

1Q22

Quarterly Management Report  
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## Operating Results Review:

## CONTACT

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## Topics in This Report:

- Revenue Analysis
- Profit & Expense Analysis
- Financial Condition Review
- Cash Flow
- CapEx
- Recap of Recent Important Events & Announcements

**Summary:***(Amounts are on consolidated basis and are in NT\$ billions unless otherwise noted)*

	1Q22	4Q21	1Q21	QoQ	YoY
EPS (NT\$ per common share)	7.82	6.41	5.39	22.0%	45.1%
(US\$ per ADR unit)	1.40	1.15	0.96		
Net Revenue (US\$ billions)	17.57	15.74	12.92	11.6%	36.0%
Net Revenue	491.08	438.19	362.41	12.1%	35.5%
Gross Profit	273.20	230.76	189.84	18.4%	43.9%
<i>Gross Margin</i>	55.6%	52.7%	52.4%		
Operating Expenses	(48.61)	(47.88)	(39.11)	1.5%	24.3%
Other Operating Income and Expenses	(0.80)	(0.11)	(0.19)		
Operating Income	223.79	182.77	150.54	22.4%	48.7%
<i>Operating Margin</i>	45.6%	41.7%	41.5%		
Non-Operating Items	3.04	2.05	4.52		
Net Income Attributable to Shareholders of the Parent Company	202.73	166.23	139.69	22.0%	45.1%
<i>Net Profit Margin</i>	41.3%	37.9%	38.6%		
Wafer Shipment (kpcs 12 inch-equiv.)	3,778	3,725	3,359	1.4%	12.5%
Average Exchange Rate--USD/NTD	27.95	27.85	28.05	0.4%	-0.4%

*Note: Diluted weighted average outstanding shares were 25,930mn units in 1Q22***Financial Highlights:****First Quarter 2022**

- Net revenue was NT\$491.08 billion, representing a 12.1% increase from NT\$438.19 billion in 4Q21 and a 35.5% increase from NT\$362.41 billion in 1Q21.
- Gross margin was 55.6%, 2.9 percentage points higher than 4Q21 and 3.2 percentage points higher than 1Q21.
- Operating margin was 45.6%, up 3.9 percentage points from 4Q21 and up 4.1 percentage points from 1Q21.
- Non-operating items were a gain of NT\$3.04 billion, compared to a gain of NT\$2.05 billion in 4Q21 and a gain of NT\$4.52 billion in 1Q21.
- Net income attributable to shareholders of the parent company was NT\$202.73 billion, up 22.0% from 4Q21 and up 45.1% from 1Q21. Net profit margin was 41.3% and diluted EPS was NT\$7.82.

## I. Revenue Analysis

Wafer Revenue by Technology	1Q22	4Q21	1Q21
5nm	20%	23%	14%
7nm	30%	27%	35%
16nm	14%	13%	14%
28nm	11%	11%	11%
40/45nm	8%	8%	7%
65nm	5%	5%	5%
90nm	2%	2%	3%
0.11/0.13um	3%	3%	3%
0.15/0.18um	6%	6%	6%
0.25um and above	1%	2%	2%

Net Revenue by Platform	1Q22	4Q21	1Q21
Smartphone	40%	44%	45%
High Performance Computing	41%	37%	35%
Internet of Things	8%	9%	9%
Automotive	5%	4%	4%
Digital Consumer Electronics	3%	3%	4%
Others	3%	3%	3%

Net Revenue by Geography	1Q22	4Q21	1Q21
North America	64%	66%	67%
Asia Pacific	15%	12%	17%
China	11%	12%	6%
EMEA	5%	5%	6%
Japan	5%	5%	4%

### Revenue Analysis:

In the first quarter, revenue increased 12.1% quarter-over-quarter, supported by strong HPC and Automotive-related demand.

By technology, 5nm process technology contributed 20% of total wafer revenue in 1Q22 while 7nm accounted for 30%. Advanced technologies (7nm and below) accounted for 50% of total wafer revenue.

By platform, Smartphone and HPC represented 40% and 41% of net revenue respectively, while IoT, Automotive, DCE, and Others each represented 8%, 5%, 3%, and 3%.

Sequentially, revenue from Smartphone, HPC, IoT, Automotive, DCE, and Others increased 1%, 26%, 5%, 26%, 8% and 9% respectively from 4Q21.

From a geographic perspective, revenue from customers based in North America accounted for 64% of total net revenue, while revenue from Asia Pacific, China, EMEA (Europe, Middle East, and Africa) and Japan accounted for 15%, 11%, 5%, and 5% of total net revenue respectively.

## II. Profit & Expense Analysis

II - 1. Gross Profit Analysis			
(In NT\$ billions)	1Q22	4Q21	1Q21
<b>Net Revenue</b>	<b>491.08</b>	<b>438.19</b>	<b>362.41</b>
Cost of Revenue	(217.88)	(207.43)	(172.57)
<b>Gross Profit</b>	<b>273.20</b>	<b>230.76</b>	<b>189.84</b>
<b>Gross Margin</b>	<b>55.6%</b>	<b>52.7%</b>	<b>52.4%</b>

### Gross Profit Analysis:

Gross margin was 55.6% in 1Q22, 2.9 percentage points higher than 4Q21, mainly as we continued to sell our value and improve cost.

## II - 2. Operating Income Analysis

(In NT\$ billions)	<u>1Q22</u>	<u>4Q21</u>	<u>1Q21</u>
<b>Total Operating Expenses</b>	<b>(48.61)</b>	<b>(47.88)</b>	<b>(39.11)</b>
Research & Development	(36.05)	(32.24)	(30.76)
SG&A	(12.56)	(15.64)	(8.35)
<b>Other Operating Income and Expenses</b>	<b>(0.80)</b>	<b>(0.11)</b>	<b>(0.19)</b>
<b>Operating Income</b>	<b>223.79</b>	<b>182.77</b>	<b>150.54</b>
<b>Operating Margin</b>	<b>45.6%</b>	<b>41.7%</b>	<b>41.5%</b>
<b>Total Operating Expenses as % of Net Revenue</b>	<b>9.9%</b>	<b>11.0%</b>	<b>10.8%</b>

### **Operating Income Analysis:**

Total operating expenses were 9.9% of net revenue in 1Q22, an improvement of 1.1 percentage points from 11.0% in 4Q21, mainly due to lower vaccine donation expense. Operating margin improved 3.9 percentage points sequentially to 45.6% in 1Q22.

## II - 3. Non-Operating Items

(In NT\$ billions)	<u>1Q22</u>	<u>4Q21</u>	<u>1Q21</u>
<b>L-T Investments</b>	<b>1.73</b>	<b>1.65</b>	<b>1.26</b>
<b>Net Interest Income (Expenses)</b>	<b>(0.47)</b>	<b>(0.71)</b>	<b>0.69</b>
<b>Other Gains and Losses</b>	<b>1.78</b>	<b>1.11</b>	<b>2.57</b>
<b>Total Non-Operating Items</b>	<b>3.04</b>	<b>2.05</b>	<b>4.52</b>

### **Non-Operating Items:**

Total non-operating items were a gain of NT\$3.04 billion in 1Q22, compared to a gain of NT\$2.05 billion in 4Q21.

## II - 4. Net Profit and EPS

(In NT\$ billions)	<u>1Q22</u>	<u>4Q21</u>	<u>1Q21</u>
<b>Income before Tax</b>	<b>226.83</b>	<b>184.82</b>	<b>155.06</b>
<b>Income Tax Expenses</b>	<b>(23.96)</b>	<b>(18.45)</b>	<b>(15.32)</b>
<b>Effective Tax Rate</b>	<b>10.6%</b>	<b>10.1%</b>	<b>10.0%</b>
<b>Net Income Attributable to the Parent Company</b>	<b>202.73</b>	<b>166.23</b>	<b>139.69</b>
<b>Net Profit Margin</b>	<b>41.3%</b>	<b>37.9%</b>	<b>38.6%</b>
<b>EPS (NT\$ per common share)</b>	<b>7.82</b>	<b>6.41</b>	<b>5.39</b>

### **Net Profit and EPS:**

Net income attributable to shareholders of the parent company was NT\$202.73 billion in 1Q22, up 22.0% from 4Q21 and up 45.1% from 1Q21.

### III. Financial Condition Review

<b>III - 1. Liquidity Analysis</b>			
<b>(Balance Sheet Items)</b>			
(In NT\$ billions)	<u>1Q22</u>	<u>4Q21</u>	<u>1Q21</u>
Cash & Marketable Securities	1,282.06	1,188.46	796.72
Accounts Receivable	213.43	198.30	167.48
Inventories	200.12	193.10	154.57
Other Current Assets	26.63	27.21	21.02
<b>Total Current Assets</b>	<b>1,722.24</b>	<b>1,607.07</b>	<b>1,139.79</b>
Short-term Loans	144.55	114.92	137.12
Accounts Payable	173.02	194.46	147.64
Current Portion of Bonds Payable and Bank Loans	16.79	4.57	0.00
Dividends Payable	142.62	142.62	129.65
Accrued Liabilities and Others	345.89	282.93	247.24
<b>Total Current Liabilities</b>	<b>822.87</b>	<b>739.50</b>	<b>661.65</b>
Current Ratio (x)	2.1	2.2	1.7
<b>Net Working Capital</b>	<b>899.37</b>	<b>867.57</b>	<b>478.14</b>

#### **Liquidity Analysis:**

Total current assets increased by NT\$115.17 billion, mainly due to the increase of NT\$93.60 billion in cash and marketable securities.

Total current liabilities increased by NT\$83.37 billion, mainly due to the increase of NT\$62.96 billion in accrued liabilities and others and the increase of NT\$29.63 billion in short-term loans, partially offset by the decrease of NT\$21.44 billion in accounts payable.

Net working capital was NT\$899.37 billion and current ratio was 2.1x in 1Q22.

<b>III - 2. Receivable/Inventory Days</b>			
(In Number of Days)	<u>1Q22</u>	<u>4Q21</u>	<u>1Q21</u>
Days of Receivable	38	40	40
Days of Inventory	88	88	83

#### **Receivable and Inventory Days:**

Days of receivable decreased 2 days to 38 days in 1Q22.

Days of inventory was 88 days in 1Q22.

<b>III - 3. Debt Service</b>			
(In NT\$ billions)	<u>1Q22</u>	<u>4Q21</u>	<u>1Q21</u>
Cash & Marketable Securities	1,282.06	1,188.46	796.72
Interest-Bearing Debts	(794.08)	(732.87)	(416.59)
<b>Net Cash Reserves</b>	<b>487.98</b>	<b>455.59</b>	<b>380.13</b>

#### **Debt Service:**

Net cash reserves increased NT\$32.39 billion to NT\$487.98 billion in 1Q22.

Interest-bearing debts increased NT\$61.21 billion in 1Q22, mainly due to the increase in short-term loans of NT\$29.63 billion and the issuance of NT\$19.60 billion in corporate bonds.

## IV. Cash Flow

<b>IV - 1. Quarterly Cash Flow Analysis</b>			
(In NT\$ billions)	<b>1Q22</b>	<b>4Q21</b>	<b>1Q21</b>
Income before Tax	226.83	184.82	155.06
Depreciation & Amortization	111.10	110.66	100.90
Other Operating Sources/(Uses)	34.24	82.72	(28.14)
<b>Net Operating Sources/(Uses)</b>	<b>372.17</b>	<b>378.20</b>	<b>227.82</b>
Capital Expenditures	(262.13)	(235.56)	(248.03)
Marketable Financial Instruments	(26.74)	(8.38)	3.51
Other Investing Sources/(Uses)	0.80	(1.40)	0.27
<b>Net Investing Sources/(Uses)</b>	<b>(288.07)</b>	<b>(245.34)</b>	<b>(244.25)</b>
Short-term Loans	30.53	(1.86)	52.07
Cash Dividends	(71.31)	(71.31)	(64.83)
Bonds Payable	19.60	157.47	18.50
Other Financing Sources/(Uses)	2.09	(2.02)	8.88
<b>Net Financing Sources/(Uses)</b>	<b>(19.09)</b>	<b>82.28</b>	<b>14.62</b>
<b>Exchange Rate Changes</b>	<b>21.59</b>	<b>(3.96)</b>	<b>6.37</b>
<b>Cash Position Net Changes</b>	<b>86.60</b>	<b>211.18</b>	<b>4.56</b>
<b>Ending Cash Balance</b>	<b>1,151.59</b>	<b>1,064.99</b>	<b>664.73</b>

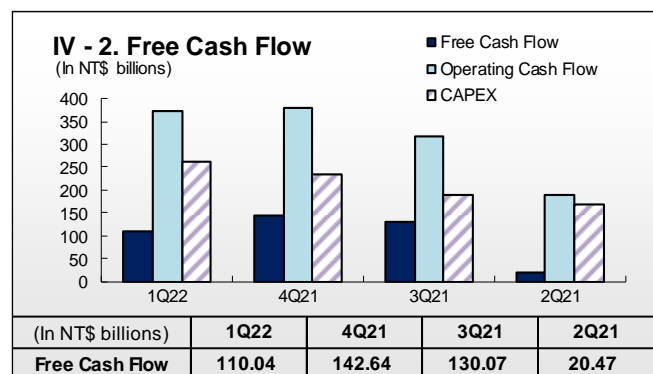
### Summary of Cash Flow:

During the first quarter, cash generated from operating activities totaled NT\$372.17 billion, including (1) NT\$226.83 billion from income before tax, (2) NT\$111.10 billion from depreciation & amortization expenses, and (3) NT\$34.24 billion from other operating sources. The other operating sources were mainly attributable to the receipt from customers to retain capacity.

Net cash used in investing activities was NT\$288.07 billion in 1Q22, primarily attributable to capital expenditures of NT\$262.13 billion.

Net cash used in financing activities was NT\$19.09 billion, mainly reflecting the payment of 2Q21 cash dividends, partially offset by the net increase in short-term loans of NT\$30.53 billion and net increase in bonds payable of NT\$19.60 billion.

As a result, cash position increased NT\$86.60 billion to NT\$1,151.59 billion at the end of 1Q22.



### Operating and Free Cash Flow:

Free cash flow decreased NT\$32.60 billion to an inflow of NT\$110.04 billion in 1Q22, mainly due to higher capital expenditures during the quarter.

## V. CapEx

<b>V. Capital Expenditures</b>		
(in US\$ billions)	<b>1Q22</b>	<b>4Q21</b>
<b>Capital Expenditures</b>	<b>9.38</b>	<b>8.46</b>

### Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$9.38 billion in 1Q22.

## VI. Recap of Recent Important Events & Announcements

- DENSO to Take Minority Stake in JASM with a US\$0.35 Billion Investment (2022/02/15)
- TSMC Board of Directors Approved the Issuance of 1,387,000 Shares of 2021 Employee Restricted Stock Awards (RSAs). In Order to Offset Dilution from the Increase of Outstanding Shares Due to the Above-mentioned Issuance, the Board Approved a Share Buyback Program for TSMC to Buy Back Its Common Shares on the Taiwan Stock Exchange. In Addition, the Board Approved the Issuance of No More Than 2,960,000 Common Shares of RSAs for the Year 2022, Which Will be Submitted to the 2022 Annual Shareholders' Meeting for Approval (2022/02/15)
- TSMC Board of Directors Approved the Issuance of Unsecured Corporate Bonds for an Amount Not to Exceed NT\$60 Billion (Approximately US\$2.26 Billion) and the Issuance of US Dollar-Denominated Unsecured Corporate Bonds for an Amount Not to Exceed US\$1 Billion (2022/02/15)
- TSMC Board of Directors Approved NT\$2.75 Cash Dividend for the Fourth Quarter of 2021 and Set June 16 as Ex-Dividend Date, June 22 as the Record Date and July 14, 2022 as the Distribution Date (2022/02/15)