

TSMC (2330.TW/2330 TT)

Strong 2H24 outlook; new growth drivers in 1Q25F

FTSE4Good TIP Taiwan ESG Index stock

Outperform · Maintained

Price as of October 1 (NT\$)	972
12M target price (NT\$)	1,330
Previous target price (NT\$)	1,290
Revised up (%)	3.1
Upside (%)	36.8

Key message

- 3Q24F results to slightly beat guidance.
- We forecast 4Q24 sales growth of 8% QoQ.
- Apple's in-house modem could be a new growth driver in 2025.

Trading data

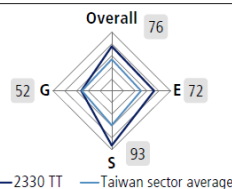
Mkt cap (NT\$bn/US\$m)	25,207 / 796,685
Outstanding shares (mn)	25,933
Foreign ownership (mn)	19,089
3M avg. daily trading (mn)	33.69
52-week trading range (NT\$)	520 – 1,080

Performance	3M	6M	12M
Absolute (%)	0.4	26.2	85.9
Relative (%)	3.3	15.5	49

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2023	7.98A	7.01A	8.14A	9.21A
2024	8.70A	9.56A	11.74F	12.81F
2025	11.05F	11.87F	14.59F	15.81F

ESG score card



Source: Refinitiv

Event

TSMC is scheduled to host its 3Q24 analyst meeting on October 17. We believe 3Q24 revenue will slightly exceed guidance of 8-12% QoQ growth, and the firm will likely revise up 2024 sales growth guidance from 25% YoY to more than 30% YoY.

Impact

3Q24F results to slightly beat guidance. We forecast 3Q24 sales will grow 13% QoQ, slightly above guidance of 8-12% QoQ thanks to AI demand and iPhone 16 ramp-up. We estimate gross margin will arrive at 54.5% (mid-point of guidance) as sales upside will be offset by NT-dollar appreciation. The focus of the analyst meeting will be: (1) outlook for AI demand and CoWoS expansion; (2) 2024-25 capex guidance; (3) outlook for the semiconductor upcycle and 2025, particularly for non-AI demand; and (4) N2 progress.

We forecast 4Q24 sales growth of 8% QoQ. We expect 4Q24 sales guidance of 5-10% QoQ growth, versus our forecast of 8% QoQ growth due to a high 3Q24 base. In 4Q24F, AI chips for Nvidia (US), the A18 chip for the iPhone 16, Qualcomm (US) and MediaTek's (2454 TT, NT\$1,210, N) flagship SOCs, and Intel's (US) Lunar Lake processors will be key sales drivers. However, we note demand for mature nodes, particularly that for the 8-inch process, will remain weak. We forecast respective 2024-25 sales growth of 32% and 21% YoY. Therefore, TSMC will likely raise sales growth guidance from 25% YoY to more than 30% YoY in 2024.

Apple's in-house modem could be a new growth driver in 2025. Currently, Qualcomm is the sole supplier of 5G modems for Apple's (US) iPhone, and the deal will last until 1Q27. Apple accounts for roughly 25% of Qualcomm's mobile business, which indicates the TAM for Apple's 5G modem and RF is about US\$9-10bn. Apple has never stopped developing its own 5G modem, and we expect Apple to adopt its in-house developed modem and RF for the iPhone SE4 in 1H25. As a result, TSMC will likely get new business from Apple, including the 5G modem (N5) and RF (N6). Historically, SE-series sales volume has been around 20mn units, which accounts for less than 10% of annual iPhone shipments. However, if all goes smoothly, Apple will likely also utilize its in-house modem and RF in its forthcoming iPhone Slim in 2H25. We forecast this business could contribute US\$1.5-2.0bn in sales for TSMC in 2025.

Valuation & Action

To factor in potential upside from Apple, we revise up 2025F EPS by 3.1% to NT\$53.32. We maintain Outperform, but raise our target price to NT\$1,330 due to earnings forecast revisions, still based on 25x 2025F EPS (cycle peak). We recommend investors maintain positions in the industry leader as we have yet to see signs the upcycle is nearing its end.

Risks

Global macro and geopolitical uncertainties; prolonged inventory correction.

Key financials and valuations

	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Revenue (NT\$m)	1,587,415	2,263,891	2,161,736	2,848,096	3,457,401
Gross profit (NT\$m)	819,537	1,348,355	1,175,111	1,530,752	1,902,431
Operating profit (NT\$m)	649,981	1,121,279	921,088	1,233,860	1,554,430
Net profit (NT\$m)	596,540	1,016,530	838,498	1,109,752	1,382,414
EPS (NT\$)	23.01	39.20	32.34	42.80	53.32
Cash DPS (NT\$)	11.00	11.00	13.00	16.00	18.00
EPS growth (%)	15.2	70.4	(17.5)	32.4	24.6
PE (x)	42.3	24.8	30.1	22.7	18.2
PB (x)	11.6	8.6	7.3	5.9	4.8
EV/EBITDA (x)	22.9	15.6	16.5	12.1	9.9
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Dividend yield (%)	1.1	1.1	1.3	1.6	1.9
Return on average equity (%)	29.7	39.8	26.2	28.8	29.1

Source: Company data, KGI Research estimates

Figure 1: Breakdown of 3Q-4Q24 forecast revisions vs. consensus

NT\$m	3Q24F							4Q24F						
	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Revenue	760,544	754,219	0.8	12.9	39.1	747,134	1.8	821,397	777,454	5.7	8.0	31.3	797,856	3.0
Gross profit	414,305	409,870	1.1	15.7	39.7	408,160	1.5	443,818	409,622	8.3	7.1	33.8	435,071	2.0
Operating profit	334,144	330,300	1.2	15.6	46.7	328,179	1.8	364,142	334,209	9.0	9.0	40.0	352,759	3.2
Net profit	304,352	301,047	1.1	22.8	44.2	296,266	2.7	332,069	306,178	8.5	9.1	39.1	318,279	4.3
EPS (NT\$)	11.74	11.61	1.1	22.8	44.2	11.46	2.4	12.81	11.81	8.5	9.1	39.1	12.25	4.5
Gross margin (%)	54.5	54.3	0.1 ppts	1.3 ppts	0.2 ppts	54.6	(0.2)ppts	54.0	54.3	(0.3)ppts	(0.4)ppts	1.0 ppts	54.5	(0.5)ppts
OP margin (%)	43.9	43.8	0.1 ppts	1.0 ppts	2.3 ppts	43.9	0.0 ppts	44.3	43.8	0.5 ppts	0.4 ppts	2.8 ppts	44.2	0.1 ppts
Net margin (%)	40.0	39.9	0.1 ppts	3.2 ppts	1.4 ppts	39.7	0.4 ppts	40.4	39.9	0.5 ppts	0.4 ppts	2.3 ppts	39.9	0.5 ppts

Source: Bloomberg, KGI Research estimates

Figure 2: Breakdown of 2024-25 forecast revisions vs. consensus

NT\$m	2024F						2025F					
	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Revenue	2,848,096	2,797,827	1.8	31.8	2,814,720	1.2	3,457,401	3,366,101	2.7	21.4	3,480,829	(0.7)
Gross profit	1,530,752	1,492,123	2.6	30.3	1,517,219	0.9	1,902,431	1,842,969	3.2	24.3	1,918,772	(0.9)
Operating profit	1,233,860	1,200,084	2.8	34.0	1,216,030	1.5	1,554,430	1,505,929	3.2	26.0	1,565,391	(0.7)
Net profit	1,109,752	1,080,555	2.7	32.4	1,087,964	2.0	1,382,414	1,341,272	3.1	24.6	1,391,052	(0.6)
EPS (NT\$)	42.80	41.67	2.7	32.4	42.10	1.7	53.32	51.73	3.1	24.6	53.53	(0.4)
Gross margin (%)	53.7	53.3	0.4 ppts	(0.6)ppts	53.9	(0.2)ppts	55.0	54.8	0.3 ppts	1.3 ppts	55.1	(0.1)ppts
OP margin (%)	43.3	42.9	0.4 ppts	0.7 ppts	43.2	0.1 ppts	45.0	44.7	0.2 ppts	1.6 ppts	45.0	(0.0)ppts
Net margin (%)	39.0	38.6	0.3 ppts	0.2 ppts	38.7	0.3 ppts	40.0	39.8	0.1 ppts	1.0 ppts	40.0	0.0 ppts

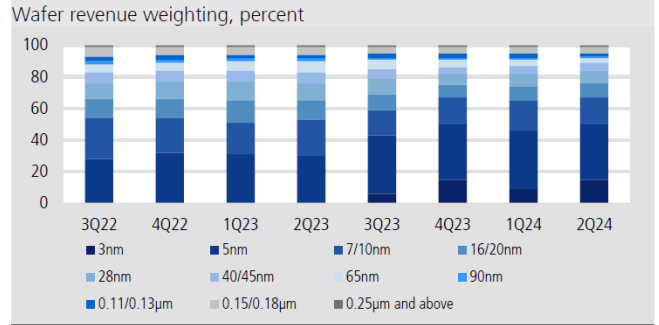
Source: Bloomberg, KGI Research estimates

Figure 3: Company profile

Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest dedicated semiconductor foundry, has increased its market share in recent years. Capacity exceeded 16mn 8-inch equivalent wafers in 2013. TSMC operates six advanced 300mm wafer fabs, six 8-inch wafer fabs, and one 6-inch wafer fab, and is building a new 300mm wafer fab. The company provides the following services: wafer manufacturing, wafer probing, assembly and testing, mask production, and design services.

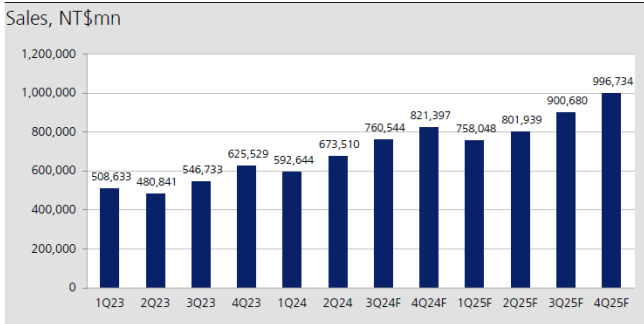
Source: Company data, KGI Research

Figure 4: TSMC's wafer revenue by node



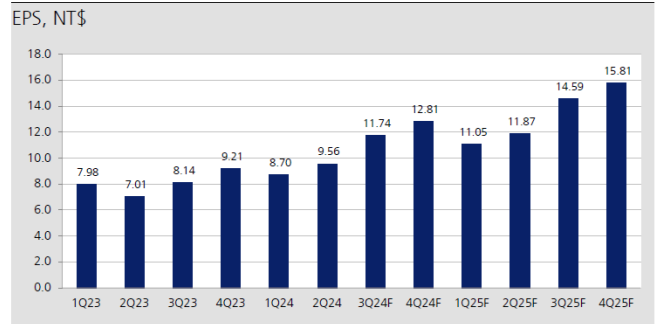
Source: Company data, KGI Research

Figure 5: Sales



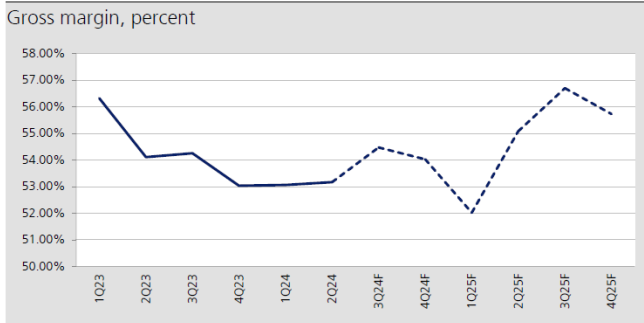
Source: KGI Research

Figure 6: EPS



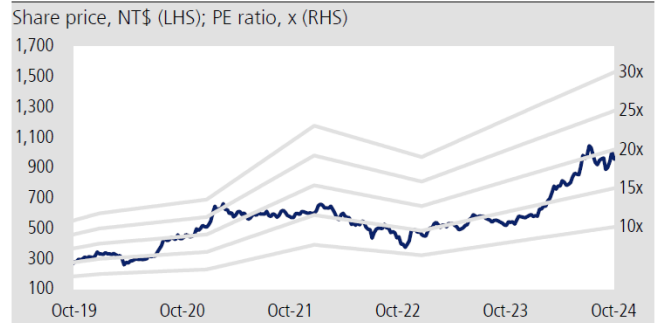
Source: KGI Research

Figure 7: Gross margin



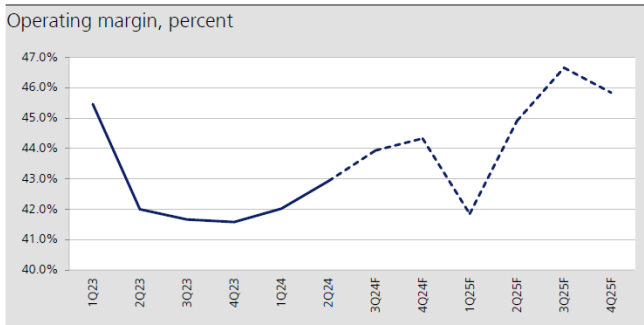
Source: KGI Research

Figure 8: 12M forward PE band



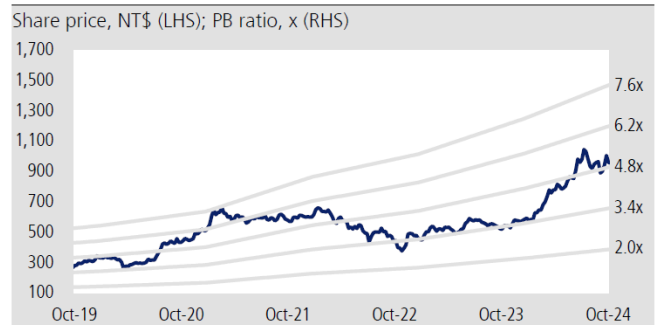
Source: TEJ, KGI Research estimates

Figure 9: Operating margin



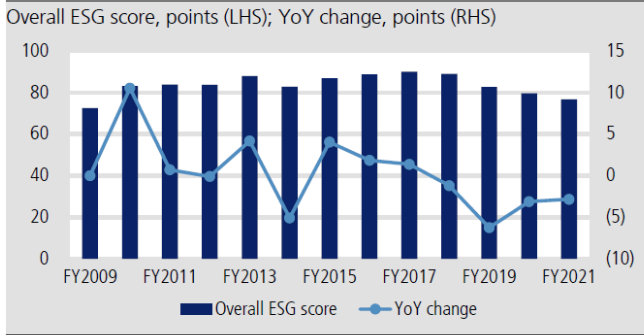
Source: KGI Research

Figure 10: 12M forward PB band



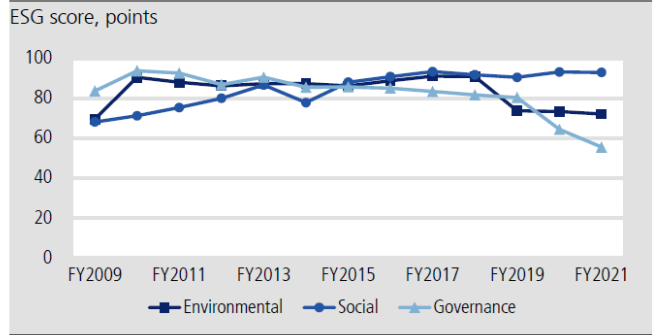
Source: TEJ, KGI Research estimates

Figure 11: Overall ESG score



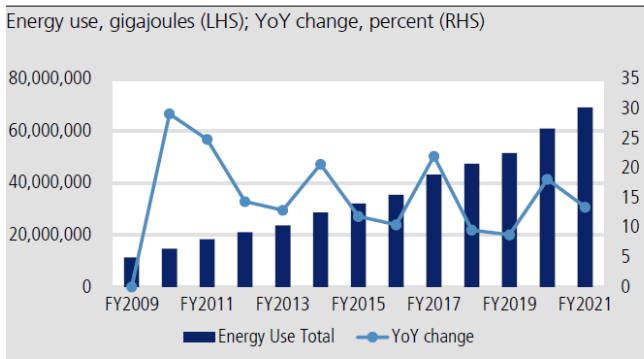
Source: Refinitiv, Company data

Figure 12: ESG score by category



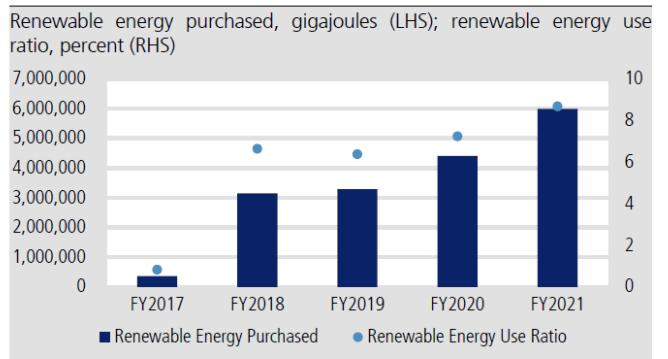
Source: Refinitiv, Company data

Figure 13: Energy use



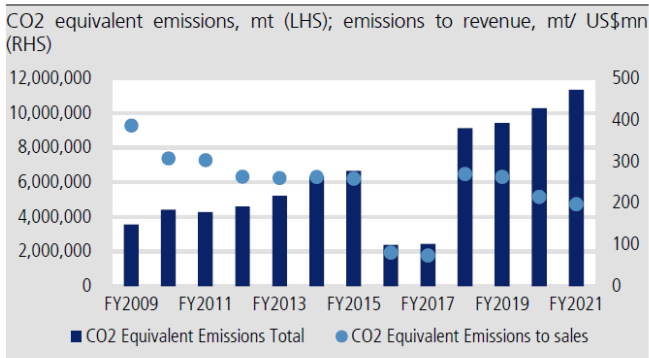
Source: Refinitiv, Company data

Figure 14: Renewable energy



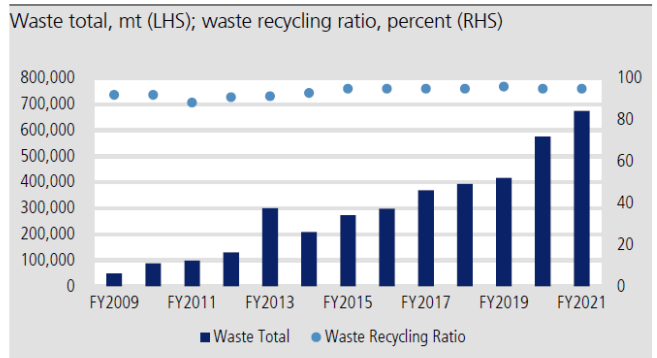
Source: Refinitiv, Company data

Figure 15: CO2 equivalent emissions



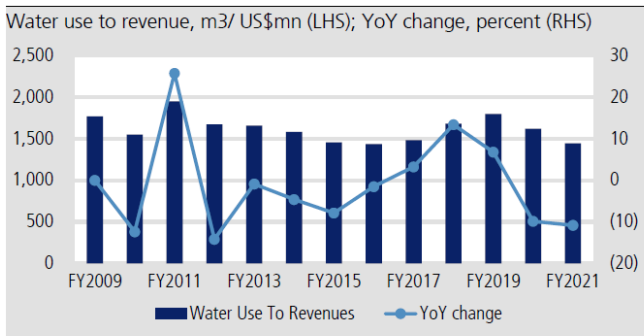
Source: Refinitiv, Company data

Figure 16: Waste total



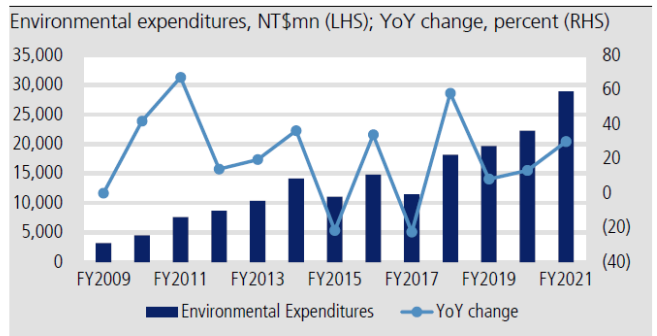
Source: Refinitiv, Company data

Figure 17: Water use to revenue

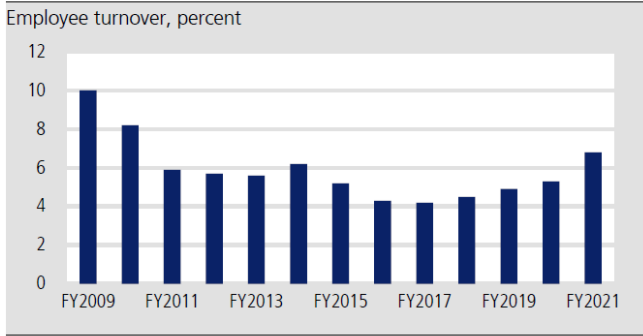


Source: Refinitiv, Company data

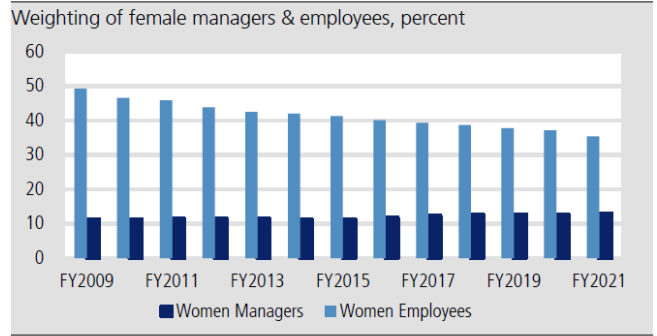
Figure 18: Environmental expenditures



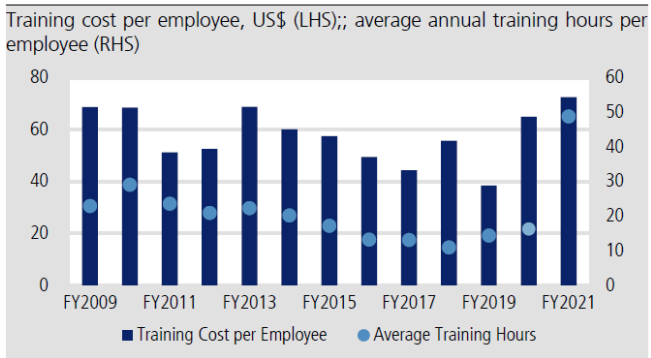
Source: Refinitiv, Company data

Figure 19: Employee turnover


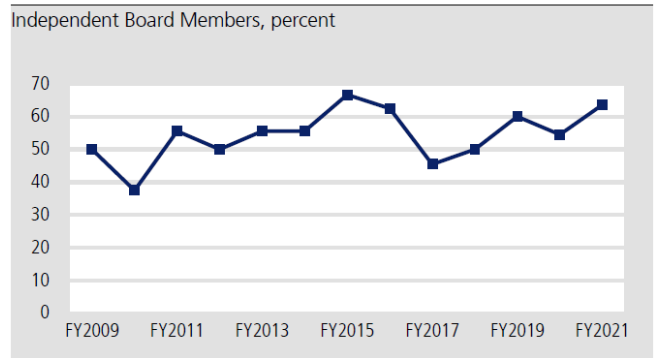
Source: Refinitiv, Company data

Figure 20: Gender diversification


Source: Refinitiv, Company data

Figure 21: Employee training


Source: Refinitiv, Company data

Figure 22: Independent Board Members


Source: Refinitiv, Company data

ESG chart definition

Item	Definition	Remarks
Energy use	<p>Total direct and indirect energy consumption in gigajoules.</p> <ul style="list-style-type: none"> - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use' 	
Renewable energy purchased	<p>Total primary renewable energy purchased in gigajoules.</p> <ul style="list-style-type: none"> - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased 	
Renewable energy use ratio	Renewable energy to total energy used	
CO2 equivalent emissions	<p>Direct CO2 and CO2 equivalent emissions in metric tons.</p> <ul style="list-style-type: none"> - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3) 	
CO2 equivalent emissions to sales	<p>Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$m)</p> <ul style="list-style-type: none"> - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3) 	
Waste total	<p>Total amount of waste produced in metric tons.</p> <ul style="list-style-type: none"> - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered 	
Waste recycling ratio	<p>The waste recycling ratio as reported by the company.</p> <ul style="list-style-type: none"> - waste recycling ratio = waste recycled/total waste*100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste 	
Water withdrawal total	<p>Total water withdrawal in cubic meters.</p> <ul style="list-style-type: none"> - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered 	
Environmental expenditures	<p>Total amount of environmental expenditures.</p> <ul style="list-style-type: none"> - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures 	
Turnover of employees	<p>Percentage of employee turnover.</p> <ul style="list-style-type: none"> - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving 	
Women managers	<p>Percentage of women managers.</p> <ul style="list-style-type: none"> - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100 	
Women employees	<p>Percentage of women employees.</p> <ul style="list-style-type: none"> - percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100 	
Training hours total	<p>Total training hours performed by all employees.</p> <ul style="list-style-type: none"> - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked 	
Training hours per employee	Training hours per employee per year	

Source: Refinitiv, KGI Research

Income statement

	Quarterly								Annually		
	Mar-24A	Jun-24A	Sep-24F	Dec-24F	Mar-25F	Jun-25F	Sep-25F	Dec-25F	Dec-23A	Dec-24F	Dec-25F
Income statement (NT\$mn)											
Revenue	592,644	673,510	760,544	821,397	758,048	801,939	900,680	996,734	2,161,736	2,848,096	3,457,401
Cost of goods sold	(278,139)	(315,386)	(346,239)	(377,580)	(363,661)	(360,183)	(389,930)	(441,196)	(986,625)	(1,317,344)	(1,554,970)
Gross profit	314,505	358,124	414,305	443,818	394,387	441,756	510,750	555,538	1,175,111	1,530,752	1,902,431
Operating expenses	(65,487)	(69,022)	(80,161)	(79,676)	(77,169)	(81,637)	(90,518)	(98,677)	(254,022)	(296,893)	(348,002)
Operating profit	249,018	289,103	334,144	364,142	317,218	360,119	420,232	456,861	921,088	1,233,860	1,554,430
Depreciation of fixed assets	(156,697)	(162,929)	(194,777)	(182,816)	(182,804)	(190,224)	(197,645)	(192,079)	(522,933)	(697,220)	(762,752)
Amortisation of intangible assets	(2,326)	(2,237)	(4,151)	(4,463)	(3,638)	(3,741)	(4,213)	(3,668)	(9,258)	(13,178)	(15,260)
EBITDA	408,041	454,269	533,073	551,421	503,660	554,084	622,089	652,609	1,453,279	1,944,257	2,332,442
Interest income	19,359	20,979	20,979	20,979	20,979	20,979	20,979	20,979	60,294	82,296	83,915
Investment income	950	1,355	1,200	1,200	1,200	1,200	1,200	1,200	5,119	4,705	4,800
Other non-op income	0	(0)	0	-	-	-	-	-	16	0	-
Non-operating income	20,309	22,335	22,179	22,179	22,179	22,179	22,179	22,179	65,429	87,001	88,715
Interest expense	(2,698)	(2,638)	(2,638)	(2,638)	(2,638)	(2,638)	(2,638)	(2,638)	(11,999)	(10,613)	(10,554)
Investment loss	-	-	-	-	-	-	-	-	-	-	-
Other non-op expenses	(86)	58	-	-	-	-	-	-	4,276	(27)	-
Non-operating expenses	(2,784)	(2,580)	(2,638)	(2,638)	(2,638)	(2,638)	(2,638)	(2,638)	(7,723)	(10,641)	(10,554)
Pre-tax profit	266,543	308,858	353,684	383,682	336,758	379,659	439,772	476,402	978,794	1,310,220	1,632,591
Current taxation	(41,322)	(58,649)	(49,516)	(51,797)	(50,514)	(72,135)	(61,568)	(66,696)	(141,404)	(201,284)	(250,913)
Minorities	264	184	184	184	184	184	184	184	730	816	736
Normalised net profit	225,485	250,393	304,352	332,069	286,428	307,708	378,388	409,889	838,120	1,109,752	1,382,414
Extraordinary items	(0)	(2,547)	-	-	-	-	-	-	377	-	-
Net profit	225,485	247,846	304,352	332,069	286,428	307,708	378,388	409,889	838,498	1,109,752	1,382,414
EPS (NT\$)	8.70	9.56	11.74	12.81	11.05	11.87	14.59	15.81	32.34	42.80	53.32
Margins (%)											
Gross profit margin	53.1	53.2	54.5	54.0	52.0	55.1	56.7	55.7	54.4	53.7	55.0
Operating margin	42.0	42.9	43.9	44.3	41.8	44.9	46.7	45.8	42.6	43.3	45.0
EBITDA margin	68.9	67.4	70.1	67.1	66.4	69.1	69.1	65.5	67.2	68.3	67.5
Pretax profit margin	45.0	45.9	46.5	46.7	44.4	47.3	48.8	47.8	45.3	46.0	47.2
Net profit margin	38.0	36.8	40.0	40.4	37.8	38.4	42.0	41.1	38.8	39.0	40.0
Sequential growth (%)											
Revenue growth	(5.3)	13.6	12.9	8.0	(7.7)	5.8	12.3	10.7			
Gross profit growth	(5.2)	13.9	15.7	7.1	(11.1)	12.0	15.6	8.8			
Operating profit growth	(4.3)	16.1	15.6	9.0	(12.9)	13.5	16.7	8.7			
EBITDA growth	(0.7)	11.3	17.3	3.4	(8.7)	10.0	12.3	4.9			
Pretax profit growth	(4.2)	15.9	14.5	8.5	(12.2)	12.7	15.8	8.3			
Net profit growth	(5.5)	9.9	22.8	9.1	(13.7)	7.4	23.0	8.3			
YoY growth (%)											
Revenue growth	16.5	40.1	39.1	31.3	27.9	19.1	18.4	21.3	(4.5)	31.8	21.4
Gross profit growth	9.8	37.6	39.7	33.8	25.4	23.4	23.3	25.2	(12.8)	30.3	24.3
Operating profit growth	7.7	43.1	46.7	40.0	27.4	24.6	25.8	25.5	(17.9)	34.0	26.0
EBITDA growth	19.5	39.4	42.1	34.3	23.4	22.0	16.7	18.4	(6.8)	33.8	20.0
Pretax profit growth	9.1	43.9	46.3	37.9	26.3	22.9	24.3	24.2	(14.5)	33.9	24.6
Net profit growth	8.9	36.3	44.2	39.1	27.0	24.2	24.3	23.4	(17.5)	32.4	24.6

Source: Company data, KGI Research estimates

Balance sheet

NT\$m	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Total assets	3,725,503	4,964,779	5,532,371	6,576,851	7,576,503
Current assets	1,607,073	2,052,897	2,194,033	2,894,453	3,502,823
Cash & ST securities	1,188,456	1,561,486	1,687,644	2,172,960	2,655,404
Inventory	193,102	221,149	250,997	338,126	395,095
Accounts receivable	198,301	231,340	201,938	323,045	392,003
Other current assets	27,214	38,922	53,453	60,321	60,321
Non-current assets	2,118,431	2,911,882	3,338,338	3,682,398	4,073,679
LT investments	29,385	68,928	129,442	142,619	147,419
Net fixed assets	1,975,119	2,693,837	3,064,475	3,395,153	3,781,634
Other assets	113,927	149,117	144,421	144,626	144,626
Total liabilities	1,554,770	2,004,290	2,049,108	2,288,803	2,320,905
Current liabilities	739,503	944,227	913,583	1,175,502	1,207,604
Accounts payable	48,723	56,522	57,293	94,795	110,767
Interest bearing ST liabilities	119,488	19,314	9,293	23,075	23,075
Other current liabilities	571,293	868,391	846,997	1,057,632	1,073,763
Non-current liabilities	815,267	1,060,063	1,135,525	1,113,300	1,113,300
Long-term debt	613,380	839,096	918,283	945,143	945,143
Other L-T liabilities	181,123	191,203	188,560	138,956	138,956
Total equity	2,170,733	2,960,489	3,483,263	4,288,048	5,255,598
Share capital	259,304	259,304	259,321	259,336	259,336
Retained earnings reserve	1,536,379	2,323,223	2,846,884	3,932,115	4,899,665
Minority interests	2,447	14,836	24,349	28,745	28,745
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Growth					
Revenue growth	18.5%	42.6%	(4.5%)	31.8%	21.4%
Operating profit growth	14.7%	72.5%	(17.9%)	34.0%	26.0%
EBITDA growth	19.4%	45.3%	(6.8%)	33.8%	20.0%
Net profit growth	15.2%	70.4%	(17.5%)	32.4%	24.6%
EPS growth	15.2%	70.4%	(17.5%)	32.4%	24.6%
Profitability					
Gross profit margin	51.6%	59.6%	54.4%	53.7%	55.0%
Operating margin	40.9%	49.5%	42.6%	43.3%	45.0%
EBITDA margin	67.6%	68.8%	67.2%	68.3%	67.5%
Net profit margin	37.6%	44.9%	38.8%	39.0%	40.0%
Return on average assets	18.4%	23.4%	16.0%	18.3%	19.5%
Return on average equity	29.7%	39.8%	26.2%	28.8%	29.1%
Stability					
Gross debt to equity	33.8%	29.0%	26.6%	22.6%	18.4%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cash
Interest coverage (x)	123.5	98.4	82.6	124.5	155.7
Interest & ST debt coverage (x)	0.8	1.0	1.0	1.0	1.0
Cash flow interest coverage(x)	205.4	137.1	103.5	167.0	195.4
Cash flow/int. & ST debt (x)	8.9	51.8	58.3	52.6	61.3
Current ratio (x)	2.2	2.2	2.4	2.5	2.9
Quick ratio (x)	1.9	1.9	2.1	2.2	2.6
Net debt (NT\$m)	(332,122)	(484,404)	(537,852)	(955,233)	(1,437,677)
Per share data					
EPS (NT\$)	23.01	39.20	32.34	42.80	53.32
CFPS (NT\$)	42.89	62.12	47.90	68.35	79.52
BVPS (NT\$)	83.62	113.60	133.38	164.27	201.58
Adj BVPS (NT\$)	83.62	113.60	133.40	164.27	201.58
SPS (NT\$)	61.22	87.31	83.37	109.84	133.34
EBITDA/share (NT\$)	41.36	60.11	56.05	74.98	89.96
Cash DPS (NT\$)	11.00	11.00	13.00	16.00	18.00
Activity					
Sales / avg assets	0.49	0.52	0.41	0.47	0.49
Days receivable	45.6	37.3	34.1	41.5	41.4
Days inventory	91.8	88.2	92.9	93.9	92.7
Days payable	23.2	22.5	21.2	26.3	26.0
Cash cycle	114.2	102.9	105.8	109.1	108.1

Source: Company data, KGI Research estimates

Profit & loss

NT\$m	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Revenue	1,587,415	2,263,891	2,161,736	2,848,096	3,457,401
Cost of goods sold	(767,878)	(915,536)	(986,625)	(1,317,344)	(1,554,970)
Gross profit	819,537	1,348,355	1,175,111	1,530,752	1,902,431
Operating expenses	(169,556)	(227,076)	(254,022)	(296,893)	(348,002)
Operating profit	649,981	1,121,279	921,088	1,233,860	1,554,430
Non-operating income	12,285	31,168	65,429	87,001	88,715
Interest income	5,709	22,422	60,294	82,296	83,915
Investment income	5,965	8,065	5,119	4,705	4,800
Other non-op income	611	681	16	0	-
Non-operating expenses	860	(8,256)	(7,723)	(10,641)	(10,554)
Interest expense	(5,414)	(11,750)	(11,999)	(10,613)	(10,554)
Investment loss	-	-	-	-	-
Other non-op expenses	6,275	3,494	4,276	(27)	-
Pre-tax profit	663,126	1,144,191	978,794	1,310,220	1,632,591
Current taxation	(66,053)	(127,290)	(141,404)	(201,284)	(250,913)
Minorities	(533)	(370)	730	816	736
Extraordinary items	-	0	377	-	-
Net profit	596,540	1,016,530	838,498	1,109,752	1,382,414
EBITDA	1,072,376	1,558,533	1,453,279	1,944,257	2,332,442
EPS (NT\$)	23.01	39.20	32.34	42.80	53.32

Cash flow

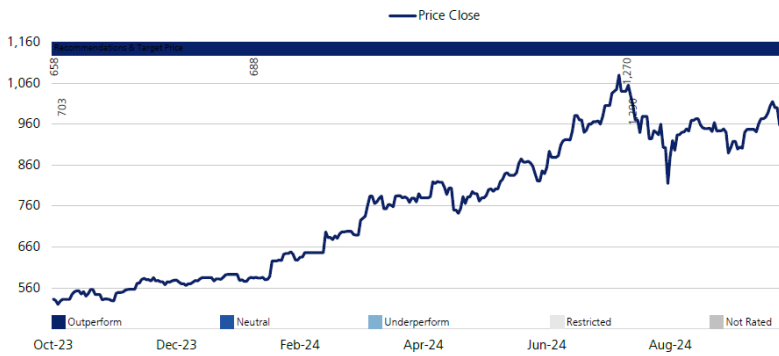
NT\$m	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Operations cash flow	1,112,161	1,610,599	1,241,967	1,772,291	2,061,802
Net profit	596,540	1,016,530	838,498	1,109,752	1,382,414
Depreciation & amortisation	422,395	437,254	532,191	710,398	778,012
Decrease in working capital	(100,384)	(53,286)	324	(170,734)	(109,955)
Other operating cash flow	193,610	210,100	(129,046)	122,875	11,331
Investing cash flow	(836,366)	(1,190,928)	(906,121)	(1,022,881)	(1,164,493)
Sale of ST investment	4,676	(128,838)	(55,781)	(15,707)	-
New investments	-	-	-	-	-
Capital expenditure	(839,196)	(1,082,672)	(949,817)	(1,052,446)	(1,164,493)
Others investing cashflow	(1,846)	20,582	99,478	45,272	-
Free cash flow	59,845	289,078	361,461	518,346	803,833
Financing cash flow	136,608	(200,244)	(204,894)	(330,451)	(414,865)
Increase in short term debt	35,668	(11,960)	-	-	-
Increase in long term loans	362,765	195,983	68,204	40,642	-
New ordinary shares issued	-	-	-	-	-
Ordinary dividends paid	(265,786)	(285,234)	(291,722)	(337,080)	(414,865)
Other financing cashflow	3,961	1,839	18,623	(30,925)	-
Forex effects	(7,584)	58,397	(8,339)	39,065	-
Total cash generated	404,820	277,824	122,614	458,024	482,444

ROIC

	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
1 - COGS/revenue					
- Operating exp./revenue	10.7%	10.0%	11.8%	10.4%	10.1%
= Operating margin	40.9%	49.5%	42.6%	43.3%	45.0%
1 / (Working capital/revenue	(0.1)	(0.2)	(0.2)	(0.2)	(0.1)
+ Net PPE/revenue	1.2	1.2	1.4	1.2	1.1
+ Other assets/revenue)	0.0	0.0	0.0	0.1	0.0
= Capital turnover	0.9	1.0	0.8	0.9	1.0
Operating margin	40.9%	49.5%	42.6%	43.3%	45.0%
x Capital turnover	0.9	1.0	0.8	0.9	1.0
x (1 - tax rate)	90.0%	88.9%	85.6%	84.6%	84.6%
= After-tax ROIC	32.9%	43.9%	29.4%	33.6%	36.7%

Source: Company data, KGI Research estimates

TSMC – Recommendation & target price history



Date	Rating	Target	Price
2024-08-21	Outperform	1,290	958
2024-07-18	Outperform	1,290	1,005
2024-07-15	Outperform	1,270	1,040
2024-01-18	Outperform	688	588
2024-01-10	Outperform	688	584
2023-10-19	Outperform	703	546
2023-10-06	Outperform	703	532
2023-07-20	Outperform	658	579
2023-07-04	Outperform	716	585
2023-04-14	Outperform	591	516

Source: TEJ, KGI Research

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