

3Q21

Quarterly Management Report  
October 14, 2021

## 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)*

|   | 3Q21    | 2Q21    | 3Q20    | QoQ   | YoY   |
|---|---------|---------|---------|-------|-------|
| EPS (NT\$ per common share)                                   | 6.03    | 5.18    | 5.30    | 16.3% | 13.8% |
| (US\$ per ADR unit)   | 1.08    | 0.93    | 0.90    |       |       |
| Net Revenue (US\$ billions)                                   | 14.88   | 13.29   | 12.14   | 12.0% | 22.6% |
| Net Revenue   | 414.67  | 372.15  | 356.43  | 11.4% | 16.3% |
| Gross Profit  | 212.75  | 186.20  | 190.49  | 14.3% | 11.7% |
| <i>Gross Margin</i>   | 51.3%   | 50.0%   | 53.4%   |       |       |
| Operating Expenses  | (41.65) | (40.58) | (40.89) | 2.6%  | 1.9%  |
| Other Operating Income and Expenses                           | (0.10)  | 0.05    | 0.45    |       |       |
| Operating Income  | 171.00  | 145.67  | 150.05  | 17.4% | 14.0% |
| <i>Operating Margin</i>                                       | 41.2%   | 39.1%   | 42.1%   |       |       |
| Non-Operating Items   | 2.85    | 3.72    | 5.07    |       |       |
| Net Income Attributable to Shareholders of the Parent Company | 156.26  | 134.36  | 137.31  | 16.3% | 13.8% |
| <i>Net Profit Margin</i>                                      | 37.7%   | 36.1%   | 38.5%   |       |       |
| Wafer Shipment (kpcs 12 inch-equiv.)                          | 3,646   | 3,449   | 3,240   | 5.7%  | 12.5% |
| Average Exchange Rate--USD/NTD                                | 27.87   | 28.01   | 29.36   | -0.5% | -5.1% |

*Note: Diluted weighted average outstanding shares were 25,930mn units in 3Q21***Financial Highlights:****Third Quarter 2021**

- Net revenue was NT\$414.67 billion, representing a 11.4% increase from NT\$372.15 billion in 2Q21 and a 16.3% increase from NT\$356.43 billion in 3Q20.
- Gross margin was 51.3%, 1.3 percentage points higher than 2Q21 and 2.1 percentage points lower than 3Q20.
- Operating margin was 41.2%, up 2.1 percentage points from 2Q21 and down 0.9 percentage point from 3Q20.
- Non-operating items were a gain of NT\$2.85 billion, compared to a gain of NT\$3.72 billion in 2Q21 and a gain of NT\$5.07 billion in 3Q20.
- Net income attributable to shareholders of the parent company was NT\$156.26 billion, up 16.3% from 2Q21 and up 13.8% from 3Q20. Net profit margin was 37.7% and diluted EPS was NT\$6.03.

## I. Revenue Analysis

| Wafer Revenue by Technology | 3Q21 | 2Q21 | 3Q20 |
|-----------------------------|------|------|------|
| 5nm                         | 18%  | 18%  | 8%   |
| 7nm                         | 34%  | 31%  | 35%  |
| 10nm                        | 0%   | 0%   | 0%   |
| 16nm                        | 13%  | 14%  | 18%  |
| 20nm                        | 0%   | 0%   | 1%   |
| 28nm                        | 10%  | 11%  | 12%  |
| 40/45nm                     | 8%   | 7%   | 8%   |
| 65nm                        | 4%   | 5%   | 5%   |
| 90nm                        | 2%   | 3%   | 2%   |
| 0.11/0.13um                 | 3%   | 3%   | 2%   |
| 0.15/0.18um                 | 6%   | 6%   | 7%   |
| 0.25um and above            | 2%   | 2%   | 2%   |

| Net Revenue by Platform      | 3Q21 | 2Q21 | 3Q20 |
|------------------------------|------|------|------|
| Smartphone                   | 44%  | 42%  | 46%  |
| High Performance Computing   | 37%  | 39%  | 37%  |
| Internet of Things           | 9%   | 8%   | 9%   |
| Automotive                   | 4%   | 4%   | 2%   |
| Digital Consumer Electronics | 3%   | 4%   | 3%   |
| Others                       | 3%   | 3%   | 3%   |

| Net Revenue by Geography | 3Q21 | 2Q21 | 3Q20 |
|--------------------------|------|------|------|
| North America            | 65%  | 64%  | 59%  |
| Asia Pacific             | 13%  | 15%  | 10%  |
| China                    | 11%  | 11%  | 22%  |
| EMEA                     | 6%   | 6%   | 5%   |
| Japan                    | 5%   | 4%   | 4%   |

### Revenue Analysis:

In the third quarter, revenue increased 11.4% quarter-over-quarter, supported by strong demand for our industry-leading 5nm and 7nm technologies, driven by all four growth platforms, which are Smartphone, HPC, IoT and Automotive-related applications.

By technology, 5nm process technology contributed 18% of total wafer revenue in 3Q21 while 7nm accounted for 34%. Advanced technologies (7nm and below) accounted for 52% of total wafer revenue.

By platform, Smartphone and HPC represented 44% and 37% of net revenue respectively, while IoT, Automotive, DCE, and Others each represented 9%, 4%, 3%, and 3%.

Sequentially, revenue from Smartphone, HPC, IoT, and Automotive increased 15%, 9%, 23%, and 5% respectively from 2Q21, while DCE decreased 2% and Others remained flat.

From a geographic perspective, revenue from customers based in North America accounted for 65% of total net revenue, while revenue from Asia Pacific, China, EMEA (Europe, Middle East, and Africa) and Japan accounted for 13%, 11%, 6%, and 5% of total net revenue respectively.

## II. Profit & Expense Analysis

| II - 1. Gross Profit Analysis |               |               |               |
|-------------------------------|---------------|---------------|---------------|
| (In NT\$ billions)            | 3Q21          | 2Q21          | 3Q20          |
| <b>Net Revenue</b>            | <b>414.67</b> | <b>372.15</b> | <b>356.43</b> |
| Cost of Revenue               | (201.92)      | (185.95)      | (165.94)      |
| <b>Gross Profit</b>           | <b>212.75</b> | <b>186.20</b> | <b>190.49</b> |
| <b>Gross Margin</b>           | <b>51.3%</b>  | <b>50.0%</b>  | <b>53.4%</b>  |

### Gross Profit Analysis:

Gross margin was 51.3% in 3Q21, 1.3 percentage points higher than 2Q21, mainly due to the improvement in backend profitability and a more favorable technology mix.

## II - 2. Operating Income Analysis

| (In NT\$ billions)                                  | <u>3Q21</u>    | <u>2Q21</u>    | <u>3Q20</u>    |
|---|----------------|----------------|----------------|
| <b>Total Operating Expenses</b>                     | <b>(41.65)</b> | <b>(40.58)</b> | <b>(40.89)</b> |
| Research & Development                              | (30.87)        | (30.87)        | (29.68)        |
| SG&A  | (10.78)        | (9.71)         | (11.21)        |
| <b>Other Operating Income and Expenses</b>          | <b>(0.10)</b>  | <b>0.05</b>    | <b>0.45</b>    |
| <b>Operating Income</b>                             | <b>171.00</b>  | <b>145.67</b>  | <b>150.05</b>  |
| <b>Operating Margin</b>                             | <b>41.2%</b>   | <b>39.1%</b>   | <b>42.1%</b>   |
| <b>Total Operating Expenses as % of Net Revenue</b> | <b>10.1%</b>   | <b>10.9%</b>   | <b>11.4%</b>   |

### **Operating Income Analysis:**

Total operating expenses were 10.1% of net revenue in 3Q21, an improvement of 0.8 percentage point from 10.9% in 2Q21, due to better operating leverage. Operating margin improved 2.1 percentage points sequentially to 41.2% in 3Q21.

## II - 3. Non-Operating Items

| (In NT\$ billions)                    | <u>3Q21</u> | <u>2Q21</u> | <u>3Q20</u> |
|---------------------------------------|-------------|-------------|-------------|
| <b>L-T Investments</b>                | <b>1.52</b> | <b>1.17</b> | <b>0.83</b> |
| SSMC                                  | 0.20        | 0.26        | 0.12        |
| Others                                | 1.32        | 0.91        | 0.71        |
| <b>Net Interest Income (Expenses)</b> | <b>0.02</b> | <b>0.29</b> | <b>1.52</b> |
| <b>Other Gains and Losses</b>         | <b>1.31</b> | <b>2.26</b> | <b>2.72</b> |
| <b>Total Non-Operating Items</b>      | <b>2.85</b> | <b>3.72</b> | <b>5.07</b> |

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

Total non-operating items were a gain of NT\$2.85 billion in 3Q21, compared to a gain of NT\$3.72 billion in 2Q21. The decrease was mainly due to higher interest expenses and lower gains from foreign exchange after hedging.

## II - 4. Net Profit and EPS

| (In NT\$ billions)                                   | <u>3Q21</u>    | <u>2Q21</u>    | <u>3Q20</u>    |
|--|----------------|----------------|----------------|
| <b>Income before Tax</b>                             | <b>173.85</b>  | <b>149.39</b>  | <b>155.12</b>  |
| <b>Income Tax Expenses</b>                           | <b>(17.37)</b> | <b>(14.91)</b> | <b>(17.74)</b> |
| <b>Effective Tax Rate</b>                            | <b>10.1%</b>   | <b>10.1%</b>   | <b>11.5%</b>   |
| <b>Net Income Attributable to the Parent Company</b> | <b>156.26</b>  | <b>134.36</b>  | <b>137.31</b>  |
| <b>Net Profit Margin</b>                             | <b>37.7%</b>   | <b>36.1%</b>   | <b>38.5%</b>   |
| <b>EPS (NT\$ per common share)</b>                   | <b>6.03</b>    | <b>5.18</b>    | <b>5.30</b>    |

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

Net income attributable to shareholders of the parent company was NT\$156.26 billion in 3Q21, up 16.3% from 2Q21 and up 13.8% from 3Q20.

### III. Financial Condition Review

| <b>III - 1. Liquidity Analysis</b> |                 |                 |                 |
|------------------------------------|-----------------|-----------------|-----------------|
| <b>(Balance Sheet Items)</b>       |                 |                 |                 |
| (In NT\$ billions)                 | <u>3Q21</u>     | <u>2Q21</u>     | <u>3Q20</u>     |
| Cash & Marketable Securities       | 975.82          | 870.84          | 742.42          |
| Accounts Receivable                | 187.17          | 178.26          | 162.58          |
| Inventories                        | 182.23          | 170.44          | 109.51          |
| Other Current Assets               | 25.42           | 21.57           | 15.16           |
| <b>Total Current Assets</b>        | <b>1,370.64</b> | <b>1,241.11</b> | <b>1,029.67</b> |
| Short-term Loans                   | 118.84          | 139.38          | 155.38          |
| Accounts Payable                   | 172.26          | 148.38          | 141.53          |
| Current Portion of Bonds Payable   | 0.00            | 0.00            | 2.60            |
| Dividends Payable                  | 142.62          | 136.13          | 129.65          |
| Accrued Liabilities and Others     | 221.90          | 223.86          | 159.08          |
| <b>Total Current Liabilities</b>   | <b>655.62</b>   | <b>647.75</b>   | <b>588.24</b>   |
| Current Ratio (x)                  | 2.1             | 1.9             | 1.8             |
| <b>Net Working Capital</b>         | <b>715.02</b>   | <b>593.36</b>   | <b>441.43</b>   |

#### **Liquidity Analysis:**

Total current assets increased by NT\$129.53 billion, mainly due to the increase of NT\$104.98 billion in cash and marketable securities.

Total current liabilities increased by NT\$7.87 billion, mainly due to the increase of NT\$23.88 billion in accounts payable and the increase of NT\$6.49 billion in dividends payable, partially offset by the decrease of NT\$20.54 billion in short-term loans.

Net working capital was NT\$715.02 billion and current ratio was 2.1x in 3Q21.

| <b>III - 2. Receivable/Inventory Days</b> |             |             |             |
|---|-------------|-------------|-------------|
| <b>(In Number of Days)</b>                |             |             |             |
|   | <u>3Q21</u> | <u>2Q21</u> | <u>3Q20</u> |
| Days of Receivable                        | 40          | 42          | 40          |
| Days of Inventory                         | 85          | 85          | 58          |

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

Days of receivable decreased 2 days to 40 days in 3Q21.

Days of inventory was 85 days in 3Q21.

| <b>III - 3. Debt Service</b> |               |               |               |
|------------------------------|---------------|---------------|---------------|
| <b>(In NT\$ billions)</b>    |               |               |               |
|                              | <u>3Q21</u>   | <u>2Q21</u>   | <u>3Q20</u>   |
| Cash & Marketable Securities | 975.82        | 870.84        | 742.42        |
| Interest-Bearing Debts       | (582.05)      | (553.02)      | (386.01)      |
| <b>Net Cash Reserves</b>     | <b>393.77</b> | <b>317.82</b> | <b>356.41</b> |

#### **Debt Service:**

Net cash reserves increased NT\$75.95 billion to NT\$393.77 billion in 3Q21.

Interest-bearing debts increased NT\$29.03 billion in 3Q21, mainly due to the issuance of NT\$49.32 billion in corporate bonds, partially offset by the decrease in short-term loans of NT\$20.54 billion.

## IV. Cash Flow

| <b>IV - 1. Quarterly Cash Flow Analysis</b> |                 |                 |                |
|---|-----------------|-----------------|----------------|
| (In NT\$ billions)                          | <b>3Q21</b>     | <b>2Q21</b>     | <b>3Q20</b>    |
| Income before Tax                           | 173.85          | 149.39          | 155.12         |
| Depreciation & Amortization                 | 107.03          | 103.81          | 94.73          |
| Other Operating Sources/(Uses)              | 37.83           | (65.76)         | (59.67)        |
| <b>Net Operating Sources/(Uses)</b>         | <b>318.71</b>   | <b>187.44</b>   | <b>190.18</b>  |
| Capital Expenditures                        | (188.64)        | (166.97)        | (99.31)        |
| Marketable Financial Instruments            | 9.07            | 0.09            | 0.33           |
| Other Investing Sources/(Uses)              | 2.55            | (2.87)          | 2.90           |
| <b>Net Investing Sources/(Uses)</b>         | <b>(177.02)</b> | <b>(169.75)</b> | <b>(96.08)</b> |
| Short-term Loans                            | (18.09)         | 3.55            | (16.80)        |
| Cash Dividends                              | (64.83)         | (64.83)         | (64.83)        |
| Bonds Payable                               | 49.32           | 136.71          | 136.03         |
| Other Financing Sources/(Uses)              | (1.73)          | (0.40)          | (6.96)         |
| <b>Net Financing Sources/(Uses)</b>         | <b>(35.33)</b>  | <b>75.03</b>    | <b>47.44</b>   |
| <b>Exchange Rate Changes</b>                | <b>(0.53)</b>   | <b>(9.47)</b>   | <b>(4.95)</b>  |
| <b>Cash Position Net Changes</b>            | <b>105.83</b>   | <b>83.25</b>    | <b>136.59</b>  |
| <b>Ending Cash Balance</b>                  | <b>853.81</b>   | <b>747.98</b>   | <b>604.20</b>  |

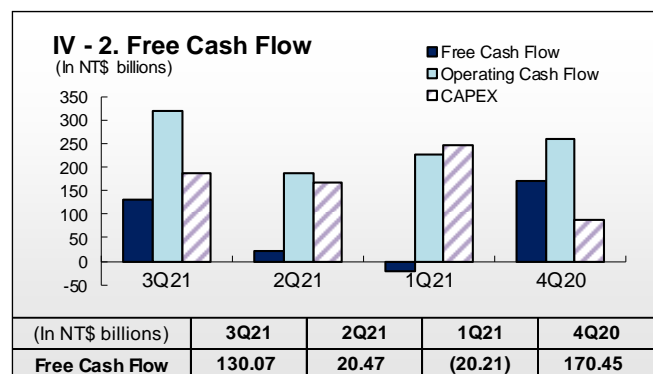
### Summary of Cash Flow:

During the third quarter, cash generated from operating activities totaled NT\$318.71 billion, including (1) NT\$173.85 billion from income before tax, (2) NT\$107.03 billion from depreciation & amortization expenses, and (3) NT\$37.83 billion from other operating sources. The other operating sources were mainly attributable to the receipt of customers' commitment to retain capacity.

Net cash used in investing activities was NT\$177.02 billion in 3Q21, primarily attributable to capital expenditures of NT\$188.64 billion.

Net cash used in financing activities was NT\$35.33 billion, mainly reflecting the payment of 4Q20 cash dividends and the decrease of NT\$18.09 billion in short-term loans, partially offset by the net increase in bonds payable of NT\$49.32 billion.

As a result, cash position increased NT\$105.83 billion to NT\$853.81 billion at the end of 3Q21.



### Operating and Free Cash Flow:

Free cash flow increased NT\$109.60 billion to an inflow of NT\$130.07 billion in 3Q21, mainly due to the increase in operating cash flow during the quarter.

## V. CapEx

| <b>V. Capital Expenditures</b> |             |             |             |              |
|--------------------------------|-------------|-------------|-------------|--------------|
| (in US\$ billions)             | <b>3Q21</b> | <b>2Q21</b> | <b>1Q21</b> | <b>YTD</b>   |
| <b>Capital Expenditures</b>    | <b>6.77</b> | <b>5.97</b> | <b>8.84</b> | <b>21.58</b> |

### Capital Expenditures:

Capital expenditures for TSMC on a consolidated basis totaled US\$6.77 billion in 3Q21.

## VI. Recap of Recent Important Events & Announcements

- TSMC Commits to Reach Net Zero Emissions by 2050, Acting on Responsibility to Environmental Sustainability (2021/09/16)
- TSMC Board of Directors Approved the Issuance of US Dollar-Denominated Unsecured Corporate Bonds for an Amount Not to Exceed US\$1 Billion and the Issuance of US Dollar-Denominated Senior Unsecured Corporate Bonds for an Amount Not to Exceed US\$8 Billion to Finance TSMC's Capacity Expansion (2021/08/10)
- TSMC Board of Directors Approved NT\$2.75 Cash Dividend for the Second Quarter of 2021 and Set December 16 as Ex-Dividend Date, December 22 as the Record Date and January 13, 2022 as the Distribution Date (2021/08/10)
- TSMC Shareholders Elect Board of Directors; Board of Directors Unanimously Re-elects Dr. Mark Liu as Chairman and Dr. C.C. Wei as CEO and Vice Chairman (2021/07/26)