



# Formosa Petrochemical (6505.TW/6505 TT)

## 3Q23 earnings beat expectations

FTSE4Good TIP Taiwan ESG Index stock

### Neutral · Maintained

Price as of October 11 (NT\$)	81.40
12M target price (NT\$)	74.00
Previous target price (NT\$)	74.00
Unchanged (%)	0.0
Downside (%)	9.1

#### Key message

Formosa Petrochemical reported 3Q23 EPS of NT\$1.81, beating our expectations. We suggest investors wait for industry consolidation, and only revisit the stock when they see signs of a demand recovery.

#### Trading data

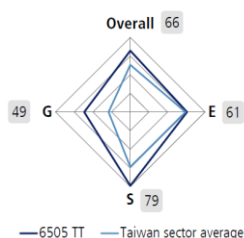
Mkt cap (NT\$/bn/US\$mn)	775 / 24,094
Outstanding shares (mn)	9,526
Foreign ownership (mn)	634
3M avg. daily trading (mn)	1.36
52-week trading range (NT\$)	75.50 –89.80

Performance	3M	6M	12M
Absolute (%)	1.6	-7.1	3
Relative (%)	3	-11.9	-24.2

#### ESG score card

NT\$	1Q	2Q	3Q	4Q
2022	1.43A	1.78A	(0.66)A	(1.04)A
2023	0.47A	(0.12)A	1.81F	0.65F
2024	(0.06)F	0.73F	0.84F	0.51F

#### Share price chart



Source: TEJ

#### Event

Formosa Petrochemical (FPCC) reported 3Q23 EPS of NT\$1.81, beating our expectations.

#### Impact

**3Q23 earnings beat on inventory gains.** FCFC posted EPS of NT\$1.81 in 2Q23, turning profitable, beating our forecast of EPS of NT\$1.20 and consensus EPS of NT\$0.61, due to: (1) the firm recognized inventory valuation gains of NT\$2.45bn, as quarterly average and quarter-end prices for both crude and naphtha surged meaningfully; and (2) the coal price downtrend proved wider than the QoQ decline in electricity sales for both the utility division and Mai-Liao Power (TW; unlisted). Most of the operating results arrived in line with expectations in 3Q23, with: (1) refinery capacity utilization arriving at 89% QoQ; (2) quarterly average refinery spread for exports picked up QoQ, from US\$7.3 per barrel in 2Q23 to US\$10.9 in 3Q23; (3) olefins capacity utilization fell to 57% in 3Q23.

**Lower inventory gains in 4Q23F.** We estimate 4Q23F EPS will dip 64% QoQ to NT\$0.65, below consensus EPS of NT\$0.73, but recovering from losses in 4Q22, because: (1) high oil prices bode ill for the profitability of naphtha crackers; (2) refinery spreads will likely stay flattish at high levels QoQ as the peak season for diesel consumption arrives; and (3) inventory valuation gains will narrow QoQ.

#### Valuation & Action

We maintain Neutral and our target price at NT\$74, based on 2.1x 2024F BVPS of NT\$35. As olefins spreads and capacity utilization continue to hover at trough levels, we suggest investors wait for industry consolidation, and only revisit the stock when they see signs of a demand recovery.

#### Risks

Oil price plunge; weak commodities demand.

#### Key financials and valuations

	Dec-20A	Dec-21A	Dec-22A	Dec-23F	Dec-24F
Revenue (NT\$m)	415,282	620,062	848,048	731,439	767,645
Gross profit (NT\$m)	12,968	65,780	16,216	33,833	29,958
Operating profit (NT\$m)	2,769	55,177	5,420	22,533	18,958
Net profit (NT\$m)	7,430	49,401	14,422	26,714	19,250
EPS (NT\$)	0.78	5.19	1.51	2.80	2.02
Cash DPS (NT\$)	0.59	3.80	1.10	2.10	1.50
EPS growth (%)	(79.8)	564.9	(70.8)	85.2	(27.9)
PE (x)	104.4	15.7	53.8	29.0	40.3
PB (x)	2.5	2.2	2.5	2.3	2.3
EV/EBITDA (x)	39.4	9.2	32.5	17.2	18.7
Net debt to equity (%)	Net cash	Net cash	4.9	Net cash	Net cash
Dividend yield (%)	0.7	4.7	1.4	2.6	1.8
Return on average equity (%)	2.3	14.8	4.3	8.2	5.7

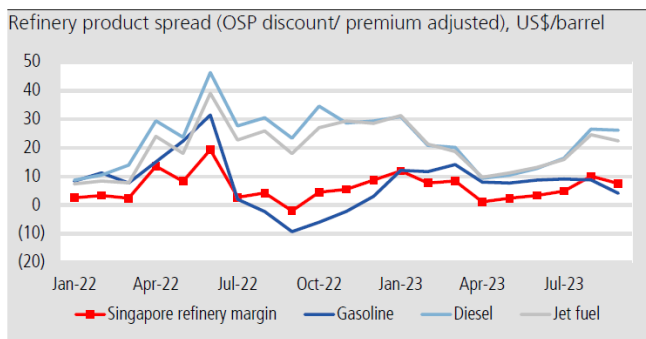
Source: Company data, KGI Research estimates

Figure 1: Breakdown of 3Q23 earnings results by segment

NT\$m	3Q23				
	Results	QoQ (%)	YoY (%)	KGI forecast	Diff. (%)
Operating income	18,053	N.M.	N.M.	11,983	51
Non-operating income	3,051	(33)	(56)	2,169	41
Investment income	1,058	74	352	839	26
Mao-Liao Power	1,215	104	8,217	748	62
Other	(157)	N.M.	N.M.	91	N.M.
Dividend income	160	(92)	(94)	105	53
Forex gain / loss	1,000	17	(68)	600	67
Other	832	(30)	(11)	625	33

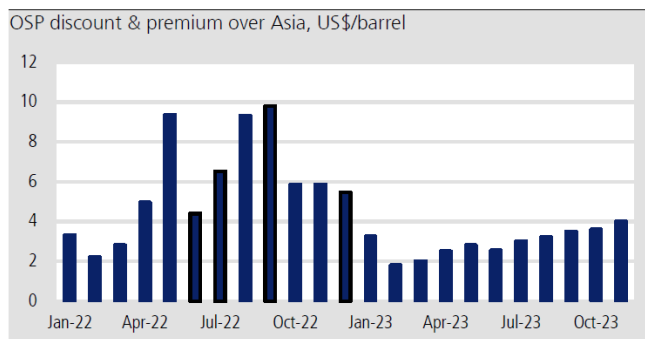
Source: KGI Research

Figure 2: Refinery spread widened in 3Q23



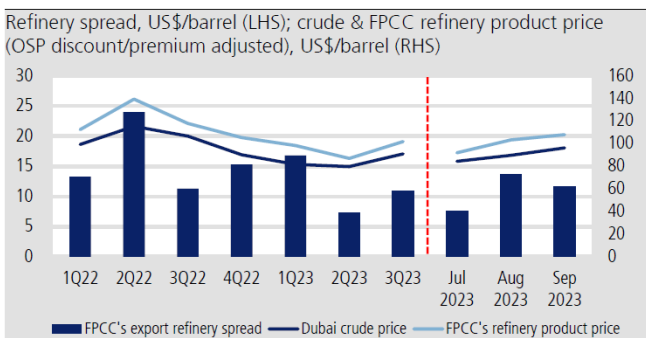
Source: Bloomberg; KGI Research

Figure 3: OSP premium widened from March



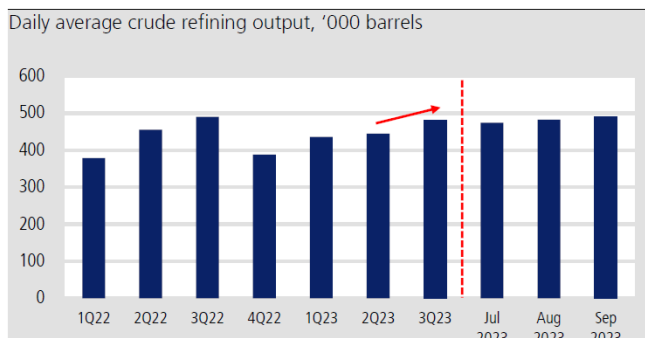
Source: Bloomberg; KGI Research

Figure 4: Spot refinery spread expanded in 3Q23



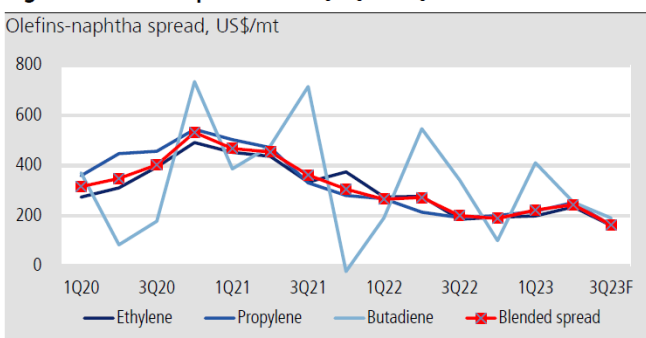
Source: Bloomberg; company data; KGI Research

Figure 5: Crude refining output increased QoQ in 3Q23



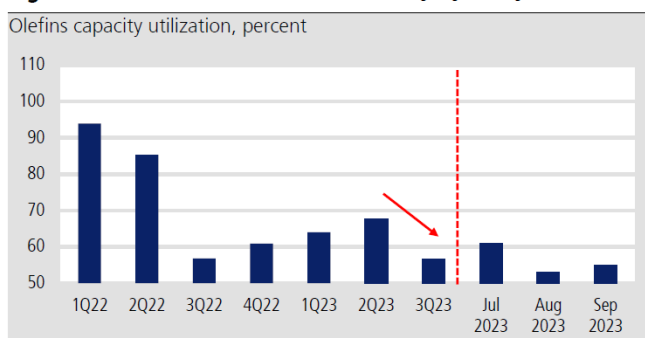
Source: Company data; KGI Research

Figure 6: Olefins spreads fell QoQ in 3Q23



Source: Oilchem; KGI Research

Figure 7: Olefins utilization retreated QoQ in 3Q23



Source: Company data; KGI Research

**Figure 8: Breakdown of 3Q23 results & 4Q23 forecast revisions vs. consensus**

NT\$m	3Q23							4Q23F						
	Result	KGI forecast	Diff. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Sales	192,658	209,527	(8.1)	20.9	(15.9)	180,243	6.9	194,741	192,473	1.2	1.1	0.3	184,619	5.5
Gross profits	20,878	14,808	41.0	-	-	4,926	323.8	9,494	7,698	23.3	(54.5)	-	6,462	46.9
Operating income	18,053	11,983	50.7	-	-	5,573	223.9	6,662	4,867	36.9	(63.1)	-	6,872	(3.1)
Pretax Income	21,103	14,151	49.1	-	-	6,382	230.7	7,973	6,105	30.6	(62.2)	-	6,218	28.2
Net income	17,200	11,475	49.9	-	-	4,803	258.1	6,236	4,728	31.9	(63.7)	-	3,210	94.2
EPS (NT\$)	1.81	1.20	49.9	-	-	0.61	258.1	0.65	0.50	31.9	(63.7)	-	0.73	94.2
Gross margin (%)	10.8	7.1	3.8 ppts	13.1 ppts	16.6 ppts	2.7	8.1 ppts	4.9	4.0	0.9 ppts	(6.0)ppts	10.1 ppts	3.5	1.4 ppts
OP margin (%)	9.4	5.7	3.7 ppts	13.4 ppts	16.2 ppts	3.1	6.3 ppts	3.4	2.5	0.9 ppts	(5.9)ppts	10.0 ppts	3.7	(0.3)ppts
Net margin (%)	8.9	5.5	3.5 ppts	9.7 ppts	11.7 ppts	2.7	6.3 ppts	3.2	2.5	0.7 ppts	(5.7)ppts	8.3 ppts	1.7	1.5 ppts

Source: KGI Research

**Figure 9: Breakdown of 2023-24 forecast revisions vs. consensus**

NT\$m	2023F						2024F					
	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Sales	731,439	746,039	(2.0)	(13.8)	724,397	1.0	767,645	788,874	(2.7)	4.9	736,513	4.2
Gross profit	33,833	25,966	30.3	108.6	27,469	23.2	29,958	32,938	(9.0)	(11.5)	38,004	(21.2)
Operating income	22,533	14,666	53.6	315.7	19,842	13.6	18,958	21,938	(13.6)	(15.9)	32,730	(42.1)
Pretax profit	32,517	23,696	37.2	91.6	26,263	23.8	23,415	26,341	(11.1)	(28.0)	35,784	(34.6)
Net profit	26,714	19,481	37.1	85.2	21,332	25.2	19,250	21,649	(11.1)	(27.9)	28,687	(32.9)
EPS (NT\$)	2.80	2.05	37.1	85.2	2.14	25.2	2.02	2.27	(11.1)	(27.9)	2.94	(32.9)
Gross margin (%)	4.6	3.5	1.1 ppts	2.7 ppts	3.8	0.8 ppts	3.9	4.2	(0.3)ppts	(0.7)ppts	5.2	(1.3)ppts
OP margin (%)	3.1	2.0	1.1 ppts	2.4 ppts	2.7	0.3 ppts	2.5	2.8	(0.3)ppts	(0.6)ppts	4.4	(2.0)ppts
Net margin (%)	3.7	2.6	1.0 ppts	2.0 ppts	2.9	0.7 ppts	2.5	2.7	(0.2)ppts	(1.1)ppts	3.9	(1.4)ppts

Source: KGI Research

**Figure 10: Breakdown of earnings forecast revisions by business segment**

(NT\$m)	1Q23	2Q23	3Q23F	4Q23F	1Q24F	2Q24F	3Q24F	4Q24F	2021	2022	2023F	2024F
Olefins (ethylene, propylene, butadiene, pygas)	606	(4,523)	(1,552)	(2,471)	(964)	589	(322)	833	21,510	(11,500)	(7,940)	137
Refinery (gasoline, diesel, jet fuel)	1,337	(4,562)	16,699	7,477	(1,330)	4,794	7,827	4,004	27,948	28,578	20,952	15,295
Utilities (power, steam)	2,342	2,617	2,906	1,655	655	1,108	1,334	429	5,720	(11,658)	9,521	3,526
Total operating income	4,284	(6,467)	18,053	6,662	(1,639)	6,491	8,840	5,266	55,177	5,420	22,533	18,958
Mao-Liao Power	659	595	1,215	523	249	499	374	125	77	(1,126)	2,993	1,247
Other	38	13	(157)	471	104	104	104	104	416	438	365	415
Total investment income	697	608	1,058	994	353	602	478	228	493	(688)	3,358	1,662
Net income	4,435	(1,158)	17,200	6,236	(583)	6,933	8,005	4,896	49,401	14,422	26,714	19,250
EPS	0.47	(0.12)	1.81	0.65	(0.06)	0.73	0.84	0.51	5.19	1.51	2.80	2.02
DPS									3.80	1.10	2.10	1.50

Source: KGI Research

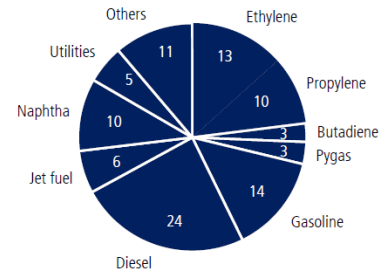
**Figure 11: Company profile**

Established in 1992, Formosa Petrochemical Corporation (FPCC) is Formosa Group's upstream refinery and olefin production arm based in the Formosa Plastics Group Industrial Zone in Yunlin County, Taiwan. FPCC can refine 540k barrels of crude per day into gasoline, diesel, jet fuel and fuel oil, delivered overseas and to domestic gas stations. FPCC's 2.935mn mt of ethylene and 2.368mn mt of propylene capacity is primarily consumed within the group by Formosa Plastics (FPC; 1301 TT, NT\$79.6, N), Nan Ya Plastics (1303 TT, NT\$66.8, N) and Formosa Chemicals & Fibre (FCFC; 1326 TT, NT\$61.9, U) for polymer, plastic and fiber production.

Source: KGI Research

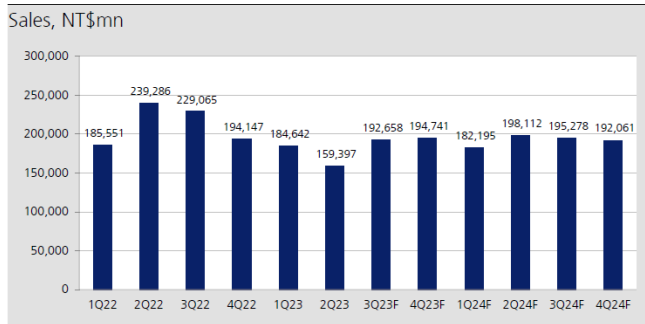
**Figure 12: Olefins & refinery business dominate sales**

Sales weighting in 2018, percent



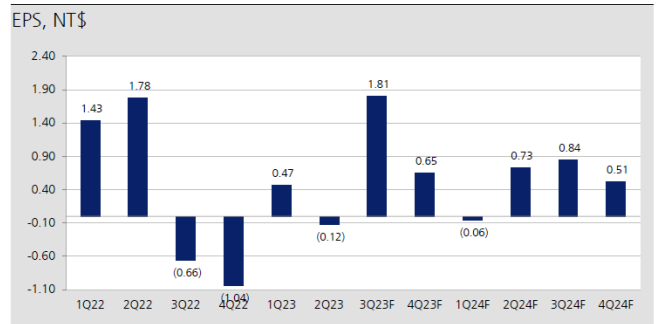
Source: KGI Research

**Figure 13: Sales**



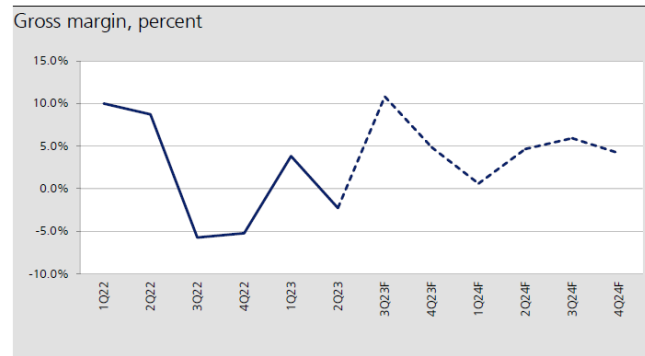
Source: KGI Research

**Figure 14: EPS**



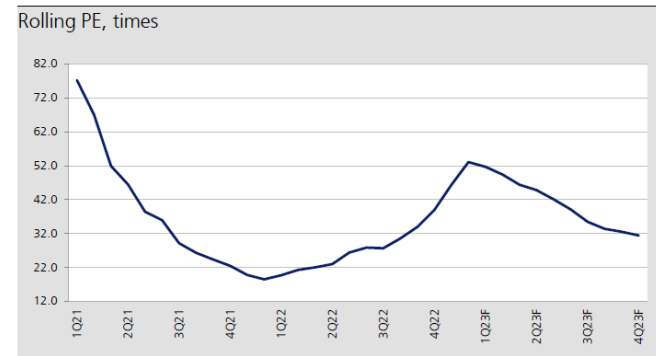
Source: KGI Research

**Figure 15: Gross Margin**



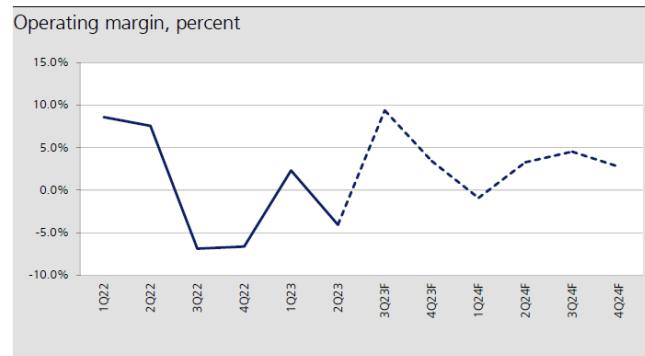
Source: KGI Research

**Figure 16: Rolling PE**



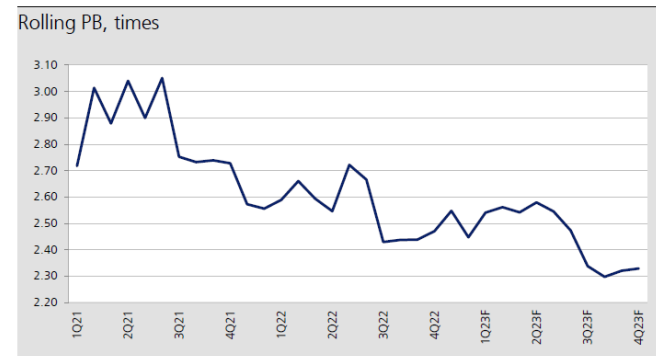
Source: KGI Research

**Figure 17: Operating Margin**



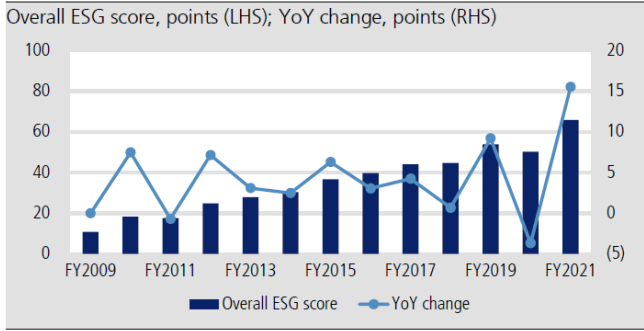
Source: KGI Research

**Figure 18: Rolling PB**



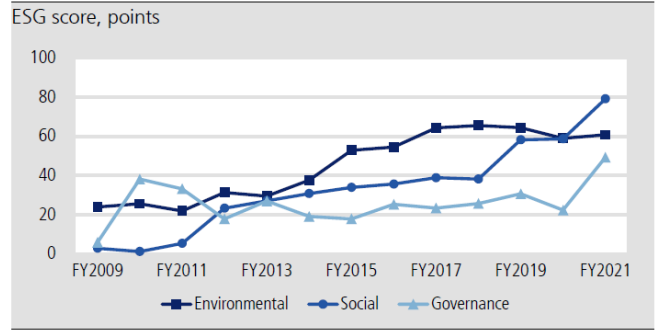
Source: KGI Research

Figure 19: Overall ESG score



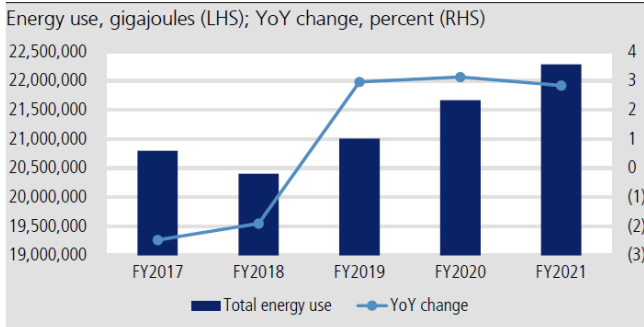
Source: Refinitiv; Company data

Figure 20: ESG score by category



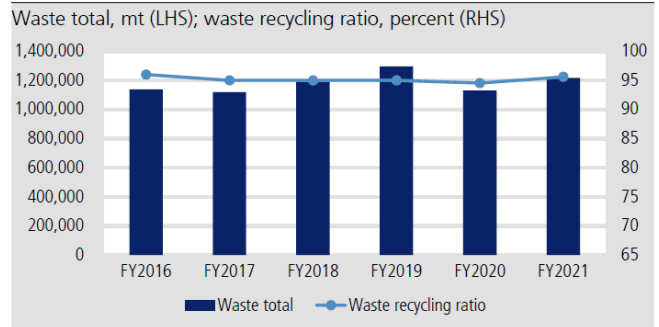
Source: Refinitiv; Company data

Figure 21: Energy use



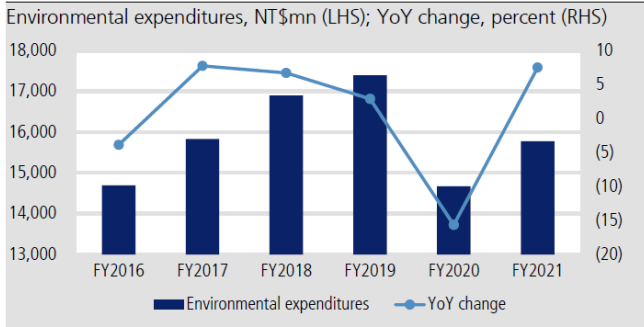
Source: Refinitiv; Company data

Figure 22: Waste total



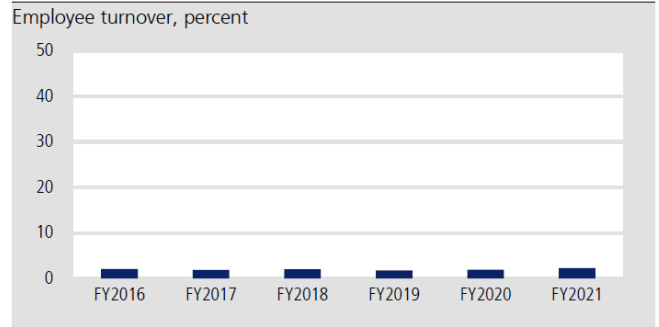
Source: Refinitiv; Company data

Figure 23: Environmental expenditures



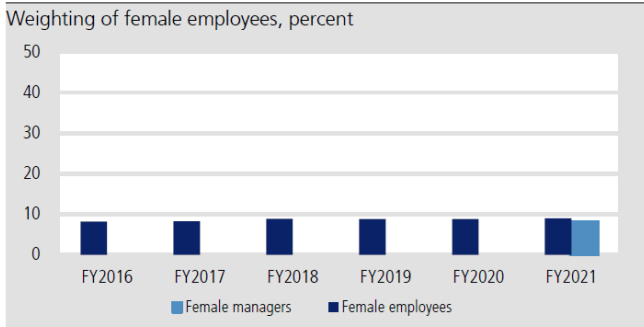
Source: Refinitiv; Company data

Figure 24: Employee turnover



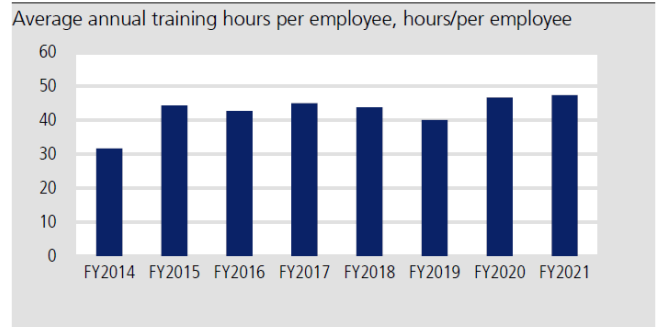
Source: Refinitiv; Company data

Figure 25: Gender diversification



Source: Refinitiv; Company data

Figure 26: Employee training



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-23A	Jun-23A	Sep-23F	Dec-23F	Mar-24F	Jun-24F	Sep-24F	Dec-24F	Dec-22A	Dec-23F	Dec-24F
<b>Income statement (NT\$m)</b>											
<b>Revenue</b>	<b>184,642</b>	<b>159,397</b>	<b>192,658</b>	<b>194,741</b>	<b>182,195</b>	<b>198,112</b>	<b>195,278</b>	<b>192,061</b>	<b>848,048</b>	<b>731,439</b>	<b>767,645</b>
Cost of goods sold	(177,560)	(163,018)	(171,781)	(185,247)	(181,083)	(188,871)	(183,688)	(184,044)	(831,833)	(697,606)	(737,687)
<b>Gross profit</b>	<b>7,082</b>	<b>(3,621)</b>	<b>20,878</b>	<b>9,494</b>	<b>1,111</b>	<b>9,241</b>	<b>11,590</b>	<b>8,016</b>	<b>16,216</b>	<b>33,833</b>	<b>29,958</b>
Operating expenses	(2,798)	(2,846)	(2,825)	(2,831)	(2,750)	(2,750)	(2,750)	(2,750)	(10,795)	(11,300)	(11,000)
<b>Operating profit</b>	<b>4,284</b>	<b>(6,467)</b>	<b>18,053</b>	<b>6,662</b>	<b>(1,639)</b>	<b>6,491</b>	<b>8,840</b>	<b>5,266</b>	<b>5,420</b>	<b>22,533</b>	<b>18,958</b>
Depreciation of fixed assets	(4,082)	(3,957)	(3,750)	(3,210)	(3,750)	(3,750)	(3,750)	(3,750)	(15,018)	(15,000)	(15,000)
Amortisation of intangible assets	(284)	(302)	(307)	(334)	(307)	(307)	(307)	(307)	(1,228)	(1,228)	(1,228)
<b>EBITDA</b>	<b>8,651</b>	<b>(2,208)</b>	<b>22,110</b>	<b>10,207</b>	<b>2,418</b>	<b>10,548</b>	<b>12,897</b>	<b>9,323</b>	<b>21,666</b>	<b>38,760</b>	<b>35,186</b>
Interest income	145	436	150	169	150	150	150	150	471	900	600
Investment income	697	2,503	1,218	994	353	1,198	478	228	4,171	5,412	2,257
Other non-op income	508	851	1,832	1,080	500	500	500	500	2,407	4,272	2,000
<b>Non-operating income</b>	<b>1,350</b>	<b>3,790</b>	<b>3,201</b>	<b>2,243</b>	<b>1,003</b>	<b>1,848</b>	<b>1,128</b>	<b>878</b>	<b>7,049</b>	<b>10,584</b>	<b>4,857</b>
Interest expense	(184)	(110)	(150)	(156)	(100)	(100)	(100)	(100)	(557)	(600)	(400)
Investment loss	-	-	-	-	-	-	-	-	(688)	-	-
Other non-op expenses	(91)	867	-	(776)	-	-	-	-	5,744	-	-
<b>Non-operating expenses</b>	<b>(275)</b>	<b>757</b>	<b>(150)</b>	<b>(932)</b>	<b>(100)</b>	<b>(100)</b>	<b>(100)</b>	<b>(100)</b>	<b>4,499</b>	<b>(600)</b>	<b>(400)</b>
<b>Pre-tax profit</b>	<b>5,360</b>	<b>(1,920)</b>	<b>21,103</b>	<b>7,973</b>	<b>(736)</b>	<b>8,239</b>	<b>9,867</b>	<b>6,045</b>	<b>16,968</b>	<b>32,517</b>	<b>23,415</b>
Current taxation	(926)	752	(3,950)	(1,729)	140	(1,318)	(1,875)	(1,161)	(2,569)	(5,853)	(4,215)
Minorities	1	10	46	(8)	13	13	13	13	22	50	50
<b>Normalised net profit</b>	<b>4,435</b>	<b>(1,158)</b>	<b>17,200</b>	<b>6,236</b>	<b>(583)</b>	<b>6,933</b>	<b>8,005</b>	<b>4,896</b>	<b>14,422</b>	<b>26,714</b>	<b>19,250</b>
Extraordinary items	(0)	0	-	0	-	-	-	-	-	-	-
<b>Net profit</b>	<b>4,435</b>	<b>(1,158)</b>	<b>17,200</b>	<b>6,236</b>	<b>(583)</b>	<b>6,933</b>	<b>8,005</b>	<b>4,896</b>	<b>14,422</b>	<b>26,714</b>	<b>19,250</b>
EPS (NT\$)	0.47	(0.12)	1.81	0.65	(0.06)	0.73	0.84	0.51	1.51	2.80	2.02
<b>Margins (%)</b>											
Gross profit margin	3.8	(2.3)	10.8	4.9	0.6	4.7	5.9	4.2	1.9	4.6	3.9
Operating margin	2.3	(4.1)	9.4	3.4	(0.9)	3.3	4.5	2.7	0.6	3.1	2.5
EBITDA margin	4.7	(1.4)	11.5	5.2	1.3	5.3	6.6	4.9	2.6	5.3	4.6
Pretax profit margin	2.9	(1.2)	11.0	4.1	(0.4)	4.2	5.1	3.1	2.0	4.4	3.1
Net profit margin	2.4	(0.7)	8.9	3.2	(0.3)	3.5	4.1	2.5	1.7	3.7	2.5
<b>Sequential growth (%)</b>											
Revenue growth	(4.9)	(13.7)	20.9	1.1	(6.4)	8.7	(1.4)	(1.6)			
Gross profit growth		(151.1)		(54.5)	(88.3)	731.6	25.4	(30.8)			
Operating profit growth		(250.9)		(63.1)	(124.6)		36.2	(40.4)			
EBITDA growth		(125.5)		(53.8)	(76.3)	336.2	22.3	(27.7)			
Pretax profit growth		(135.8)		(62.2)	(109.2)		19.8	(38.7)			
Net profit growth		(126.1)		(63.7)	(109.4)		15.5	(38.8)			
<b>YoY growth (%)</b>											
Revenue growth	(0.5)	(33.4)	(15.9)	0.3	(1.3)	24.3	1.4	(1.4)	36.8	(13.8)	4.9
Gross profit growth	(61.9)	(117.3)			(84.3)		(44.5)	(15.6)	(75.3)	108.6	(11.5)
Operating profit growth	(73.1)	(135.8)			(138.2)		(51.0)	(21.0)	(90.2)	315.7	(15.9)
EBITDA growth	(56.0)	(110.1)			(72.0)		(41.7)	(8.7)	(68.9)	78.9	(9.2)
Pretax profit growth	(68.6)	(109.1)			(113.7)		(53.2)	(24.2)	(71.9)	91.6	(28.0)
Net profit growth	(67.5)	(106.8)			(113.2)		(53.5)	(21.5)	(70.8)	85.2	(27.9)

Source: Company data, KGI Research estimates

**Balance sheet**

NT\$m	Dec-20A	Dec-21A	Dec-22A	Dec-23F	Dec-24F
<b>Total assets</b>	<b>380,923</b>	<b>458,757</b>	<b>421,781</b>	<b>439,756</b>	<b>438,952</b>
<b>Current assets</b>	<b>215,310</b>	<b>289,586</b>	<b>267,203</b>	<b>286,231</b>	<b>292,941</b>
Cash & ST securities	112,826	134,556	91,574	131,068	138,941
Inventory	47,037	72,713	86,408	79,607	79,607
Accounts receivable	35,708	51,149	55,309	50,390	50,390
Other current assets	19,738	31,167	33,912	25,167	24,003
<b>Non-current assets</b>	<b>165,613</b>	<b>169,171</b>	<b>154,579</b>	<b>153,525</b>	<b>146,011</b>
LT investments	43,526	50,044	39,641	43,420	44,486
Net fixed assets	99,330	97,933	92,780	86,192	78,840
Other assets	22,758	21,195	22,158	23,913	22,685
<b>Total liabilities</b>	<b>68,296</b>	<b>96,990</b>	<b>104,496</b>	<b>97,837</b>	<b>97,837</b>
<b>Current liabilities</b>	<b>28,888</b>	<b>57,922</b>	<b>69,785</b>	<b>63,409</b>	<b>63,409</b>
Accounts payable	10,691	26,675	19,606	17,612	17,612
Interest bearing ST liabilities	272	175	26,332	26,332	26,332
Other current liabilities	17,925	31,072	23,846	19,465	19,465
<b>Non-current liabilities</b>	<b>39,408</b>	<b>39,068</b>	<b>34,712</b>	<b>34,428</b>	<b>34,428</b>
Long-term debt	29,200	29,200	25,850	25,850	25,850
Other L-T liabilities	5,022	5,350	4,931	8,578	8,578
<b>Total equity</b>	<b>312,627</b>	<b>361,767</b>	<b>317,285</b>	<b>341,920</b>	<b>341,115</b>
Share capital	95,260	95,260	95,260	95,260	95,260
Retained earnings reserve	75,842	118,496	92,174	98,883	103,844
Minority interests	4,526	4,353	4,797	4,914	4,864
Preferred shareholders funds	-	-	-	-	-

**Key ratios**

	Dec-20A	Dec-21A	Dec-22A	Dec-23F	Dec-24F
<b>Growth</b>					
Revenue growth	(35.7%)	49.3%	36.8%	(13.8%)	4.9%
Operating profit growth	(92.5%)	1892.8%	(90.2%)	315.7%	(15.9%)
EBITDA growth	(66.6%)	313.4%	(68.9%)	78.9%	(9.2%)
Net profit growth	(79.8%)	564.9%	(70.8%)	85.2%	(27.9%)
EPS growth	(79.8%)	564.9%	(70.8%)	85.2%	(27.9%)
<b>Profitability</b>					
Gross profit margin	3.1%	10.6%	1.9%	4.6%	3.9%
Operating margin	0.7%	8.9%	0.6%	3.1%	2.5%
EBITDA margin	4.1%	11.2%	2.6%	5.3%	4.6%
Net profit margin	1.8%	8.0%	1.7%	3.7%	2.5%
Return on average assets	1.9%	11.8%	3.3%	6.2%	4.4%
Return on average equity	2.3%	14.8%	4.3%	8.2%	5.7%
<b>Stability</b>					
Gross debt to equity	9.4%	8.1%	16.4%	15.3%	15.3%
Net debt to equity	Net cash	Net cash	4.9%	Net cash	Net cash
Interest coverage (x)	21.8	161.8	31.5	55.2	59.5
Interest & ST debt coverage (x)	0.9	1.0	0.4	0.5	0.5
Cash flow interest coverage(x)	85.3	94.4	(16.5)	89.4	88.8
Cash flow/int. & ST debt (x)	51.6	64.5	(0.3)	2.0	1.3
Current ratio (x)	7.5	5.0	3.8	4.5	4.6
Quick ratio (x)	5.8	3.7	2.6	3.3	3.4
Net debt (NT\$m)	(13,494)	(35,097)	15,672	(19,867)	(27,740)
<b>Per share data</b>					
EPS (NT\$)	0.78	5.19	1.51	2.80	2.02
CFPS (NT\$)	3.73	3.73	(0.96)	5.63	3.73
BVPS (NT\$)	32.34	37.52	32.80	35.38	35.30
Adj BVPS (NT\$)	32.34	37.52	32.80	35.38	35.30
SPS (NT\$)	43.59	65.09	89.02	76.78	80.58
EBITDA/share (NT\$)	1.77	7.31	2.27	4.07	3.69
Cash DPS (NT\$)	0.59	3.80	1.10	2.10	1.50
<b>Activity</b>					
Sales / avg assets	1.07	1.48	1.93	1.70	1.75
Days receivable	31.5	30.1	23.8	25.1	24.0
Days inventory	42.8	47.9	37.9	41.7	39.5
Days payable	9.7	17.6	8.6	9.2	8.7
Cash cycle	64.5	60.4	53.1	57.6	54.8

Source: Company data, KGI Research estimates

**Profit & loss**

NT\$m	Dec-20A	Dec-21A	Dec-22A	Dec-23F	Dec-24F
<b>Revenue</b>	<b>415,282</b>	<b>620,062</b>	<b>848,048</b>	<b>731,439</b>	<b>767,645</b>
Cost of goods sold	(402,314)	(554,282)	(831,833)	(697,606)	(737,687)
<b>Gross profit</b>	<b>12,968</b>	<b>65,780</b>	<b>16,216</b>	<b>33,833</b>	<b>29,958</b>
Operating expenses	(10,199)	(10,602)	(10,795)	(11,300)	(11,000)
<b>Operating profit</b>	<b>2,769</b>	<b>55,177</b>	<b>5,420</b>	<b>22,533</b>	<b>18,958</b>
<b>Non-operating income</b>	<b>5,996</b>	<b>4,473</b>	<b>7,049</b>	<b>10,584</b>	<b>4,857</b>
Interest income	440	344	471	900	600
Investment income	3,330	1,972	4,171	5,412	2,257
Other non-op income	2,227	2,157	2,407	4,272	2,000
<b>Non-operating expenses</b>	<b>(100)</b>	<b>835</b>	<b>4,499</b>	<b>(600)</b>	<b>(400)</b>
Interest expense	(417)	(376)	(557)	(600)	(400)
Investment loss	-	-	(688)	-	-
Other non-op expenses	317	1,211	5,744	-	-
<b>Pre-tax profit</b>	<b>8,665</b>	<b>60,485</b>	<b>16,968</b>	<b>32,517</b>	<b>23,415</b>
Current taxation	(1,293)	(11,121)	(2,569)	(5,853)	(4,215)
Minorities	57	38	22	50	50
Extraordinary items	-	(0)	0	-	-
<b>Net profit</b>	<b>7,430</b>	<b>49,401</b>	<b>14,422</b>	<b>26,714</b>	<b>19,250</b>
<b>EBITDA</b>	<b>16,853</b>	<b>69,677</b>	<b>21,666</b>	<b>38,760</b>	<b>35,186</b>
EPS (NT\$)	0.78	5.19	1.51	2.80	2.02

**Cash flow**

NT\$m	Dec-20A	Dec-21A	Dec-22A	Dec-23F	Dec-24F
<b>Operations cash flow</b>	<b>35,534</b>	<b>35,526</b>	<b>(9,183)</b>	<b>53,665</b>	<b>35,525</b>
Net profit	7,430	49,401	14,422	26,714	19,250
Depreciation & amortisation	14,084	14,500	16,246	16,228	16,228
Decrease in working capital	22,514	(25,129)	(24,880)	4,564	6,879
Other operating cash flow	(8,493)	(3,246)	(14,971)	6,159	(6,832)
<b>Investing cash flow</b>	<b>(5,965)</b>	<b>(6,710)</b>	<b>(3,864)</b>	<b>(7,647)</b>	<b>(7,647)</b>
Sale of ST investment	(1,789)	(1,473)	2,485	-	-
New investments	(189)	(898)	(1,000)	(422)	595
Capital expenditure	(8,959)	(10,550)	(7,647)	(7,647)	(7,647)
Others investing cashflow	4,972	6,211	2,298	422	(595)
<b>Free cash flow</b>	<b>28,514</b>	<b>22,341</b>	<b>(12,910)</b>	<b>30,393</b>	<b>29,777</b>
<b>Financing cash flow</b>	<b>(17,993)</b>	<b>(7,167)</b>	<b>(15,201)</b>	<b>(10,479)</b>	<b>(20,005)</b>
Increase in short term debt	(61)	(111)	6,325	-	-
Increase in long term loans	11,300	-	-	(3,350)	-
New ordinary shares issued	-	-	-	-	-
Ordinary dividends paid	(27,625)	(5,621)	(36,198)	(10,479)	(20,005)
Other financing cashflow	(1,606)	(1,435)	14,672	3,350	-
<b>Forex effects</b>	<b>(289)</b>	<b>(144)</b>	<b>286</b>	-	-
<b>Total cash generated</b>	<b>11,288</b>	<b>21,506</b>	<b>(27,962)</b>	<b>35,539</b>	<b>7,873</b>

**ROIC**

	Dec-20A	Dec-21A	Dec-22A	Dec-23F	Dec-24F
1 - COGS/revenue					
- Operating exp./revenue	2.5%	1.7%	1.3%	1.5%	1.4%
<b>= Operating margin</b>	<b>0.7%</b>	<b>8.9%</b>	<b>0.6%</b>	<b>3.1%</b>	<b>2.5%</b>
1 / (Working capital/revenue	0.2	0.2	0.2	0.2	0.2
+ Net PPE/revenue	0.2	0.2	0.1	0.1	0.1
+ Other assets/revenue)	0.0	0.0	0.0	0.0	0.0
<b>= Capital turnover</b>	<b>2.2</b>	<b>3.0</b>	<b>3.6</b>	<b>3.2</b>	<b>3.5</b>
Operating margin	0.7%	8.9%	0.6%	3.1%	2.5%
x Capital turnover	2.2	3.0	3.6	3.2	3.5
x (1 - tax rate)	85.1%	81.6%	84.9%	82.0%	82.0%
<b>= After-tax ROIC</b>	<b>1.3%</b>	<b>21.7%</b>	<b>1.9%</b>	<b>8.1%</b>	<b>7.1%</b>

Source: Company data, KGI Research estimates



**Formosa Petrochemical – Recommendation & target price history**


Date	Rating	Target	Price
2023-09-19	Neutral	74.0	81.2
2023-07-10	Neutral	73.0	79.2
2023-07-05	Neutral	73.0	83.3
2023-04-11	Neutral	74.0	87.6
2023-03-30	Neutral	74.0	84.7
2023-01-10	Neutral	74.0	82.6
2023-01-05	Neutral	74.0	79.7
2022-10-11	Neutral	74.0	79.0
2022-10-05	Neutral	74.0	80.9
2022-10-03	Neutral	74.0	81.4

Source: TEJ, KGI Research

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