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TSMC | Asia Pacific

FX impact sensitivity and stock implications; OW

The TWD has appreciated significantly recently. TSMC indicated that every 1% appreciation in the USD/TWD rate translates into 40bps GM downside for TSMC, as most of its costs are TWD denominated, particularly depreciation, the Taiwan payroll and electricity costs. The OP margin impact is around 50bps, which may translate into 2% EPS downside risk as TWD revenues shrink. A 5% appreciation implies 10% EPS downside.

However, we are not overly concerned about the FX impact on TSMC earnings, as it doesn't hurt the company's structural profitability. In our recent Top Pick report ([link](#)), we noted several stock overhangs are being removed.

It is also worth watching whether some fund flows to TWD currency go into the local equity market. If so, this could help TSMC's P/E multiple expansion. The stock is trading at an attractive 12.5x 2026e P/E with c.2% dividend yield, hence we think some traction to fund flow is possible. We reiterate our OW.

See our FX analyst's report on TWD recent rally ([link](#)). USD/TWD has appreciated to NT\$30.2 vs. TSMC's guidance FX of NT\$32.5 for its 2Q25 revenue assumption.

Exhibit 1: USD/TWD sensitivity forecast to our coverage

Company	Ticker	FX impact on GM (TWD appreciates 1% against USD)	FX impact on OPM (TWD appreciates 1% against USD)
TSMC	2330.TW	-0.4ppt	-0.4-0.5ppt
UMC	2303.TW	-0.4-0.5ppt	-0.4-0.5ppt
Vanguard	5347.TWO	-0.5ppt	-0.5ppt
PSMC	6770.TW	-0.4ppt	-0.5ppt
WIN Semi	3105.TWO	-0.4ppt	-0.5ppt
AWSC	8086.TWO	-0.4ppt	-0.5ppt
GlobalWafers	6488.TWO	-0.4-0.5 ppt	-0.5ppt
FOCI	3363.TWO	-0.1ppt	-0.1ppt
Mediatek	2454.TW	Not meaningful	N/A
Silergy	6415.TW	-0.2ppt	-0.3ppt
Alchip	3661.TW	-0.2ppt	-0.3ppt
GUC	3443.TW	-0.023ppt	N/A
ASEH	3711.TW	-0.3-4ppt	N/A
KYEC	2449.TW	-0.3ppt	-0.4ppt
Nuvoton	4919.TW	-0.2ppt	-0.2ppt
ASMedia	5269.TW	Not meaningful	N/A
Parade	4966.TWO	Not meaningful	N/A
Aspeed	5274.TWO	Not meaningful	N/A
Egis	6462.TWO	Not meaningful	N/A
WPG	3702.TW	-0.2ppt	-0.3ppt
Phison	8299.TWO	-0.1ppt	-0.2ppt
M31	6643.TWO	N/A	N/A
Andes	6533.TW	N/A	N/A
Silicon Motion	SIMO.O	-0.2-0.25ppt	-0.3ppt
Realtek	2379.TW	Not meaningful	N/A
Macronix	2337.TW	Not meaningful	N/A
Winbond	2344.TW	-0.1ppt	-0.1ppt
Nanya Tech	2408.TW	-0.2ppt	-0.3ppt
Novatek	3034.TW	Not meaningful	N/A
Elan Micro	2458.TW	-0.1 ppt	N/A
Gudeng	2458.TWO	-0.1 ppt	N/A
Allring	6187.TWO	-0.1ppt	-0.1ppt

Source: Company Data, Morgan Stanley Research estimates

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TSMC (2330.TW, 2330 TT)

Top Pick

Greater China Technology Semiconductors | Taiwan

Stock Rating

Industry View

Price target

Up/downside to price target (%)

Shr price, close (May 6, 2025)

Mkt cap, curr (mn)

Avg daily trading value (mn)

Overweight

In-Line

NT\$1,288.00

40

NT\$920.00

NT\$23,853,717

NT\$43,289

Fiscal Year Ending	12/24	12/25e	12/26e	12/27e
EPS (NT\$)**	45.25	58.69	73.11	81.58
EPS (NT\$)§	45.37	59.75	69.58	81.49
ModelWare net inc (NT \$ bn)	1,173	1,522	1,896	2,115
P/E	23.8	15.7	12.6	11.3
Div yld (%)	1.5	2.2	2.7	2.7

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

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Valuation Methodology and Risks

TSMC (2330.TW)

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 10.0% and a terminal growth rate of 4.0%.

Risks to Upside

- TSMC charges large customers more to keep its gross margin above 53% 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 lasts into 2H25.
- Demand for leading edge technologies weakens.
- Costs of overseas fabs significantly grow.

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(as of April 30, 2025)

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	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1501	40%	377	46%	25%	691	40%
Equal-weight/Hold	1667	44%	375	45%	22%	796	46%
Not-Rated/Hold	3	0%	0	0%	0%	1	0%
Underweight/Sell	603	16%	76	9%	13%	229	13%
Total	3,774		828			1717	

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.

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INDUSTRY COVERAGE: Greater China Technology Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (05/06/2025)
Charlie Chan		
ACM Research Inc (ACMR.O)	O (03/07/2023)	US\$19.58
Advanced Micro-Fabrication Equipment Inc (688012.SS)	O (11/06/2023)	Rmb188.88
Advanced Wireless Semiconductor Co (8086.TWO)	E (10/24/2024)	NT\$71.30
Alchip Technologies Ltd (3661.TW)	O (05/14/2021)	NT\$2,275.00
Andes Technology Corp (6533.TW)	O (08/04/2022)	NT\$283.50
ASE Technology Holding Co. Ltd. (3711.TW)	O (09/15/2024)	NT\$136.50
Global Unichip Corp (3443.TW)	O (07/27/2024)	NT\$1,075.00
GlobalWafers Co Ltd (6488.TWO)	E (02/22/2023)	NT\$307.00
Gudeng Precision (3680.TWO)	O (08/27/2024)	NT\$363.50
Hua Hong Semiconductor Ltd (1347.HK)	O (06/13/2024)	HK\$36.30
King Yuan Electronics Co Ltd (2449.TW)	O (03/03/2023)	NT\$87.20
M31 Technology Corp (6643.TWO)	E (09/23/2024)	NT\$514.00
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb76.30
MediaTek (2454.TW)	O (09/12/2023)	NT\$1,280.00
Nanya Technology Corp. (2408.TW)	U (11/06/2023)	NT\$35.40
NAURA Technology Group Co Ltd (002371.SZ)	O (11/06/2023)	Rmb457.57
Phison Electronics Corp (8299.TWO)	O (03/11/2025)	NT\$445.50
SG Micro Corp. (300661.SZ)	O (06/17/2024)	Rmb101.27
Silergy Corp. (6415.TW)	O (02/13/2025)	NT\$415.00
SMIC (0981.HK)	E (04/09/2025)	HK\$46.95

TSMC (2330.TW)	O (02/07/2022)	NT\$920.00
UMC (2303.TW)	E (10/28/2024)	NT\$45.40
Vanguard International Semiconductor (5347.TWO)	U (08/05/2024)	NT\$88.40
Will Semiconductor Co Ltd Shanghai (603501.SS)	E (10/28/2024)	Rmb135.20
WIN Semiconductors Corp (3105.TWO)	O (06/28/2024)	NT\$83.70
Daisy Dai, CFA		
ASMP T Ltd (0522.HK)	E (11/20/2024)	HK\$53.25
China Resources Microelectronics Limited (688396.SS)	U (09/02/2024)	Rmb46.89
Elan Microelectronics Corp (2458.TW)	E (04/08/2025)	NT\$125.50
Empyrean Technology Co Ltd (301269.SZ)	E (01/17/2025)	Rmb121.50
Hangzhou Silan Microelectronics Co. Ltd. (600460.SS)	E (04/09/2024)	Rmb25.31
JCET Group Co Ltd (600584.SS)	U (09/25/2024)	Rmb34.32
Shanghai Anlogic Infotech Co Ltd (688107.SS)	E (05/14/2024)	Rmb27.92
Shanghai Fudan Microelectronics (1385.HK)	O (03/07/2025)	HK\$27.60
SICC Co Ltd (688234.SS)	O (09/18/2023)	Rmb59.98
StarPower Semiconductor Ltd (603290.SS)	O (03/01/2022)	Rmb85.20
Unigroup Guoxin Microelectronics Co Ltd (002049.SZ)	U (01/10/2023)	Rmb65.80
Universal Scientific Ind. (Shanghai) (601231.SS)	E (10/23/2024)	Rmb14.00
Yangjie Technology (300373.SZ)	O (06/10/2022)	Rmb48.53
Daniel Yen, CFA		
AP Memory Technology Corp (6531.TW)	E (09/15/2024)	NT\$241.00
ASMedia Technology Inc (5269.TW)	E (04/08/2025)	NT\$1,750.00
Aspeed Technology (5274.TWO)	E (09/15/2024)	NT\$3,550.00
Egis Technology Inc (6462.TWO)	E (03/26/2024)	NT\$92.00
Espressif Systems (688018.SS)	O (05/15/2023)	Rmb220.75
GigaDevice Semiconductor Beijing Inc (603986.SS)	E (01/22/2025)	Rmb131.85
Macronix International Co Ltd (2337.TW)	U (10/19/2021)	NT\$20.55
Montage Technology Co Ltd (688008.SS)	O (11/08/2023)	Rmb78.92
Novatek (3034.TW)	O (03/18/2024)	NT\$522.00
Nuvoton Technology Corporation (4919.TW)	O (10/29/2024)	NT\$72.90
Parade Technologies Ltd (4966.TWO)	U (06/04/2024)	NT\$532.00
Powerchip Semiconductor Manufacturing Co (6770.TW)	E (06/13/2024)	NT\$14.10
Realtek Semiconductor (2379.TW)	U (09/15/2024)	NT\$499.50
Shenzhen Goodix Technology Co Ltd (603160.SS)	E (06/12/2024)	Rmb71.49
Sino Wealth Electronic (300327.SZ)	U (03/31/2025)	Rmb22.35
Winbond Electronics Corp (2344.TW)	O (03/11/2025)	NT\$15.70
WPG Holdings (3702.TW)	E (11/16/2023)	NT\$66.60
Duan Liu		
Dosilicon Co Ltd (688110.SS)	U (09/06/2024)	Rmb32.31
Shenzhen Longsys Electronics Co Ltd (301308.SZ)	O (03/11/2025)	Rmb80.08
Tiffany Yeh		
AllRing Tech Co. (6187.TWO)	O (08/27/2024)	NT\$260.00
FOCI Fiber Optic Communications Inc (3363.TWO)	O (01/15/2025)	NT\$189.50
Silicon Motion (SIMO.O)	O (05/06/2024)	US\$52.49

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

* Historical prices are not split adjusted.