

1Q17

Quarterly Management Report  
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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

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

	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>	<u>QoQ</u>	<u>YoY</u>
EPS (NT\$ per common share)	3.38	3.86	2.50	-12.5%	35.3%
(US\$ per ADR unit)	0.54	0.61	0.38	-12.5%	35.3%
Net Revenue	233.91	262.23	203.50	-10.8%	14.9%
Gross Profit	121.49	137.11	91.34	-11.4%	33.0%
<i>Gross Margin</i>	<i>51.9%</i>	<i>52.3%</i>	<i>44.9%</i>		
Operating Expenses	(26.16)	(27.18)	(20.88)	-3.8%	25.3%
Other Operating Income and Expenses	0.02	(0.02)	0.01		
Operating Income	95.35	109.91	70.47	-13.2%	35.3%
<i>Operating Margin</i>	<i>40.8%</i>	<i>41.9%</i>	<i>34.6%</i>		
Non-Operating Items	2.47	2.14	1.79		
Net Income Attributable to Shareholders of the Parent Company	87.63	100.20	64.78	-12.5%	35.3%
<i>Net Profit Margin</i>	<i>37.5%</i>	<i>38.2%</i>	<i>31.8%</i>		
Wafer Shipment (kpcs 12 inch-equiv.)	2,473	2,614	2,056	-5.4%	20.3%

*Note: Diluted weighted average outstanding shares were 25,930mn units in 1Q17***Financial Highlights:****First Quarter 2017**

- Net revenue was NT\$233.91 billion, representing a 10.8% decrease from NT\$262.23 billion in 4Q16 and a 14.9% increase from NT\$203.50 billion in 1Q16.
- Gross margin was 51.9%, 0.4 percentage point lower than 4Q16 and 7.0 percentage points higher than 1Q16.
- Operating margin was 40.8%, down 1.1 percentage points from 4Q16 and up 6.2 percentage points from 1Q16.
- Non-operating items were a gain of NT\$2.47 billion, compared to a gain of NT\$2.14 billion in 4Q16 and a gain of NT\$1.79 billion in 1Q16.
- Net income attributable to shareholders of the parent company was NT\$87.63 billion, down 12.5% from 4Q16 and up 35.3% from 1Q16. Net profit margin was 37.5% and diluted EPS was NT\$3.38.

## I. Revenue Analysis

Wafer Revenue by Application	1Q17	4Q16	1Q16
Computer	9%	8%	8%
Communication	61%	66%	64%
Consumer	9%	6%	7%
Industrial/Standard	21%	20%	21%

Wafer Revenue by Technology	1Q17	4Q16	1Q16
16/20nm	31%	33%	23%
28nm	25%	24%	30%
40/45nm	13%	12%	14%
65nm	11%	11%	10%
90nm	4%	5%	6%
0.11/0.13um	2%	2%	2%
0.15/0.18um	11%	10%	11%
0.25um and above	3%	3%	4%

Net Revenue by Geography	1Q17	4Q16	1Q16
North America	63%	69%	61%
Asia Pacific	13%	11%	16%
China	11%	8%	12%
EMEA	6%	6%	6%
Japan	7%	6%	5%

### Revenue Analysis:

In the first quarter, revenue decreased 10.8% quarter-over-quarter, primarily attributable to mobile product seasonality and an unfavorable foreign exchange rate.

By application, Consumer and Computer increased 30% and 1% respectively, while Communication and Industrial/Standard decreased 18% and 5% respectively.

By technology, the combined 16/20nm contribution was 31% of total wafer revenue in the first quarter. Advanced technologies (28nm and below) accounted for 56% of total wafer revenue.

From a geographic perspective, revenue from customers based in North America accounted for 63% of total net revenue, while revenue from Asia Pacific, China, EMEA (Europe, Middle East, and Africa) and Japan accounted for 13%, 11%, 6%, and 7% of total net revenue, respectively.

## II. Profit & Expense Analysis

II - 1. Gross Profit Analysis			
(In NT\$ billions)	1Q17	4Q16	1Q16
<b>Cost of Revenue</b>	<b>112.42</b>	<b>125.12</b>	<b>112.16</b>
<b>Gross Profit</b>	<b>121.49</b>	<b>137.11</b>	<b>91.34</b>
<b>Gross Margin</b>	<b>51.9%</b>	<b>52.3%</b>	<b>44.9%</b>

### Gross Profit Analysis:

Gross margin was 51.9% in 1Q17, 0.4 percentage point lower than 4Q16, mainly attributable to a lower level of capacity utilization and an unfavorable foreign exchange rate, partially balanced by continued cost improvement.

## II - 2. Operating Income Analysis

(In NT\$ billions)	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>
<b>Total Operating Expenses</b>	<b>(26.16)</b>	<b>(27.18)</b>	<b>(20.88)</b>
Research & Development	(19.41)	(19.96)	(15.62)
SG&A	(6.75)	(7.22)	(5.26)
<b>Other Operating Income and Expenses</b>	<b>0.02</b>	<b>(0.02)</b>	<b>0.01</b>
<b>Operating Income</b>	<b>95.35</b>	<b>109.91</b>	<b>70.47</b>
<b>Operating Margin</b>	<b>40.8%</b>	<b>41.9%</b>	<b>34.6%</b>
<b>Total Operating Expenses as % of Net Revenue</b>	<b>11.1%</b>	<b>10.4%</b>	<b>10.3%</b>

## Operating Income Analysis:

Total operating expenses represented 11.1% of net revenue in 1Q17 as R&D expenses were 8.3% of net revenue in the first quarter, up from 7.6% in the prior quarter.

## II - 3. Non-Operating Items

(In NT\$ billions)	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>
<b>L-T Investments</b>	<b>0.67</b>	<b>0.88</b>	<b>0.84</b>
SSMC	0.39	0.56	0.35
Others	0.28	0.32	0.49
<b>Interest Expenses</b>	<b>(0.82)</b>	<b>(0.81)</b>	<b>(0.85)</b>
<b>Other Gains and Losses</b>	<b>2.62</b>	<b>2.07</b>	<b>1.80</b>
<b>Total Non-Operating Items</b>	<b>2.47</b>	<b>2.14</b>	<b>1.79</b>

## Non-Operating Items:

Total non-operating items were a gain of NT\$2.47 billion in 1Q17, compared to a gain of NT\$2.14 billion in 4Q16.

## II - 4. Net Profit and EPS

(In NT\$ billions)	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>
<b>Income before Income Tax</b>	<b>97.82</b>	<b>112.05</b>	<b>72.26</b>
<b>Income Tax Expenses</b>	<b>(10.20)</b>	<b>(11.82)</b>	<b>(7.46)</b>
<b>Effective Tax Rate</b>	<b>10.5%</b>	<b>10.6%</b>	<b>10.5%</b>
<b>Net Income Attributable to the Parent Company</b>	<b>87.63</b>	<b>100.20</b>	<b>64.78</b>
<b>Net Profit Margin</b>	<b>37.5%</b>	<b>38.2%</b>	<b>31.8%</b>
<b>EPS (NT\$ per common share)</b>	<b>3.38</b>	<b>3.86</b>	<b>2.50</b>

## Net Profit and EPS:

Net income attributable to shareholders of the parent company was NT\$87.63 billion, down 12.5% from 4Q16 and up 35.3% from 1Q16.

### III. Financial Condition Review

<b>III - 1. Liquidity Analysis</b>			
<b>(Balance Sheet Items)</b>			
(In NT\$ billions)	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>
Cash & Marketable Securities	659.32	632.11	648.39
Accounts Receivable	109.03	129.31	96.96
Inventories	50.39	48.68	57.24
Other Current Assets	6.92	7.63	9.90
<b>Total Current Assets</b>	<b>825.66</b>	<b>817.73</b>	<b>812.49</b>
Short-term Loans	54.67	57.96	34.69
Accounts Payable	81.92	90.48	53.58
Current Portion of Bonds Payable and Bank Loans	44.91	38.11	33.27
Accrued Liabilities and Others	140.08	131.69	114.35
<b>Total Current Liabilities</b>	<b>321.58</b>	<b>318.24</b>	<b>235.89</b>
Current Ratio (x)	2.6	2.6	3.4
<b>Net Working Capital</b>	<b>504.08</b>	<b>499.49</b>	<b>576.60</b>

#### **Liquidity Analysis:**

At the end of 1Q17, cash and marketable securities increased by NT\$27.21 billion to NT\$659.32 billion, as cash increased by NT\$23.48 billion (please refer to page 5) and marketable securities increased by NT\$3.73 billion.

Total current liabilities increased by NT\$3.34 billion, mainly including the accrual for income tax payable, partially offset by the decrease in payables to suppliers and decrease in short-term loans.

Net working capital was NT\$504.08 billion and current ratio was 2.6x.

<b>III - 2. Receivable/Inventory Days</b>			
(In Number of Days)	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>
Days of Receivable	47	45	41
Days of Inventory	44	41	54

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

Days of receivable increased 2 days to 47 days in 1Q17, as sales decreased faster than average accounts receivable in the quarter.

Days of inventory increased 3 days from 41 days in 4Q16 to 44 days in 1Q17.

<b>III - 3. Debt Service</b>			
(In NT\$ billions)	<u>1Q17</u>	<u>4Q16</u>	<u>1Q16</u>
Cash & Marketable Securities	659.32	632.11	648.39
Interest-Bearing Debts	<b>(233.79)</b>	<b>(249.18)</b>	<b>(249.14)</b>
<b>Net Cash Reserves</b>	<b>425.53</b>	<b>382.93</b>	<b>399.25</b>

#### **Debt Service:**

Net cash reserves increased NT\$42.60 billion to NT\$425.53 billion in 1Q17, mainly due to the increase of NT\$27.21 billion in cash & marketable securities, NT\$10.00 billion repayment of corporate bonds and NT\$3.29 billion decrease in short-term loans.

## IV. Cash Flow

<b>IV - 1. Quarterly Cash Flow Analysis</b>			
(In NT\$ billions)	<b>1Q17</b>	<b>4Q16</b>	<b>1Q16</b>
Income before Income Tax	97.82	112.05	72.26
Depreciation & Amortization	60.17	56.44	55.85
Other Operating Sources/(Uses)	3.02	16.73	(6.58)
<b>Total Operating Sources/(Uses)</b>	<b>161.01</b>	<b>185.22</b>	<b>121.53</b>
Capital Expenditures	(102.51)	(112.54)	(38.14)
Marketable Financial Instruments	(7.53)	(27.74)	(17.67)
Other Investing Sources/(Uses)	0.81	1.78	0.46
<b>Net Investing Sources/(Uses)</b>	<b>(109.23)</b>	<b>(138.50)</b>	<b>(55.35)</b>
Increase (Decrease) in Short-term Loans	(0.25)	19.13	(4.12)
Other Financing Sources/(Uses)	(11.66)	5.17	(0.69)
<b>Net Financing Sources/(Uses)</b>	<b>(11.91)</b>	<b>24.30</b>	<b>(4.81)</b>
<b>Exchange Rate Changes and Other</b>	<b>(16.39)</b>	<b>6.26</b>	<b>(6.08)</b>
<b>Net Cash Position Changes</b>	<b>23.48</b>	<b>77.28</b>	<b>55.29</b>
<b>Ending Cash Balance</b>	<b>564.73</b>	<b>541.25</b>	<b>617.98</b>

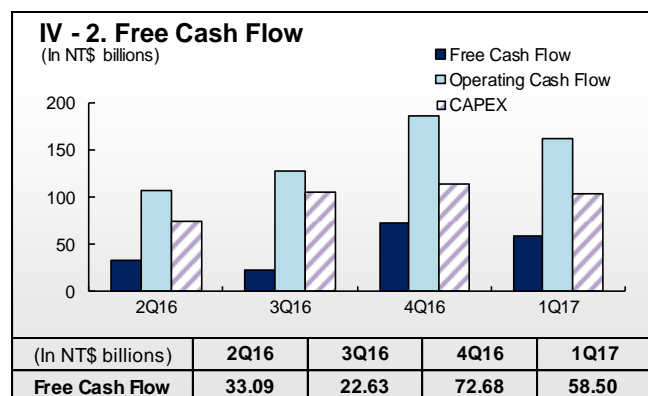
### Summary of Cash Flow:

During the first quarter, cash generated from operating activities totaled NT\$161.01 billion, including (1) NT\$97.82 billion from income before income tax, (2) NT\$60.17 billion from depreciation & amortization expenses and (3) NT\$3.02 billion from other operating sources.

Net cash used in investing activities was NT\$109.23 billion in 1Q17, primarily including capital expenditures of NT\$102.51 billion and net purchases of NT\$7.71 billion in fixed income securities.

Net cash used in financing activities was NT\$11.91 billion, mainly attributable to the repayment of corporate bonds.

As a result, net cash position increased NT\$23.48 billion to NT\$564.73 billion at the end of 1Q17.



### Operating and Free Cash Flow:

Free cash flow was NT\$58.50 billion in 1Q17, a decrease of NT\$14.18 billion, as the decrease in operating cash flow outpaced the decrease in capital expenditures.

## V. CapEx

<b>V. Capital Expenditures</b>		
(in US\$ billions)	<b>1Q17</b>	<b>4Q16</b>
<b>Capital Expenditures</b>	<b>3.29</b>	<b>3.53</b>

### Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$3.29 billion in 1Q17. The Company maintains its full year capital budget to be about US\$10 billion.

## VI. Recap of Recent Important Events & Announcements

- TSMC Recognizes Outstanding Suppliers at Supply Chain Management Forum ( 2017/02/23 )
- TSMC's Board of Directors Proposes NT\$7 Cash Dividend Per Share, Approved the Election of Two Additional Directors to the Board and Authorized the Chairman to Nominate Dr. Mark Liu and Dr. C.C. Wei as Candidates, and Approves 2017 Annual General Meeting to be Held on June 8, 2017 ( 2017/02/14 )