

2Q20

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>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>	<u>QoQ</u>	<u>YoY</u>
EPS (NT\$ per common share)	4.66	4.51	2.57	3.3%	81.0%
(US\$ per ADR unit)	0.78	0.75	0.41	3.3%	81.0%
Net Revenue (US\$ billions)	10.38	10.31	7.75	0.8%	34.1%
Net Revenue	310.70	310.60	241.00	0.0%	28.9%
Gross Profit	164.62	160.78	103.73	2.4%	58.7%
Gross Margin	53.0%	51.8%	43.0%		
Operating Expenses	(33.52)	(32.33)	(27.17)	3.7%	23.4%
Other Operating Income and Expenses	(0.01)	0.07	(0.26)		
Operating Income	131.09	128.52	76.30	2.0%	71.8%
Operating Margin	42.2%	41.4%	31.7%		
Non-Operating Items	5.31	3.63	4.25		
Net Income Attributable to Shareholders of the Parent Company	120.82	116.99	66.77	3.3%	81.0%
Net Profit Margin	38.9%	37.7%	27.7%		
Wafer Shipment (kpcs 12 inch-equiv.)	2,985	2,925	2,308	2.1%	29.3%

Note: Diluted weighted average outstanding shares were 25,930mn units in 2Q20

Financial Highlights:**Second Quarter 2020**

- Net revenue was NT\$310.70 billion, essentially flat compared to NT\$310.60 billion in 1Q20 and representing a 28.9% increase from NT\$241.00 billion in 2Q19.
- Gross margin was 53.0%, 1.2 percentage points higher than 1Q20 and 10.0 percentage points higher than 2Q19.
- Operating margin was 42.2%, up 0.8 percentage point from 1Q20 and up 10.5 percentage points from 2Q19.
- Non-operating items were a gain of NT\$5.31 billion, compared to a gain of NT\$3.63 billion in 1Q20 and a gain of NT\$4.25 billion in 2Q19.
- Net income attributable to shareholders of the parent company was NT\$120.82 billion, up 3.3% from 1Q20 and up 81.0% from 2Q19. Net profit margin was 38.9% and diluted EPS was NT\$4.66.

I. Revenue Analysis

Wafer Revenue by Technology	2Q20	1Q20	2Q19
7nm	36%	35%	21%
10nm	0%	0.5%	3%
16nm	18%	19%	23%
20nm	1%	1%	1%
28nm	14%	14%	18%
40/45nm	9%	10%	11%
65nm	6%	6%	8%
90nm	3%	3%	3%
0.11/0.13um	3%	2%	2%
0.15/0.18um	8%	8%	8%
0.25um and above	2%	2%	2%

Net Revenue by Platform	2Q20	1Q20	2Q19
Smartphone	47%	49%	45%
High Performance Computing	33%	30%	32%
Internet of Things	8%	9%	8%
Automotive	4%	4%	5%
Digital Consumer Electronics	5%	5%	6%
Others	3%	3%	4%

Net Revenue by Geography	2Q20	1Q20	2Q19
North America	58%	56%	61%
China	21%	22%	17%
Asia Pacific	10%	11%	10%
EMEA	6%	6%	6%
Japan	5%	5%	6%

Revenue Analysis:

In the second quarter, revenue was flat sequentially as the continued 5G infrastructure deployment and HPC-related product launches offset weaknesses in other platforms.

By technology, 7nm process technology contributed 36% of total wafer revenue in 2Q20 while 16nm accounted for 18%. Advanced technologies (16nm and below) accounted for 54% of total wafer revenue.

By platform, Smartphone represented 47% and HPC 33% of net revenue, while IoT, Automotive, DCE, and Others each represented 8%, 4%, 5%, and 3%.

Sequentially, revenue from Smartphone, IoT, Automotive, DCE and Others decreased 4%, 5%, 13%, 9% and 5% respectively from 1Q20, while HPC increased 12%.

From a geographic perspective, revenue from customers based in North America accounted for 58% of total net revenue, while revenue from China, Asia Pacific, EMEA (Europe, Middle East, and Africa) and Japan accounted for 21%, 10%, 6%, and 5% of total net revenue respectively.

II. Profit & Expense Analysis

II - 1. Gross Profit Analysis			
(In NT\$ billions)	2Q20	1Q20	2Q19
Cost of Revenue	146.08	149.82	137.27
Gross Profit	164.62	160.78	103.73
Gross Margin	53.0%	51.8%	43.0%

Gross Profit Analysis:

Gross margin was 53.0% in 2Q20, 1.2 percentage points higher than 1Q20, mainly due to continuing high level of utilization and the absence of unfavorable inventory valuation adjustment, partially offset by unfavorable foreign exchange rate.

II - 2. Operating Income Analysis

(In NT\$ billions)	<u>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>
Total Operating Expenses	(33.52)	(32.33)	(27.17)
Research & Development	(24.89)	(24.97)	(21.40)
SG&A	(8.63)	(7.36)	(5.77)
Other Operating Income and Expenses	(0.01)	0.07	(0.26)
Operating Income	131.09	128.52	76.30
Operating Margin	42.2%	41.4%	31.7%
Total Operating Expenses as % of Net Revenue	10.8%	10.4%	11.2%

Operating Income Analysis:

Total operating expenses increased NT\$1.19 billion to NT\$33.52 billion in 2Q20 including the Company's support of a range of COVID-19 relief efforts.

II - 3. Non-Operating Items

(In NT\$ billions)	<u>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>
L-T Investments	0.68	0.73	0.63
SSMC	0.18	0.23	0.19
Others	0.50	0.50	0.44
Net Interest Income (Expenses)	2.07	2.46	3.68
Other Gains and Losses	2.56	0.44	(0.06)
Total Non-Operating Items	5.31	3.63	4.25

Non-Operating Items:

Total non-operating items were a gain of NT\$5.31 billion in 2Q20, compared to a gain of NT\$3.63 billion in 1Q20. The increase was mainly due to gains from foreign exchange after hedging.

II - 4. Net Profit and EPS

(In NT\$ billions)	<u>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>
Income before Tax	136.40	132.15	80.55
Income Tax Expenses	(15.51)	(15.09)	(13.77)
Effective Tax Rate	11.4%	11.5%	17.2%
Net Income Attributable to the Parent Company	120.82	116.99	66.77
Net Profit Margin	38.9%	37.7%	27.7%
EPS (NT\$ per common share)	4.66	4.51	2.57

Net Profit and EPS:

Net income attributable to shareholders of the parent company was NT\$120.82 billion in 2Q20, up 3.3% from 1Q20 and up 81.0% from 2Q19.

III. Financial Condition Review

III - 1. Liquidity Analysis			
(Balance Sheet Items)			
(In NT\$ billions)	<u>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>
Cash & Marketable Securities	605.02	561.55	764.62
Accounts Receivable	149.60	146.42	116.13
Inventories	85.79	78.28	108.23
Other Current Assets	19.62	16.22	21.20
Total Current Assets	860.03	802.47	1,010.18
Short-term Loans	169.55	139.31	78.26
Accounts Payable	137.27	141.24	103.60
Current Portion of Bonds Payable	12.80	12.80	48.10
Dividends Payable	129.65	129.65	259.38
Accrued Liabilities and Others	165.53	166.47	132.92
Total Current Liabilities	614.80	589.47	622.26
Current Ratio (x)	1.4	1.4	1.6
Net Working Capital	245.23	213.00	387.92

Liquidity Analysis:

Cash and marketable securities increased by NT\$43.47 billion from 1Q20 to NT\$605.02 billion in 2Q20.

Total current liabilities increased by NT\$25.33 billion, mainly as a result of the increase of NT\$30.24 billion in short-term loans and the decrease of NT\$3.97 billion in payables to suppliers.

Net working capital was NT\$245.23 billion and current ratio was 1.4x in 2Q20.

III - 2. Receivable/Inventory Days			
(In Number of Days)	<u>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>
Days of Receivable	44	42	42
Days of Inventory	55	53	76

Receivable and Inventory Days:

Days of receivable increased 2 days to 44 days in 2Q20.

Days of inventory increased 2 days to 55 days, primarily attributable to N5 ramp and stronger N7 demand.

III - 3. Debt Service			
(In NT\$ billions)	<u>2Q20</u>	<u>1Q20</u>	<u>2Q19</u>
Cash & Marketable Securities	605.02	561.55	764.62
Interest-Bearing Debts	(271.28)	(201.58)	(161.66)
Net Cash Reserves	333.74	359.97	602.96

Debt Service:

Net cash reserves decreased NT\$26.23 billion to NT\$333.74 billion in 2Q20.

Interest-bearing debts increased NT\$69.70 billion, mainly due to the issuance of NT\$36.00 billion in corporate bonds and the increase in short-term loans.

IV. Cash Flow

IV - 1. Quarterly Cash Flow Analysis			
(In NT\$ billions)	2Q20	1Q20	2Q19
Income before Tax	136.40	132.15	80.55
Depreciation & Amortization	70.88	68.55	75.05
Other Operating Sources/(Uses)	(36.94)	2.33	(37.84)
Net Operating Sources/(Uses)	170.34	203.03	117.76
Capital Expenditures	(126.70)	(192.56)	(116.35)
Marketable Financial Instruments	0.84	0.66	(3.35)
Other Investing Sources/(Uses)	(3.89)	2.91	4.98
Net Investing Sources/(Uses)	(129.75)	(188.99)	(114.72)
Short-term Loans	32.23	20.35	1.06
Cash Dividends	(64.83)	(64.83)	-
Bonds Payable	36.00	2.40	-
Other Financing Sources/(Uses)	2.51	1.32	(1.99)
Net Financing Sources/(Uses)	5.91	(40.76)	(0.93)
Exchange Rate Changes	(9.67)	2.10	1.92
Cash Position Net Changes	36.83	(24.62)	4.03
Ending Cash Balance	467.61	430.78	649.70

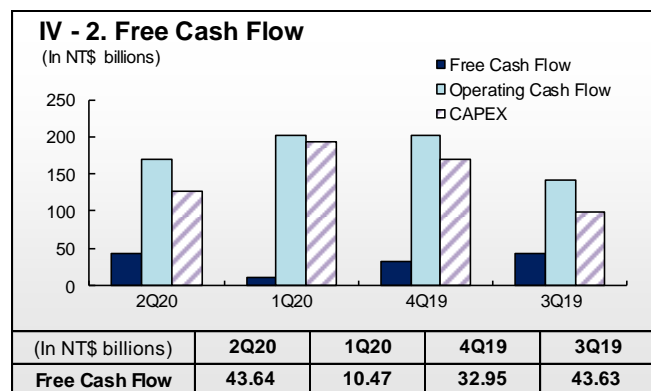
Summary of Cash Flow:

During the second quarter, cash generated from operating activities totaled NT\$170.34 billion, including (1) NT\$136.40 billion from income before tax, (2) NT\$70.88 billion from depreciation & amortization expenses, and (3) NT\$36.94 billion for other operating uses.

Net cash used in investing activities was NT\$129.75 billion in 2Q20, primarily attributable to capital expenditures of NT\$126.70 billion.

Net cash generated from financing activities was NT\$5.91 billion, reflecting the net changes in short-term loans, the proceeds from issuance of corporate bonds of NT\$36.00 billion and the payment of 3Q19 cash dividends.

As a result, cash position increased NT\$36.83 billion to NT\$467.61 billion at the end of 2Q20.



Operating and Free Cash Flow:

Free cash flow increased NT\$33.17 billion to NT\$43.64 billion in 2Q20, mainly due to lower capital expenditure during the quarter.

V. CapEx

V. Capital Expenditures			
(in US\$ billions)	2Q20	1Q20	YTD
Capital Expenditures	4.24	6.39	10.63

Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$4.24 billion in 2Q20.

VI. Recap of Recent Important Events & Announcements

- TSMC Expands Renewable Energy Usage to Cut Carbon Emissions by More Than 2 Million Tons (2020/07/08)
- NXP Selects TSMC 5nm Process for Next Generation High Performance Automotive Platform (2020/06/12)
- TSMC Shareholders Elected Mr. Yancey Hai to the Board of Directors as an Independent Director (2020/06/09)
- TSMC Delivers World-first 7nm Automotive Design Enablement Platform (2020/05/28)
- TSMC Announces Intention to Build and Operate an Advanced Semiconductor Fab in the United States (2020/05/15)
- TSMC Board of Directors Approves NT\$2.5 Cash Dividend for First Quarter of 2020 and Sets September 17 as Ex-Dividend Date, September 23 as the Record Date and October 15, 2020 as the Distribution Date (2020/05/12)