Morgan Stanley | RESEARCH

IDEA

July 16, 2026 03:58 PM GMT

TSMC | Asia Pacific

Aggressive capex to address stronger AI demand; OW

WHAT'S CHANGED		
TSMC (2330.TW)	From	To
Price Target	NT$2,888.00	**NT$2,988.00**

Stronger capex points to larger and more urgent AI infra demand. TSMC remains the primary, if not the only, 2nm/1.4nm foundry option for major customers over the next five years.

2026 full-year revenue guidance a strong beat: TSMC hosted its 2Q26 earnings call today. It raised its 2026 revenue growth guidance to >40% Y/Y (previously >30% Y/Y). In our 6/28 preview, we expected guidance to increase to 40% Y/Y vs. Consensus 35%-40%. Management attribute upside to strong AI demand despite challenging consumer demand. CSP customers are rapidly increasing cloud capex. TSMC did not update its AI semiconductor revenue CAGR forecast but indicated it is tracking above its previous 55%–60% forecast. We believe a 70%–80% CAGR for TSMC's AI semiconductor business is reasonable.

Capex hike implies urgent AI demand: TSMC raised its 2026 capex target to US $60–64bn (vs. the previous US$52–56bn), implying some equipment cost inflation. We attribute the additional US$8bn to: (1) US$3bn of cost inflation (reflecting a 5% increase in equipment prices), and (2) US$5bn of equipment prepayments, given that TSMC is not adding new clean-room capacity this year. These equipment prepayments suggest urgent AI demand, particularly for agentic AI-related CPUs and GPUs. Management said A14 would be an even larger node than 2nm and announced an additional US$100bn of capex for its US fabs, which we believe supports higher revenue after 2028 than we previously expected.

Do we need to worry about gross margin "miss" and foundry competition? In response to our question on competition from Samsung Foundry and Intel Foundry, management indicated that key customers share their five-year production roadmaps with TSMC, implying TSMC will remain the primary source for customers' top products. We expect TSMC could increase leading-edge wafer pricing by another 5%–10% in 2027, given the value it provides in leading-edge foundry services. On gross margin guidance, the 3Q26 midpoint is 66% vs. MSe 67.5%, reflecting dilution from 2nm. While this falls below some unrealistic 70% Street forecasts, we reiterate our view to buy on any weakness post-Street margin forecast miss. TSMC consistently reminds investors about dilution from 2nm and overseas fabs. We do not believe the margin "miss" reflects foundry competition.

Raise PT to NT$2,988; stay OW: We raise our 2026–2028 revenue assumptions to reflect stronger AI semiconductor revenue growth. TSMC's high-quality earnings profile should continue to attract fund flows in a volatile market environment. Upcoming 2Q26 cloud capex updates from CSPs are likely key catalysts.

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TSMC (2330.TW, 2330 TT)

Greater China Technology Semiconductors | Taiwan

Stock Rating	**Overweight**
Industry View	**Attractive**
Price target	NT$2,988.00
Up/downside to price target (%)	21
Shr price, close (Jul 16, 2026)	NT$2,470.00
Mkt cap, curr (mn)	NT$64,042,111
Avg daily trading value (mn)	NT$65,119

Fiscal Year Ending	12/25	12/26e	12/27e	12/28e
EPS (NT$)**	66.25	111.08	144.93	183.55
Prior EPS (NT$)**	-	107.56	143.01	177.30
EPS (NT$)§	64.56	100.37	130.74	166.68
ModelWare net inc (NT $ bn)	1,718	2,874	3,758	4,759
P/E	23.4	22.3	17.0	13.5
Div yld (%)	1.4	1.1	1.4	1.7

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

2Q26 earnings and 3Q26 guidance review

TSMC hosted its 2Q26 earnings call on July 16. The company's 2Q26 results and 3Q26 guidance fall in line with our Catalyst preview Scenarios 1 and 2, where we assume the stock moves up 1%-5% over the coming trading days. See Exhibit 1 and Exhibit 2 for our review of the quarterly results and guidance.

2Q26 gross margin of 67.7% is roughly in line with MSe 67.4% and above the company's initial guidance range of 65.5%-67.5%. TSMC's 3Q26 revenue growth guidance of 12% Q/Q at the mid-point is also in line with our bullish forecast of 10-15% Q/Q. The flattish 3Q26 gross margin figure is in line with our preview, but lower than some bullish buy-side expectations of 70%. We therefore recommend investors buy on any weakness should the share price decline following the margin miss.

We now assume 2026-2028 three-year capex of US$213bn vs. US$206bn previously.

Exhibit 1: TSMC 2Q26 Earnings review

(NT$ mn)	2Q26				
	Actual	Q/Q	Y/Y	MS Est.	Consensus
Financials					
Revenue	1,270,380	12.0%	36.0%	1,266,623	1,267,975
Opex	(93,708)	1.5%	11.6%	(96,667)	(109,471)
EPS (NT$)	27.25	23.4%	77.4%	25.08	24.33
Ratios					
GM (%)	67.7%	147bps	910bps	67.4%	67.3%
Opex (%)	7.4%	-76bps	-161bps	7.6%	8.6%
OPM (%)	60.3%	224bps	1,072bps	59.8%	58.7%

Source: Company Data, Visible Alpha, Morgan Stanley Research estimates

Exhibit 2: TSMC 3Q26 Guidance review

(NT$ mn)	3Q26				
	Guidance	MS Est.	Q/Q	Y/Y	Consensus
Financials					
Revenue	US$44.6bn to US$45.8bn, +12% Q/Q increase at mid-point	1,435,872	13.0%	45.0%	1,385,740
Opex		(104,250)	11.2%	18.7%	(116,721)
EPS (NT$)		29.21	7.2%	67.5%	27.21
Ratios					
GM (%)	65.0% - 67.0%	67.5%	-20bps	807bps	66.4%
Opex (%)		7.3%	-12bps	-161bps	8.4%
OPM (%)	56.0% - 58.0%	60.3%	-8bps	969bps	58.0%

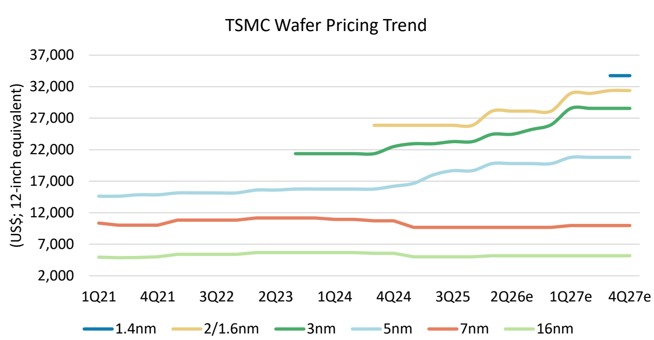
Source: Company Data, Visible Alpha, Morgan Stanley Research estimates

AI semi demand remains strong and requires additional capex

TSMC's 2026–2028 foundry floorplan broadly aligns with our bottom-up demand analysis

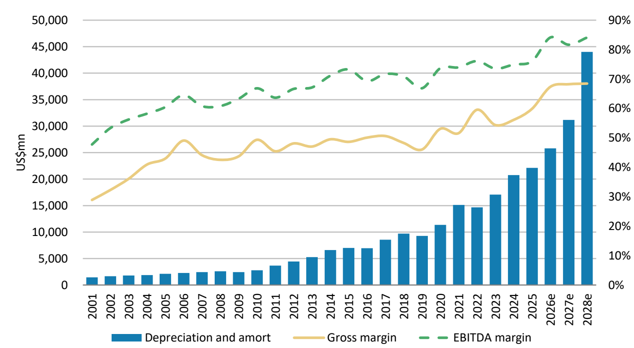
Our industry checks suggest ASML allocates capacity based largely on historical demand and long-term partnerships, indicating that TSMC remains the largest customer for EUV shipments. If so, TSMC should retain strong pricing power and could increase leading-edge wafer prices by 5%–10% in 2027, reflecting both the value it delivers to customers and the potential for margin expansion.

Exhibit 3: TSMC – Wafer pricing trend



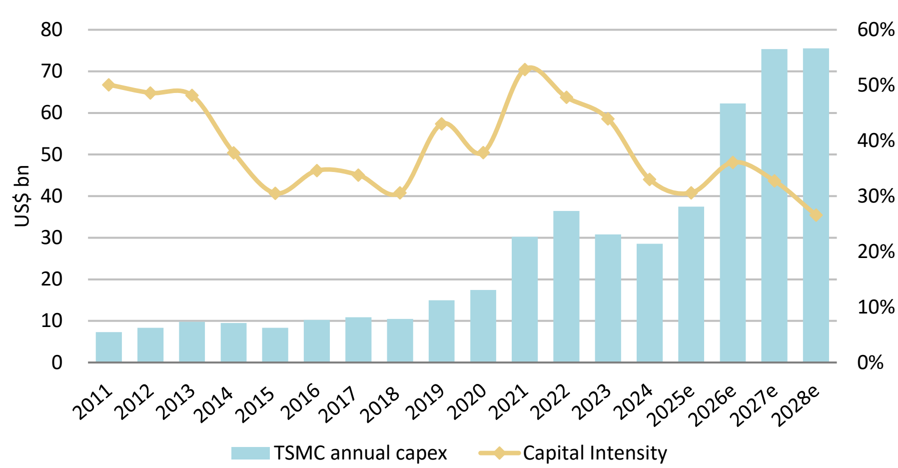
Source: Company data, Morgan Stanley Research (e) estimates

Exhibit 4: TSMC's GM and depreciation trends – 60% should be the floor



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

Exhibit 5:
TSMC's capex intensity should drop significantly as a result of robust revenue growth



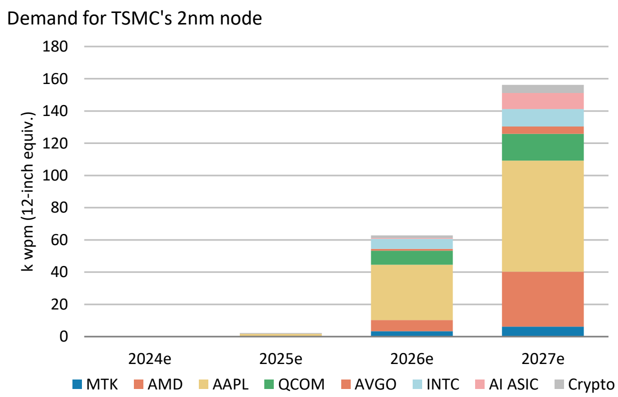
Source: Company data, Morgan Stanley Research estimates

TSMC revealed strong capacity growth in 2nm and 3nm with 5nm set to decline

Consistent with our demand forecast, TSMC indicated very strong capacity requirements for both 2nm and 3nm starting in 2026E, implying a 70% capacity CAGR for N2 from 2026E to 2028E. TSMC also suggested that 5nm capacity will begin to decline from 2027, in line with our forecast that 5nm demand will fall as Blackwell transitions to Rubin on 3nm.

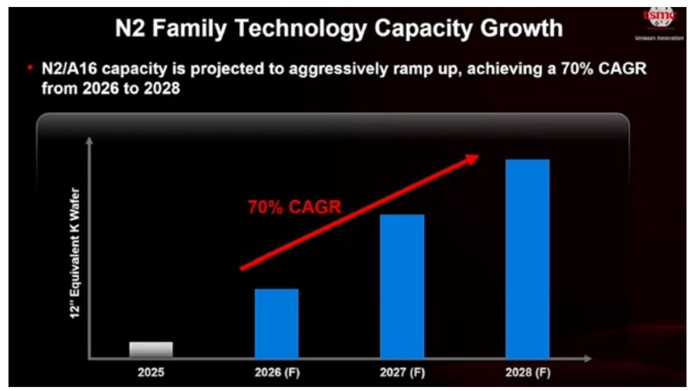
Separately, advanced packaging capacity expansion should remain a key focus for TSMC in 2027. This includes, but is not limited to, CoWoS and SoIC, for which we now expect capacity to reach 200kwpm and 70kwpm, respectively, by 2027.

Exhibit 6: TSMC – Our estimate of 2nm customer demand breakdown



Source: Morgan Stanley Research estimates

Exhibit 7: TSMC suggests N2 capacity can be >70% CAGR from 2026-2028e



Source: TSMC

Since nodes below 3nm should also continue to see strong demand, our checks suggest TSMC's 2nm/1.6nm capacity could approach 100kwpm by end-2026, increase to 150–170kwpm in 2027, and exceed 200kwpm in 2028. We expect 1.4nm to begin pulling in tools in 2027, with the bulk of capacity ramping in 2028. Looking further ahead, we expect TSMC to introduce initial 1.0nm capacity in Tainan in 2029.

Exhibit 8: 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 9: 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

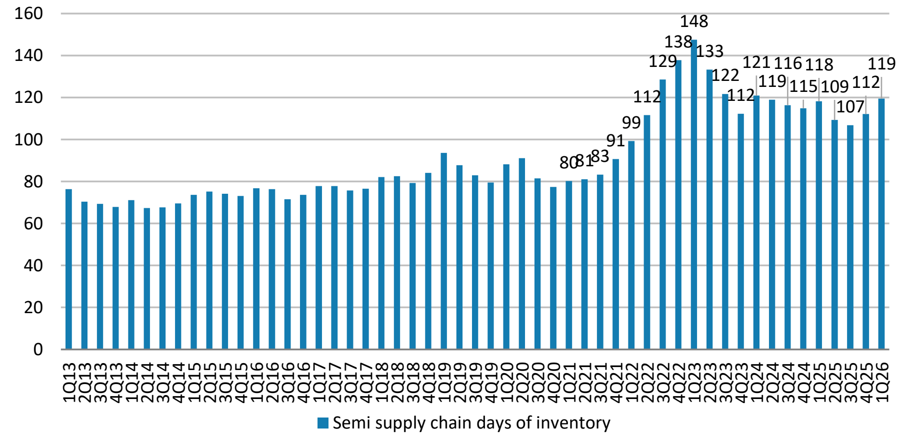
Non-AI demand – China's smartphone chip inventory correction begins, but the impact on TSMC should be limited

In 1Q26, we saw semiconductor industry inventory days increase amid strong AI and peripheral demand. Some consumer and non-AI customers also refrained from cutting orders given tight capacity across the supply chain and the prospect of foundry price increases in 2H26 and 2027. However, we believe it is now time for these non-AI customers, particularly in smartphones and PCs, to address rising BOM costs either by reducing orders or passing through higher costs. Even so, we expect the impact on TSMC to remain limited, as its consumer customer base is concentrated in the premium segment, where passing through higher costs is generally easier. In addition, high-end PCs and smartphones primarily consume leading-edge capacity at TSMC, which AI demand can readily absorb once any wafer capacity becomes available.

Apple provides an example of successful price increases to end customers (see Apple, Inc.: As Expected, Apple Is Raising Product Pricing (25 Jun 2026) by Erik Woodring) while maintaining the same wafer demand at TSMC based on our checks.

In contrast, Chinese smartphone shipments are tracking at down 20% Y/Y, compared with our previous assumption of down 15% Y/Y (see our MediaTek report). Even so, we expect AI demand to quickly backfill any leading-edge wafer capacity, particularly at 5nm and below.

Exhibit 10: Semi supply chain days of inventory piled up in 1Q26



Source: FactSet, Morgan Stanley Research

Earnings estimate revisions

We raise our earnings forecasts 3% for 2026, 1% for 2027 and 4% for 2028: We raise our 2026 revenue forecast and modestly increase our margin assumptions to reflect stronger-than-expected 2Q26 performance, driven by robust AI demand, including sustained Blackwell shipments. We also raise our 2027–2028 revenue assumptions by 1%–3%, reflecting the increase in 2026 capex guidance from US$54bn to US$62bn at the midpoint.

Exhibit 11: TSMC: Earnings revision

(NT$ mn)	New 2026e	Old 2026e	*Diff.%*	New 2027e	Old 2027e	*Diff.%*	New 2028e	Old 2028e	*Diff.%*
Net sales	5,438,831	5,360,940	*1%*	7,187,423	7,132,285	*1%*	9,037,662	8,787,896	*3%*
Gross profit	3,663,403	3,598,737	*2%*	4,912,038	4,851,218	*1%*	6,219,699	6,023,802	*3%*
Operating profit	3,249,517	3,196,368	*2%*	4,342,910	4,283,717	*1%*	5,548,069	5,356,165	*4%*
Pretax income	3,425,902	3,302,788	*4%*	4,446,359	4,387,166	*1%*	5,647,518	5,455,614	*4%*
Net income	2,880,237	2,789,152	*3%*	3,758,166	3,708,187	*1%*	4,759,400	4,597,307	*4%*
Diluted EPS	**111.08**	**107.56**	***3%***	**144.93**	**143.01**	***1%***	**183.55**	**177.30**	***4%***
Margins									
Gross margin	67.4%	67.1%		68.3%	68.0%		68.8%	68.5%	
Operating margin	59.7%	59.6%		60.4%	60.1%		61.4%	60.9%	
Pretax margin	63.0%	61.6%		61.9%	61.5%		62.5%	62.1%	
Net margin	53.0%	52.0%		52.3%	52.0%		52.7%	52.3%	

Source: Morgan Stanley Research estimates

Price target raised to NT$2,988

Our revised price target of NT$2,988 is driven primarily by earnings estimate revisions. It implies a 20x P/E multiple on our new 2027E EPS forecast. TSMC currently trades at 17x our 2027E EPS estimate, close to its average NTM P/E of 16.5x since 2018. We find the stock attractive at current levels.

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

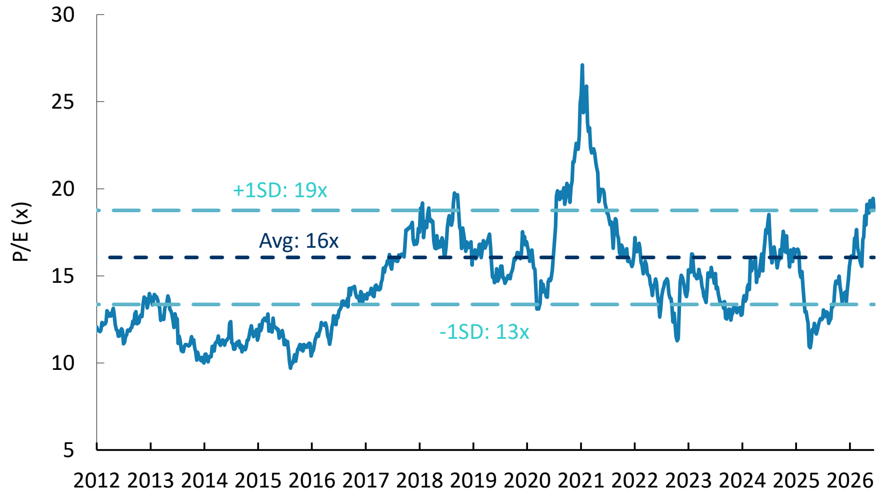
We also raise our bull-case and bear-case valuations to NT$3,600 (from NT$3,480) and NT$1,645 (from NT$1,590), respectively.

Exhibit 12: TSMC: Residual income model

	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036e	2037e
Total Equity	**7,799,296**	**10,805,424**	**14,605,326**	**17,971,174**	**21,690,436**	**25,800,221**	**30,341,533**	**35,359,683**	**40,904,738**	**47,032,024**	**53,802,675**	**61,284,245**
Net Profit	**2,880,237**	**3,758,166**	**4,759,400**	**5,259,137**	**5,811,347**	**6,421,538**	**7,095,800**	**7,840,859**	**8,664,149**	**9,573,885**	**10,579,143**	**11,689,953**
ROAE	**43.4%**	**40.4%**	**37.5%**	**32.3%**	**29.3%**	**27.0%**	**25.3%**	**23.9%**	**22.7%**	**21.8%**	**21.0%**	**20.3%**
Residual Income	1,869,896	2,433,391	3,053,585	3,372,066	3,613,041	3,870,306	4,148,200	4,450,566	4,781,103	5,143,557	5,541,849	5,980,166
Spread	**34.2%**	**31.2%**	**28.3%**	**23.1%**	**20.1%**	**17.8%**	**16.1%**	**14.7%**	**13.5%**	**12.6%**	**11.8%**	**11.1%**
Ending Equity Capital	7,799,296											
PV of Forecast Period	24,254,430											
PV of Continuing Value	45,424,925											
Equity Value	**77,478,651**											
No. of Shares	25,930											
Projected Price (NT$)	**2,988**											

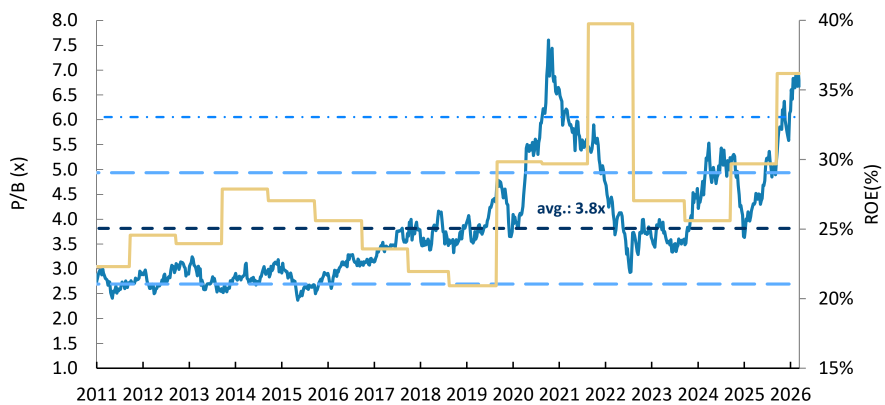
Source: Company data, Morgan Stanley Research (e) estimates

Exhibit 13: 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 14: TSMC – P/B vs. ROE



Source: Company data, Refinitiv, Morgan Stanley Research

Exhibit 15: 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**	**1,270,380**	**1,470,880**	**1,563,467**	**2,161,736**	**2,894,308**	**3,809,054**	**5,438,831**	**7,187,423**	**9,037,662**
Sequential Change	*-3.4%*	*11.3%*	*6.0%*	*5.7%*	*8.4%*	*12.0%*	*15.8%*	*6.3%*						
Change vs Year Ago	*41.6%*	*38.6%*	*30.3%*	*20.5%*	*35.1%*	*36.0%*	*48.6%*	*49.5%*	*-4.5%*	*33.9%*	*31.6%*	*42.8%*	*32.2%*	*25.7%*
Cost of Sales	**(345,859)**	**(386,423)**	**(401,375)**	**(394,104)**	**(382,808)**	**(410,070)**	**(477,897)**	**(502,894)**	**(986,625)**	**(1,269,954)**	**(1,527,760)**	**(1,773,669)**	**(2,275,385)**	**(2,817,963)**
Percent of Revenues	*41.2%*	*41.4%*	*40.5%*	*37.7%*	*33.8%*	*32.3%*	*32.5%*	*32.2%*	*45.6%*	*43.9%*	*40.1%*	*32.6%*	*31.7%*	*31.2%*
Gross Profit	**493,395**	**547,369**	**588,543**	**651,987**	**751,295**	**860,310**	**992,983**	**1,060,573**	**1,175,111**	**1,624,354**	**2,281,294**	**3,663,403**	**4,912,038**	**6,219,699**
Gross Margin	58.8%	58.6%	59.5%	62.3%	66.2%	67.7%	67.5%	67.8%	54.4%	56.1%	59.9%	67.4%	68.3%	68.8%
Total Opex	**(86,314)**	**(83,946)**	**(87,858)**	**(87,084)**	**(92,329)**	**(93,708)**	**(108,280)**	**(113,240)**	**(253,645)**	**(302,301)**	**(345,202)**	**(413,885)**	**(569,129)**	**(671,630)**
Percent of Revenues	*10.3%*	*9.0%*	*8.9%*	*8.3%*	*8.1%*	*7.4%*	*7.4%*	*7.2%*	*11.7%*	*10.4%*	*9.1%*	*7.6%*	*7.9%*	*7.4%*
R&D	(56,547)	(61,280)	(63,742)	(64,858)	(67,757)	(73,146)	(77,146)	(80,146)	(182,370)	(204,182)	(246,427)	(298,195)	(356,300)	(400,500)
Percent of Revenues	*6.7%*	*6.6%*	*6.4%*	*6.2%*	*6.0%*	*5.8%*	*5.2%*	*5.1%*	*8.4%*	*7.1%*	*6.5%*	*5.5%*	*5.0%*	*4.4%*
SG&A	(29,767)	(22,666)	(24,116)	(22,227)	(24,573)	(26,890)	(31,134)	(33,094)	(71,275)	(98,119)	(98,775)	(115,691)	(212,829)	(271,130)
Sequential Change	*1.1%*	*-23.9%*	*6.4%*	*-7.8%*	*10.6%*	*9.4%*	*15.8%*	*6.3%*						
Change vs Year Ago	*53.6%*	*-3.6%*	*-6.5%*	*-24.5%*	*-17.4%*	*18.6%*	*29.1%*	*48.9%*						
Operating Income	**407,081**	**463,424**	**500,685**	**564,902**	**658,966**	**766,602**	**884,703**	**947,333**	**921,466**	**1,322,053**	**1,936,092**	**3,249,517**	**4,342,910**	**5,548,069**
Percent of Revenues	*48.5%*	*49.6%*	*50.6%*	*54.0%*	*58.1%*	*60.3%*	*60.1%*	*60.6%*	*42.6%*	*45.7%*	*50.8%*	*59.7%*	*60.4%*	*61.4%*
Non-operating Income(Loss)	**23,815**	**29,612**	**24,684**	**27,461**	**28,834**	**95,827**	**25,862**	**25,862**	**57,706**	**83,786**	**105,571**	**176,385**	**103,449**	**99,449**
Profit Before Taxes	**430,895**	**493,035**	**525,369**	**592,363**	**687,800**	**862,429**	**910,565**	**973,195**	**979,171**	**1,405,839**	**2,041,663**	**3,425,902**	**4,446,359**	**5,647,518**
Percent of Revenues	*51.3%*	*52.8%*	*53.1%*	*56.6%*	*60.6%*	*67.9%*	*61.9%*	*62.2%*	*45.3%*	*48.6%*	*53.6%*	*63.0%*	*61.9%*	*62.5%*
Taxes	(70,163)	(95,542)	(73,614)	(86,948)	(114,998)	(155,649)	(136,585)	(145,979)	(141,404)	(233,407)	(326,266)	(553,211)	(688,192)	(888,118)
Tax Rate	*16.3%*	*19.4%*	*14.0%*	*14.7%*	*16.7%*	*18.0%*	*15.0%*	*15.0%*	*14.4%*	*16.6%*	*16.0%*	*16.1%*	*15.5%*	*15.7%*
Net Income, Cont Ops	360,733	397,493	451,755	505,415	572,801	706,780	773,980	827,216	837,768	1,172,432	1,715,397	2,872,691	3,758,166	4,759,400
Minority Interest	831	780	546	329	(322)	(219)	0	0	730	836	2,486	(541)	0	0
Reported Income (TW GAAP)	**361,564**	**398,273**	**452,301**	**505,744**	**572,480**	**706,561**	**773,980**	**827,216**	**838,498**	**1,173,268**	**1,717,883**	**2,880,237**	**3,758,166**	**4,759,400**
Percent of Revenues	*43.1%*	*42.7%*	*45.7%*	*48.3%*	*50.5%*	*55.6%*	*52.6%*	*52.9%*	*38.8%*	*40.5%*	*45.1%*	*53.0%*	*52.3%*	*52.7%*
Change vs Year Ago	*60.3%*	*60.7%*	*39.1%*	*35.0%*	*58.3%*	*77.4%*	*71.1%*	*63.6%*	*-17.5%*	*39.9%*	*46.4%*	*67.7%*	*30.5%*	*26.6%*
Reported EPS (NT$, TW GAAP)	**13.94**	**15.36**	**17.44**	**19.50**	**22.08**	**27.25**	**29.85**	**31.90**	**32.34**	**45.25**	**66.25**	**111.08**	**144.93**	**183.55**
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

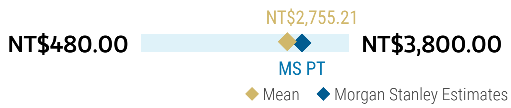
Risk Reward – TSMC (2330.TW)

2026 revenue and capex guidance raised; OW

PRICE TARGET NT$2,988.00

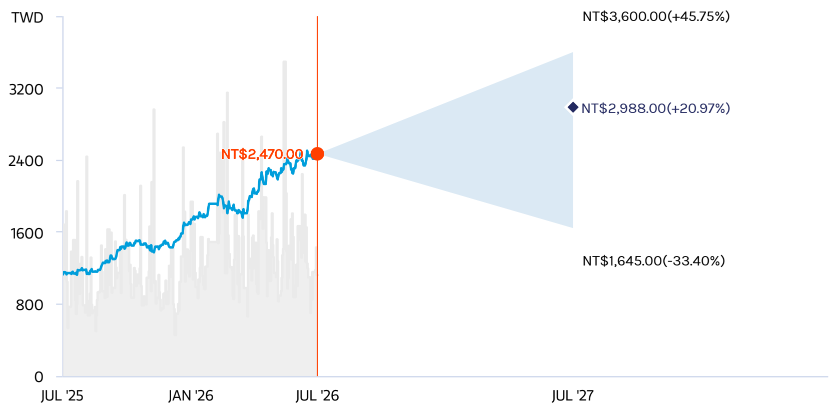
Base case, residual income model. Key assumptions: a cost of equity of 9.2% (beta of 1.2, risk-free rate of 2.0% and risk premium of 6.0%), an intermediate growth rate of 10.5%, and a terminal growth rate of 4.0%.

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$3,600.00

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$2,988.00

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$1,645.00

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)

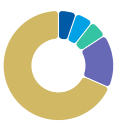
KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
Revenue from 5nm Geometry (NT$, mn)	1,179,907	1,351,242	1,118,627	1,111,915
Revenue from 10/7nm Geometry (NT$, mn)	459,258	516,628	525,849	523,809
Revenue from 16/20nm Geometry (NT$, mn)	220,027	292,481	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.

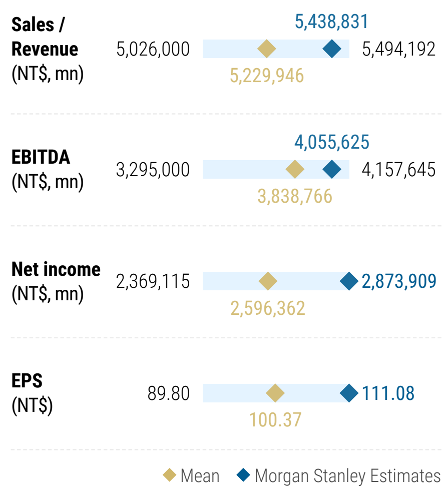
OWNERSHIP POSITIONING

Inst. Owners, % Active 75.9%

Source: Refinitiv, Morgan Stanley Research

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e



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**	**5,438,831**	**7,187,423**	**9,037,662**
YoY Growth	*33.9%*	*31.6%*	*42.8%*	*32.2%*	*25.7%*
Gross Profit b/f dep	2,247,086	2,924,669	4,413,759	5,829,809	7,516,251
Less: COGS	**(1,269,954)**	**(1,527,760)**	**(1,773,669)**	**(2,275,385)**	**(2,817,963)**
Variable costs	(647,221)	(884,385)	(1,025,072)	(1,357,614)	(1,521,411)
Depreciation & amort	(622,733)	(643,376)	(750,356)	(917,771)	(1,296,552)
Gross profit	**1,624,354**	**2,281,294**	**3,663,403**	**4,912,038**	**6,219,699**
% margin	*56.1%*	*59.9%*	*67.4%*	*68.3%*	*68.8%*
YoY Growth	*38.2%*	*40.4%*	*60.6%*	*34.1%*	*26.6%*
Operating Expenses:	**(302,301)**	**(345,202)**	**(413,885)**	**(569,129)**	**(671,630)**
R&D	(204,182)	(246,427)	(298,195)	(356,300)	(400,500)
Sales and Marketing	(13,144)	(16,918)	(21,175)	(35,937)	(45,188)
General and Admin	(84,975)	(81,857)	(94,516)	(176,892)	(225,942)
Operating Profit	**1,322,053**	**1,936,092**	**3,249,517**	**4,342,910**	**5,548,069**
% margin	*45.7%*	*50.8%*	*59.7%*	*60.4%*	*61.4%*
YoY Growth	*43.5%*	*46.4%*	*67.8%*	*33.6%*	*27.8%*
Non-Operating Income	**83,786**	**105,571**	**176,385**	**103,449**	**99,449**
Pretax Profit	**1,405,839**	**2,041,663**	**3,425,902**	**4,446,359**	**5,647,518**
% margin	*48.6%*	*53.6%*	*63.0%*	*61.9%*	*62.5%*
Tax	(233,407)	(326,266)	(553,211)	(688,192)	(888,118)
Reported net Income	**1,173,268**	**1,717,883**	**2,880,237**	**3,758,166**	**4,759,400**
Reported EPS (NT$)	**45.25**	**66.25**	**111.08**	**144.93**	**183.55**
EPS for consensus (NT$)	**45.25**	**66.25**	**111.08**	**144.93**	**183.55**

Balance Sheet, 2024-2028e, Year End Dec

(NT$ mn)	2024	2025	2026e	2027e	2028e
Cash & Equivalent	2,127,627	2,767,856	3,810,923	5,252,578	7,883,171
MarketableSecurity	294,393	300,738	347,964	347,964	347,964
A/R & N/R	272,088	281,791	443,238	571,072	691,480
Inventories	287,869	288,109	392,744	489,357	593,438
Other Current Ass.	106,376	178,635	207,452	207,452	207,452
Total current assets	**3,088,352**	**3,817,131**	**5,202,321**	**6,868,424**	**9,723,505**
Long-term Investment	149,040	172,370	166,567	166,567	166,567
Total fixed assets	3,234,980	3,691,841	4,905,905	6,275,690	7,252,573
Total other assets	219,565	251,682	274,192	274,192	274,192
Total Assets	**6,691,938**	**7,933,024**	**10,548,984**	**13,584,872**	**17,416,837**
A/P & N/P	74,227	84,330	120,983	150,744	182,806
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**	**1,735,380**	**1,765,141**	**1,797,203**
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**	**2,749,687**	**2,779,449**	**2,811,510**
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	7,424,878	10,431,005	14,230,908
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**	**7,799,296**	**10,805,424**	**14,605,326**
Total Liab. & Equity	**6,691,938**	**7,933,024**	**10,548,984**	**13,584,872**	**17,416,837**

Key Ratios, 2024-2028e

	2024	2025	2026e	2027e	2028e
Return (%)					
ROAA	19%	23%	31%	31%	31%
ROAE	30%	35%	44%	41%	38%
OP. ATO	0.7x	0.7x	0.8x	1.0x	0.9x
Gearing (x)					
Net Debt/ Equity	-0.33x	-0.38x	-0.40x	-0.42x	-0.49x
Current Ratio	2.4x	2.6x	3.0x	3.9x	5.4x
Quick Ratio	1.9x	2.1x	2.5x	3.3x	4.8x
Operating Cycle					
AR/NR Turnover (days)	29	26	24	25	25
Inventory Turnover (days)	76	68	69	70	69
AP Turnover (days)	19	19	21	21	21
Cash Conversion (days)	87	75	72	74	73

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

(NT$ mn)	2024	2025	2026e	2027e	2028e
Net Income Current	1,173,268	1,717,883	2,880,237	3,758,166	4,759,400
Depreciation	662,797	688,096	804,349	966,075	1,364,792
Net Investment Losses (Gains)	8,205	8,083	5,115	0	0
Decrease (Increase) in Working Capital	20,896	(17,144)	(63,063)	(194,686)	(192,427)
Others	(38,988)	(121,942)	(121,402)	0	0
Cash Flow-Operating	**1,826,177**	**2,274,976**	**3,505,236**	**4,529,555**	**5,931,765**
(Purchase) of FA	(956,007)	(1,272,411)	(1,940,886)	(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)**	**(1,946,977)**	**(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**	**1,043,066**	**1,441,656**	**2,630,592**
Net cash/(debt), b/f	1,465,428	2,127,627	2,767,856	3,810,923	5,252,578
Net cash/(debt), c/f	**2,127,627**	**2,767,856**	**3,810,923**	**5,252,578**	**7,883,171**

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

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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)

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	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

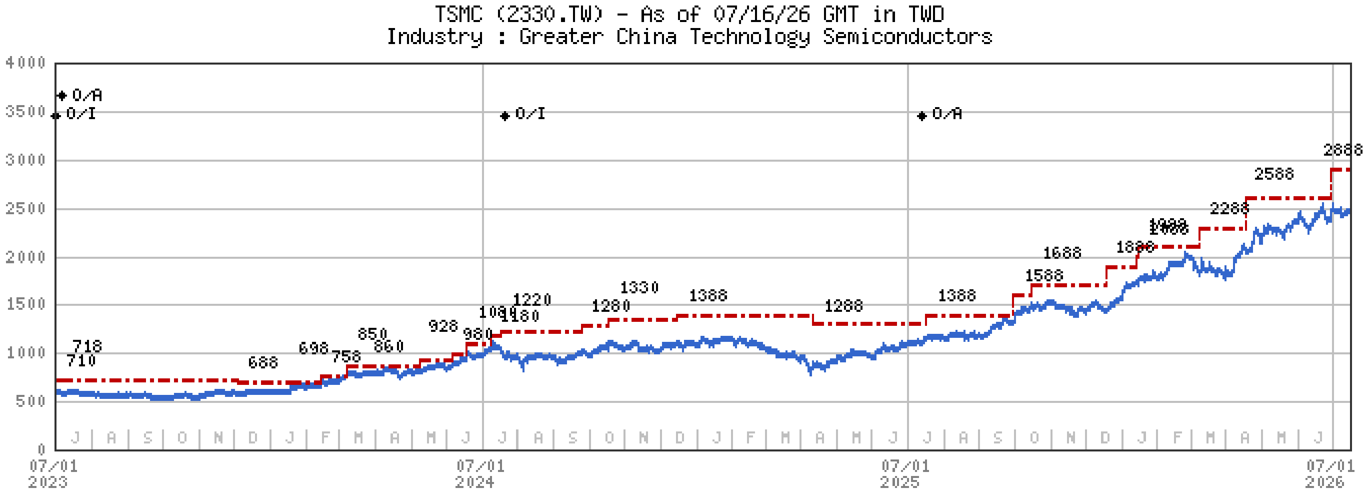
Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

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)



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* (07/16/2026)
Charlie Chan		
ACM Research Inc (ACMR.O)	O (03/07/2023)	US$91.96
Advanced Micro-Fabrication Equipment Inc (688012.SS)	O (11/06/2023)	Rmb361.42
Advanced Wireless Semiconductor Co (8086.TWO)	U (07/14/2025)	NT$127.00
Alchip Technologies Ltd (3661.TW)	O (05/14/2021)	NT$3,770.00
ASE Technology Holding Co. Ltd. (3711.TW)	O (09/15/2024)	NT$682.00
Cambricon Technology Corporation (688256.SS)	O (04/27/2026)	Rmb1,279.22
Global Unichip Corp (3443.TW)	O (06/24/2026)	NT$4,185.00
GlobalWafers Co Ltd (6488.TWO)	E (05/19/2026)	NT$1,370.00
Gudeng Precision (3680.TWO)	O (11/25/2025)	NT$516.00
Hua Hong Semiconductor Ltd (1347.HK)	E (03/12/2026)	HK$157.40
Iluvatar CoreX Semiconductor Co., Ltd. (9903.HK)	O (04/27/2026)	HK$556.50
King Yuan Electronics Co Ltd (2449.TW)	O (03/03/2023)	NT$318.00
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb83.25
MediaTek (2454.TW)	O (11/28/2025)	NT$3,700.00
MetaX Integrated Circuits (688802.SS)	E (04/27/2026)	Rmb890.00
Nanya Technology Corp. (2408.TW)	O (05/28/2026)	NT$439.00
NAURA Technology Group Co Ltd (002371.SZ)	O (11/06/2023)	Rmb702.76
OmniVision Integrated Circuits Group Inc (603501.SS)	E (11/17/2025)	Rmb109.85
Phison Electronics Corp (8299.TWO)	E (02/25/2026)	NT$1,980.00
SG Micro Corp. (300661.SZ)	E (11/03/2025)	Rmb107.32
Silergy Corp. (6415.TW)	U (05/19/2026)	NT$473.00
SMIC (0981.HK)	O (10/21/2025)	HK$75.20
TSMC (2330.TW)	O (02/07/2022)	NT$2,470.00
UMC (2303.TW)	O (05/19/2026)	NT$160.00
Vanguard International Semiconductor (5347.TWO)	E (01/14/2026)	NT$187.50
WIN Semiconductors Corp (3105.TWO)	U (07/14/2025)	NT$369.00

Daisy Dai, CFA		
ASMPT Ltd (0522.HK)	O (07/24/2025)	HK$177.50
China Resources Microelectronics Limited (688396.SS)	U (03/02/2026)	Rmb65.50
Empyrean Technology Co Ltd (301269.SZ)	E (01/17/2025)	Rmb106.21
Hangzhou Silan Microelectronics Co. Ltd. (600460.SS)	U (08/25/2025)	Rmb36.22
Hygon Information Technology Co., Ltd. (688041.SS)	O (07/03/2026)	Rmb320.40
Innoscience (2577.HK)	E (10/13/2025)	HK$48.00
JCET Group Co Ltd (600584.SS)	E (01/16/2026)	Rmb83.21
Shanghai Fudan Microelectronics (1385.HK)	O (03/07/2025)	HK$28.10
SICC Co Ltd (688234.SS)	O (03/20/2026)	Rmb120.24
StarPower Semiconductor Ltd (603290.SS)	E (05/14/2026)	Rmb97.93
Unigroup Guoxin Microelectronics Co Ltd (002049.SZ)	U (01/10/2023)	Rmb70.16
Universal Scientific Ind. (Shanghai) (601231.SS)	O (11/05/2025)	Rmb26.10
Yangjie Technology (300373.SZ)	O (06/10/2022)	Rmb101.70
Daniel Yen, CFA		
AP Memory Technology Corp (6531.TW)	O (07/11/2025)	NT$909.00
ASMedia Technology Inc (5269.TW)	U (10/03/2025)	NT$1,515.00
Aspeed Technology (5274.TWO)	O (06/09/2025)	NT$13,905.00
Egis Technology Inc (6462.TWO)	E (01/28/2026)	NT$101.50
Elan Microelectronics Corp (2458.TW)	O (10/03/2025)	NT$175.50
Espressif Systems (688018.SS)	O (05/15/2023)	Rmb120.61
GigaDevice Semiconductor Beijing Inc (603986.SS)	O (05/15/2025)	Rmb514.61
Macronix International Co Ltd (2337.TW)	O (09/18/2025)	NT$136.50
Montage Technology Co Ltd (6809.HK)	O (03/18/2026)	HK$278.60
Montage Technology Co Ltd (688008.SS)	O (03/18/2026)	Rmb211.13
Novatek (3034.TW)	U (02/04/2026)	NT$471.50
Nuvoton Technology Corporation (4919.TW)	U (11/10/2025)	NT$156.50
Parade Technologies Ltd (4966.TWO)	O (05/27/2026)	NT$631.00
Powerchip Semiconductor Manufacturing Co (6770.TW)	O (10/27/2025)	NT$76.50
Realtek Semiconductor (2379.TW)	E (01/30/2026)	NT$712.00
Shenzhen Goodix Technology Co Ltd (603160.SS)	U (07/14/2025)	Rmb54.83
Winbond Electronics Corp (2344.TW)	O (05/28/2026)	NT$172.00
WPG Holdings (3702.TW)	O (03/16/2026)	NT$113.50
WT Microelectronics Co. Ltd. (3036.TW)	O (01/27/2026)	NT$196.00
Duan Liu		
Dosilicon Co Ltd (688110.SS)	U (09/06/2024)	Rmb136.50
Shenzhen Longsys Electronics Co Ltd (301308.SZ)	E (02/25/2026)	Rmb463.59
Tiffany Yeh		
AllRing Tech Co. (6187.TWO)	O (09/23/2025)	NT$1,075.00
FOCI Fiber Optic Communications Inc (3363.TWO)	O (01/15/2025)	NT$555.00
Himax Technologies Inc (HIMX.O)	E (02/04/2026)	US$13.92
Hon Precision (7769.TW)	O (04/17/2026)	NT$6,695.00
MPI Corporation (6223.TWO)	O (04/17/2026)	NT$6,220.00
Silicon Motion (SIMO.O)	O (05/06/2024)	US$293.40
WinWay Technology Co Ltd (6515.TW)	O (04/17/2026)	NT$6,735.00

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* Historical prices are not split adjusted.