

1Q23

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)

	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>	<u>QoQ</u>	<u>YoY</u>
EPS (NT\$ per common share)	7.98	11.41	7.82	-30.0%	2.1%
(US\$ per ADR unit)	1.31	1.82	1.40		
Net Revenue (US\$ billions)	16.72	19.93	17.57	-16.1%	-4.8%
Net Revenue	508.63	625.53	491.08	-18.7%	3.6%
Gross Profit	286.50	389.19	273.20	-26.4%	4.9%
<i>Gross Margin</i>	56.3%	62.2%	55.6%		
Operating Expenses	(55.31)	(64.54)	(48.61)	-14.3%	13.8%
Other Operating Income and Expenses	0.05	0.39	(0.80)		
Operating Income	231.24	325.04	223.79	-28.9%	3.3%
<i>Operating Margin</i>	45.5%	52.0%	45.6%		
Non-Operating Items	13.04	9.63	3.04		
Net Income Attributable to Shareholders of the Parent Company	206.99	295.90	202.73	-30.0%	2.1%
<i>Net Profit Margin</i>	40.7%	47.3%	41.3%		
Wafer Shipment (kpcs 12 inch-equiv.)	3,227	3,702	3,778	-12.8%	-14.6%
Average Exchange Rate--USD/NTD	30.42	31.39	27.95	-3.1%	8.8%

Note: Diluted weighted average outstanding shares were 25,929mn units in 1Q23

Financial Highlights:**First Quarter 2023**

- Net revenue was NT\$508.63 billion, representing an 18.7% decrease from NT\$625.53 billion in 4Q22 and a 3.6% increase from NT\$491.08 billion in 1Q22.
- Gross margin was 56.3%, 5.9 percentage points lower than 4Q22 and 0.7 percentage point higher than 1Q22.
- Operating margin was 45.5%, down 6.5 percentage points from 4Q22 and down 0.1 percentage point from 1Q22.
- Non-operating items were a gain of NT\$13.04 billion, compared to a gain of NT\$9.63 billion in 4Q22 and a gain of NT\$3.04 billion in 1Q22.
- Net income attributable to shareholders of the parent company was NT\$206.99 billion, down 30.0% from 4Q22 and up 2.1% from 1Q22. Net profit margin was 40.7% and diluted EPS was NT\$7.98.

I. Revenue Analysis

Wafer Revenue by Technology	1Q23	4Q22	1Q22
5nm	31%	32%	20%
7nm	20%	22%	30%
16nm	13%	12%	14%
20nm	1%	0%	0%
28nm	12%	11%	11%
40/45nm	7%	7%	8%
65nm	6%	5%	5%
90nm	2%	2%	2%
0.11/0.13um	2%	3%	3%
0.15/0.18um	5%	5%	6%
0.25um and above	1%	1%	1%

Net Revenue by Platform	1Q23	4Q22	1Q22
High Performance Computing	44%	42%	41%
Smartphone	34%	38%	40%
Internet of Things	9%	8%	8%
Automotive	7%	6%	5%
Digital Consumer Electronics	2%	2%	3%
Others	4%	4%	3%

Net Revenue by Geography	1Q23	4Q22	1Q22
North America	63%	69%	64%
China	15%	12%	11%
Asia Pacific	8%	7%	15%
EMEA	7%	6%	5%
Japan	7%	6%	5%

Revenue Analysis:

In the first quarter, revenue decreased 18.7% quarter-over-quarter, as our business was impacted by weakening macroeconomic conditions, continued end market demand softness, and customers' inventory adjustment.

By technology, 5nm process technology contributed 31% of total wafer revenue in 1Q23 while 7nm accounted for 20%. Advanced technologies (7nm and below) accounted for 51% of total wafer revenue.

By platform, HPC and Smartphone represented 44% and 34% of net revenue respectively, while IoT, Automotive, DCE, and Others each represented 9%, 7%, 2%, and 4%.

Sequentially, revenue from HPC, Smartphone, IoT, DCE, and Others decreased 14%, 27%, 19%, 5%, and 18% respectively, while Automotive increased 5%.

From a geographic perspective, revenue from customers based in North America accounted for 63% of total net revenue, while revenue from China, Asia Pacific, EMEA (Europe, Middle East, and Africa) and Japan accounted for 15%, 8%, 7%, and 7% of total net revenue respectively.

II. Profit & Expense Analysis

II - 1. Gross Profit Analysis			
(In NT\$ billions)	1Q23	4Q22	1Q22
Net Revenue	508.63	625.53	491.08
Cost of Revenue	(222.13)	(236.34)	(217.88)
Gross Profit	286.50	389.19	273.20
Gross Margin	56.3%	62.2%	55.6%

Gross Profit Analysis:

Gross margin was 56.3% in 1Q23, 5.9 percentage points lower than 4Q22, mainly reflecting lower capacity utilization and a less favorable foreign exchange rate, partially offset by more stringent cost controls.

II - 2. Operating Income Analysis

(In NT\$ billions)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
Total Operating Expenses	(55.31)	(64.54)	(48.61)
Research & Development	(39.16)	(44.59)	(36.05)
SG&A	(16.15)	(19.95)	(12.56)
Other Operating Income and Expenses	0.05	0.39	(0.80)
Operating Income	231.24	325.04	223.79
Operating Margin	45.5%	52.0%	45.6%
Total Operating Expenses as % of Net Revenue	10.8%	10.3%	9.9%

Operating Income Analysis:

Total operating expenses decreased NT\$9.23 billion to NT\$55.31 billion in 1Q23, mainly attributable to more stringent expense controls and a lower level of employee profit sharing.

II - 3. Non-Operating Items

(In NT\$ billions)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
L-T Investments	1.04	1.74	1.73
Net Interest Income (Expenses)	10.65	7.25	(0.47)
Other Gains and Losses	1.35	0.64	1.78
Total Non-Operating Items	13.04	9.63	3.04

Non-Operating Items:

Total non-operating items were a gain of NT\$13.04 billion in 1Q23, compared to a gain of NT\$9.63 billion in 4Q22. The increase was mainly due to higher interest income.

II - 4. Net Profit and EPS

(In NT\$ billions)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
Income before Tax	244.28	334.67	226.83
Income Tax Expenses	(37.33)	(38.79)	(23.96)
Effective Tax Rate	15.3%	11.7%	10.6%
Net Income Attributable to the Parent Company	206.99	295.90	202.73
Net Profit Margin	40.7%	47.3%	41.3%
EPS (NT\$ per common share)	7.98	11.41	7.82

Net Profit and EPS:

Net income attributable to shareholders of the parent company was NT\$206.99 billion in 1Q23, down 30.0% from 4Q22 and up 2.1% from 1Q22.

Starting from 2023, effective tax rate increased to approximately 15%, due to the expiration of 5-year tax exemption by the end of 2022, partially offset by the amendments to the Statute for Industrial Innovation in 2023.

III. Financial Condition Review

III - 1. Liquidity Analysis			
(Balance Sheet Items)			
(In NT\$ billions)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
Cash & Marketable Securities	1,589.19	1,561.49	1,282.06
Accounts Receivable	148.05	231.34	213.43
Inventories	216.07	221.15	200.12
Other Current Assets	42.42	38.92	26.63
Total Current Assets	1,995.73	2,052.90	1,722.24
Short-term Loans	0.00	0.00	144.55
Accounts Payable	204.76	270.02	173.02
Current Portion of Bonds Payable and Bank Loans	8.04	19.32	16.79
Dividends Payable	142.62	142.62	142.62
Accrued Liabilities and Others	517.67	512.27	345.89
Total Current Liabilities	873.09	944.23	822.87
Current Ratio (x)	2.3	2.2	2.1
Net Working Capital	1,122.64	1,108.67	899.37

Liquidity Analysis:

Total current assets decreased by NT\$57.17 billion, mainly due to the decrease of NT\$83.29 billion in accounts receivable, partially offset by the increase of NT\$27.70 billion in cash and marketable securities.

Total current liabilities decreased by NT\$71.14 billion, mainly due to the decrease of NT\$65.26 billion in accounts payable.

Net working capital was NT\$1,122.64 billion and current ratio was 2.3x in 1Q23.

III - 2. Receivable/Inventory Days			
(In Number of Days)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
Days of Receivable	34	36	38
Days of Inventory	96	93	88

Receivable and Inventory Days:

Days of receivable decreased 2 days to 34 days in 1Q23.

Days of inventory increased 3 days to 96 days, as the decrease in cost of revenue outpaced the decrease in inventory balance.

III - 3. Debt Service			
(In NT\$ billions)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
Cash & Marketable Securities	1,589.19	1,561.49	1,282.06
Interest-Bearing Debts	(862.83)	(858.41)	(794.08)
Net Cash Reserves	726.36	703.08	487.98

Debt Service:

Net cash reserves increased NT\$23.28 billion to NT\$726.36 billion in 1Q23, mainly due to the increase of NT\$27.70 billion in cash and marketable securities, while interest-bearing debts increased NT\$4.42 billion in 1Q23.

IV. Cash Flow

IV - 1. Quarterly Cash Flow Analysis			
(In NT\$ billions)	<u>1Q23</u>	<u>4Q22</u>	<u>1Q22</u>
Income before Tax	244.28	334.67	226.83
Depreciation & Amortization	110.32	107.59	111.10
Other Operating Sources/(Uses)	30.64	44.62	34.24
Net Operating Sources/(Uses)	385.24	486.88	372.17
Capital Expenditures	(302.50)	(336.84)	(262.13)
Marketable Financial Instruments	16.16	(19.59)	(26.74)
Other Investing Sources/(Uses)	14.11	13.90	0.80
Net Investing Sources/(Uses)	(272.23)	(342.53)	(288.07)
Short-term Loans	0.00	0.00	30.53
Cash Dividends	(71.30)	(71.30)	(71.31)
Bonds Payable	7.30	5.80	19.60
Other Financing Sources/(Uses)	(0.48)	(4.33)	2.09
Net Financing Sources/(Uses)	(64.48)	(69.83)	(19.09)
Exchange Rate Changes	(6.11)	(27.72)	21.59
Cash Position Net Changes	42.42	46.80	86.60
Ending Cash Balance	1,385.23	1,342.81	1,151.59

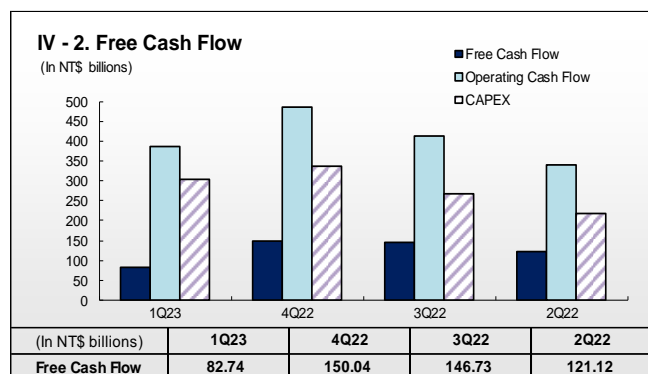
Summary of Cash Flow:

During the first quarter, cash generated from operating activities totaled NT\$385.24 billion, including (1) NT\$244.28 billion from income before tax, (2) NT\$110.32 billion from depreciation & amortization expenses, and (3) NT\$30.64 billion from other operating sources. The decrease of other operating sources compared to 4Q22 were mainly attributable to changes in working capital.

Net cash used in investing activities was NT\$272.23 billion in 1Q23, primarily attributable to capital expenditures of NT\$302.50 billion, partially offset by the net decrease in marketable financial instruments.

Net cash used in financing activities was NT\$64.48 billion, mainly reflecting the payment of 2Q22 cash dividends of NT\$71.30 billion, partially offset by the net increase in bonds payable of NT\$7.30 billion.

As a result, cash position increased NT\$42.42 billion to NT\$1,385.23 billion at the end of 1Q23.



Operating and Free Cash Flow:

Free cash flow decreased NT\$67.30 billion to NT\$82.74 billion in 1Q23, as the decrease in operating cash flow outpaced the decrease in capital expenditures during the quarter.

V. CapEx

V. Capital Expenditures		
(in US\$ billions)	<u>1Q23</u>	<u>4Q22</u>
Capital Expenditures	9.94	10.82

Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$9.94 billion in 1Q23.

VI. Recap of Recent Important Events & Announcements

- TSMC Board of Directors Approved NT\$2.75 Cash Dividend for the Fourth Quarter of 2022 and Set June 15 as the Ex-Dividend Date, June 21 as the Record Date and July 13, 2023 as the Distribution Date (2023/02/14)
- TSMC Board of Directors Approved the Issuance of Unsecured Corporate Bonds in the Domestic Market for An Amount Not to Exceed NT\$60 Billion (2023/02/14)
- TSMC Board of Directors Approved the Issuance of 2,110,000 Shares of 2022 Employee Restricted Stock Awards (RSAs). In Addition, the Board Approved the Issuance of No More Than 6,249,000 Common Shares of RSAs for the Year 2023, Which Will Be Submitted to the 2023 Annual Shareholders' Meeting for Approval (2023/02/14)
- TSMC Board of Directors Approved the Convening of the 2023 AGM on June 6, 2023 (2023/02/14)
- TSMC Offers the Industry's Most Successful FinFET Technology to Academia (2023/02/03)
- TSMC Presents 2022 Excellent Performance Award to Outstanding Suppliers (2023/01/18)