

## TSMC (2330.TW/2330 TT)

### Promising outlook for N2

FTSE4Good TIP Taiwan ESG Index stock

#### Outperform · Maintained

Price as of June 9 (NT\$)	1,005
12M target price (NT\$)	1,105
Previous target price (NT\$)	1,000
Revised up (%)	10.5
Upside (%)	10.0

#### Key message

1. N2 adoption timeline & sales meaningfully outpacing N3.
2. We expect N3 shipments to grow by 10% YoY in 2026F.
3. CoWoS production forecasts to be revised down.

#### Trading data

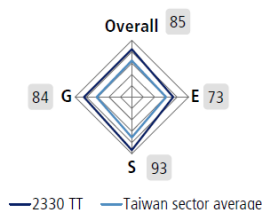
Mkt cap (NT\$bn/US\$m)	26,062 / 872,377
Outstanding shares (mn)	25,933
Foreign ownership (mn)	18,833
3M avg. daily trading (mn)	28.11
52-week trading range (NT\$)	785 –1,135

Performance	3M	6M	12M
Absolute (%)	0	-6.5	14.3
Relative (%)	3.5	-0.1	14.6

#### Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2023	7.98A	7.01A	8.14A	9.21A
2024	8.70A	9.56A	12.55A	14.45A
2025	13.95A	14.03F	14.22F	15.04F

#### ESG score card



Source: Refinitiv

#### Event

We update on the latest N2 and N3 demand, as well as CoWoS planning in 2026F.

#### Impact

**N2 adoption timeline & sales meaningfully outpacing N3.** TSMC's N2 process is expected to begin wafer-in in 4Q25F and contribute to sales in 2026F. We estimate monthly N2 capacity will expand from 25k wafers at end-2025 to 70–75k wafers at end-2026. In 2026F, N2 will account for 15% of TSMC's total sales, significantly exceeding N3's first-year contribution of 6%. Unlike previous advanced nodes, of which Apple (US) was the primary early adopter, AMD (US) will take the lead this time. Additionally, all major N3 clients, including Bitmain (CN), Intel (US), MediaTek (2454 TT, NT\$1,285, OP), and Qualcomm (US), are expected to adopt N2. N2's top six clients account for 95% of orders.

**We expect N3 shipments to grow by 10% YoY in 2026F.** Although N3 customers continue to migrate to the N2 node, we still forecast a 10% YoY increase in N3 shipments in 2026, driven by Nvidia's (US) Rubin chip ramping on the N3 process, which helps offset declines from other N3 customers. MediaTek, one of the top N3 customers, is expected to see a growth next year, primarily due to a ramp-up of AI ASIC shipments (e.g. Google's (US) TPU v7e). Given strong N2 demand, we expect N2 and N3 revenue to account for 45-46% of TSMC's total revenue in 2026.

**CoWoS expansion forecasts to be revised down.** Amid elevated market expectations and weaker-than-expected initial shipments of the GB200, upstream chip production has significantly outpaced downstream deliveries. As a result, we anticipate that previously overbooked TSMC capacity will face downward revisions. We expect monthly CoWoS capacity to expand from 70k wafers by end-2025F to 90k wafers by end-2026F, versus consensus of 100-120k wafers. Nvidia is likely to see the largest downward revision. We estimate Nvidia's CoWoS demand this year and next will be revised down from 400k and 650k wafers to 350k and 500k wafers, respectively. We believe this revision does not reflect weakening demand, but rather an adjustment of previous overbooking. The only notable upward revision comes from Broadcom (US).

#### Valuation & Action

We fine tune our EPS forecast to factor in: (1) a stronger NT dollar; (2) stronger N2 demand; and (3) a lower CoWoS capacity forecast. To reflect TSMC's competence, we slightly adjust our target P/E multiple from 15x (average since 2008) to 16.5x (average since 2018). Our target price is adjusted to NT\$1,105. It is important to note that our EPS forecast is based on assumptions of a forex rate of NT\$30-31/US\$, and does not factor in the potential risk of appreciation past NT\$30/US\$. Maintain Outperform.

#### Risks

Global economic and tariff uncertainties; potential risks of Intel investment.

#### Key financials and valuations

	Dec-22A	Dec-23A	Dec-24A	Dec-25F	Dec-26F
Revenue (NT\$m)	2,263,891	2,161,736	2,894,308	3,567,816	4,133,933
Gross profit (NT\$m)	1,348,355	1,175,111	1,624,354	2,042,222	2,362,169
Operating profit (NT\$m)	1,121,279	921,088	1,324,513	1,680,505	1,966,141
Net profit (NT\$m)	1,016,530	838,498	1,173,268	1,483,846	1,736,330
EPS (NT\$)	39.20	32.34	45.25	57.23	66.97
Cash DPS (NT\$)	11.00	13.00	17.00	20.00	20.00
EPS growth (%)	70.4	(17.5)	39.9	26.5	17.0
PE (x)	25.6	31.1	22.2	17.6	15.0
PB (x)	8.8	7.5	6.1	4.9	4.0
EV/EBITDA (x)	16.1	17.0	12.2	9.8	8.8
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Dividend yield (%)	1.1	1.3	1.7	2.0	2.0
Return on average equity (%)	39.8	26.2	30.3	31.0	29.5

Source: Company data; KGI Research estimates

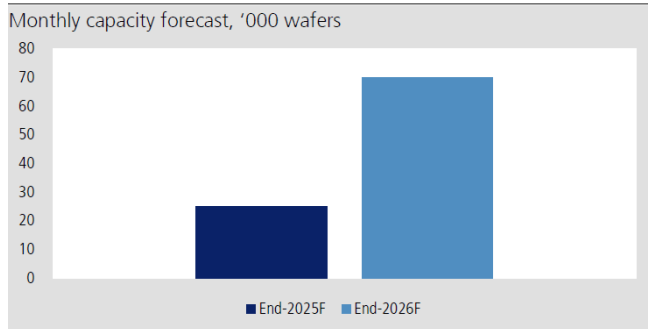
### N2 adoption timeline & sales significantly greater than those of N3

TSMC's N2 node process is expected to begin wafer-in by end-4Q25F and start contributing to sales in 2026F. We estimate that monthly N2 capacity will expand from 25k wafers at end-2025F to 70–75k wafers by end-2026F. In 2026F, N2 is expected to account for 15% of TSMC's total revenue, significantly surpassing the 6% contribution from N3 in its first full production year. The number of N2 design projects is 3-4 times higher than for previous nodes. Unlike in the past, where Apple was the primary early adopter of leading-edge nodes, AMD will take the lead this time with its Venice server processor, which adopts both SoIC and CoWoS-L advanced packaging technologies. However, AMD's contribution is expected to be the smallest among the top six customers. Apple (A20) will still be the largest N2 customer, accounting for over 50% of total N2 orders. Unlike previous generations, where non-Apple customers lagged by one node, MediaTek's Dimensity 9600 and Qualcomm's Snapdragon 8950 will adopt N2 at the same time as Apple. Including Bitmain's mining chips and Intel's Nova Lake, the top six customers will account for 95% of N2 orders.

Even with customers transitioning from N3 to N2, we expect TSMC's N3 shipments in 2026 to grow by 10% YoY, thanks to Nvidia's Rubin chip ramp, which will compensate for volume weakness from other N3 customers. MediaTek is one of few N3 clients expected to see an increase, due to a low base and a ramp-up of AI ASIC shipments (Google TPU v7e).

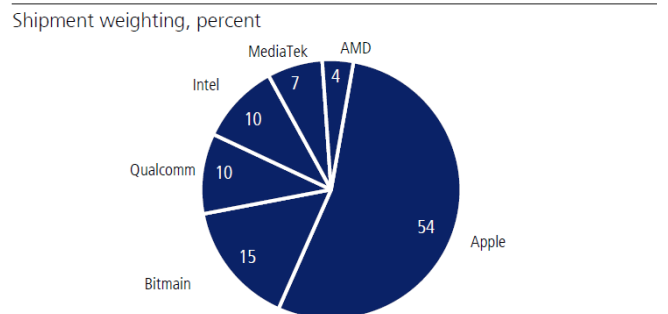
Previously, we estimated the N2 ASP to be around US\$25,000 per wafer. With tariff uncertainties and stronger-than-expected demand, we now expect 2026F N2 ASP to rise to US\$28,000–30,000, with Apple likely receiving a slightly lower price due to large volume commitments. As a result, N2 and N3 combined are expected to account for more than 45% of TSMC's total revenue in 2026F.

**Figure 1: N2 monthly capacity forecast**



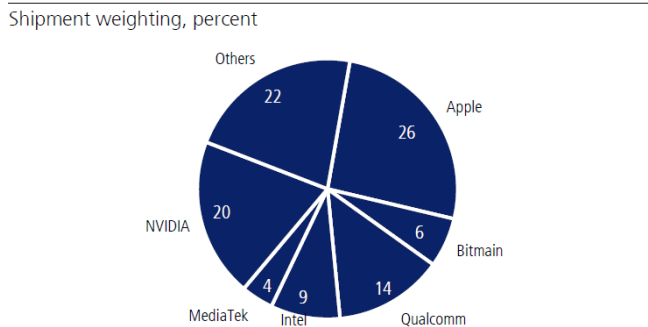
Source: KGI Research estimates

**Figure 2: 2026F N2 shipment mix forecast by client**



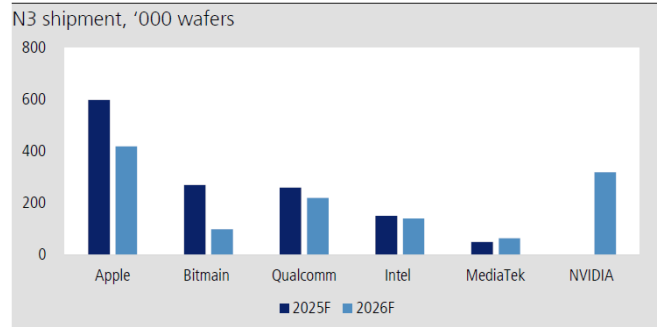
Source: KGI Research estimates

**Figure 3: 2026F N3 shipment mix forecast by client**



Source: KGI Research estimates

**Figure 4: 2025-26F N3 client shipment forecast**



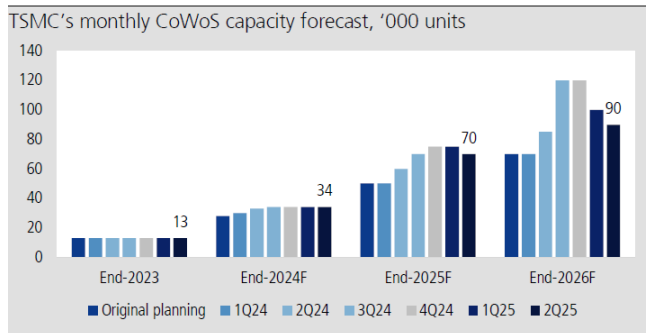
Source: KGI Research estimates

### CoWoS expansion forecasts to be revised down

Amid elevated market expectations and weaker-than-expected initial shipments of the GB200, upstream chip production has significantly outpaced downstream deliveries. As a result, we anticipate that previously overbooked TSMC capacity will face downward revisions. We expect monthly CoWoS capacity to expand from 70k wafers by end-2025F to 90k wafers by end-2026F, versus consensus of 100-120k wafers. We expect Nvidia is likely to see the largest downward revision. We estimate its CoWoS demand this year and next year will be revised down from 400k and 650k units to 350k and 500k units, respectively. We believe this revision does not reflect weakening AI demand, but rather an adjustment of previous overbooking. The mismatch between upstream production and weaker-than-expected downstream shipments highlights the need to realign production schedules across the supply chain.

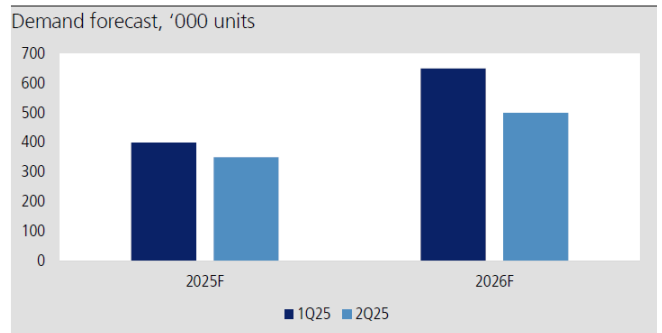
Looking ahead to next year, demand from customers other than Nvidia is expected to remain relatively stable. The only notable upward revision comes from Broadcom, with upside driven by Meta (US). Another key development is that Annapurna Labs (IL; unlisted) is reportedly seeking full control over its CoWoS wafer allocation, and is working to diversify its supply chain to include Amkor (US) and SPIL (TW; unlisted). As a result, TSMC's future order visibility may no longer fully reflect AWS' (US; unlisted) actual demand.

**Figure 5: CoWoS capacity forecast adjustment**



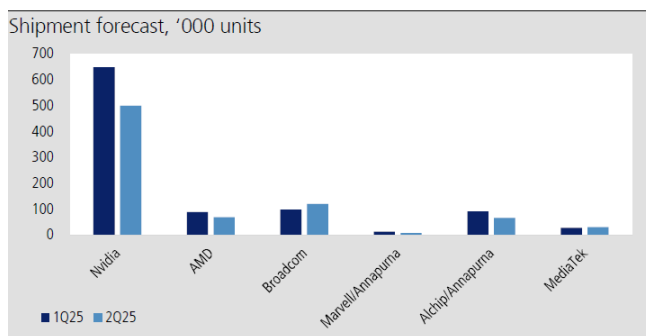
Source: KGI Research estimates

**Figure 6: Nvidia 2025-26F demand forecast adjustment**



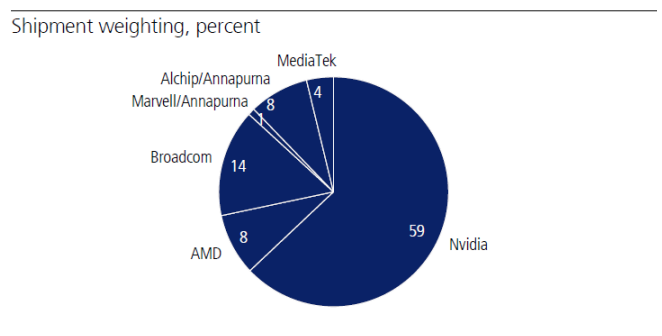
Source: KGI Research estimates

**Figure 7: 2026F CoWoS shipment forecast adjustment by customer**



Source: KGI Research estimates

**Figure 8: 2026F CoWoS shipment forecast by client**



Source: KGI Research estimates

### NT dollar forex is a big swing factor for earnings

We slightly revise up our 2026 sales and EPS forecast by 2.3% and 1.4% respectively, to factor in: (1) stronger NT dollar appreciation (new assumption of NT\$30-31/US\$ instead of NT\$32-32.5/US\$); (2) stronger N2 demand; and (3) a lower CoWoS capacity forecast. According to TSMC, every 1% of NT dollar appreciation will negatively impact operating margin by 0.4%. In addition, stronger N2 output will be good for sales, but not for

margins. Initial gross margin on the N2 node may be below 50%, but operating leverage should offset this partially for operating margin.

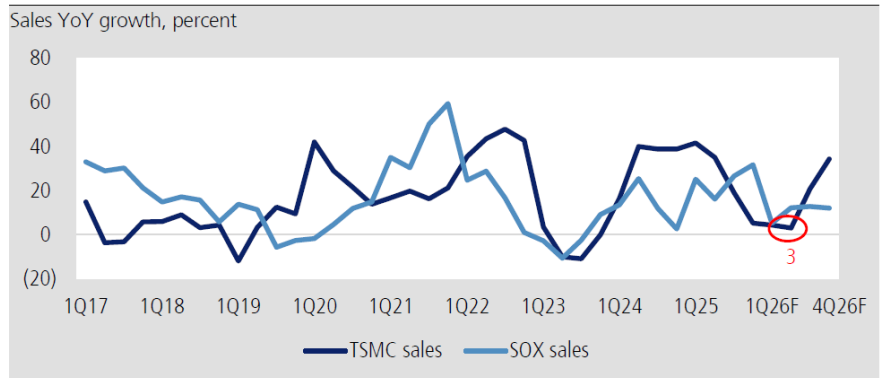
We expect muted sales in 2H25F will result in a sharp decline of YoY sales growth, which might cap TSMC's valuation upside in the near-term. We expect the downcycle to bottom in 2Q26F. Despite TSMC's leading industry position and an intact AI demand outlook, we suggest investors revisit TSMC in 4Q25F, in anticipation that the valuation will price in the bottom two quarters ahead. To reflect TSMC's competence, we slightly adjust our target P/E multiple from 15x (the average since 2008) to 16.5x (the average since 2018). Our target price is adjusted to NT\$1,105. It is important to note that our EPS forecast is based on assumptions of a forex rate NT\$30-31/US\$, for 2025-26F, and does not factor in the potential risk of appreciation past NT\$30/US\$.

**Figure 9: Breakdown of 2025-26 forecast revisions vs. consensus**

NT\$m	2025F						2026F					
	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Revenue	3,567,816	3,652,022	(2.3)	23.3	3,669,364	(2.8)	4,133,933	4,039,983	2.3	15.9	4,268,106	(3.1)
Gross profit	2,042,222	2,100,291	(2.8)	25.7	2,133,038	(4.3)	2,362,169	2,337,978	1.0	15.7	2,452,027	(3.7)
Operating profit	1,680,505	1,730,061	(2.9)	26.9	1,753,250	(4.1)	1,966,141	1,937,727	1.5	17.0	2,011,321	(2.2)
Net profit	1,483,846	1,524,369	(2.7)	26.5	1,532,848	(3.2)	1,736,330	1,711,841	1.4	17.0	1,762,681	(1.5)
EPS (NT\$)	57.23	58.79	(2.7)	26.5	59.26	(3.4)	66.97	66.02	1.4	17.0	68.37	(2.0)
Gross margin (%)	57.2	57.5	(0.3)ppts	1.1 ppts	58.1	(0.9)ppts	57.1	57.9	(0.7)ppts	(0.1)ppts	57.5	(0.3)ppts
OP margin (%)	47.1	47.4	(0.3)ppts	1.3 ppts	47.8	(0.7)ppts	47.6	48.0	(0.4)ppts	0.5 ppts	47.1	0.4 ppts
Net margin (%)	41.6	41.7	(0.2)ppts	1.1 ppts	41.8	(0.2)ppts	42.0	42.4	(0.4)ppts	0.4 ppts	41.3	0.7 ppts

Source: Bloomberg; KGI Research estimates

**Figure 10: Sales YoY growth of TSMC and SOX to bottom in 1Q-2Q26F**

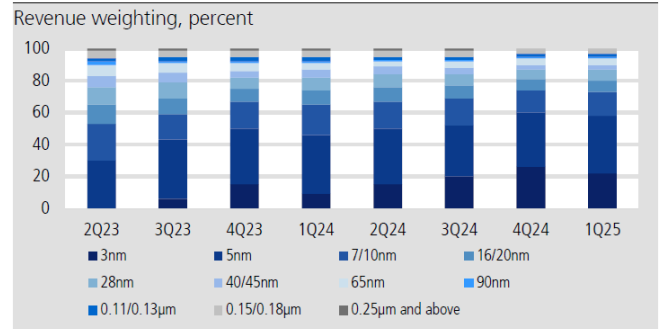


Source: TEJ; Bloomberg; KGI Research estimates

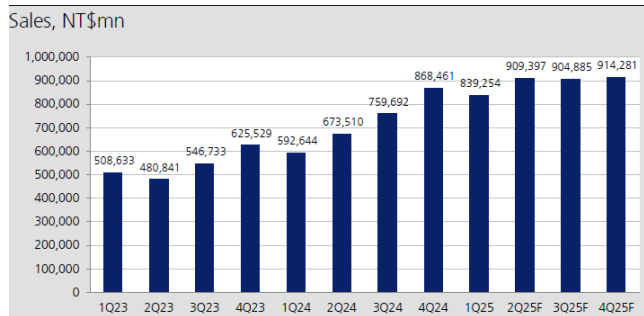
**Figure 11: Company profile**

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.

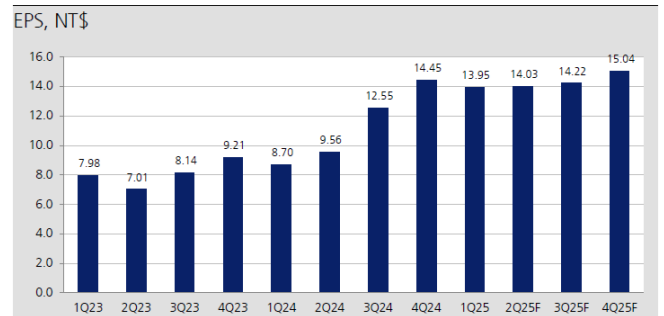
Source: Company data; KGI Research

**Figure 12: TSMC wafer revenue by node**


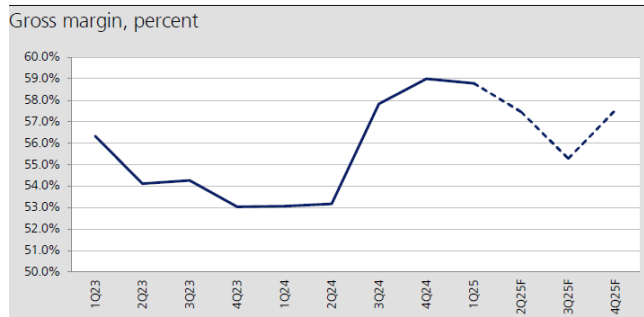
Source: Company data; KGI Research

**Figure 13: Sales**


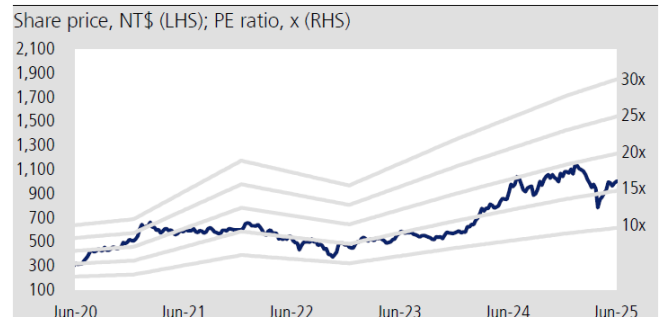
Source: KGI Research

**Figure 14: EPS**


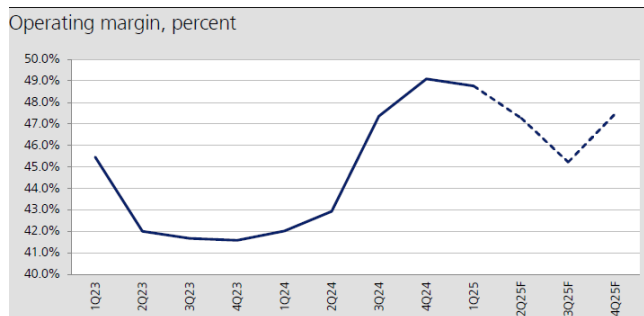
Source: KGI Research

**Figure 15: Gross margin**


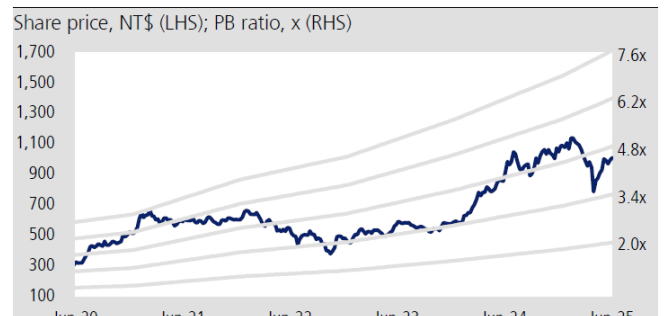
Source: KGI Research

**Figure 16: 12M forward PE band**


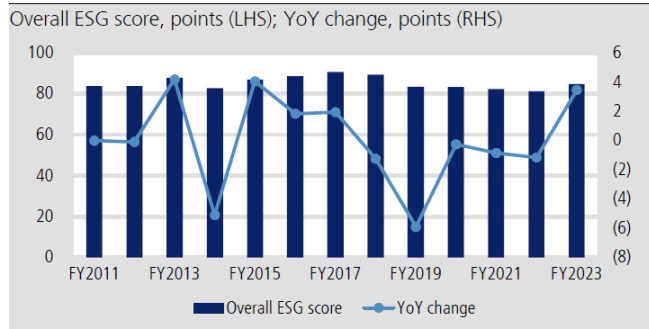
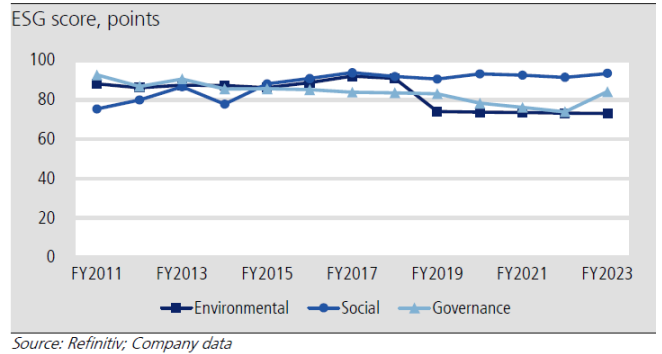
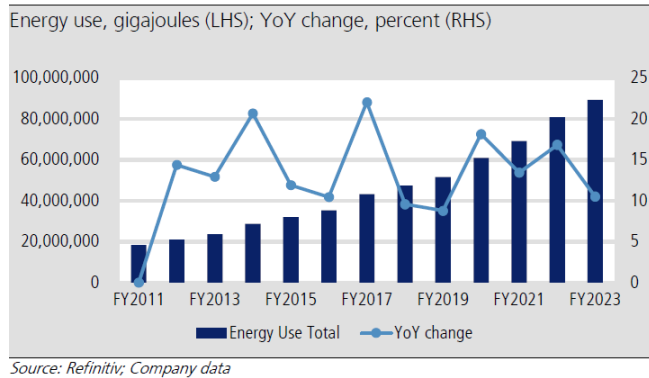
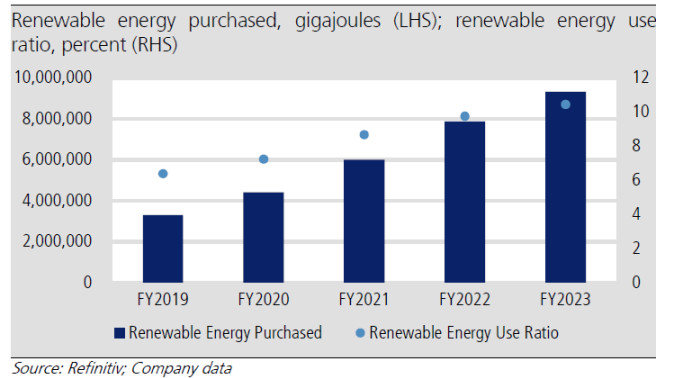
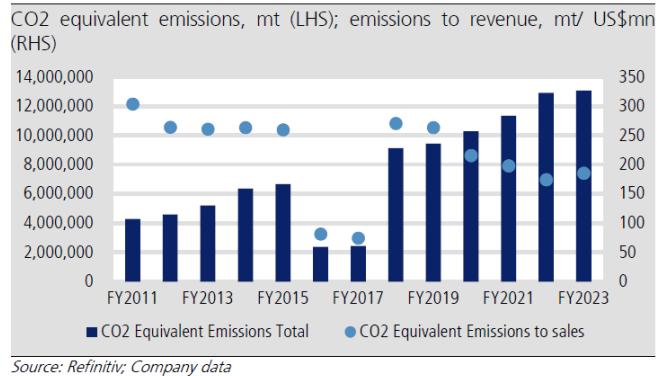
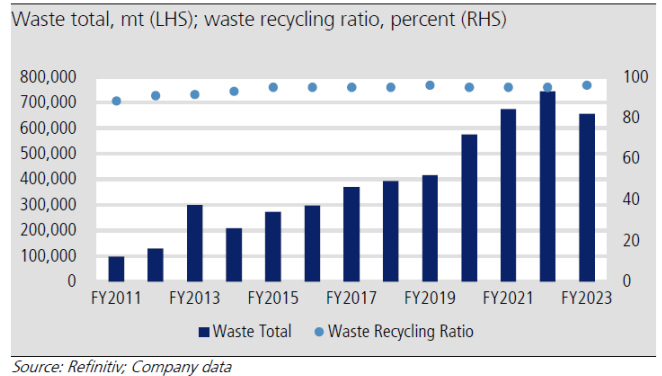
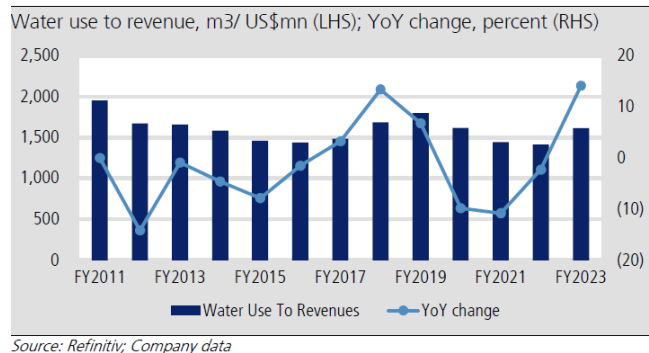
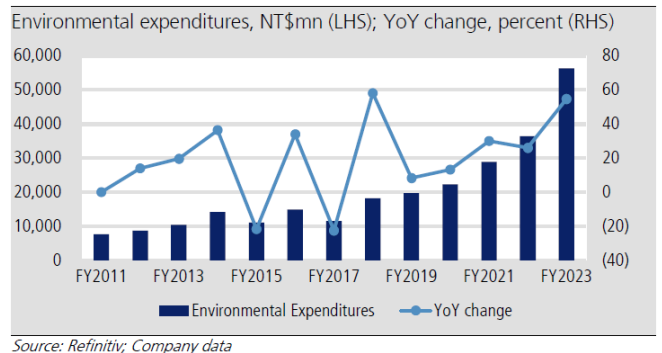
Source: TEJ; KGI Research estimates

**Figure 17: Operating margin**


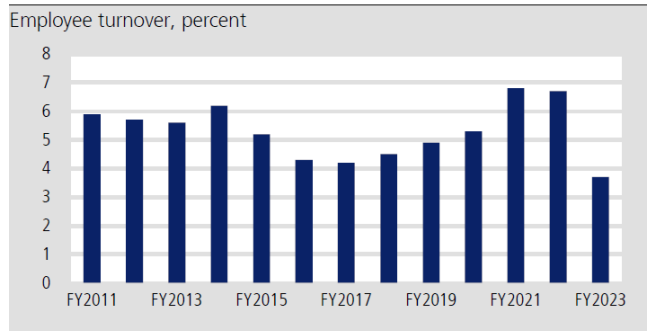
Source: KGI Research

**Figure 18: 12M forward PB band**


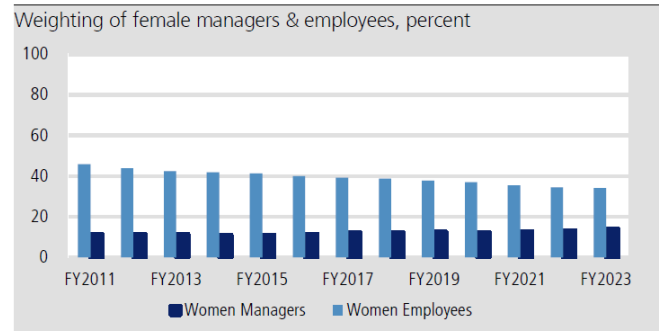
Source: TEJ; KGI Research estimates

**Figure 19: Overall ESG score**

**Figure 20: ESG score by category**

**Figure 21: Energy use**

**Figure 22: Renewable energy**

**Figure 23: CO2 equivalent emissions**

**Figure 24: Waste total**

**Figure 25: Water use to revenue**

**Figure 26: Environmental expenditures**


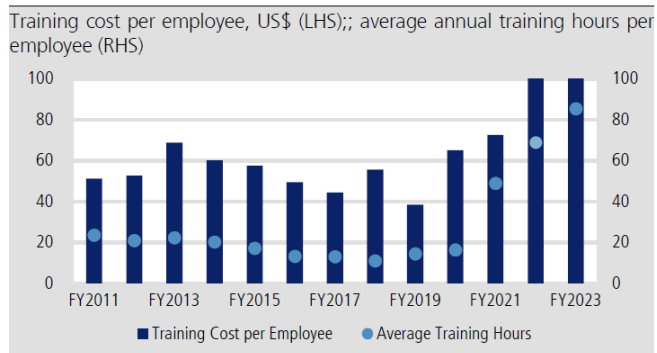


**Figure 27: Employee turnover**


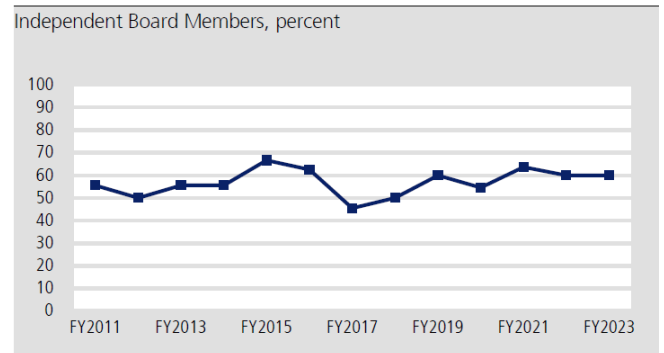
Source: Refinitiv; Company data

**Figure 28: Gender diversification**


Source: Refinitiv; Company data

**Figure 29: Employee training**


Source: Refinitiv; Company data

**Figure 30: 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"> <li>- the total amount of energy that has been consumed within the boundaries of the company's operations</li> <li>- total energy use = total direct energy consumption + indirect energy consumption</li> <li>- purchased energy and produced energy are included in total energy use</li> <li>- 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)</li> <li>- for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'</li> </ul>	
Renewable energy purchased	<p>Total primary renewable energy purchased in gigajoules.</p> <ul style="list-style-type: none"> <li>- 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</li> <li>- if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased</li> </ul>	
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"> <li>- direct emissions from sources that are owned or controlled by the company (scope 1 emissions)</li> <li>- following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCs), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)</li> </ul>	
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"> <li>- direct emissions from sources that are owned or controlled by the company (scope 1 emissions)</li> <li>- following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCs), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)</li> </ul>	
Waste total	<p>Total amount of waste produced in metric tons.</p> <ul style="list-style-type: none"> <li>- total waste = non-hazardous waste + hazardous waste</li> <li>- 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</li> <li>- for sectors like mining, oil &amp; gas, waste generation like tailings, waste rock, coal and fly ash are also considered</li> </ul>	
Waste recycling ratio	<p>The waste recycling ratio as reported by the company.</p> <ul style="list-style-type: none"> <li>- waste recycling ratio = waste recycled/total waste*100</li> <li>- waste to energy or waste incinerated with energy recovery are considered as waste recycled</li> <li>- waste recovered via composting is considered as recycled waste</li> </ul>	
Water withdrawal total	<p>Total water withdrawal in cubic meters.</p> <ul style="list-style-type: none"> <li>- 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</li> <li>- different sources of water like wells, town/utility/municipal water, river water, and surface water are considered</li> </ul>	
Environmental expenditures	<p>Total amount of environmental expenditures.</p> <ul style="list-style-type: none"> <li>- all environmental investment &amp; expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures</li> </ul>	
Turnover of employees	<p>Percentage of employee turnover.</p> <ul style="list-style-type: none"> <li>- 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</li> <li>- employees turnover rate = (employees leaving/average number of employees)*100</li> <li>- where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2</li> <li>- employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving</li> </ul>	
Women managers	<p>Percentage of women managers.</p> <ul style="list-style-type: none"> <li>- percentage of women managers among total managers of the company</li> <li>- 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</li> <li>- percentage of women managers = number of women managers/total number of managers*100</li> </ul>	
Women employees	<p>Percentage of women employees.</p> <ul style="list-style-type: none"> <li>- percentage of women employees to the total number of employees of the company</li> <li>- percentage of women employees = number of women/total number of employees*100</li> </ul>	
Training hours total	<p>Total training hours performed by all employees.</p> <ul style="list-style-type: none"> <li>- consider only employee training hours</li> <li>- includes all types of training given to general employees (such as health &amp; safety, environmental, emergency response, skills &amp; career development training)</li> <li>- if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked</li> </ul>	
Training hours per employee	Training hours per employee per year	

Source: Refinitiv, KGI Research



## Income statement

	Quarterly								Annually		
	Mar-24A	Jun-24A	Sep-24A	Dec-24A	Mar-25A	Jun-25F	Sep-25F	Dec-25F	Dec-24A	Dec-25F	Dec-26F
<b>Income statement (NT\$mn)</b>											
Revenue	592,644	673,510	759,692	868,461	839,254	909,397	904,885	914,281	2,894,308	3,567,816	4,133,933
Cost of goods sold	(278,139)	(315,386)	(320,346)	(356,083)	(345,859)	(386,837)	(404,682)	(388,216)	(1,269,954)	(1,525,594)	(1,771,763)
Gross profit	314,505	358,124	439,346	512,378	493,395	522,560	500,203	526,064	1,624,354	2,042,222	2,362,169
Operating expenses	(65,487)	(69,022)	(79,578)	(86,012)	(84,058)	(92,577)	(90,941)	(91,885)	(299,840)	(361,717)	(396,028)
Operating profit	249,018	289,103	359,767	426,366	409,337	429,983	409,262	434,179	1,324,513	1,680,505	1,966,141
Depreciation of fixed assets	(156,697)	(162,929)	(165,915)	(168,069)	(173,005)	(182,994)	(189,320)	(189,169)	(653,610)	(734,487)	(915,986)
Amortisation of intangible assets	(2,326)	(2,237)	(2,313)	(2,309)	(2,134)	(3,599)	(4,035)	(3,613)	(9,186)	(13,381)	(18,278)
EBITDA	408,041	454,269	527,996	596,744	584,476	616,576	602,617	626,961	1,987,310	2,428,373	2,900,405
Interest income	19,359	20,979	22,602	24,273	24,859	24,859	24,859	24,859	87,213	99,437	99,437
Investment income	950	1,355	1,286	1,288	1,420	1,368	1,368	1,368	4,879	5,525	5,473
Other non-op income	0	(0)	316	251	(0)	0	0	0	567	(0)	0
Non-operating income	20,309	22,335	24,203	25,813	26,279	26,228	26,228	26,228	92,660	104,962	104,910
Interest expense	(2,698)	(2,638)	(2,636)	(2,523)	(2,677)	(2,677)	(2,677)	(2,677)	(10,495)	(10,709)	(10,709)
Investment loss	-	-	-	-	-	-	-	-	-	-	-
Other non-op expenses	(86)	58	1,853	(204)	213	-	-	-	1,621	213	-
Non-operating expenses	(2,784)	(2,580)	(783)	(2,727)	(2,465)	(2,677)	(2,677)	(2,677)	(8,874)	(10,496)	(10,709)
Pre-tax profit	266,543	308,858	383,188	449,451	433,152	453,533	432,813	457,729	1,408,299	1,774,971	2,060,343
Current taxation	(41,322)	(58,649)	(59,107)	(74,329)	(70,163)	(90,707)	(64,922)	(68,659)	(233,407)	(294,451)	(327,338)
Minorities	264	184	177	211	831	831	831	831	836	3,326	3,326
Normalised net profit	225,485	250,393	324,259	375,333	363,821	363,658	368,722	389,901	1,175,728	1,483,846	1,736,330
Extraordinary items	(0)	(2,547)	999	(653)	(2,256)	-	-	-	(2,460)	-	-
Net profit	225,485	247,846	325,258	374,680	361,564	363,658	368,722	389,901	1,173,268	1,483,846	1,736,330
EPS (NT\$)	8.70	9.56	12.55	14.45	13.95	14.03	14.22	15.04	45.25	57.23	66.97
<b>Margins (%)</b>											
Gross profit margin	53.1	53.2	57.8	59.0	58.8	57.5	55.3	57.5	56.1	57.2	57.1
Operating margin	42.0	42.9	47.4	49.1	48.8	47.3	45.2	47.5	45.8	47.1	47.6
EBITDA margin	68.9	67.4	69.5	68.7	69.6	67.8	66.6	68.6	68.7	68.1	70.2
Pretax profit margin	45.0	45.9	50.4	51.8	51.6	49.9	47.8	50.1	48.7	49.7	49.8
Net profit margin	38.0	36.8	42.8	43.1	43.1	40.0	40.7	42.6	40.5	41.6	42.0
<b>Sequential growth (%)</b>											
Revenue growth	(5.3)	13.6	12.8	14.3	(3.4)	8.4	(0.5)	1.0			
Gross profit growth	(5.2)	13.9	22.7	16.6	(3.7)	5.9	(4.3)	5.2			
Operating profit growth	(4.3)	16.1	24.4	18.5	(4.0)	5.0	(4.8)	6.1			
EBITDA growth	(0.7)	11.3	16.2	13.0	(2.1)	5.5	(2.3)	4.0			
Pretax profit growth	(4.2)	15.9	24.1	17.3	(3.6)	4.7	(4.6)	5.8			
Net profit growth	(5.5)	9.9	31.2	15.2	(3.5)	0.6	1.4	5.7			
<b>YoY growth (%)</b>											
Revenue growth	16.5	40.1	39.0	38.8	41.6	35.0	19.1	5.3	33.9	23.3	15.9
Gross profit growth	9.8	37.6	48.1	54.4	56.9	45.9	13.9	2.7	38.2	25.7	15.7
Operating profit growth	7.7	43.1	57.9	63.9	64.4	48.7	13.8	1.8	43.8	26.9	17.0
EBITDA growth	19.5	39.4	40.8	45.3	43.2	35.7	14.1	5.1	36.7	22.2	19.4
Pretax profit growth	9.1	43.9	58.6	61.6	62.5	46.8	13.0	1.8	43.9	26.0	16.1
Net profit growth	8.9	36.3	54.2	57.0	60.3	46.7	13.4	4.1	39.9	26.5	17.0

Source: Company data; KGI Research estimates

## Balance sheet

NT\$mn	Dec-22A	Dec-23A	Dec-24A	Dec-25F	Dec-26F
<b>Total assets</b>	<b>4,964,779</b>	<b>5,532,371</b>	<b>6,691,938</b>	<b>7,959,803</b>	<b>9,246,152</b>
<b>Current assets</b>	<b>2,052,897</b>	<b>2,194,033</b>	<b>3,088,352</b>	<b>3,720,179</b>	<b>2,536,949</b>
Cash & ST securities	1,561,486	1,687,644	2,422,020	2,907,711	1,479,409
Inventory	221,149	250,997	287,869	347,651	469,311
Accounts receivable	231,340	201,938	272,088	359,575	482,988
Other current assets	38,922	53,453	106,376	105,242	105,242
<b>Non-current assets</b>	<b>2,911,882</b>	<b>3,338,338</b>	<b>3,603,586</b>	<b>4,239,624</b>	<b>6,709,203</b>
LT investments	68,928	129,442	149,040	164,898	170,371
Net fixed assets	2,693,837	3,064,475	3,234,980	3,848,702	6,312,808
Other assets	149,117	144,421	219,565	226,024	226,024
<b>Total liabilities</b>	<b>2,004,290</b>	<b>2,049,108</b>	<b>2,368,362</b>	<b>2,650,711</b>	<b>2,719,266</b>
<b>Current liabilities</b>	<b>944,227</b>	<b>913,583</b>	<b>1,264,525</b>	<b>1,518,851</b>	<b>1,587,406</b>
Accounts payable	56,522	57,293	74,227	97,466	131,573
Interest bearing ST liabilities	19,314	9,293	59,858	61,772	61,772
Other current liabilities	868,391	846,997	1,130,441	1,359,614	1,394,061
<b>Non-current liabilities</b>	<b>1,060,063</b>	<b>1,135,525</b>	<b>1,103,837</b>	<b>1,131,860</b>	<b>1,131,860</b>
Long-term debt	839,096	918,283	958,429	978,090	978,090
Other L-T liabilities	191,203	188,560	116,653	144,876	144,876
<b>Total equity</b>	<b>2,960,489</b>	<b>3,483,263</b>	<b>4,323,576</b>	<b>5,309,092</b>	<b>6,526,887</b>
Share capital	259,304	259,321	259,327	259,326	259,326
Retained earnings reserve	2,323,223	2,846,884	3,606,105	4,938,997	6,156,791
Minority interests	14,836	24,349	35,031	37,462	37,462
Preferred shareholders funds	-	-	-	-	-

## Key ratios

	Dec-22A	Dec-23A	Dec-24A	Dec-25F	Dec-26F
<b>Growth</b>					
Revenue growth	42.6%	(4.5%)	33.9%	23.3%	15.9%
Operating profit growth	72.5%	(17.9%)	43.8%	26.9%	17.0%
EBITDA growth	45.3%	(6.8%)	36.7%	22.2%	19.4%
Net profit growth	70.4%	(17.5%)	39.9%	26.5%	17.0%
EPS growth	70.4%	(17.5%)	39.9%	26.5%	17.0%
<b>Profitability</b>					
Gross profit margin	59.6%	54.4%	56.1%	57.2%	57.1%
Operating margin	49.5%	42.6%	45.8%	47.1%	47.6%
EBITDA margin	68.8%	67.2%	68.7%	68.1%	70.2%
Net profit margin	44.9%	38.8%	40.5%	41.6%	42.0%
Return on average assets	23.4%	16.0%	19.2%	20.3%	20.2%
Return on average equity	39.8%	26.2%	30.3%	31.0%	29.5%
<b>Stability</b>					
Gross debt to equity	29.0%	26.6%	23.6%	19.6%	15.9%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cash
Interest coverage (x)	98.4	82.6	135.2	166.7	193.4
Interest & ST debt coverage (x)	1.0	1.0	1.0	1.0	1.0
Cash flow interest coverage(x)	137.1	103.5	174.0	211.6	232.4
Cash flow/int. & ST debt (x)	51.8	58.3	26.0	31.3	34.3
Current ratio (x)	2.2	2.4	2.4	2.4	1.6
Quick ratio (x)	1.9	2.1	2.2	2.2	1.3
Net debt (NT\$mn)	(484,404)	(537,852)	(1,109,340)	(1,559,568)	(131,266)
<b>Per share data</b>					
EPS (NT\$)	39.20	32.34	45.25	57.23	66.97
CFPS (NT\$)	62.12	47.90	70.43	87.39	95.99
BVPS (NT\$)	113.60	133.38	165.37	203.33	250.30
Adj BVPS (NT\$)	113.60	133.40	165.40	203.33	250.30
SPS (NT\$)	87.31	83.37	111.63	137.61	159.45
EBITDA/share (NT\$)	60.11	56.05	76.65	93.66	111.87
Cash DPS (NT\$)	11.00	13.00	17.00	20.00	20.00
<b>Activity</b>					
Sales / avg assets	0.52	0.41	0.47	0.49	0.48
Days receivable	37.3	34.1	34.4	36.8	42.6
Days inventory	88.2	92.9	83.0	83.2	96.7
Days payable	22.5	21.2	21.4	23.3	27.1
Cash cycle	102.9	105.8	96.0	96.6	112.2

Source: Company data; KGI Research estimates

## Profit & loss

NT\$mn	Dec-22A	Dec-23A	Dec-24A	Dec-25F	Dec-26F
<b>Revenue</b>	<b>2,263,891</b>	<b>2,161,736</b>	<b>2,894,308</b>	<b>3,567,816</b>	<b>4,133,933</b>
Cost of goods sold	(915,536)	(986,625)	(1,269,954)	(1,525,594)	(1,771,763)
<b>Gross profit</b>	<b>1,348,355</b>	<b>1,175,111</b>	<b>1,624,354</b>	<b>2,042,222</b>	<b>2,362,169</b>
Operating expenses	(227,076)	(254,022)	(299,840)	(361,717)	(396,028)
<b>Operating profit</b>	<b>1,121,279</b>	<b>921,088</b>	<b>1,324,513</b>	<b>1,680,505</b>	<b>1,966,141</b>
<b>Non-operating income</b>	<b>31,168</b>	<b>65,429</b>	<b>92,660</b>	<b>104,962</b>	<b>104,910</b>
Interest income	22,422	60,294	87,213	99,437	99,437
Investment income	8,065	5,119	4,879	5,525	5,473
Other non-op income	681	16	567	(0)	0
<b>Non-operating expenses</b>	<b>(8,256)</b>	<b>(7,723)</b>	<b>(8,874)</b>	<b>(10,496)</b>	<b>(10,709)</b>
Interest expense	(11,750)	(11,999)	(10,495)	(10,709)	(10,709)
Investment loss	-	-	-	-	-
Other non-op expenses	3,494	4,276	1,621	213	-
<b>Pre-tax profit</b>	<b>1,144,191</b>	<b>978,794</b>	<b>1,408,299</b>	<b>1,774,971</b>	<b>2,060,343</b>
Current taxation	(127,290)	(141,404)	(233,407)	(294,451)	(327,338)
Minorities	(370)	730	836	3,326	3,326
Extraordinary items	-	377	(2,460)	-	-
<b>Net profit</b>	<b>1,016,530</b>	<b>838,498</b>	<b>1,173,268</b>	<b>1,483,846</b>	<b>1,736,330</b>
<b>EBITDA</b>	<b>1,558,533</b>	<b>1,453,279</b>	<b>1,987,310</b>	<b>2,428,373</b>	<b>2,900,405</b>
EPS (NT\$)	39.20	32.34	45.25	57.23	66.97

## Cash flow

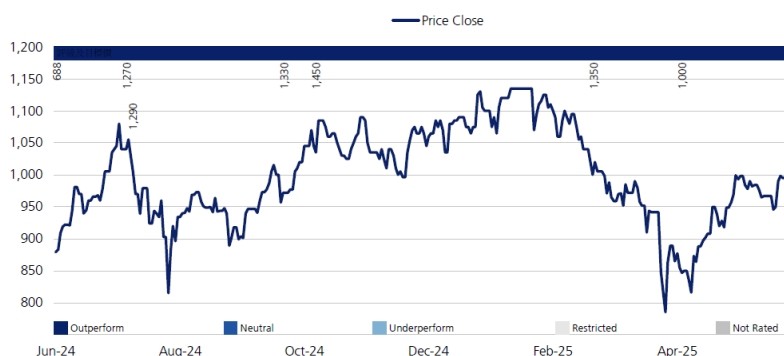
NT\$mn	Dec-22A	Dec-23A	Dec-24A	Dec-25F	Dec-26F
<b>Operations cash flow</b>	<b>1,610,599</b>	<b>1,241,967</b>	<b>1,826,177</b>	<b>2,265,638</b>	<b>2,488,604</b>
Net profit	1,016,530	838,498	1,173,268	1,483,846	1,736,330
Depreciation & amortisation	437,254	532,191	662,797	747,868	934,264
Decrease in working capital	(53,286)	324	(90,088)	(124,031)	(210,965)
Other operating cash flow	210,100	(129,046)	80,200	157,955	28,974
<b>Investing cash flow</b>	<b>(1,190,928)</b>	<b>(906,121)</b>	<b>(864,843)</b>	<b>(1,310,817)</b>	<b>(3,398,370)</b>
Sale of ST investment	(128,838)	(55,781)	(54,143)	5,647	-
New investments	-	-	(3,739)	-	-
Capital expenditure	(1,082,672)	(949,817)	(956,007)	(1,351,451)	(3,398,370)
Others investing cashflow	20,582	99,478	149,045	34,987	-
<b>Free cash flow</b>	<b>289,078</b>	<b>361,461</b>	<b>712,509</b>	<b>660,730</b>	<b>(1,039,579)</b>
<b>Financing cash flow</b>	<b>(200,244)</b>	<b>(204,894)</b>	<b>(346,301)</b>	<b>(499,480)</b>	<b>(518,536)</b>
Increase in short term debt	(111,960)	-	-	-	-
Increase in long term loans	195,983	68,204	55,866	21,575	-
New ordinary shares issued	-	-	-	-	-
Ordinary dividends paid	(285,234)	(291,722)	(363,055)	(518,536)	(518,536)
Other financing cashflow	1,839	18,623	(36,022)	(2,519)	-
<b>Forex effects</b>	<b>58,397</b>	<b>(8,339)</b>	<b>47,166</b>	<b>16,462</b>	<b>-</b>
<b>Total cash generated</b>	<b>277,824</b>	<b>122,614</b>	<b>662,199</b>	<b>471,803</b>	<b>(1,428,302)</b>

## ROIC

	Dec-22A	Dec-23A	Dec-24A	Dec-25F	Dec-26F
1 - COGS/revenue					
- Operating exp./revenue	10.0%	11.8%	10.4%	10.1%	9.6%
<b>= Operating margin</b>	<b>49.5%</b>	<b>42.6%</b>	<b>45.8%</b>	<b>47.1%</b>	<b>47.6%</b>
1 / (Working capital/revenue	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)
+ Net PPE/revenue	1.2	1.4	1.1	1.1	1.5
+ Other assets/revenue)	0.0	0.0	0.0	0.1	0.1
<b>= Capital turnover</b>	<b>1.0</b>	<b>0.8</b>	<b>1.0</b>	<b>1.0</b>	<b>0.7</b>
Operating margin	49.5%	42.6%	45.8%	47.1%	47.6%
x Capital turnover	1.0	0.8	1.0	1.0	0.7
x (1 - tax rate)	88.9%	85.6%	83.4%	83.4%	84.1%
<b>= After-tax ROIC</b>	<b>43.9%</b>	<b>29.4%</b>	<b>39.7%</b>	<b>40.9%</b>	<b>27.2%</b>

Source: Company data; KGI Research estimates

## TSMC – Recommendation & target price history



Date	Rating	Target	Price
2025-04-17	Outperform	1,000	847
2025-03-31	Outperform	1,350	910
2025-03-04	Outperform	1,350	1,000
2025-01-16	Outperform	1,450	1,105
2025-01-06	Outperform	1,450	1,125
2024-11-08	Outperform	1,450	1,090
2024-10-17	Outperform	1,450	1,035
2024-10-01	Outperform	1,330	972
2024-08-21	Outperform	1,290	958
2024-07-18	Outperform	1,290	1,005

Source: TEJ; KGI Research

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