iluvatar CoreX Semiconductor Co., Ltd. (9903.HK)	O (04/27/2026)	HK$735.50
King Yuan Electronics Co Ltd (2449.TW)	O (03/03/2023)	NT$333.50
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb113.92
MediaTek (2454.TW)	O (11/28/2025)	NT$4,285.00
MetaX Integrated Circuits (688802.SS)	E (04/27/2026)	Rmb768.98
Nanya Technology Corp. (2408.TW)	O (05/28/2026)	NT$443.50
NAURA Technology Group Co Ltd (002371.SZ)	O (11/06/2023)	Rmb747.49
OmniVision Integrated Circuits Group Inc (603501.SS)	E (11/17/2025)	Rmb87.70
Phison Electronics Corp (8299.TWO)	E (02/25/2026)	NT$2,430.00
SG Micro Corp. (300661.SZ)	E (11/03/2025)	Rmb137.16
Silergy Corp. (6415.TW)	U (05/19/2026)	NT$605.00
SMIC (0981.HK)	O (10/21/2025)	HK$77.85
TSMC (2330.TW)	O (02/07/2022)	NT$2,390.00
UMC (2303.TW)	O (05/19/2026)	NT$178.00
Vanguard International Semiconductor (5347.TWO)	E (01/14/2026)	NT$186.50
WIN Semiconductors Corp (3105.TWO)	U (07/14/2025)	NT$522.00

Daisy Dai, CFA		
ASMPT Ltd (0522.HK)	O (07/24/2025)	HK$194.70
China Resources Microelectronics Limited (688396.SS)	U (03/02/2026)	Rmb80.80
Elan Microelectronics Corp (2458.TW)	O (10/03/2025)	NT$164.00
Empyrean Technology Co Ltd (301269.SZ)	E (01/17/2025)	Rmb101.30
Hangzhou Silan Microelectronics Co. Ltd. (600460.SS)	U (08/25/2025)	Rmb47.04
Innoscience (2577.HK)	E (10/13/2025)	HK$72.10
JCET Group Co Ltd (600584.SS)	E (01/16/2026)	Rmb86.09
Shanghai Fudan Microelectronics (1385.HK)	O (03/07/2025)	HK$27.88
SICC Co Ltd (688234.SS)	O (03/20/2026)	Rmb163.37
StarPower Semiconductor Ltd (603290.SS)	E (05/14/2026)	Rmb138.80
Unigroup Guoxin Microelectronics Co Ltd (002049.SZ)	U (01/10/2023)	Rmb81.91
Universal Scientific Ind. (Shanghai) (601231.SS)	O (11/05/2025)	Rmb35.38
Yangjie Technology (300373.SZ)	O (06/10/2022)	Rmb132.96
Daniel Yen, CFA		
AP Memory Technology Corp (6531.TW)	O (07/11/2025)	NT$1,070.00
ASMedia Technology Inc (5269.TW)	U (10/03/2025)	NT$1,425.00
Aspeed Technology (5274.TWO)	O (06/09/2025)	NT$18,505.00
Egis Technology Inc (6462.TWO)	E (01/28/2026)	NT$122.00
Espressif Systems (688018.SS)	O (05/15/2023)	Rmb122.50
GigaDevice Semiconductor Beijing Inc (603986.SS)	O (05/15/2025)	Rmb640.99
Macronix International Co Ltd (2337.TW)	O (09/18/2025)	NT$172.00
Montage Technology Co Ltd (6809.HK)	O (03/18/2026)	HK$408.20
Montage Technology Co Ltd (688008.SS)	O (03/18/2026)	Rmb258.00
Novatek (3034.TW)	U (02/04/2026)	NT$543.00
Nuvoton Technology Corporation (4919.TW)	U (11/10/2025)	NT$186.00
Parade Technologies Ltd (4966.TWO)	O (05/27/2026)	NT$661.00
Powerchip Semiconductor Manufacturing Co (6770.TW)	O (10/27/2025)	NT$85.70
Realtek Semiconductor (2379.TW)	E (01/30/2026)	NT$803.00
Shenzhen Goodix Technology Co Ltd (603160.SS)	U (07/14/2025)	Rmb59.06
Winbond Electronics Corp (2344.TW)	O (05/28/2026)	NT$205.00
WPG Holdings (3702.TW)	O (03/16/2026)	NT$106.50
WT Microelectronics Co. Ltd. (3036.TW)	O (01/27/2026)	NT$219.00
Duan Liu		
Dosilicon Co Ltd (688110.SS)	U (09/06/2024)	Rmb161.79
Shenzhen Longsys Electronics Co Ltd (301308.SZ)	E (02/25/2026)	Rmb596.01
Tiffany Yeh		
AllRing Tech Co. (6187.TWO)	O (09/23/2025)	NT$1,170.00
FOCI Fiber Optic Communications Inc (3363.TWO)	O (01/15/2025)	NT$685.00
Himax Technologies Inc (HIMX.O)	E (02/04/2026)	US$16.78
Hon Precision (7769.TW)	O (04/17/2026)	NT$6,755.00
MPI Corporation (6223.TWO)	O (04/17/2026)	NT$6,680.00
Silicon Motion (SIMO.O)	O (05/06/2024)	US$319.00
WinWay Technology Co Ltd (6515.TW)	O (04/17/2026)	NT$9,500.00

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.