

2Q23

Quarterly Management Report
July 20, 2023

Operating Results Review:

CONTACT

Jeff Su
Investor Relations Division
invest@tsmc.com
886-3-568-2089

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>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>	<u>QoQ</u>	<u>YoY</u>
EPS (NT\$ per common share)	7.01	7.98	9.14	-12.2%	-23.3%
(US\$ per ADR unit)	1.14	1.31	1.55		
Net Revenue (US\$ billions)	15.68	16.72	18.16	-6.2%	-13.7%
Net Revenue	480.84	508.63	534.14	-5.5%	-10.0%
Gross Profit	260.20	286.50	315.47	-9.2%	-17.5%
Gross Margin	54.1%	56.3%	59.1%		
Operating Expenses	(58.19)	(55.31)	(53.38)	5.2%	9.0%
Other Operating Income and Expenses	(0.05)	0.05	0.03		
Operating Income	201.96	231.24	262.12	-12.7%	-23.0%
Operating Margin	42.0%	45.5%	49.1%		
Non-Operating Items	12.72	13.04	3.88		
Net Income Attributable to Shareholders of the Parent Company	181.80	206.99	237.03	-12.2%	-23.3%
Net Profit Margin	37.8%	40.7%	44.4%		
Wafer Shipment (kpcs 12 inch-equiv.)	2,916	3,227	3,799	-9.6%	-23.2%
Average Exchange Rate--USD/NTD	30.67	30.42	29.42	0.8%	4.3%

Note: Diluted weighted average outstanding shares were 25,929mn units in 2Q23

Financial Highlights:**Second Quarter 2023**

- Net revenue was NT\$480.84 billion, representing a 5.5% decrease from NT\$508.63 billion in 1Q23 and a 10.0% decrease from NT\$534.14 billion in 2Q22.
- Gross margin was 54.1%, 2.2 percentage points lower than 1Q23 and 5.0 percentage points lower than 2Q22.
- Operating margin was 42.0%, down 3.5 percentage points from 1Q23 and down 7.1 percentage points from 2Q22.
- Non-operating items were a gain of NT\$12.72 billion, compared to a gain of NT\$13.04 billion in 1Q23 and a gain of NT\$3.88 billion in 2Q22.
- Net income attributable to shareholders of the parent company was NT\$181.80 billion, down 12.2% from 1Q23 and down 23.3% from 2Q22. Net profit margin was 37.8% and diluted EPS was NT\$7.01.

I. Revenue Analysis

Wafer Revenue by Technology	2Q23	1Q23	2Q22
5nm	30%	31%	21%
7nm	23%	20%	30%
16nm	11%	13%	14%
20nm	1%	1%	0%
28nm	11%	12%	10%
40/45nm	7%	7%	8%
65nm	7%	6%	5%
90nm	2%	2%	2%
0.11/0.13um	2%	2%	3%
0.15/0.18um	5%	5%	6%
0.25um and above	1%	1%	1%

Net Revenue by Platform	2Q23	1Q23	2Q22
High Performance Computing	44%	44%	43%
Smartphone	33%	34%	38%
Internet of Things	8%	9%	8%
Automotive	8%	7%	5%
Digital Consumer Electronics	3%	2%	3%
Others	4%	4%	3%

Net Revenue by Geography	2Q23	1Q23	2Q22
North America	66%	63%	64%
China	12%	15%	13%
Asia Pacific	8%	8%	12%
EMEA	7%	7%	6%
Japan	7%	7%	5%

Revenue Analysis:

In the second quarter, revenue decreased 5.5% quarter-over-quarter, as our business was impacted by the overall global economic conditions, which dampened the end market demand, and led to customers' ongoing inventory adjustment.

By technology, 5nm process technology contributed 30% of total wafer revenue in 2Q23 while 7nm accounted for 23%. Advanced technologies (7nm and below) accounted for 53% of total wafer revenue.

By platform, HPC and Smartphone represented 44% and 33% of net revenue respectively, while IoT, Automotive, DCE, and Others each represented 8%, 8%, 3%, and 4%.

Sequentially, revenue from HPC, Smartphone, IoT, and Others decreased 5%, 9%, 11%, and 5% respectively from 1Q23, while Automotive and DCE increased 3% and 25% respectively.

From a geographic perspective, revenue from customers based in North America accounted for 66% of total net revenue, while revenue from China, Asia Pacific, EMEA (Europe, Middle East, and Africa) and Japan accounted for 12%, 8%, 7%, and 7% of total net revenue respectively.

II. Profit & Expense Analysis

II - 1. Gross Profit Analysis			
(In NTS billions)	2Q23	1Q23	2Q22
Net Revenue	480.84	508.63	534.14
Cost of Revenue	(220.64)	(222.13)	(218.67)
Gross Profit	260.20	286.50	315.47
Gross Margin	54.1%	56.3%	59.1%

Gross Profit Analysis:

Gross margin was 54.1% in 2Q23, 2.2 percentage points lower than 1Q23, mainly reflecting lower capacity utilization and higher electricity cost, partially offset by more stringent cost controls and a more favorable foreign exchange rate.

II - 2. Operating Income Analysis

(In NT\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
Total Operating Expenses	(58.19)	(55.31)	(53.38)
Research & Development	(41.66)	(39.16)	(39.65)
SG&A	(16.53)	(16.15)	(13.73)
Other Operating Income and Expenses	(0.05)	0.05	0.03
Operating Income	201.96	231.24	262.12
Operating Margin	42.0%	45.5%	49.1%
Total Operating Expenses as % of Net Revenue	12.1%	10.8%	10.0%

Operating Income Analysis:

Total operating expenses increased NT\$2.88 billion to NT\$58.19 billion in 2Q23, accounting for 12.1% of net revenue, as compared to 10.8% in 1Q23. Operating margin declined 3.5 percentage points sequentially to 42.0% in 2Q23.

II - 3. Non-Operating Items

(In NT\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
L-T Investments	1.13	1.04	2.26
Net Interest Income (Expenses)	10.67	10.65	0.64
Other Gains and Losses	0.92	1.35	0.98
Total Non-Operating Items	12.72	13.04	3.88

Non-Operating Items:

Total non-operating items were a gain of NT\$12.72 billion in 2Q23, compared to a gain of NT\$13.04 billion in 1Q23.

II - 4. Net Profit and EPS

(In NT\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
Income before Tax	214.68	244.28	266.00
Income Tax Expenses	(32.96)	(37.33)	(28.82)
Effective Tax Rate	15.4%	15.3%	10.9%
Net Income Attributable to the Parent Company	181.80	206.99	237.03
Net Profit Margin	37.8%	40.7%	44.4%
EPS (NT\$ per common share)	7.01	7.98	9.14

Net Profit and EPS:

Net income attributable to shareholders of the parent company was NT\$181.80 billion in 2Q23, down 12.2% from 1Q23 and down 23.3% from 2Q22.

III. Financial Condition Review

III - 1. Liquidity Analysis (Balance Sheet Items)			
(In NT\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
Cash & Marketable Securities	1,489.96	1,589.19	1,425.57
Accounts Receivable	191.03	148.05	222.07
Inventories	234.33	216.07	217.44
Other Current Assets	44.65	42.42	40.79
Total Current Assets	1,959.97	1,995.73	1,905.87
Short-term Loans	0.00	0.00	115.58
Accounts Payable	189.73	204.76	220.31
Current Portion of Bonds Payable and Bank Loans	8.12	8.04	17.06
Dividends Payable	149.31	142.62	142.81
Accrued Liabilities and Others	463.67	517.67	349.48
Total Current Liabilities	810.83	873.09	845.24
Current Ratio (x)	2.4	2.3	2.3
Net Working Capital	1,149.14	1,122.64	1,060.63

Liquidity Analysis:

Total current assets decreased by NT\$35.76 billion, mainly due to the decrease of NT\$99.23 billion in cash & marketable securities, partially offset by the increase of NT\$42.98 billion in accounts receivable and the increase of NT\$18.26 billion in inventories.

Total current liabilities decreased by NT\$62.26 billion, mainly due to the decrease of NT\$54.00 billion in accrued liabilities and others.

Net working capital was NT\$1,149.14 billion and current ratio was 2.4x in 2Q23.

III - 2. Receivable/Inventory Days			
(In Number of Days)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
Days of Receivable	32	34	37
Days of Inventory	99	96	95

Receivable and Inventory Days:

Days of receivable decreased 2 days to 32 days in 2Q23.

Days of inventory increased 3 days to 99 days, primarily due to N3 ramp.

III - 3. Debt Service			
(In NT\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
Cash & Marketable Securities	1,489.96	1,589.19	1,425.57
Interest-Bearing Debts	(922.68)	(862.83)	(889.85)
Net Cash Reserves	567.28	726.36	535.72

Debt Service:

Net cash reserves decreased NT\$159.08 billion to NT\$567.28 billion in 2Q23, mainly due to the decrease of NT\$99.23 billion in cash and marketable securities, and the increase of NT\$59.85 billion in interest-bearing debts.

Interest-bearing debts increased NT\$59.85 billion in 2Q23, mainly due to the issuance of NT\$40.70 billion in corporate bonds and the increase in bank loans of NT\$7.67 billion under hedging financial liabilities.

IV. Cash Flow

IV - 1. Quarterly Cash Flow Analysis			
(In NT\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>2Q22</u>
Income before Tax	214.68	244.28	266.00
Depreciation & Amortization	123.94	110.32	113.23
Other Operating Sources/(Uses)	(171.37)	30.64	(40.38)
Net Operating Sources/(Uses)	167.25	385.24	338.85
Capital Expenditures	(250.53)	(302.50)	(217.73)
Marketable Financial Instruments	(29.33)	16.16	(59.59)
Other Investing Sources/(Uses)	20.53	14.11	1.39
Net Investing Sources/(Uses)	(259.33)	(272.23)	(275.93)
Short-term Loans	0.00	0.00	(26.48)
Cash Dividends	(71.30)	(71.30)	(71.31)
Bonds Payable	40.70	7.30	108.84
Other Financing Sources/(Uses)	4.01	(0.48)	8.03
Net Financing Sources/(Uses)	(26.59)	(64.48)	19.08
Exchange Rate Changes	10.16	(6.11)	19.60
Cash Position Net Changes	(108.51)	42.42	101.60
Ending Cash Balance	1,276.72	1,385.23	1,253.19

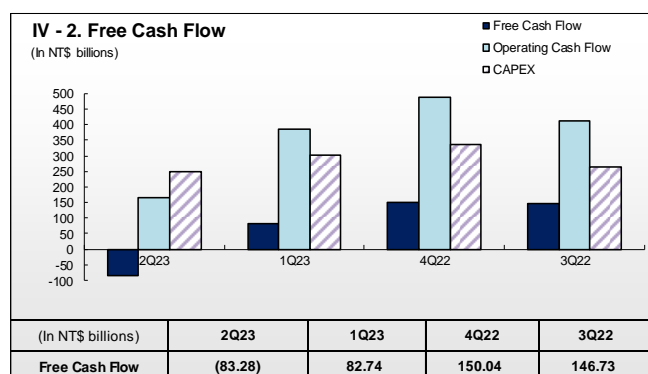
Summary of Cash Flow:

During the second quarter, cash generated from operating activities totaled NT\$167.25 billion, including (1) NT\$214.68 billion from income before tax, (2) NT\$123.94 billion from depreciation & amortization expenses, and (3) NT\$171.37 billion for other operating uses. The other operating uses were mainly attributable to income taxes paid of NT\$120.15 billion and changes in working capital of NT\$50.08 billion.

Net cash used in investing activities was NT\$259.33 billion in 2Q23, primarily attributable to capital expenditures of NT\$250.53 billion.

Net cash used in financing activities was NT\$26.59 billion, mainly reflecting the payment of 3Q22 cash dividends of NT\$71.30 billion, partially offset by the net increase in bonds payable of NT\$40.70 billion and the bank loans of NT\$7.67 billion under hedging financial liabilities.

As a result, cash position decreased NT\$108.51 billion to NT\$1,276.72 billion at the end of 2Q23.



Operating and Free Cash Flow:

Free cash flow decreased NT\$166.02 billion to an outflow of NT\$83.28 billion in 2Q23, as the decrease in operating cash flow, mainly resulting from income taxes paid of NT\$120.15 billion, outpaced the decrease in capital expenditures during the quarter.

V. CapEx

V. Capital Expenditures			
(in US\$ billions)	<u>2Q23</u>	<u>1Q23</u>	<u>YTD</u>
Capital Expenditures	8.17	9.94	18.11

Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$8.17 billion in 2Q23.

VI. Recap of Recent Important Events & Announcements

- TSMC Announces the Opening of Advanced Backend Fab 6, Marking a Milestone in the Expansion of 3DFabric™ System Integration Technology (2023/06/08)
- TSMC Board of Directors Approved NT\$3.00 Cash Dividend for the First Quarter of 2023 and Set September 14 as the Ex-Dividend Date, September 20 as the Record Date and October 12, 2023 as the Distribution Date (2023/05/09)
- TSMC Board of Directors Approved the Issuance of Unsecured Corporate Bonds in the Domestic Market for An Amount Not to Exceed NT\$60 Billion (2023/05/09)
- TSMC Debuts Enhanced N3P Process, HPC-Focused N3X Process, N3AE Auto Early Program, and Updates 2nm and TSMC 3DFabric™ Progress at 2023 North America Technology Symposium (2023/4/27)
- TSMC Signs 20,000 GWh Renewable Energy Joint Procurement Contract with ARK Power (2023/04/21)