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IDEA

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TSMC | Asia Pacific

US investor feedback into the print; keep OW

We sense gross margin expectations are a bit high, but confidence remains in AI semi revenue growth. Foundry competition is likely to be the key debate on the earnings call.

After marketing in the US the week before TSMC's 7/16 print, we have gathered updated investor expectations and key questions for the earnings call.

TSMC buyside expectations for 3Q26 guidance and capex: 3Q26 buyside revenue expectations are up 10% Q/Q in USD; full-year revenue raised to mid-30% Y/Y; 3Q26 gross margin at around 69%-70% (flat to up Q/Q) on 2H26 wafer price hikes. 2026 capex guidance may rise above US$56bn, and a 3-year capex outlook (2026-28) could be provided, which could be above US$200bn. See Exhibit 1 for updated preview tables, as several brokers also updated numbers into the print.

We are more aggressive on revenue, but less on gross margin: We expect 3Q26 revenue up 10%-15% Q/Q in USD and full-year revenue rising to high-30% Y/Y (close to 40% Y/Y), as smartphone wafers continue to shift to AI CPU/GPU/ASIC/ Networking production. We expect a rise of 5-year AI semi revenue CAGR to 70% (from mid-high 50s%), mainly on higher memory costs contributing to recent cloud capex hikes. It remains to be seen whether TSMC will include AI CPU and networking chips in its AI semi revenue definition. We see 3Q gross margin around 67%-68% (flat Q/Q) given overseas fab and 2nm dilution. We expect 2026 capex guidance at US$56bn. We also expect 3-year capex (2026-28) could total US $206bn; however, management may not provide that guidance (we asked last quarter).

Our thoughts on TSMC stock: Based on our meetings with roughly 30–40 investors, most still see further room for memory to re-rate and for earnings estimates to rise, even as they weigh DRAM competition from China's CXMT. We therefore expect TSMC's re-rate to proceed gradually, despite the stock trading at just 17x 2027e EPS against a 32% 2025-28e revenue CAGR. Gross margin expectations climbing to 70% concern us somewhat, but we view this as a buying opportunity, particularly on dips. Upcoming ASML earnings (EUV allocation) and global CSP capex updates should serve as other key catalysts for TSMC.

In our preview note, we highlighted three questions for management:

- How will TSMC address competition with Samsung Foundry (strong memory profits) and Intel Foundry (US policy support)?
- Can TSMC hike wafer prices in 2027 and further improve gross margin?
- "Memory cost impact on demand" – does TSMC see that in foundry orders?

See below for "**What else do US investors care about?**"

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

TSMC (2330.TW, 2330 TT)

Greater China Technology Semiconductors | Taiwan

Stock Rating	**Overweight**
Industry View	**Attractive**
Price target	NT$2,888.00
Up/downside to price target (%)	18
Shr price, close (Jul 13, 2026)	NT$2,440.00
Mkt cap, curr (mn)	NT$63,264,271
Avg daily trading value (mn)	NT$64,230

Fiscal Year Ending	**12/25**	**12/26e**	**12/27e**	**12/28e**
EPS (NT$)**	66.25	107.56	143.01	177.30
Prior EPS (NT$)**	-	-	-	-
EPS (NT$)§	64.56	99.97	129.74	164.77
ModelWare net inc (NT $ bn)	1,718	2,778	3,708	4,597
P/E	23.4	22.8	17.1	13.8
Div yld (%)	1.4	1.1	1.4	1.8

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

What else do US investors care about?

Some tech specialists also care about 2027-28 capex trends and 2027 EUV allocation, which could define 2028 global 2nm foundry supply and competition. Intel EMIB/EMIB-T's competition with TSMC's CoWoS was another main topic, on which we also tried to get management's thoughts last quarter. Investors are curious about whether TSMC's customers can change wafer applications freely (e.g., from smartphone to AI; from end-customer A to B). We think these are cross-checks for US semicap and ASIC design names.

2Q26 earnings and 3Q26 guidance preview

TSMC will be hosting its 2Q26 earnings call on July 16. We expect 2Q26 gross margin to be in line with the guidance from strong AI and peripheral demand. Our gross margin estimate of 67.4% is at the higher end of the guidance range of 65.5-67.5%.

Looking ahead to 3Q26, we forecast revenue to rise in the low-to-mid-teens range Q/Q, driven by strong demand across both 3nm and 2nm products – including Rubin, TPU, CPU, networking, and others. We expect margins to improve further Q/Q on better utilization rates, but potentially offset by higher costs and depreciation.

Exhibit 1: 2Q26 earnings and 3Q26 guidance preview

	2Q26				3Q26		
(NT$ bn)	**Guidance**	**Preliminary**	**MS Est.**	**Consensus**	**Guidance**	**MS Est.**	**Consensus**
Revenue	US$39.0 - 40.2bn		1,267	1,265		1,436	1,382
Q/Q	*+10% at mid-point in USD*			*11.5%*			*9.3%*
Y/Y				*35.4%*			*39.6%*
GM (%)	65.5% - 67.5%		67.4%	67.1%		67.5%	66.2%
OpM (%)	56.0% - 58.0%		59.8%	58.5%		60.3%	57.8%
EPS (NT$)			**25.08**	**24.02**		**29.21**	**26.98**

Source: Company Data, FactSet, Morgan Stanley Research estimates

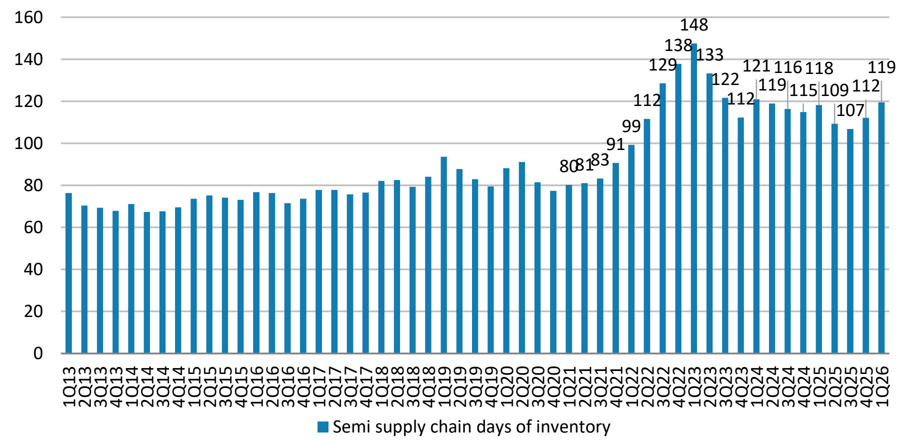
Fundamental themes

Non-AI demand – China's smartphone chip inventory correction begins, but the impact on TSMC should be limited

In 1Q26, inventory days across the semiconductor industry piled up as strong AI and peripheral demand pushed the supply chain higher. Some consumer and non-AI customers also refrained from cutting orders given tight capacity throughout the supply chain and potential price hikes from foundries in 2H26/2027. However, we believe it's time for these non-AI customers – especially in smartphones and PCs – to address rising BOM costs by either cutting orders or passing through the incremental costs. Even so, we expect the impact on TSMC to be relatively small, as TSMC's consumer customers concentrate mostly on the higher end, where passing through costs should prove easier. In addition, high-end PCs and smartphones typically consume TSMC's leading-edge capacity, which other AI demand can readily absorb once wafer capacity is released.

Apple is evidence of hiking prices to end customers – see Apple, Inc.: As Expected, Apple Is Raising Product Pricing (25 Jun 2026) by Erik Woodring) – but also keeping the same wafer demand at TSMC according to our checks. But for Chinese smartphones, we are seeing shipments tracking at down 20% Y/Y, vs. our previous assumption of down 15% Y/Y, see our MediaTek report. We expect leading-edge wafer capacity (5nm and below) could be quickly backfilled by AI demand.

Exhibit 2: Semi supply chain days of inventory piled up in 1Q26

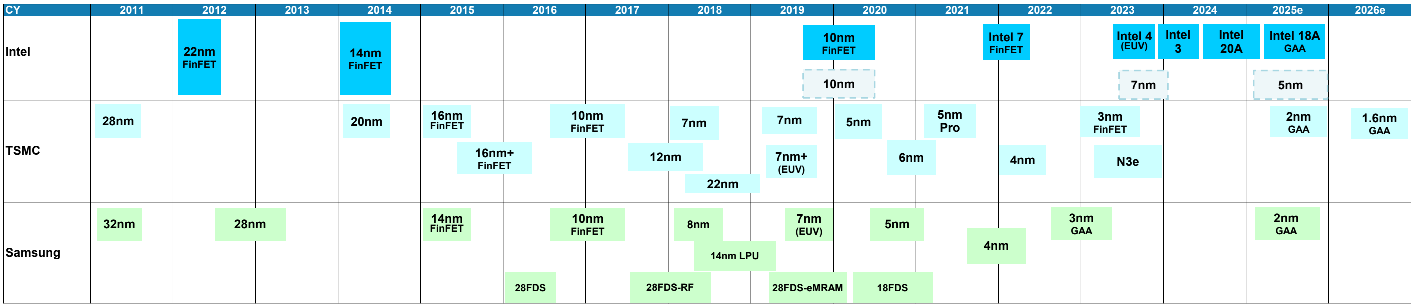


Source: FactSet, Morgan Stanley Research

TSMC still leads in technology roadmap as well as logic density

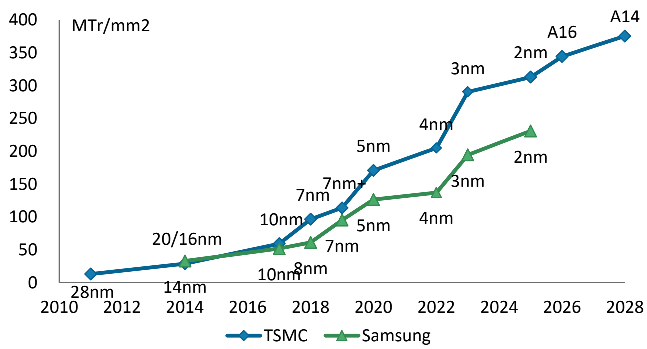
TSMC maintains a technology leadership position through consistent execution of its process roadmap and industry-leading logic density. Its successful transition to 3nm and expected leadership at 2nm have outpaced Intel (covered by Joseph Moore) foundry and Samsung foundry in manufacturing execution and yield. This technology advantage enables superior performance, power efficiency, and area scaling, making TSMC the preferred foundry for leading AI and high-performance computing chip designers. Our industry checks and the logic density comparison suggest that Intel's 18A is catching up to TSMC's N3E in performance, while Samsung's SF2 (2nm) is catching up to TSMC's N3P.

Exhibit 3: Logic roadmap comparison between TSMC, Intel, and Samsung foundry



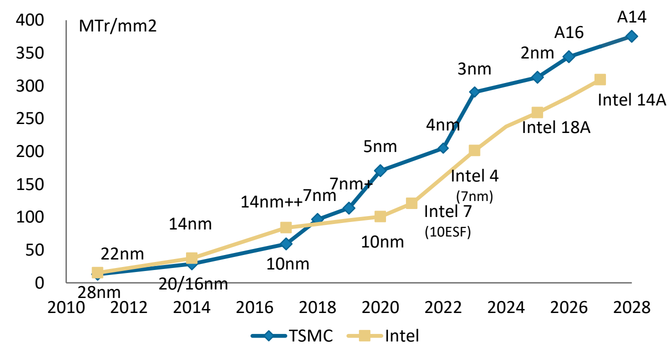
Source: Company data, Morgan Stanley Research

Exhibit 4: Logic density comparison between TSMC and Samsung foundry



Source: Company data, Morgan Stanley Research

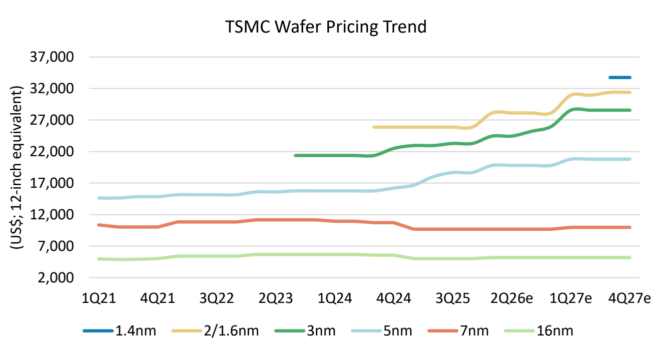
Exhibit 5: Logic density comparison between TSMC and Intel foundry



Source: Company data, Morgan Stanley Research

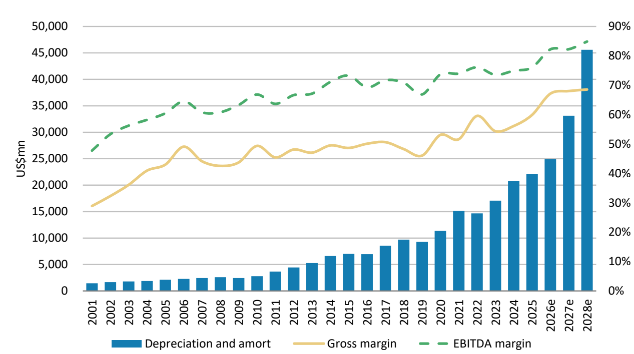
Our industry checks suggest that ASML's priority is based on the historical demand and partnership, suggesting that TSMC is still the largest customer of EUV shipments. In that case, TSMC should still possess good pricing power and hike its leading-edge prices 5%-10% in 2027, to reflect its value to customers as well as margin improvement.

Exhibit 6: TSMC – wafer pricing trend



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

Exhibit 7: TSMC's GM and depreciation trends – 60% should be the floor



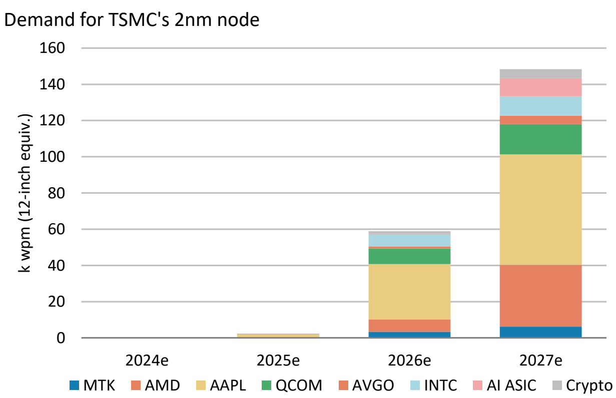
Source: Company data, Morgan Stanley Research (e) estimates

TSMC's 2026-28 Foundry Floorplan – similar to our bottom-up demand analysis

During its symposium, TSMC also revealed strong capacity growth in 2nm and 3nm while 5nm is declining

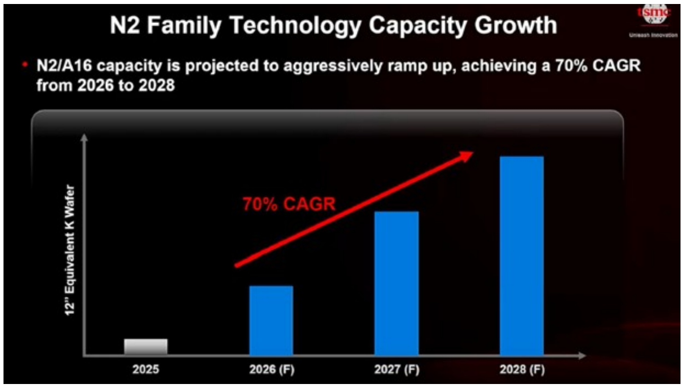
Similar to our demand forecast, TSMC has also suggested very strong capacity needs for both 2nm and 3nm starting from 2026e, suggesting a capacity CAGR of 70% from 2026e to 2028e for N2. TSMC also implied that 5nm capacity will decline from 2027, also in line with our demand forecast for 5nm to decline after Blackwell migrates to Rubin on 3nm. Separately, advanced packaging capacity expansion should still be the key focus area for TSMC in 2027, including but not limited to CoWoS and SoIC, for which we now expect capacity to reach 200kwpm and 70kwpm, respectively, by 2027.

Exhibit 8: TSMC – our estimate of 2nm customer demand breakdown



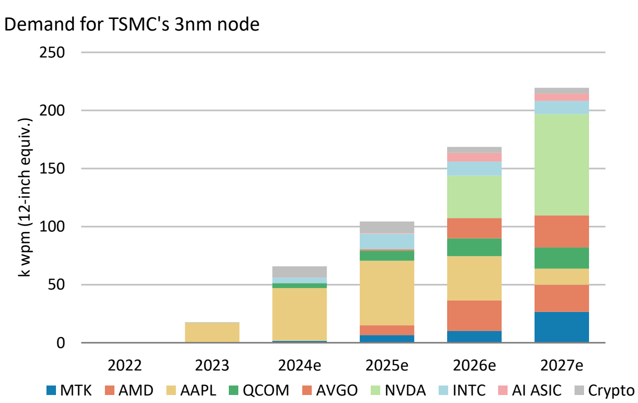
Source: Morgan Stanley Research estimates

Exhibit 9: TSMC suggests that N2 capacity can achieve a 70% CAGR from 2026-2028e



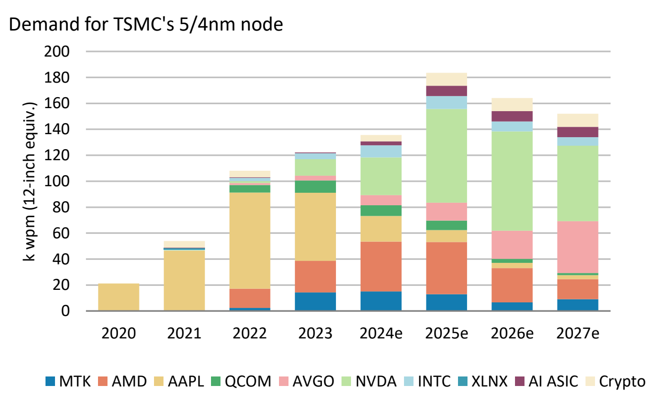
Source: TSMC

Exhibit 10: TSMC – our estimate of 3nm customer demand breakdown



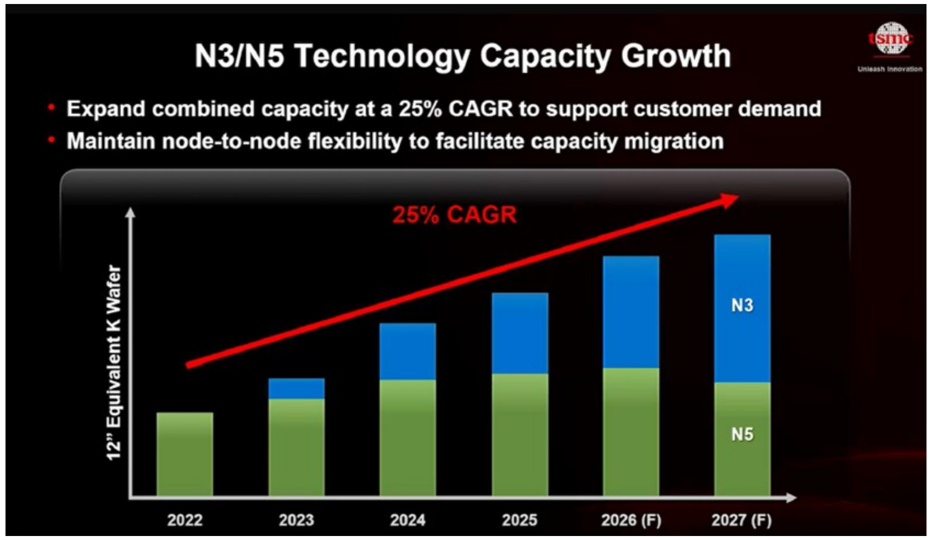
Source: Morgan Stanley Research estimates

Exhibit 11: TSMC – 4nm and 5nm customer demand breakdown



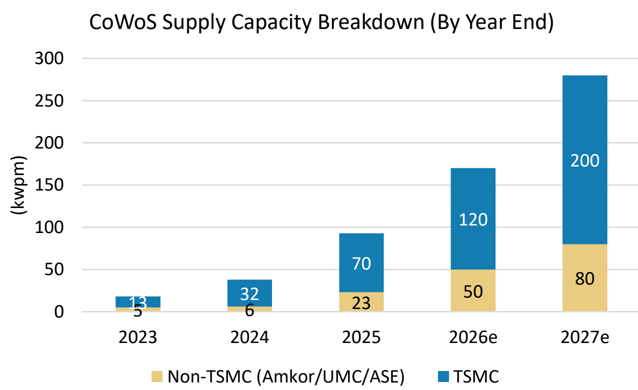
Source: Morgan Stanley Research estimates

Exhibit 12:
TSMC indicates that N5 capacity will drop in 2027 while N3 capacity should keep increasing, similar to our demand forecast



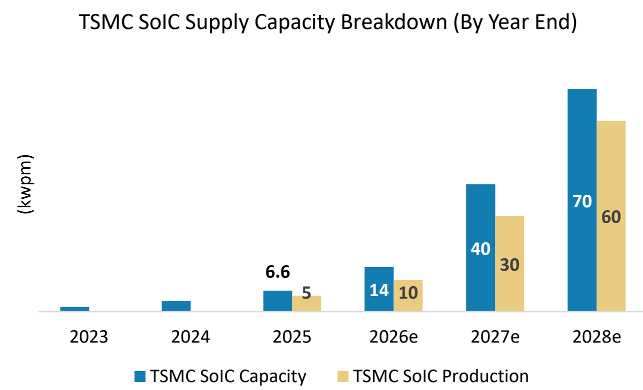
Source: TSMC

Exhibit 13: Our estimate of CoWoS supply capacity breakdown (by year-end)



Source: Morgan Stanley Research estimates

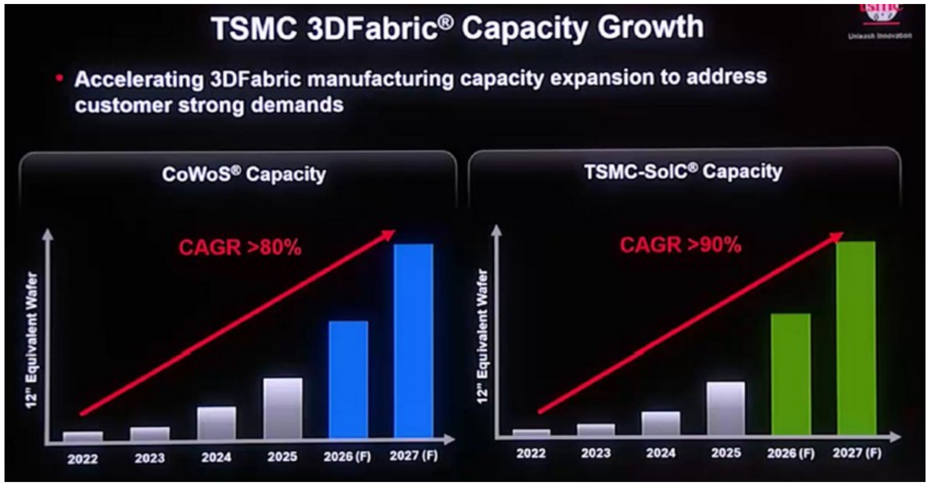
Exhibit 14: MSe TSMC SoIC supply capacity breakdown (by year-end)



Source: Morgan Stanley Research estimates

Exhibit 15:

TSMC is also addressing strong advanced packaging capacity build



Source: Morgan Stanley Research estimates

TSMC's capex is tracking at US$75bn in 2027

Over the past quarter, we observed strong demand for TSMC leading-edge capacity, and TSMC continues to pull in capacity builds or convert N5 to N3. In Greater China Semiconductors: The Foundry Floorplan: Raise TSMC's 2027e and 2028e Capex (9 Mar 2026), we noted that TSMC is pulling in the whole process of building capacity in both Taiwan and Arizona, including laying the foundations, preparing clean rooms, moving in tools, and ramping up production. Our industry checks also suggest that TSMC is changing the floorplan for some of the leading-edge nodes. For example, it is changing the initial 3nm capacity floorplan in Tainan to 2nm, as well as changing the fab number from Fab18 P10-12 to Fab22 P7-9. Therefore, our latest expectations for TSMC's 2027 and 2028 capex are US$75bn each.

We note again the news that TSMC has decided to migrate the process for the Japanese Kumamoto fab P2 from the initial 6nm/7nm to the more advanced 3nm given the upcoming strong demand for 3nm process. Our checks suggest that it is also accelerating the capacity conversion from 5nm to 3nm in Taiwan, echoing our view that 3nm capacity is in severe shortage. We thus expect TSMC to expand 3nm front-end capacity >180kwpm by 2026 and grow to >200kwpm by 2028.

Since the geometry below 3nm should also enjoy strong demand, our checks suggest 2nm/1.6nm capacity buildup to nearly 100kwpm by end-2026, 150-170kwpm in 2027, and >200kwpm in 2028. While 1.4nm should start to pull in tools in 2027 and ramp up the majority in 2028, 1.0nm is likely to have small capacity in Tainan in 2029.

Exhibit 16: TSMC fab roadmap

Node	Location	Fab	Capacity 2025	2026	2027	2028	2029
N3	Tainan	F18 - P4/P5/P6/P8/P9	110k	160-170k			
	Arizona	F21 - P2		20k			
	Japan	F23 - P2				15k	
Total			110k	180-190k	190k	200-205k	
N2/A16	HsinChu	F20 - P1/P2	20k	30k			
	Tainan	F22 - P7/P8/P9			40-50k	60k	
	KaoHsiung	F22 - P1/P2/P3/P4/P5/P6	25k	60k	80-90k	100k	
	Arizona	F21 - P3/P4/P5/P6				20k	
Total			45k	90-100k	150-170k	210k	
A14	HsinChu	F20 - P3/P4			10-20k	30-40k	40k
A14/A13/A12	Taichung	F25 - P1/P2/P3/P4			10-20k	30-40k	80k
Total					20-40k	60-80k	120k
A10	Tainan	F26 - P1/P2/P3/P4					5k
N40/28/22/12	Japan	F23 - P1	25k				
N28/16	Germany	F24			5k	40k	

Source: Morgan Stanley Research estimates

Exhibit 17: TSMC Fab details

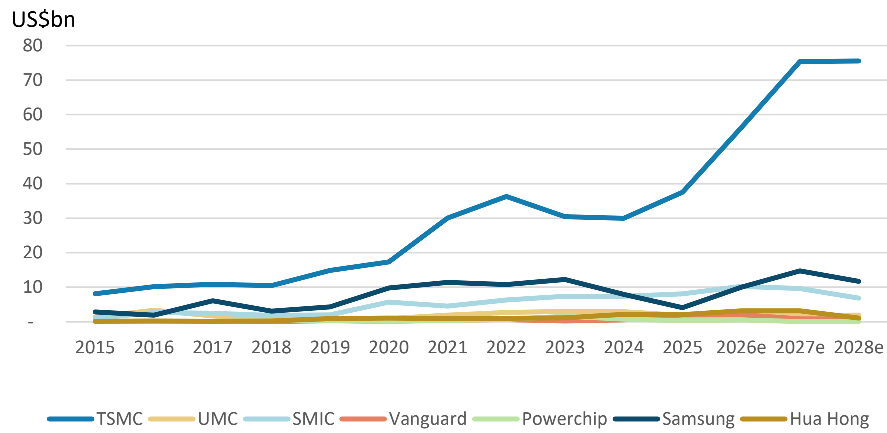
Front-end Plant	Location	Focused Technology
F18 - P4/P5/P6/P8/P9	Tainan	N3
F20 - P1/P2/P3/P4	HsinChu	N2/A14
F21 - P2	Arizona	N3
F22 - P1/P2/P3/P5/P6	KaoHsiung	N2
F22 - P7/P8/P9	Tainan	N2
F22 - P4	KaoHsiung	A16
F23 - P2	Kumamoto	N3
F25 - P1/P2/P3/P4	Taichung	A14
F26 - P1/P2/P3/P4	Tainan	A10

Source: Morgan Stanley Research estimates

Exhibit 18: TSMC shares its Arizona Fab P2 tool move-in in 2H26, in line with our 20kwpm capacity addition for 3nm

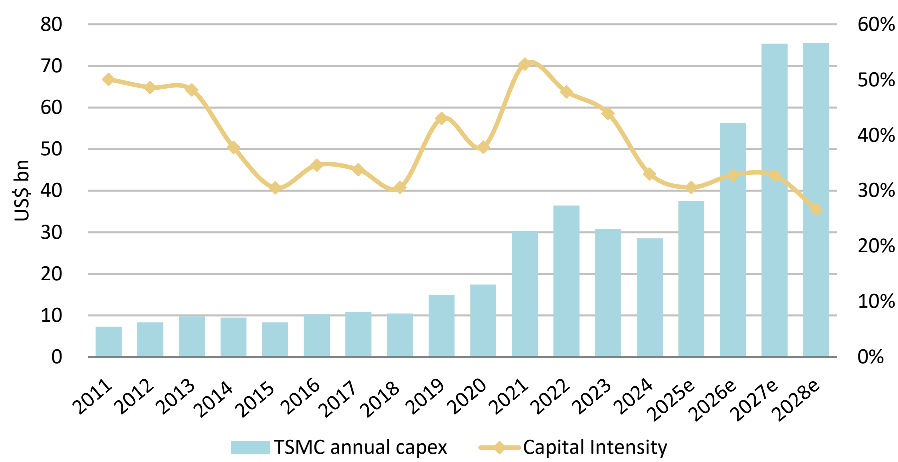
Source: TSMC

Exhibit 19: TSMC leads the capex for the whole industry



Source: Company Data, Morgan Stanley Research estimates

Exhibit 20: TSMC's capex intensity should drop significantly as a result of robust revenue growth



Source: Company Data, Morgan Stanley Research estimates

Price Target remains NT$2,888

Our price target NT$2,888 is mostly driven by our earnings estimate revisions. It implies 20x P/E based on our new 2027e EPS. TSMC stock is trading at 16x our 2027 EPS estimate, near its NTM average P/E of 16.5x since 2018. At this level we find the stock attractive.

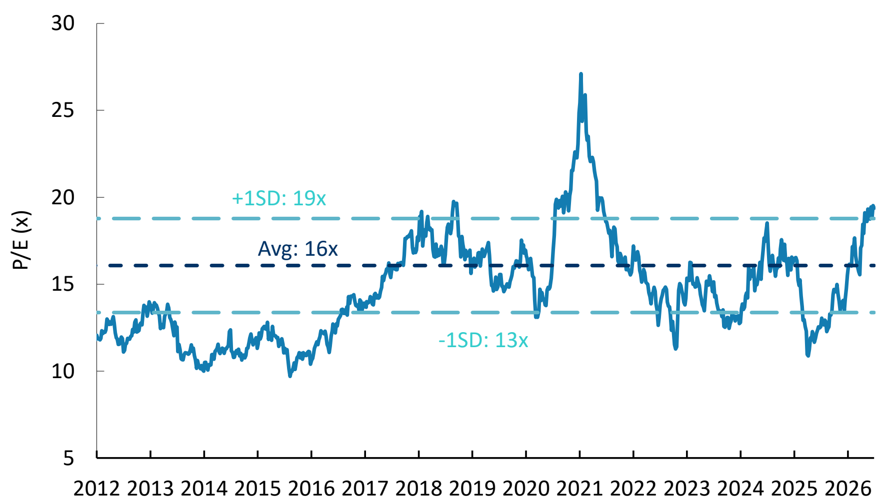
We continue to derive our 12-month price target (base case scenario) using the residual income valuation methodology. All of our key assumptions remain unchanged, including a cost of equity of 9.2% (beta of 1.2, risk premium of 6.0%, risk-free rate of 2.0%), intermediate growth rate of 10.5%, and terminal growth rate of 4%.

Exhibit 21: TSMC: Residual income model

	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036e	2037e
Total Equity	**7,708,211**	**10,664,359**	**14,302,169**	**17,553,385**	**21,145,978**	**25,115,794**	**29,502,440**	**34,349,684**	**39,705,889**	**45,624,495**	**52,164,555**	**59,391,321**
Net Profit	**2,789,152**	**3,708,187**	**4,597,307**	**5,080,025**	**5,613,427**	**6,202,837**	**6,854,135**	**7,573,819**	**8,369,070**	**9,247,822**	**10,218,844**	**11,291,822**
ROAE	**42.4%**	**40.4%**	**36.8%**	**31.9%**	**29.0%**	**26.8%**	**25.1%**	**23.7%**	**22.6%**	**21.7%**	**20.9%**	**20.2%**
Residual Income	1,810,763	2,402,384	2,946,324	3,245,752	3,477,402	3,725,129	3,992,994	4,284,639	4,603,591	4,953,442	5,337,961	5,761,181
Spread	**33.2%**	**31.2%**	**27.6%**	**22.7%**	**19.8%**	**17.6%**	**15.9%**	**14.5%**	**13.4%**	**12.5%**	**11.7%**	**11.0%**
Ending Equity Capital	7,708,211											
PV of Forecast Period	23,410,607											
PV of Continuing Value	43,761,530											
Equity Value	**74,880,348**											
No. of Shares	25,930											
Projected Price (NT$)	**2,888**											

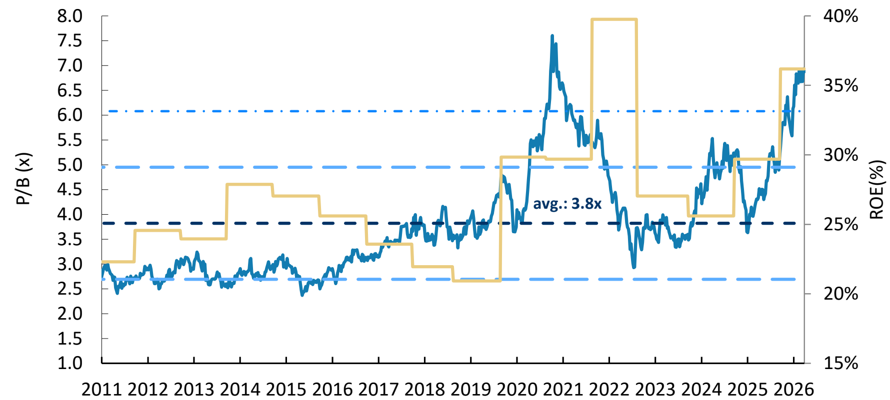
Source: Company data, Morgan Stanley Research (e) estimates

Exhibit 22: TSMC's one-year forward P/E: valuation does not appear stretched as a key AI semi enabler



Source: Company data, FactSet, Morgan Stanley Research

Exhibit 23: TSMC – P/B vs. ROE



Source: Company data, Refinitiv, Morgan Stanley Research

Exhibit 24: TSMC: Quarterly financials

(NT$ mn)	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26e	3Q26e	4Q26e	2023	2024	2025	2026e	2027e	2028e
Total Revenues	**839,254**	**933,792**	**989,918**	**1,046,090**	**1,134,103**	**1,266,623**	**1,435,872**	**1,524,342**	**2,161,736**	**2,894,308**	**3,809,054**	**5,360,940**	**7,132,285**	**8,787,896**
Sequential Change	*-3.4%*	*11.3%*	*6.0%*	*5.7%*	*8.4%*	*11.7%*	*13.4%*	*6.2%*						
Change vs Year Ago	*41.6%*	*38.6%*	*30.3%*	*20.5%*	*35.1%*	*35.6%*	*45.0%*	*45.7%*	*-4.5%*	*33.9%*	*31.6%*	*40.7%*	*33.0%*	*23.2%*
Cost of Sales	**(345,859)**	**(386,423)**	**(401,375)**	**(394,103)**	**(394,103)**	**(412,358)**	**(466,301)**	**(489,442)**	**(986,625)**	**(1,269,954)**	**(1,527,760)**	**(1,762,204)**	**(2,281,067)**	**(2,764,094)**
Percent of Revenues	*41.2%*	*41.4%*	*40.5%*	*37.7%*	*34.8%*	*32.6%*	*32.5%*	*32.1%*	*45.6%*	*43.9%*	*40.1%*	*32.9%*	*32.0%*	*31.5%*
Gross Profit	**493,395**	**547,369**	**588,543**	**651,987**	**751,295**	**854,265**	**969,571**	**1,034,900**	**1,175,111**	**1,624,354**	**2,281,295**	**3,598,737**	**4,851,218**	**6,023,802**
Gross Margin	58.8%	58.6%	59.5%	62.3%	66.2%	67.4%	67.5%	67.9%	54.4%	56.1%	59.9%	67.1%	68.0%	68.5%
Total Opex	**(86,314)**	**(83,946)**	**(87,858)**	**(87,084)**	**(92,329)**	**(96,667)**	**(104,250)**	**(109,122)**	**(253,645)**	**(302,301)**	**(345,202)**	**(402,369)**	**(567,502)**	**(667,637)**
Percent of Revenues	*10.3%*	*9.0%*	*8.9%*	*8.3%*	*8.1%*	*7.6%*	*7.3%*	*7.2%*	*11.7%*	*10.4%*	*9.1%*	*7.5%*	*8.0%*	*7.6%*
R&D	(56,547)	(61,280)	(63,742)	(64,858)	(67,757)	(69,857)	(73,857)	(76,857)	(182,370)	(204,182)	(246,427)	(288,327)	(356,300)	(404,000)
Percent of Revenues	*6.7%*	*6.6%*	*6.4%*	*6.2%*	*6.0%*	*5.5%*	*5.1%*	*5.0%*	*8.4%*	*7.1%*	*6.5%*	*5.4%*	*5.0%*	*4.6%*
SG&A	(29,767)	(22,666)	(24,116)	(22,227)	(24,573)	(26,811)	(30,393)	(32,266)	(71,275)	(98,119)	(98,775)	(114,042)	(211,202)	(263,637)
Sequential Change	*1.1%*	*-23.9%*	*6.4%*	*-7.8%*	*10.6%*	*9.1%*	*13.4%*	*6.2%*						
Change vs Year Ago	*53.6%*	*-3.6%*	*-6.5%*	*-24.5%*	*-17.4%*	*18.3%*	*26.0%*	*45.2%*						
Operating Income	**407,081**	**463,424**	**500,685**	**564,902**	**658,966**	**757,598**	**865,321**	**925,777**	**921,466**	**1,322,053**	**1,936,092**	**3,196,368**	**4,283,717**	**5,356,165**
Percent of Revenues	*48.5%*	*49.6%*	*50.6%*	*54.0%*	*58.1%*	*59.8%*	*60.3%*	*60.7%*	*42.6%*	*45.7%*	*50.8%*	*59.6%*	*60.1%*	*60.9%*
Non-operating Income(Loss)	**23,815**	**29,612**	**24,684**	**27,461**	**28,834**	**25,862**	**25,862**	**25,862**	**57,706**	**83,786**	**105,571**	**106,420**	**103,449**	**99,449**
Profit Before Taxes	**430,895**	**493,035**	**525,369**	**592,363**	**687,800**	**783,460**	**891,184**	**951,640**	**979,171**	**1,405,839**	**2,041,663**	**3,302,788**	**4,387,166**	**5,455,614**
Percent of Revenues	*51.3%*	*52.8%*	*53.1%*	*56.6%*	*60.6%*	*61.9%*	*62.1%*	*62.4%*	*45.3%*	*48.6%*	*53.6%*	*61.6%*	*61.5%*	*62.1%*
Taxes	(70,163)	(95,542)	(73,614)	(86,948)	(114,998)	(133,188)	(133,678)	(142,746)	(141,404)	(233,407)	(326,266)	(524,610)	(678,978)	(858,307)
Tax Rate	*16.3%*	*19.4%*	*14.0%*	*14.7%*	*16.7%*	*17.0%*	*15.0%*	*15.0%*	*14.4%*	*16.6%*	*16.0%*	*15.9%*	*15.5%*	*15.7%*
Net Income, Cont Ops	360,733	397,493	451,755	505,415	572,801	650,272	757,506	808,894	837,768	1,172,432	1,715,397	2,778,178	3,708,187	4,597,307
Minority Interest	831	780	546	329	(322)	0	0	0	730	836	2,486	(322)	0	0
Reported Income (TW GAAP)	**361,564**	**398,273**	**452,301**	**505,744**	**572,480**	**650,272**	**757,506**	**808,894**	**838,498**	**1,173,268**	**1,717,883**	**2,789,152**	**3,708,187**	**4,597,307**
Percent of Revenues	*43.1%*	*42.7%*	*45.7%*	*48.3%*	*50.5%*	*51.3%*	*52.8%*	*53.1%*	*38.8%*	*40.5%*	*45.1%*	*52.0%*	*52.0%*	*52.3%*
Change vs Year Ago	*60.3%*	*60.7%*	*39.1%*	*35.0%*	*58.3%*	*63.3%*	*67.5%*	*59.9%*	*-17.5%*	*39.9%*	*46.4%*	*62.4%*	*33.0%*	*24.0%*
Reported EPS (NT$, TW GAAP)	**13.94**	**15.36**	**17.44**	**19.50**	**22.08**	**25.08**	**29.21**	**31.20**	**32.34**	**45.25**	**66.25**	**107.56**	**143.01**	**177.30**
Basic shares (mn units)	25,927	25,928	25,929	25,928	25,930	25,930	25,930	25,930	25,929	25,928	25,928	25,930	25,930	25,930

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

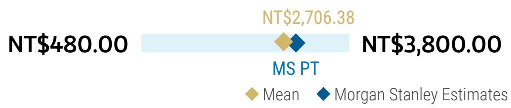
Risk Reward – TSMC (2330.TW)

Expect 2026 revenue and capex guidance to be raised

PRICE TARGET NT$2,888.00

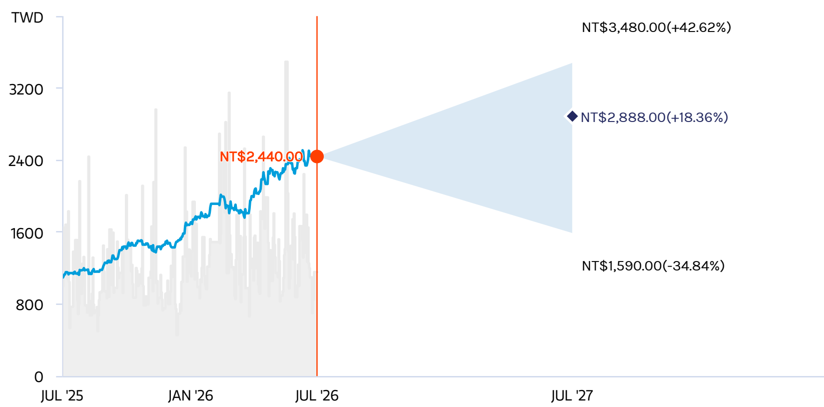
Base case, residual income model. Key assumptions: a cost of equity of 9.2% (beta of 1.2, risk-free rate of 2.0% and risk premium of 6.0%), an intermediate growth rate of 10.5%, and a terminal growth rate of 4.0%.

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

- Reflecting robust AI capex guidance from Meta and Microsoft, TSMC remains our Top Pick.
- Our estimates reflect TSMC's strong profitability and another year of close to 40% Y/Y revenue growth seen for 2026.
- Part of that can be contributed by China's AI GPU market through Nvidia.
- Reflecting increased bargaining power, long-term margin expansion, and sustainable AI semi demand, we expect the stock to re-rate to our implied 2027e target P/E of 20x.

Consensus Rating Distribution

97%	Overweight ●
3%	Equal-weight
0%	Underweight

● MS Rating

Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

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

View descriptions of Risk Rewards Themes here

BULL CASE NT$3,480.00

24x 2027e EPS

TSMC dominates foundry services: 1) Breakthrough in EUV tech and materials accelerates node migration to 3nm and beyond. 2) Intel outsources its server CPU production to TSMC sooner than expected. 3) Intel or Samsung exits leading-edge foundry business. 4) New tech megatrends such as 6G or AI drive global semi revenue growth and increase demand for leading edge nodes. 5) Cost per transistor decreases further along with node migration.

BASE CASE NT$2,888.00

20x 2027e EPS

Leading position in leading-edge logic foundry services with some gross margin expansion: 1) Global semi revenue CAGR is sustained in the high single digits in 2025-28. 2) TSMC continues to lead in market share in 16nm, 7nm, 5nm, 3nm, and 2nm. 3) It continues to observe robust AI-related demand. 4) Cost per transistor does not decrease meaningfully in 3nm and 2nm, while capex per k is more demanding than for 7nm and 5nm.

BEAR CASE NT$1,590.00

11x 2027e EPS

TSMC's dominance in foundry business erodes: 1) Global ex-memory semi revenue growth is weaker than expected in 2025-28. 2) Declining trailing-edge market share causes revenue shortfall. 3) Intel's contribution is weaker than expected. Intel and/or Samsung successfully develop leading-edge process technology. 4) Intel's foundry business execution proves successful and weighs on TSMC with order competition. 5) Demand for 2nm is less than expected given high transistor cost for foundry customers.

Risk Reward – TSMC (2330.TW)

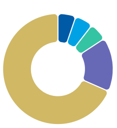
KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
Revenue from 5nm Geometry (NT$, mn)	1,179,907	1,282,106	1,118,627	1,111,915
Revenue from 10/7nm Geometry (NT$, mn)	459,258	514,285	525,849	523,809
Revenue from 16/20nm Geometry (NT$, mn)	220,027	289,383	318,988	336,404

INVESTMENT DRIVERS

- Moore's Law migration (chip scaling) and alternative technologies
- Capex intensity - cost of building leading-edge foundry capacity
- Bargaining power with key equipment vendors
- Transistor cost for customers
- ROI for leading-edge foundry

GLOBAL REVENUE EXPOSURE



0-10%	APAC, ex Japan, Mainland China and India
0-10%	Europe ex UK
0-10%	Japan
10-20%	Mainland China
60-70%	North America

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

MS ALPHA MODELS

1/5 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

- TSMC charges large customers more to keep its gross margin above 56% in the long term.
- AI semi demand grows more significantly than expected, while TSMC maintains high market share in leading-edge foundry business.
- Outsourcing from Intel CPU increases in 2025-27.

RISKS TO DOWNSIDE

- Inventory correction occurs in 2026.
- Demand for leading edge technologies weakens.
- Costs of overseas fabs grow significantly.

OWNERSHIP POSITIONING

Inst. Owners, % Active 75.9%

Source: Refinitiv, Morgan Stanley Research

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e

	Low	Mean	Morgan Stanley Estimates	High
Sales / Revenue (NT$, mn)	5,026,000	5,218,318	5,360,940	5,494,192
EBITDA (NT$, mn)	3,295,000	3,824,651	3,975,060	4,157,645
Net income (NT$, mn)	2,369,115	2,585,672	2,777,857	2,805,000
EPS (NT$)	89.80	99.97	107.56	108.20

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

Financial summary

Income Statement, 2024-2028e, Year End Dec

(NT$ mn)	2024	2025	2026e	2027e	2028e
Revenue	**2,894,308**	**3,809,054**	**5,360,940**	**7,132,285**	**8,787,896**
YoY Growth	*33.9%*	*31.6%*	*40.7%*	*33.0%*	*23.2%*
Gross Profit b/f dep	2,247,086	2,924,670	4,317,109	5,826,339	7,366,380
Less: COGS	**(1,269,954)**	**(1,527,760)**	**(1,762,204)**	**(2,281,067)**	**(2,764,094)**
Variable costs	(647,221)	(884,384)	(1,043,831)	(1,305,946)	(1,421,517)
Depreciation & amort	(622,733)	(643,376)	(718,373)	(975,121)	(1,342,578)
Gross profit	**1,624,354**	**2,281,295**	**3,598,737**	**4,851,218**	**6,023,802**
% margin	*56.1%*	*59.9%*	*67.1%*	*68.0%*	*68.5%*
YoY Growth	*38.2%*	*40.4%*	*57.7%*	*34.8%*	*24.2%*
Operating Expenses:	**(302,301)**	**(345,202)**	**(402,369)**	**(567,502)**	**(667,637)**
R&D	(204,182)	(246,427)	(288,327)	(356,300)	(404,000)
Sales and Marketing	(13,144)	(16,918)	(20,871)	(35,661)	(43,939)
General and Admin	(84,975)	(81,857)	(93,171)	(175,540)	(219,697)
Operating Profit	**1,322,053**	**1,936,092**	**3,196,368**	**4,283,717**	**5,356,165**
% margin	*45.7%*	*50.8%*	*59.6%*	*60.1%*	*60.9%*
YoY Growth	*43.5%*	*46.4%*	*65.1%*	*34.0%*	*25.0%*
Non-Operating Income	**83,786**	**105,571**	**106,420**	**103,449**	**99,449**
Pretax Profit	**1,405,839**	**2,041,663**	**3,302,788**	**4,387,166**	**5,455,614**
% margin	*48.6%*	*53.6%*	*61.6%*	*61.5%*	*62.1%*
Tax	(233,407)	(326,266)	(524,610)	(678,978)	(858,307)
Reported net Income	**1,173,268**	**1,717,883**	**2,789,152**	**3,708,187**	**4,597,307**
Reported EPS (NT$)	**45.25**	**66.25**	**107.56**	**143.01**	**177.30**
EPS for consensus (NT$)	**45.25**	**66.25**	**107.56**	**143.01**	**177.30**

Balance Sheet, 2024-2028e, Year End Dec

(NT$ mn)	2024	2025	2026e	2027e	2028e
Cash & Equivalent	2,127,627	2,767,856	3,955,283	5,400,591	7,938,665
MarketableSecurity	294,393	300,738	347,964	347,964	347,964
A/R & N/R	272,088	281,791	432,146	563,084	672,923
Inventories	287,869	288,109	371,283	473,147	561,970
Other Current Ass.	106,376	178,635	207,452	207,452	207,452
Total current assets	**3,088,352**	**3,817,131**	**5,314,129**	**6,992,239**	**9,728,975**
Long-term Investment	149,040	172,370	166,567	166,567	166,567
Total fixed assets	3,234,980	3,691,841	4,696,400	6,005,818	6,934,253
Total other assets	219,565	251,682	274,192	274,192	274,192
Total Assets	**6,691,938**	**7,933,024**	**10,451,287**	**13,438,815**	**17,103,986**
A/P & N/P	74,227	84,330	114,372	145,751	173,112
Accrued Expenses	0	0	0	0	0
Other Payable	531,377	630,217	754,314	754,314	754,314
Curr. of L-T Debt	59,858	136,926	156,242	156,242	156,242
Other Curr. Liab.	599,064	606,547	703,842	703,842	703,842
Total Current Liab.	**1,264,525**	**1,458,019**	**1,728,769**	**1,760,148**	**1,787,509**
L-T Liabilities	926,605	856,228	860,026	860,026	860,026
Total Other L-T Liab	177,233	157,982	154,281	154,281	154,281
Total Liabilities	**2,368,362**	**2,472,229**	**2,743,077**	**2,774,455**	**2,801,817**
Common Stocks	259,327	259,325	259,324	259,324	259,324
Preferred Stocks	0	0	0	0	0
Capital Reserve	73,261	73,446	73,666	73,666	73,666
Retained earnings	3,955,957	5,086,825	7,333,792	10,289,941	13,927,751
Treasury Stock	0	0	0	0	0
Minority Equity	35,031	41,199	41,429	41,429	41,429
Total Equity	**4,323,576**	**5,460,795**	**7,708,211**	**10,664,359**	**14,302,169**
Total Liab. & Equity	**6,691,938**	**7,933,024**	**10,451,287**	**13,438,815**	**17,103,986**

Key Ratios, 2024-2028e

	2024	2025	2026e	2027e	2028e
Return (%)					
ROAA	19%	23%	30%	31%	30%
ROAE	30%	35%	43%	41%	37%
OP. ATO	0.7x	0.7x	0.8x	1.0x	0.9x
Gearing (x)					
Net Debt/ Equity	-0.33x	-0.38x	-0.43x	-0.44x	-0.51x
Current Ratio	2.4x	2.6x	3.1x	4.0x	5.4x
Quick Ratio	1.9x	2.1x	2.5x	3.4x	4.8x
Operating Cycle					
AR/NR Turnover (days)	29	26	24	25	25
Inventory Turnover (days)	76	68	67	67	67
AP Turnover (days)	19	19	20	21	21
Cash Conversion (days)	87	75	71	71	72

Cash Flow Statement, 2024-2028e, Year End Dec

(NT$ mn)	2024	2025	2026e	2027e	2028e
Net Income Current	1,173,268	1,717,883	2,789,152	3,708,187	4,597,307
Depreciation	662,797	688,096	778,692	1,026,443	1,413,240
Net Investment Losses (Gains)	8,205	8,083	5,115	0	0
Decrease (Increase) in Working Capital	20,896	(17,144)	(37,121)	(201,423)	(171,301)
Others	(38,988)	(121,942)	(121,402)	0	0
Cash Flow-Operating	**1,826,177**	**2,274,976**	**3,414,436**	**4,533,207**	**5,839,246**
(Purchase) of FA	(956,007)	(1,272,411)	(1,705,726)	(2,335,860)	(2,341,675)
Sale of Fix Asset	895	797	1,813	0	0
(Purchase)L-T Inv.	(3,739)	0	0	0	0
Others	94,008	127,220	(7,904)	0	0
Cash Flow-Inv.	**(864,843)**	**(1,144,393)**	**(1,711,817)**	**(2,335,860)**	**(2,341,675)**
Inc(Dec)-S-T Debt	0	0	0	0	0
Inc(Dec) L-T Debt	28,601	7,948	1,630	0	0
Dividend Paid	(363,055)	(466,779)	(570,513)	(752,039)	(959,498)
Dir.&Emp.Bonus	0	0	0	0	0
Others	(11,847)	18,486	8,122	0	0
Cash Flow-Financing	**(346,301)**	**(440,345)**	**(560,761)**	**(752,039)**	**(959,498)**
Change in Cash	**662,199**	**640,229**	**1,187,427**	**1,445,308**	**2,538,074**
Net cash/(debt), b/f	1,465,428	2,127,627	2,767,856	3,955,283	5,400,591
Net cash/(debt), c/f	**2,127,627**	**2,767,856**	**3,955,283**	**5,400,591**	**7,938,665**

e = Morgan Stanley Research Estimates
Source: Company Data, Morgan Stanley Research

Morgan Stanley is acting as exclusive financial advisor to AP Grange Holdings, LLC ("AP Grange") in relation to a definitive agreement with Intel Corporation ("Intel"), for Intel to repurchase the 49% equity interest in the joint venture related to Intel's Fab 34 in Ireland not held by Intel, as announced on April 1, 2026. The transaction is subject to customary closing conditions. AP Grange has agreed to pay fees to Morgan Stanley for its financial advisory services. Please refer to the notes at the end of this report.

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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

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Global Stock Ratings Distribution

(as of June 30, 2026)

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	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	1544	42%	453	49%	29%	757	44%
Equal-weight/Hold	1577	43%	390	42%	25%	769	44%
Not-Rated/Hold	3	0%	1	0%	33%	1	0%
Underweight/Sell	544	15%	89	10%	16%	204	12%
Total	3,668		933			1731	

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.

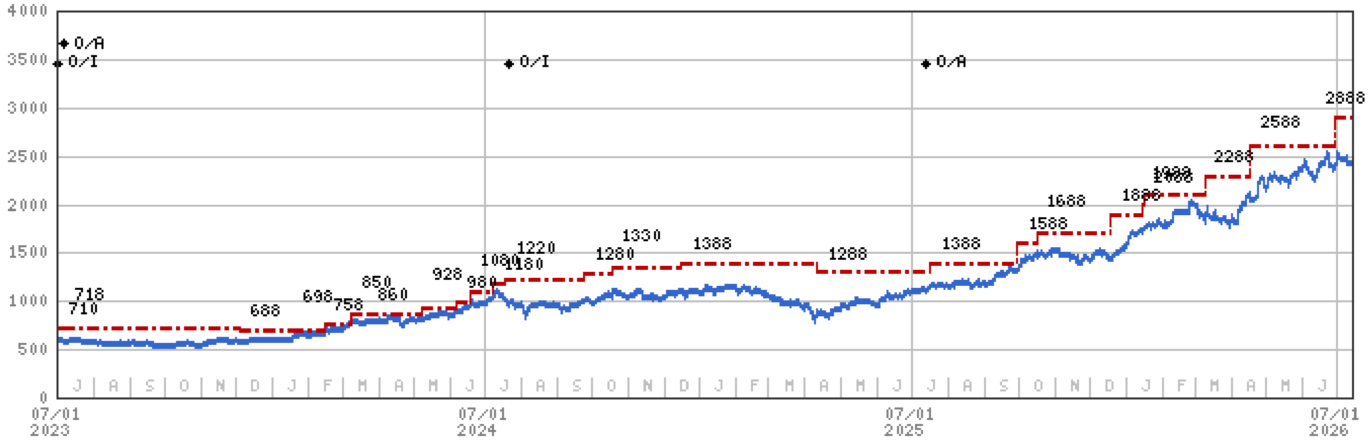
In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

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)

TSMC (2330.TW) - As of 07/13/26 GMT in TWD
Industry : Greater China Technology Semiconductors



Stock Rating History: 7/1/21 : E/I; 10/12/21 : E/C; 2/7/22 : O/C; 10/4/22 : O/A; 2/22/23 : O/I; 7/7/23 : O/A; 7/21/24 : O/I; 7/14/25 : O/A

Price Target History: 6/18/21 : 580; 1/3/22 : 618; 1/13/22 : 648; 2/7/22 : 780; 9/23/22 : 720; 12/14/22 : 700; 4/20/23 : 680; 6/12/23 : 710; 7/7/23 : 718; 12/4/23 : 688; 1/18/24 : 698; 2/14/24 : 758; 3/8/24 : 850; 3/22/24 : 860; 5/8/24 : 928; 6/6/24 : 980; 6/18/24 : 1080; 7/8/24 : 1180; 7/18/24 : 1220; 9/24/24 : 1280; 10/17/24 : 1330; 12/16/24 : 1388; 4/11/25 : 1288; 7/17/25 : 1388; 9/30/25 : 1588; 10/16/25 : 1688; 12/18/25 : 1888; 1/14/26 : 1988; 1/16/26 : 2088; 3/9/26 : 2288; 4/17/26 : 2588; 6/29/26 : 2888

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.

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INDUSTRY COVERAGE: Greater China Technology Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (07/13/2026)
Charlie Chan		
ACM Research Inc (ACMR.O)	O (03/07/2023)	US$103.00
Advanced Micro-Fabrication Equipment Inc (688012.SS)	O (11/06/2023)	Rmb408.60
Advanced Wireless Semiconductor Co (8086.TWO)	U (07/14/2025)	NT$135.00
Alchip Technologies Ltd (3661.TW)	O (05/14/2021)	NT$4,135.00
ASE Technology Holding Co. Ltd. (3711.TW)	O (09/15/2024)	NT$670.00
Cambricon Technology Corporation (688256.SS)	O (04/27/2026)	Rmb1,390.00
Global Unichip Corp (3443.TW)	O (06/24/2026)	NT$4,270.00
GlobalWafers Co Ltd (6488.TWO)	E (05/19/2026)	NT$1,485.00
Gudeng Precision (3680.TWO)	O (11/25/2025)	NT$523.00
Hua Hong Semiconductor Ltd (1347.HK)	E (03/12/2026)	HK$172.30
Iluvatar CoreX Semiconductor Co., Ltd. (9903.HK)	O (04/27/2026)	HK$480.00
King Yuan Electronics Co Ltd (2449.TW)	O (03/03/2023)	NT$307.00
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb87.95
MediaTek (2454.TW)	O (11/28/2025)	NT$3,825.00
MetaX Integrated Circuits (688802.SS)	E (04/27/2026)	Rmb972.86
Nanya Technology Corp. (2408.TW)	O (05/28/2026)	NT$423.00
NAURA Technology Group Co Ltd (002371.SZ)	O (11/06/2023)	Rmb764.30
OmniVision Integrated Circuits Group Inc (603501.SS)	E (11/17/2025)	Rmb102.49
Phison Electronics Corp (8299.TWO)	E (02/25/2026)	NT$2,170.00
SG Micro Corp. (300661.SZ)	E (11/03/2025)	Rmb116.26
Silergy Corp. (6415.TW)	U (05/19/2026)	NT$524.00
SMIC (0981.HK)	O (10/21/2025)	HK$78.35
TSMC (2330.TW)	O (02/07/2022)	NT$2,440.00
UMC (2303.TW)	O (05/19/2026)	NT$153.50
Vanguard International Semiconductor (5347.TWO)	E (01/14/2026)	NT$178.50
WIN Semiconductors Corp (3105.TWO)	U (07/14/2025)	NT$403.00

Daisy Dai, CFA		
ASMPT Ltd (0522.HK)	O (07/24/2025)	HK$185.40
China Resources Microelectronics Limited (688396.SS)	U (03/02/2026)	Rmb77.60
Empyrean Technology Co Ltd (301269.SZ)	E (01/17/2025)	Rmb119.83
Hangzhou Silan Microelectronics Co. Ltd. (600460.SS)	U (08/25/2025)	Rmb41.93
Hygon Information Technology Co., Ltd. (688041.SS)	O (07/03/2026)	Rmb345.00
Innoscience (2577.HK)	E (10/13/2025)	HK$49.38
JCET Group Co Ltd (600584.SS)	E (01/16/2026)	Rmb99.05
Shanghai Fudan Microelectronics (1385.HK)	O (03/07/2025)	HK$29.38
SICC Co Ltd (688234.SS)	O (03/20/2026)	Rmb138.59
StarPower Semiconductor Ltd (603290.SS)	E (05/14/2026)	Rmb116.99
Unigroup Guoxin Microelectronics Co Ltd (002049.SZ)	U (01/10/2023)	Rmb81.74
Universal Scientific Ind. (Shanghai) (601231.SS)	O (11/05/2025)	Rmb27.80
Yangjie Technology (300373.SZ)	O (06/10/2022)	Rmb113.31
Daniel Yen, CFA		
AP Memory Technology Corp (6531.TW)	O (07/11/2025)	NT$893.00
ASMedia Technology Inc (5269.TW)	U (10/03/2025)	NT$1,510.00
Aspeed Technology (5274.TWO)	O (06/09/2025)	NT$13,520.00
Egis Technology Inc (6462.TWO)	E (01/28/2026)	NT$107.00
Elan Microelectronics Corp (2458.TW)	O (10/03/2025)	NT$183.00
Espressif Systems (688018.SS)	O (05/15/2023)	Rmb125.80
GigaDevice Semiconductor Beijing Inc (603986.SS)	O (05/15/2025)	Rmb550.80
Macronix International Co Ltd (2337.TW)	O (09/18/2025)	NT$138.00
Montage Technology Co Ltd (6809.HK)	O (03/18/2026)	HK$332.20
Montage Technology Co Ltd (688008.SS)	O (03/18/2026)	Rmb252.79
Novatek (3034.TW)	U (02/04/2026)	NT$467.50
Nuvoton Technology Corporation (4919.TW)	U (11/10/2025)	NT$163.50
Parade Technologies Ltd (4966.TWO)	O (05/27/2026)	NT$647.00
Powerchip Semiconductor Manufacturing Co (6770.TW)	O (10/27/2025)	NT$69.00
Realtek Semiconductor (2379.TW)	E (01/30/2026)	NT$756.00
Shenzhen Goodix Technology Co Ltd (603160.SS)	U (07/14/2025)	Rmb55.63
Winbond Electronics Corp (2344.TW)	O (05/28/2026)	NT$167.00
WPG Holdings (3702.TW)	O (03/16/2026)	NT$117.00
WT Microelectronics Co. Ltd. (3036.TW)	O (01/27/2026)	NT$211.00
Duan Liu		
Dosilicon Co Ltd (688110.SS)	U (09/06/2024)	Rmb154.15
Shenzhen Longsys Electronics Co Ltd (301308.SZ)	E (02/25/2026)	Rmb522.04
Tiffany Yeh		
AllRing Tech Co. (6187.TWO)	O (09/23/2025)	NT$1,035.00
FOCI Fiber Optic Communications Inc (3363.TWO)	O (01/15/2025)	NT$601.00
Himax Technologies Inc (HIMX.O)	E (02/04/2026)	US$15.23
Hon Precision (7769.TW)	O (04/17/2026)	NT$6,705.00
MPI Corporation (6223.TWO)	O (04/17/2026)	NT$6,640.00
Silicon Motion (SIMO.O)	O (05/06/2024)	US$326.35
WinWay Technology Co Ltd (6515.TW)	O (04/17/2026)	NT$7,375.00

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* Historical prices are not split adjusted.