October 29, 2026 10:40 PM GMT

Vanguard International Semiconductor | Asia Pacific

Strong revenue but margin dilution; downgrade to UW

WHAT'S CHANGED		
Vanguard International Semiconductor (5347.TWO)	From	To
Rating	Equal-weight	**Underweight**
Price Target	NT$180.00	**NT$135.00**

Vanguard could show strong revenue growth in 2027 from wafer price hikes and its new Singapore fab's contribution – but we expect depreciation to weigh heavily on margin.

VSMC could cause high-single digit (%) dilution to 2027 GM – above many investors' 3-5% expectation: On Vanguard's latest earnings call, management noted a successful trial run of VisionPower Semiconductor Manufacturing Company, its JV with NXP Semiconductors. It confirmed that interposers are on track for mass production in 1Q27. We see revenue upside from the ramp – but depreciation could heavily pressure margins. Management previously guided that VSMC could break even at 30kwpm, more likely in late 2028, in our view (vs. current 8-inch margin at 30-35%). VSMC capacity is scheduled at 44kwpm, ~100kwpm 8-inch equivalent, about one-third of current 8-inch capacity (280kwpm). On the other hand, we think new capacity may only run at <5kwpm in 1Q27 and <20kwpm by end-2027; depreciation reflects 44kwpm (VSMC's full capacity) for infrastructure, clean room, and construction. We therefore project that VSMC's gross margin dilution in full-year 2027 could be more severe than many expect.

Despite strong customer commitment, VSMC could still dilute the corporate margin average for at least the next five years: Since management previously guided that VSMC could break even at 30kwpm, we view its break-even point as late 2028 or 1H29. It will then take years for GM to rise from 0% to 30-40%, even if the capacity is fully booked. We thus expect a drag on corporate average GM for at least the next five years. The good news: VSMC demand is skewed to high-margin businesses – interposers, industrial, and automotive – so the margin improvement could be smoother vs. peers like Hua Hong.

2027 might bring double-digit wafer price hikes and AI-related revenue at 20-30% of the mix: During its latest earnings call, UMC guided for a 10% blended wafer ASP increase in 2027. Given larger exposure to AI server PMIC, industrial, and automotive, we expect Vanguard to raise 8-inch wafer prices 10-15% for the full year. Given some customer pushback to front-loaded hikes, the price hike might be split – twice a year, each 5-10%. Also, the company would still have LTAs expiring in 2027, so we don't expect aggressive wafer ASP guidance for 1Q27. With new interposer production, we believe AI-related revenue could reach 20-30% of total revenue.

Down to UW from EW: The margin impact is larger than we initially expected and could last 5-10 years. Our new price target implies 2.8x our 2027e BVPS.

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Morgan Stanley appreciates your support in the 2027 Extel Asia Research Survey. Voting opens 10 November 2026.

Vanguard International Semiconductor (5347.TWO, 5347 TT)

Greater China Technology Semiconductors | Taiwan

Stock Rating	**Underweight**
Industry View	**Attractive**
Price target	NT$135.00
Up/downside to price target (%)	(14)
Shr price, close (Oct 29, 2026)	NT$156.50
52-Week Range	NT$223.00-87.60
Sh out, dil, curr (mn)	1,858
Mkt cap, curr (mn)	NT$290,841
EV, curr (mn)	NT$268,295
Avg daily trading value (mn)	NT$3,515

Fiscal Year Ending	12/25	12/26e	12/27e	12/28e
EPS (NT$)**	4.18	6.06	6.16	7.92
Prior EPS (NT$)**	-	5.46	6.76	8.32
EPS (NT$)§	4.32	6.01	7.68	9.64
Revenue, net (NT$ mn)	48,591	58,598	77,345	93,859
EBITDA (NT$ mn)	16,326	21,887	30,365	37,115
ModelWare net inc (NT $ mn)	7,770	11,276	11,466	14,747
P/E	22.0	25.8	25.4	19.8
P/BV	2.0	3.3	3.2	3.0
ROE (%)	11.3	13.5	13.2	16.4
EV/EBITDA	9.0	14.5	10.4	8.3

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

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Vanguard could still show strong revenue/margin performance for 2H26

4Q26 should maintain strong growth: We expect Vanguard to sustain strong performance into 4Q26, supported by resilient demand from the industrial and automotive end markets. In addition to a favorable demand outlook, ongoing capacity optimization initiatives, particularly the transition from thicker-wire to thinner-wire manufacturing processes, should enhance production efficiency, improve capacity utilization, and support higher output. These operational improvements, coupled with a favorable product mix and steady order momentum, could further underpin revenue growth and profitability in 4Q26. We now expect Vanguard 8-inch process margin to reach 34-36% in both 4Q26 and 1Q27.

Exhibit 1: Vanguard: 3Q26 Earnings and 4Q26 Guidance Preview

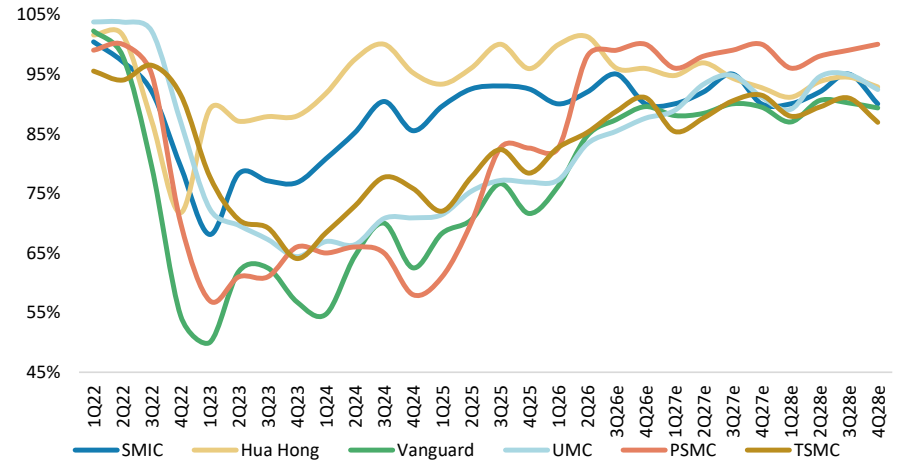
	3Q26				4Q26		
(NT$ mn)	Guidance	Preliminary	MS Est.	Consensus	Guidance	MS Est.	Consensus
Revenue	Wafer shipment increases 1-3% Q/Q ASP up 2-4% Q/Q	15,702	15,702	15,454		16,119	16,519
Q/Q				*8.5%*			*6.9%*
Y/Y				*25.1%*			*31.2%*
GM (%)	32.5% - 34.5%		33.4%	33.5%		34.5%	34.5%
OpM (%)			21.8%	21.4%		22.8%	22.4%
EPS (NT$)			**1.62**	**1.58**		**1.73**	**1.74**

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

Key questions to ask during the upcoming earnings call on November 6:

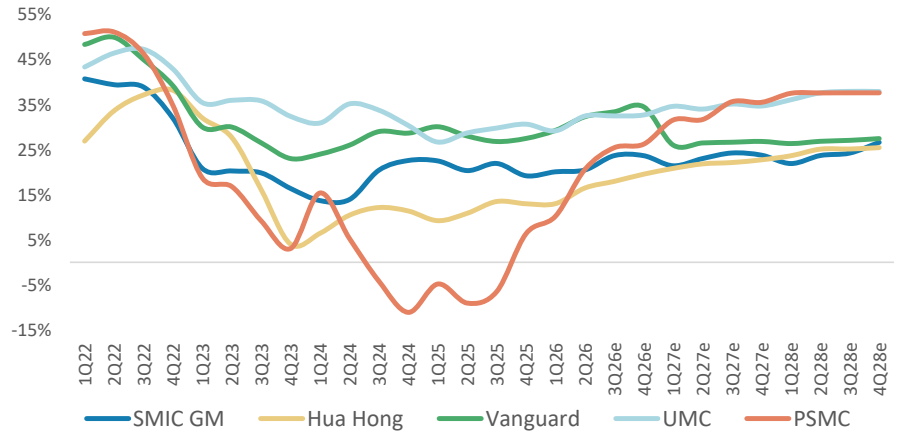
1. **Price hike into 2027:** How much of the incremental cost could Vanguard pass through to customers? Could we see double-digit apples-to-apples price hikes into 2027 despite the expiration of some LTAs?
2. **AI-related revenue:** How much could AI related revenue grow in 2027 if we include both AI server PMIC and interposer production?
3. **Singapore fab – margin dilution and capacity allocation:** How could margin be affected by VSMC in both 2027 and 2028? How much would depreciation be in 2027 and 2028? How would the company allocate 12-inch capacity between interposers, NXP, and other customers?
4. **Consumer demand:** Has the company seen any slowdown in consumer demand? And how soon could that capacity be filled up by other sources of demand?
5. **Further capacity expansion:** Might the company have further plans to expand 8-inch capacity or second Singapore fab since the utilization rate has been reaching >90%?

Exhibit 2: Vanguard's utilization rate could bottom in 4Q26



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

Exhibit 3: Vanguard's GM may decline sharply in 2027



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

Exhibit 4: We expect that VSMC 's margin could be close to 20% when 44kwpm of the capacity is running at full utilization and the equipment is still amid five-year depreciation

US$	Hua Hong Wuxi fab 9 (40-55nm)
Total capex (US$ mn)	**6,700**
Infrastructure (US$ mn)	1,150
Equipment (US$ mn)	5,550
Capacity (kwpm)	83
capex per kwpm (US$ mn)	67
Annual depreciation per k (US$ mn)	1.0
Annual depreciation per wafer (US$)	**986**
Wafer price (US$/ per wafer)	1,650
depreciation cost (US$/ per wafer)	986
other cost (US$/ per wafer)	400
Gross profit (US$/ per wafer)	264
New investment plan GM	**16%**

US$	VSMC JV (40-130nm)
Total capex (US$ mn)	**6,700**
Infrastructure (US$ mn)	3,180
Equipment (US$ mn)	3,520
Capacity (kwpm)	44
capex per kwpm (US$ mn)	80
Annual depreciation per k (US$ mn)	1.6
Annual depreciation per wafer (US$)	**1,634**
Wafer price (US$/ per wafer)	2,700
depreciation cost (US$/ per wafer)	1,634
other cost (US$/ per wafer)	520
Gross profit (US$/ per wafer)	546
New investment plan GM	**20%**
2026e GM	**33%**

Source: Company data, Morgan Stanley Research estimates

Vanguard: Earnings estimate revisions

We raise our 2026 EPS forecast 11% but lower 2027 and 2028 EPS estimates 9% and 5%, respectively: We factor in the smooth production ramp of VSMC and see revenue upside from our previous estimates. However, we also note more significant margin dilution from the new fab, leading to sharp cuts in margin assumptions for 2027/28.

Exhibit 5: Vanguard: Earnings estimate revision summary

(NT$ mn)	New 2026e	Old 2026e	Diff.%	New 2027e	Old 2027e	Diff.%	New 2028e	Old 2028e	Diff.%
Net sales	58,598	56,799	3%	77,345	68,133	14%	93,859	77,468	21%
Gross profit	19,088	18,011	6%	20,812	21,152	-2%	25,777	24,892	4%
Operating profit	12,095	11,033	10%	13,067	14,227	-8%	17,171	17,862	-4%
Pretax income	13,523	12,441	9%	14,332	15,723	-9%	18,434	19,359	-5%
Net income	11,276	10,167	11%	11,466	12,579	-9%	14,747	15,487	-5%
EPS (NT$)	**6.06**	**5.46**	**11%**	**6.16**	**6.76**	**-9%**	**7.92**	**8.32**	**-5%**
Margins									
Gross margin	32.6%	31.7%		26.9%	31.0%		27.5%	32.1%	
Operating margin	20.6%	19.4%		16.9%	20.9%		18.3%	23.1%	
Pretax margin	23.1%	21.9%		18.5%	23.1%		19.6%	25.0%	
Net margin	19.2%	17.9%		14.8%	18.5%		15.7%	20.0%	

Source: Morgan Stanley Research (e) estimates

Exhibit 6: Vanguard: Quarterly financials

(NT$ mn)	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26	3Q26e	4Q26e	2024	2025	2026e	2027e	2028e
Total Revenues	**11,949**	**11,699**	**12,349**	**12,594**	**12,532**	**14,245**	**15,702**	**16,119**	**44,055**	**48,591**	**58,598**	**77,345**	**93,859**
Sequential Change	*3.4%*	*-2.1%*	*5.6%*	*2.0%*	*-0.5%*	*13.7%*	*10.2%*	*2.7%*					
Change vs Year Ago	*24.0%*	*5.7%*	*4.6%*	*9.0%*	*4.9%*	*21.8%*	*27.2%*	*28.0%*	*15.1%*	*10.3%*	*20.6%*	*32.0%*	*21.4%*
Cost of Sales	(8,352)	(8,419)	(9,037)	(9,129)	(8,861)	(9,640)	(10,454)	(10,555)	(32,122)	(34,937)	(39,510)	(56,532)	(68,082)
Percent of Revenues	*69.9%*	*72.0%*	*73.2%*	*72.5%*	*70.7%*	*67.7%*	*66.6%*	*65.5%*	*72.9%*	*71.9%*	*67.4%*	*73.1%*	*72.5%*
Gross Profit	**3,597**	**3,280**	**3,312**	**3,465**	**3,671**	**4,604**	**5,248**	**5,564**	**11,933**	**13,654**	**19,088**	**20,812**	**25,777**
Percent of Revenues	*30.1%*	*28.0%*	*26.8%*	*27.5%*	*29.3%*	*32.3%*	*33.4%*	*34.5%*	*27.1%*	*28.1%*	*32.6%*	*26.9%*	*27.5%*
Total Opex	(1,359)	(1,384)	(1,480)	(1,658)	(1,584)	(1,704)	(1,822)	(1,882)	(4,822)	(5,880)	(6,993)	(7,745)	(8,606)
Percent of Revenues	*11.4%*	*11.8%*	*12.0%*	*13.2%*	*12.6%*	*12.0%*	*11.6%*	*11.7%*	*10.9%*	*12.1%*	*11.9%*	*10.0%*	*9.2%*
R&D	(521)	(522)	(565)	(582)	(610)	(680)	(730)	(780)	(2,081)	(2,190)	(2,801)	(2,900)	(3,240)
Percent of Revenues	*4.4%*	*4.5%*	*4.6%*	*4.6%*	*4.9%*	*4.8%*	*4.7%*	*4.8%*	*4.7%*	*4.5%*	*4.8%*	*3.7%*	*3.5%*
Sales and Marketing	(129)	(120)	(144)	(163)	(159)	(182)	(200)	(206)	(449)	(557)	(747)	(1,005)	(1,126)
Percent of Revenues	*1.1%*	*1.0%*	*1.2%*	*1.3%*	*1.3%*	*1.3%*	*1.3%*	*1.3%*	*1.0%*	*1.1%*	*1.3%*	*1.3%*	*1.2%*
General and Admin	(709)	(741)	(771)	(912)	(815)	(842)	(892)	(897)	(2,291)	(3,133)	(3,445)	(3,840)	(4,240)
Percent of Revenues	*5.9%*	*6.3%*	*6.2%*	*7.2%*	*6.5%*	*5.9%*	*5.7%*	*5.6%*	*5.2%*	*6.4%*	*5.9%*	*5.0%*	*4.5%*
Operating Income	**2,238**	**1,897**	**1,832**	**1,807**	**2,087**	**2,901**	**3,426**	**3,682**	**7,111**	**7,773**	**12,095**	**13,067**	**17,171**
Percent of Revenues	*18.7%*	*16.2%*	*14.8%*	*14.3%*	*16.7%*	*20.4%*	*21.8%*	*22.8%*	*16.1%*	*16.0%*	*20.6%*	*16.9%*	*18.3%*
Total Non-operating Income(Loss)	437	485	267	288	350	412	333	333	1,641	1,477	1,428	1,266	1,263
Profit Before Taxes	**2,675**	**2,382**	**2,099**	**2,095**	**2,437**	**3,313**	**3,759**	**4,015**	**8,752**	**9,251**	**13,523**	**14,332**	**18,434**
Percent of Revenues	*22.4%*	*20.4%*	*17.0%*	*16.6%*	*19.4%*	*23.3%*	*23.9%*	*24.9%*	*19.9%*	*19.0%*	*23.1%*	*18.5%*	*19.6%*
Change vs Year Ago	*67.7%*	*11.0%*	*-21.6%*	*-10.2%*	*-8.9%*	*39.1%*	*79.1%*	*91.6%*					
Taxes	(269)	(369)	(414)	(429)	(273)	(420)	(752)	(803)	(1,705)	(1,480)	(2,247)	(2,866)	(3,687)
Tax Rate	*10.0%*	*15.5%*	*19.7%*	*20.5%*	*11.2%*	*12.7%*	*20.0%*	*20.0%*	*19.5%*	*16.0%*	*16.6%*	*20.0%*	*20.0%*
Reported Income (TW GAAP)	**2,406**	**2,013**	**1,685**	**1,666**	**2,164**	**2,894**	**3,007**	**3,212**	**7,047**	**7,770**	**11,276**	**11,466**	**14,747**
Percent of Revenues	*20.1%*	*17.2%*	*13.6%*	*13.2%*	*17.3%*	*20.3%*	*19.1%*	*19.9%*	*16.0%*	*16.0%*	*19.2%*	*14.8%*	*15.7%*
Change vs Year Ago	*89.1%*	*11.9%*	*-21.0%*	*-9.6%*	*-10.1%*	*43.8%*	*78.4%*	*92.7%*	*-4.4%*	*10.3%*	*45.1%*	*1.7%*	*28.6%*
EPS (NT$)	**1.30**	**1.09**	**0.91**	**0.90**	**1.16**	**1.55**	**1.62**	**1.73**	**3.81**	**4.18**	**6.06**	**6.16**	**7.92**
Change vs Year Ago	*68.2%*	*-0.3%*	*-29.9%*	*-10.1%*	*-10.3%*	*43.1%*	*78.4%*	*92.7%*	*-14.5%*	*9.9%*	*44.9%*	*1.7%*	*28.6%*
Weighted Average Shares	1,857	1,853	1,862	1,862	1,862	1,862	1,862	1,862	1,852	1,858	1,862	1,862	1,862

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

Valuation methodology

We lower our price target (base case value) to NT$135 from NT$180: We factor in our earnings estimate changes for 2027-28 and also lower the intermediate growth rate assumption from 13% to 10.5% to reflect the long-term margin dilution.

We continue to derive our price target from a residual income model, which we believe best captures the stock's long-term value. Our key assumptions other than the intermediate growth rate are unchanged, including a cost of equity of 9.2% (beta of 1.2, equity risk premium of 6% and risk-free rate of 2%), and a terminal growth rate of 4.0%.

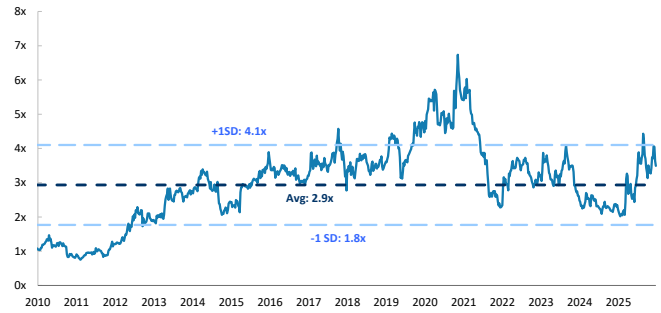
We also lower our bull and bear case values from NT$260 and NT$110 to NT$195 and NT $80, accordingly, implying 4.0x and 1.7x our 2027e BVPS.

Exhibit 7: Vanguard: Residual income model

(NT$ mn)	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036e	2037e
Total Equity	**86,706**	**89,715**	**95,863**	**105,882**	**116,952**	**129,185**	**142,702**	**157,639**	**174,144**	**192,382**	**212,535**	**234,804**
Net Profit	**11,276**	**11,466**	**14,747**	**16,296**	**18,007**	**19,897**	**21,987**	**24,295**	**26,846**	**29,665**	**32,780**	**36,222**
ROAE	**13.2%**	**13.0%**	**15.9%**	**16.2%**	**16.2%**	**16.2%**	**16.2%**	**16.2%**	**16.2%**	**16.2%**	**16.2%**	**16.2%**
Residual Income	3,379	3,293	6,005	6,667	7,371	8,149	9,008	9,958	11,008	12,168	13,449	14,865
Spread	**4.0%**	**3.8%**	**6.7%**	**7.0%**	**7.0%**	**7.0%**	**7.0%**	**7.0%**	**7.0%**	**7.0%**	**7.0%**	**7.0%**
Ending Equity Capital	86,706											
PV of Forecast Period	50,826											
PV of Continuing Value	113,835											
Equity Value	**251,368**											
No. of Shares	1,862											
Projected Price (NT$)	**135.0**											

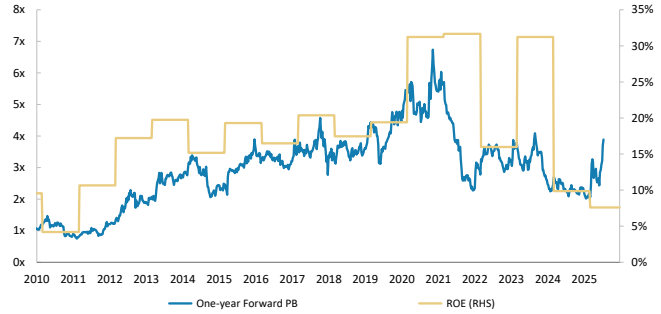
Source: Company data, Morgan Stanley Research (e) estimates

Exhibit 8: Vanguard: One-year forward P/B chart



Source: FactSet, company data, Morgan Stanley Research estimates

Exhibit 9: Vanguard: One-year forward P/B vs. ROE



Source: FactSet, Company data, Morgan Stanley Research estimates

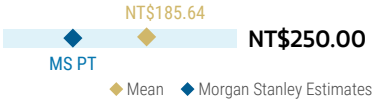
Risk Reward – Vanguard International Semiconductor (5347.TWO)

Heavy Depreciation from fab in Singapore; UW

PRICE TARGET NT$135.00

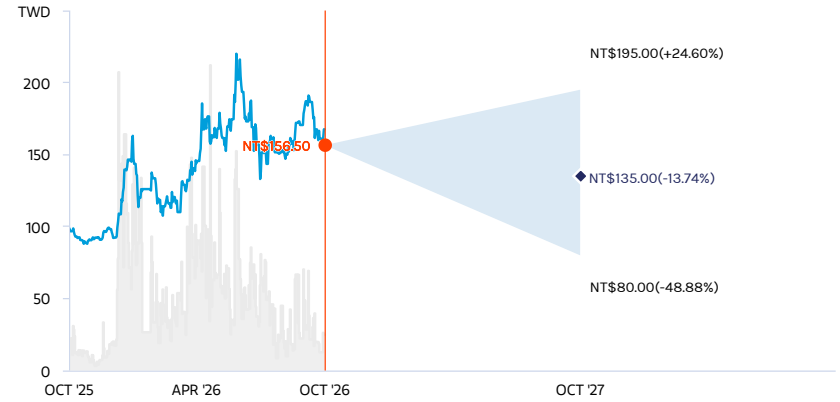
Base case, residual income model. Key assumptions: a cost of equity of 9.2%, a medium-term growth rate of 10.5%, and a terminal growth rate of 4.0%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



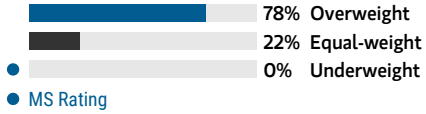
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

UNDERWEIGHT THESIS

- We expect 2026 capex to increase beyond 2025's high level given Singapore fab expansion, leading to long-term margin pressure.
- We expect PMIC wafer price hikes in the industry in response to strong demand from AI. Vanguard could benefit from TSMC mature node consolidation as well as interposer production.
- The new Singapore fab could cause high-single-digit margin dilution to the corporate average in 2027.
- VSMC's 12-inch capacity is all fully booked; production will start to ramp in 2027 with depreciation pressure during the early stage.
- Our UW rating is mostly because of the margin pressure.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Negative*
Pricing Power:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE NT$195.00

4.0x base case 2027e BVPS

Healthy semi demand: Auto semi demand is exceptionally strong; inventory is digested quickly, and DDI for smartphones and large panels shows robust growth. We forecast a >30% revenue CAGR in 2025-28. Competition from peers eases. We assume: 1) global semi sales growth of >20% and foundry industry growth of >15% in 2026; 2) better-than-expected demand for 8" capacity; and 3) power demand for 5G tracking ahead of schedule.

BASE CASE NT$135.00

2.8x base case 2027e BVPS

Semi growth slowdown: Demand has started to pick up for LDDIC and PMIC, while auto semis inventory digestion is reaching an end. We forecast a 25% revenue CAGR in 2025-28. Vanguard starts to reverse pricing discounts to customers in view of stronger demand and some rush orders in the short run. We assume: 1) global semi sales show growth in 2026; and 2) the foundry industry shows single-digit growth in 2026.

BEAR CASE NT$80.00

1.7x base case 2027e BVPS

Semi growth decelerates: Auto semi demand weakens markedly; power semi inventory levels remain elevated. Smartphone DDI shows a worse-than-expected decline. Intensified competition and new Chinese capacity dampen the overall pricing environment. We forecast <10% revenue CAGR in 2025-28. We assume: 1) overall semi industry continues to decelerate in 2026 and foundry growth is stagnant; and 2) demand for 8" capacity is weaker than expected owing to faster product migration.

Risk Reward – Vanguard International Semiconductor (5347.TWO)

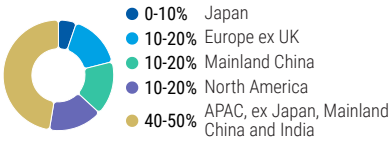
KEY EARNINGS INPUTS

Drivers	Dec 2025	Dec 2026e	Dec 2027e	Dec 2028e
Wafer shipment (k 8 inch)	2,522	2,847	3,280	866
Wafer ASP (USD)	573.0	638.4	698.8	781.7
Utilization rate (%) (%)	71.8	84.4	89.0	87.0

INVESTMENT DRIVERS

- Smartphone/TV demand
- Persistent drop in analog IDMs' inventory
- Easing competition in 8" foundry business with pricing rebound

GLOBAL REVENUE EXPOSURE



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

- Stronger-than-expected LCD driver IC demand
- Loosened competition in power semi business
- Faster-than-expected EV penetration
- Inability of IDM customers to move production in-house

RISKS TO DOWNSIDE

- Inability to fully utilize VSMC 12-inch investment
- Weaker-than-expected LCD driver IC demand
- Intensified competition in power semi business
- Slower-than-expected EV penetration
- IDM customers moving production in-house

OWNERSHIP POSITIONING

Inst. Owners, % Active 83.9%

Source: Refinitiv, Morgan Stanley Research

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e

Sales / Revenue (NT$, mn)	57,597	58,598 / 58,564	59,701
EBITDA (NT$, mn)	16,311	21,887 / 21,053	22,909
Net income (NT$, mn)	8,019	11,276 / 11,147	11,957
EPS (NT$)	5.70	6.06 / 6.01	6.40

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

Vanguard: Financial summary

Income Statement

NT$ mn (Years End Dec)	2024	2025	2026e	2027e	2028e
Net sales	**44,055**	**48,591**	**58,598**	**77,345**	**93,859**
COGS	(32,122)	(34,937)	(39,510)	(56,532)	(68,082)
Gross profit	11,933	13,654	19,088	20,812	25,777
Operating expenses	(4,822)	(5,880)	(6,993)	(7,745)	(8,606)
R&D	(2,081)	(2,190)	(2,801)	(2,900)	(3,240)
SG&A	(2,740)	(3,691)	(4,192)	(4,845)	(5,366)
Operating income	**7,111**	**7,773**	**12,095**	**13,067**	**17,171**
Non-operating income	1,641	1,477	1,428	1,266	1,263
Pre-tax income	8,752	9,251	13,523	14,332	18,434
Income tax	(1,705)	(1,480)	(2,247)	(2,866)	(3,687)
Net income	**7,047**	**7,770**	**11,276**	**11,466**	**14,747**
Adj.wtd.avg.shrs (mn)	1,852	1,858	1,862	1,862	1,862
Reported EPS (NT$)	**3.81**	**4.18**	**6.06**	**6.16**	**7.92**
EPS for consensus (NT$)	**3.81**	**4.18**	**6.06**	**6.16**	**7.92**

Cash Flow Statement

NT$mn (Years End Dec)	2024	2025	2026e	2027e	2028e
Cash flow from Operations	**24,731**	**25,439**	**23,273**	**37,729**	**40,267**
Net profits	7,047	7,770	11,276	11,466	14,747
Depreciation	8,622	8,552	9,792	17,298	19,944
Equity investment losses (income)	(84)	(209)	0	0	0
Other adjustments	9,145	9,326	2,205	8,964	5,575
Cash flow from Investing	**(11,699)**	**(59,711)**	**(64,554)**	**(26,662)**	**(26,234)**
Capex	(15,909)	(63,265)	(64,554)	(26,662)	(26,234)
Change of LT Investment	(2,480)	(0)	0	0	0
Change of ST Investment	6,837	1,183	0	0	0
Other adjustments	(147)	2,371	0	0	0
Cash flow from financing	**17,530**	**13,460**	**71,841**	**(8,457)**	**(8,599)**
Increase in L/T debt	0	2,000	0	0	0
Increase in S/T debt	0	5,519	80,000	0	0
Cash Dividend Paid	(7,375)	(8,400)	(8,159)	(8,457)	(8,599)
Dir& Emp Bonus Paid	0	0	0	0	0
Issuance of stock	0	0	0	0	0
Dec/Inc-TreasureSt	0	0	0	0	0
Other Adjustments	21,905	14,341	0	0	0
Net change in cash	**30,562**	**(20,812)**	**30,560**	**2,610**	**5,433**

Balance Sheet

NT$mn (Years End Dec)	2024	2025	2026e	2027e	2028e
Cash	60,695	39,635	70,195	72,805	78,238
Mkt Securities	8,929	2,640	2,640	2,640	2,640
AR/NR	6,235	6,748	7,828	10,333	12,539
Inventory	6,221	6,937	7,440	10,645	12,820
Other	4,131	10,937	10,937	10,937	10,937
Current Assets	**86,211**	**66,897**	**99,040**	**107,360**	**117,174**
Long-term investments	7,448	9,420	9,420	9,420	9,420
Fixed assets	44,141	113,869	168,631	177,995	184,285
Other assets	10,905	10,282	10,282	10,282	10,282
Total Assets	**148,706**	**200,469**	**287,374**	**305,057**	**321,161**
S/T borrowings	0	5,521	5,521	5,521	5,521
AP/NP	1,416	1,724	1,776	2,541	3,060
Other ST liabilities	19,959	44,359	128,096	142,005	151,442
LT debt	20,984	15,990	15,990	15,990	15,990
Other LT liabilities	37,679	49,285	49,285	49,285	49,285
Total Liabilities	**80,039**	**116,879**	**200,667**	**215,341**	**225,297**
Common shares	18,666	18,671	18,671	18,671	18,671
Retained earning	31,135	45,904	49,020	52,029	58,177
Other shareholders' equity	18,865	19,015	19,015	19,015	19,015
Total Equity	**68,667**	**83,590**	**86,706**	**89,715**	**95,863**
Total Liab. & Shrhldr's Equity	**148,706**	**200,469**	**287,374**	**305,057**	**321,161**

Financial Ratios

	2024	2025	2026e	2027e	2028e
Growth(%)					
Turnover	15.1	10.3	20.6	32.0	21.4
Operating profits	23.2	9.3	55.6	8.0	31.4
Pretax profits	(0.9)	5.7	46.2	6.0	28.6
Net profits	(4.4)	10.3	45.1	1.7	28.6
EPS	(14.5)	9.9	44.9	1.7	28.6
Margins (%)					
Gross Margin	27.1	28.1	32.6	26.9	27.5
Operating Margin	16.1	16.0	20.6	16.9	18.3
Pretax Margin	19.9	19.0	23.1	18.5	19.6
Net Profit	16.0	16.0	19.2	14.8	15.7
Return (%)					
ROAA	5.6	4.5	4.6	3.9	4.7
ROAE	12.3	10.2	13.2	13.0	15.9
Gearing (%)					
Net Debt/Equity	(57.8)	(21.7)	(56.1)	(57.2)	(59.2)
Liabilities/Equity	116.6	139.8	231.4	240.0	235.0
Ratios (X)					
Current ratio	4.0	1.3	0.7	0.7	0.7
Quick ratio	3.5	0.9	0.6	0.6	0.6
Others					
AR/NR Turnover (days)	48.7	48.8	48.8	48.8	48.8
Inventory Turnover (days)	67.6	68.7	68.7	68.7	68.7
AP Turnover (days)	13.6	16.4	16.4	16.4	16.4
Cash Conversion (days)	102.7	101.1	101.1	101.1	101.1

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

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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	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
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Equal-weight/Hold	1563	42%	394	42%	25%	763	43%
Not-Rated/Hold	2	0%	1	0%	50%	1	0%
Underweight/Sell	570	15%	96	10%	17%	227	13%
Total	3,734		946			1774	

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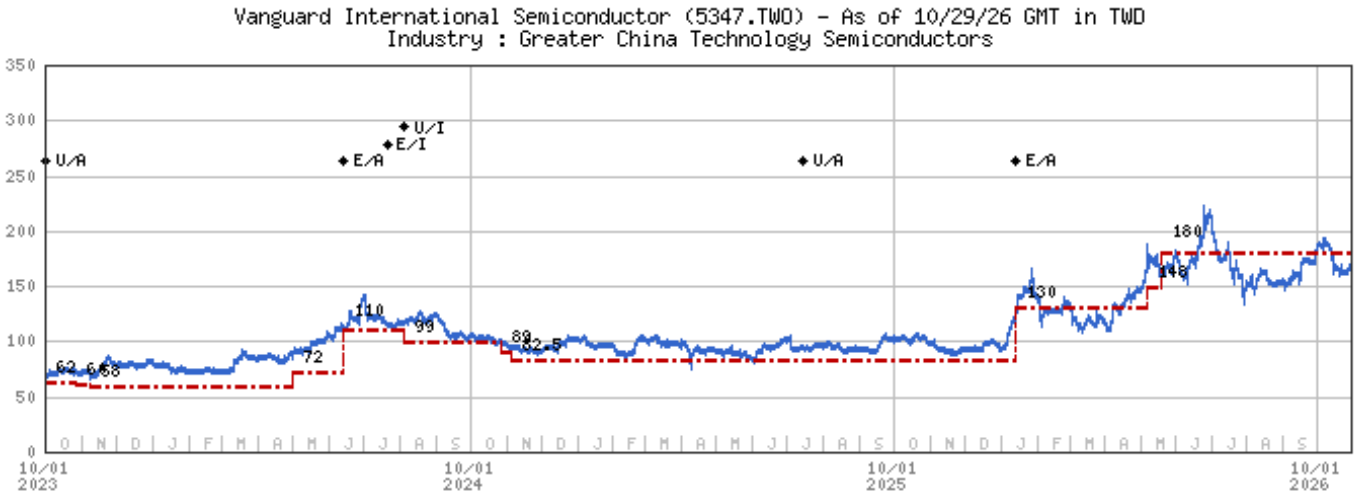
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Stock Price, Price Target and Rating History (See Rating Definitions)



Stock Rating History: 10/1/21 : U/I; 10/12/21 : U/C; 2/12/22 : E/C; 9/21/22 : U/C; 10/4/22 : U/A; 2/22/23 : U/I; 7/7/23 : U/A; 6/13/24 : E/A; 7/21/24 : E/I; 8/5/24 : U/I; 7/14/25 : U/A; 1/14/26 : E/A

Price Target History: 9/14/21 : 145; 2/12/22 : 135; 6/21/22 : 100; 7/12/22 : 80; 8/2/22 : 75; 9/21/22 : 65; 11/2/22 : 58; 5/3/23 : 62; 10/27/23 : 60; 11/8/23 : 58; 5/1/24 : 72; 6/13/24 : 110; 8/5/24 : 99; 10/28/24 : 89; 11/6/24 : 82.5; 1/14/26 : 130; 5/7/26 : 148; 5/19/26 : 180

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target No Price Target Assigned (NA)
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COMPANY (TICKER)	RATING (AS OF)	PRICE* (10/29/2026)
Charlie Chan		
Advanced Wireless Semiconductor Co (8086.TWO)	U (07/14/2025)	NT$122.00
Alchip Technologies Ltd (3661.TW)	O (05/14/2021)	NT$3,680.00
ASE Technology Holding Co. Ltd. (3711.TW)	O (09/15/2024)	NT$683.00
Cambricon Technology Corporation (688256.SS)	O (04/27/2026)	Rmb913.00
CXMT Corp (688825.SS)	O (08/26/2026)	Rmb42.87
Global Unichip Corp (3443.TW)	O (06/24/2026)	NT$7,640.00
GlobalWafers Co Ltd (6488.TWO)	E (05/19/2026)	NT$814.00
Gudeng Precision (3680.TWO)	O (11/25/2025)	NT$521.00
Hua Hong Semiconductor Ltd (1347.HK)	E (03/12/2026)	HK$64.60
Iluvatar CoreX Semiconductor Co., Ltd. (9903.HK)	O (04/27/2026)	HK$67.15
MediaTek (2454.TW)	O (11/28/2025)	NT$4,045.00
MetaX Integrated Circuits (688802.SS)	E (04/27/2026)	Rmb457.22
Nanya Technology Corp. (2408.TW)	O (05/28/2026)	NT$477.00
Phison Electronics Corp (8299.TWO)	E (02/25/2026)	NT$2,050.00
SG Micro Corp. (300661.SZ)	E (11/03/2025)	Rmb88.59
Silergy Corp. (6415.TW)	U (05/19/2026)	NT$524.00
SMIC (0981.HK)	O (10/21/2025)	HK$44.96
TSMC (2330.TW)	O (02/07/2022)	NT$2,415.00
UMC (2303.TW)	O (05/19/2026)	NT$115.50
Vanguard International Semiconductor (5347.TWO)	U (10/29/2026)	NT$156.50
WIN Semiconductors Corp (3105.TWO)	O (10/29/2026)	NT$594.00
Daisy Dai, CFA		
ASMPT Ltd (0522.HK)	O (07/24/2025)	HK$113.20

China Resources Microelectronics Limited (688396.SS)	U (03/02/2026)	Rmb48.63
Empyrean Technology Co Ltd (301269.SZ)	E (01/17/2025)	Rmb97.70
Hangzhou Silan Microelectronics Co. Ltd. (600460.SS)	U (08/25/2025)	Rmb24.18
Hygon Information Technology Co., Ltd. (688041.SS)	O (07/03/2026)	Rmb185.88
Innoscience (2577.HK)	E (10/13/2025)	HK$29.50
JCET Group Co Ltd (600584.SS)	O (09/16/2026)	Rmb51.87
Shanghai Fudan Microelectronics (1385.HK)	O (03/07/2025)	HK$22.64
SICC Co Ltd (688234.SS)	O (03/20/2026)	Rmb75.68
SJ Semiconductor Corp (688820.SS)	E (09/16/2026)	Rmb78.28
StarPower Semiconductor Ltd (603290.SS)	E (05/14/2026)	Rmb69.07
Unigroup Guoxin Microelectronics Co Ltd (002049.SZ)	U (01/10/2023)	Rmb47.78
Universal Scientific Ind. (Shanghai) (601231.SS)	O (11/05/2025)	Rmb19.82
Yangjie Technology (300373.SZ)	O (06/10/2022)	Rmb72.84
Daniel Yen, CFA		
AP Memory Technology Corp (6531.TW)	O (07/11/2025)	NT$841.00
ASMedia Technology Inc (5269.TW)	U (10/03/2025)	NT$1,465.00
Aspeed Technology (5274.TWO)	O (06/09/2025)	NT$16,980.00
Egis Technology Inc (6462.TWO)	E (01/28/2026)	NT$98.60
Elan Microelectronics Corp (2458.TW)	O (10/03/2025)	NT$129.00
eMemory Technology Inc (3529.TWO)	O (08/18/2026)	NT$2,540.00
Espressif Systems (688018.SS)	O (05/15/2023)	Rmb134.42
GigaDevice Semiconductor Beijing Inc (603986.SS)	O (05/15/2025)	Rmb275.99
Himax Technologies Inc (HIMX.O)	E (02/04/2026)	US$11.69
Macronix International Co Ltd (2337.TW)	O (09/18/2025)	NT$100.00
Montage Technology Co Ltd (6809.HK)	O (03/18/2026)	HK$215.00
Montage Technology Co Ltd (688008.SS)	O (03/18/2026)	Rmb166.79
Novatek (3034.TW)	U (02/04/2026)	NT$596.00
Nuvoton Technology Corporation (4919.TW)	U (11/10/2025)	NT$133.00
Parade Technologies Ltd (4966.TWO)	U (10/29/2026)	NT$490.50
Powerchip Semiconductor Manufacturing Co (6770.TW)	O (10/27/2025)	NT$69.50
Realtek Semiconductor (2379.TW)	E (01/30/2026)	NT$794.00
Shenzhen Goodix Technology Co Ltd (603160.SS)	U (07/14/2025)	Rmb59.53
Silicon Motion (SIMO.O)	O (05/06/2024)	US$227.75
Winbond Electronics Corp (2344.TW)	O (05/28/2026)	NT$170.50
WPG Holdings (3702.TW)	O (03/16/2026)	NT$110.00
WT Microelectronics Co. Ltd. (3036.TW)	O (01/27/2026)	NT$214.00
Henry Zhao		
ACM Research Inc (ACMR.O)	O (03/07/2023)	US$49.29
Advanced Micro-Fabrication Equipment Inc (688012.SS)	O (11/06/2023)	Rmb227.00
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb54.38
NAURA Technology Group Co Ltd (002371.SZ)	O (11/06/2023)	Rmb497.30
OmniVision Integrated Circuits Group Inc (603501.SS)	E (10/29/2026)	Rmb85.79
Lucas Wang		
AllRing Tech Co. (6187.TWO)	O (09/23/2025)	NT$1,260.00
FOCI Fiber Optic Communications Inc (3363.TWO)	E (10/09/2026)	NT$490.00
Hon Precision (7769.TW)	O (04/17/2026)	NT$5,190.00
King Yuan Electronics Co Ltd (2449.TW)	O (03/03/2023)	NT$269.50
MPI Corporation (6223.TWO)	O (04/17/2026)	NT$4,840.00

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