2021 Fourth Quarter Earnings Conference

January 13, 2022
Agenda

• Welcome
  Jeff Su, IR Director

• 4Q21 Financial Results and 1Q22 Outlook
  Wendell Huang, CFO

• Key Messages
  Wendell Huang, CFO
  C.C. Wei, CEO

• Q&A
Safe Harbor Notice

• TSMC's statements of its current expectations are forward-looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.

• Information as to those factors that could cause actual results to vary can be found in TSMC's Annual Report on Form 20-F filed with the United States Securities and Exchange Commission (the “SEC”) on April 16, 2021 and such other documents as TSMC may file with, or submit to, the SEC from time to time.

• Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.
## Statements of Comprehensive Income

### 4Q21 Guidance vs. 3Q21 & 4Q20

<table>
<thead>
<tr>
<th>Metric</th>
<th>4Q21 Guidance</th>
<th>3Q21</th>
<th>4Q20</th>
<th>4Q21 Over 3Q21</th>
<th>4Q21 Over 4Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Revenue (US$ billions)</td>
<td>15.4-15.7</td>
<td>14.88</td>
<td>12.68</td>
<td>+5.8%</td>
<td>+24.1%</td>
</tr>
<tr>
<td>Net Revenue (NT$ billions)</td>
<td>15.74</td>
<td>414.67</td>
<td>361.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Margin</td>
<td>52.7%</td>
<td>51.3%</td>
<td>54.0%</td>
<td>+1.4 ppts</td>
<td>-1.3 ppts</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>(47.88)</td>
<td>(41.65)</td>
<td>(38.32)</td>
<td>+15.0%</td>
<td>+24.9%</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>41.7%</td>
<td>41.2%</td>
<td>43.5%</td>
<td>+0.5 ppt</td>
<td>-1.8 ppts</td>
</tr>
<tr>
<td>Non-Operating Items</td>
<td>2.05</td>
<td>2.85</td>
<td>3.99</td>
<td>-28.1%</td>
<td>-48.7%</td>
</tr>
<tr>
<td>Net Income to Shareholders of the Parent Company</td>
<td>166.23</td>
<td>156.26</td>
<td>142.77</td>
<td>+6.4%</td>
<td>+16.4%</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>37.9%</td>
<td>37.7%</td>
<td>39.5%</td>
<td>+0.2 ppt</td>
<td>-1.6 ppts</td>
</tr>
<tr>
<td>EPS (NT Dollar)</td>
<td>6.41</td>
<td>6.03</td>
<td>5.51</td>
<td>+6.4%</td>
<td>+16.4%</td>
</tr>
<tr>
<td>ROE</td>
<td>31.3%</td>
<td>30.7%</td>
<td>31.4%</td>
<td>+0.6 ppt</td>
<td>-0.1 ppt</td>
</tr>
<tr>
<td>Shipment (Kpcs, 12&quot;-equiv. Wafer)</td>
<td>3,725</td>
<td>3,646</td>
<td>3,246</td>
<td>+2.2%</td>
<td>+14.8%</td>
</tr>
<tr>
<td>Average Exchange Rate--USD/NTD</td>
<td>27.85</td>
<td>28.00</td>
<td>27.87</td>
<td>-0.1%</td>
<td>-2.4%</td>
</tr>
</tbody>
</table>

* Diluted weighted average outstanding shares were 25,930mn units in 4Q21.

** ROE figures are annualized based on average equity attributable to shareholders of the parent company.
4Q21 Revenue by Technology

- **7nm and Below Revenue**

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**Revenue by Technology**

- 20nm: 0%
- 28nm: 11%
- 40/45nm: 8%
- 65nm: 5%
- 90nm: 3%
- 16nm: 13%
- 25um and above: 2%
- 0.11/0.13um: 6%
- 0.15/0.18um: 3%
- 0.25um and above: 2%
- 11% 7nm
- 13% 16nm
- 11% 28nm
- 8% 40/45nm
- 5% 65nm
- 3% 90nm
- 0% 20nm

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**Revenue (NT$B)**

- 7nm: 27%
- 5nm: 23%
- 16nm: 13%
- 28nm: 11%
- 40/45nm: 8%
- 65nm: 5%
- 90nm: 3%
- 0.11/0.13um: 6%
- 0.15/0.18um: 3%
- 0.25um and above: 2%
- 11% 7nm
- 13% 16nm
- 11% 28nm
- 8% 40/45nm
- 5% 65nm
- 3% 90nm
- 0% 20nm
Revenue by Technology

**2021**
- 7nm: 31%
- 28nm: 11%
- 16nm: 14%
- 20nm: 0%
- 40/45nm: 7%
- 65nm: 5%
- 90nm: 2%
- 0.11/0.13um: 3%
- 0.15/0.18um: 6%
- 0.25um and above: 2%

**2020**
- 7nm: 33%
- 16nm: 13%
- 20nm: 1%
- 28nm: 9%
- 40/45nm: 11%
- 65nm: 5%
- 90nm: 7%
- 0.11/0.13um: 3%
- 0.15/0.18um: 7%
- 0.25um and above: 2%
- 10nm: 19%
- 5nm: 8%
4Q21 Revenue by Platform

Growth Rate by Platform (QoQ)

- Smartphone: +7%
- HPC: +3%
- IoT: +3%
- Automotive: +10%
- DCE: 2%
- Others: +22%
2021 Revenue by Platform

- **Smartphone**: 44%
- **HPC**: 37%
- **IoT**: 8%
- **Automotive**: 4%
- **Others**: 3%
- **DCE**: 4%

Growth rate by Platform (YoY)

- **Smartphone**: +8%
- **HPC**: +34%
- **IoT**: +21%
- **Automotive**: +51%
- **DCE**: +2%
- **Others**: +9%
Balance Sheets & Key Indices

<table>
<thead>
<tr>
<th>Selected Items from Balance Sheets</th>
<th>4Q21</th>
<th>3Q21</th>
<th>4Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In NT$ billions)</td>
<td>Amount</td>
<td>%</td>
<td>Amount</td>
</tr>
<tr>
<td>Cash &amp; Marketable Securities</td>
<td>1,188.46</td>
<td>31.9%</td>
<td>975.82</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>198.30</td>
<td>5.3%</td>
<td>187.17</td>
</tr>
<tr>
<td>Inventories</td>
<td>193.10</td>
<td>5.2%</td>
<td>182.23</td>
</tr>
<tr>
<td>Long-term Investments</td>
<td>29.38</td>
<td>0.8%</td>
<td>27.73</td>
</tr>
<tr>
<td>Net PP&amp;E</td>
<td>1,975.12</td>
<td>53.0%</td>
<td>1,828.89</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>3,725.50</td>
<td>100.0%</td>
<td>3,332.31</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>739.50</td>
<td>19.8%</td>
<td>655.62</td>
</tr>
<tr>
<td>Long-term Interest-bearing Debts</td>
<td>613.38</td>
<td>16.5%</td>
<td>463.21</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>1,554.77</td>
<td>41.7%</td>
<td>1,253.99</td>
</tr>
<tr>
<td><strong>Total Shareholders’ Equity</strong></td>
<td>2,170.73</td>
<td>58.3%</td>
<td>2,078.32</td>
</tr>
</tbody>
</table>

**Key Indices**

- A/R Turnover Days: 40, 40, 39
- Inventory Turnover Days: 88, 85, 73
- Current Ratio (x): 2.2, 2.1, 1.8
- Asset Productivity (x): 0.9, 0.9, 0.9

* Total outstanding shares were 25,930 mn units at 12/31/21

** Asset productivity = Annualized net revenue / Average net PP&E
# Cash Flows

<table>
<thead>
<tr>
<th></th>
<th>4Q21</th>
<th>3Q21</th>
<th>4Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning Balance</strong></td>
<td>853.81</td>
<td>747.98</td>
<td>604.20</td>
</tr>
<tr>
<td>Cash from operating activities</td>
<td>378.20</td>
<td>318.71</td>
<td>259.13</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>(235.56)</td>
<td>(188.64)</td>
<td>(88.68)</td>
</tr>
<tr>
<td>Cash dividends</td>
<td>(71.31)</td>
<td>(64.83)</td>
<td>(64.83)</td>
</tr>
<tr>
<td>Short-term loans</td>
<td>(1.86)</td>
<td>(18.09)</td>
<td>(67.35)</td>
</tr>
<tr>
<td>Bonds payable</td>
<td>157.47</td>
<td>49.32</td>
<td>30.50</td>
</tr>
<tr>
<td>Investments and others</td>
<td>(15.76)</td>
<td>9.36</td>
<td>(12.80)</td>
</tr>
<tr>
<td><strong>Ending Balance</strong></td>
<td>1,064.99</td>
<td>853.81</td>
<td>660.17</td>
</tr>
<tr>
<td><strong>Free Cash Flow</strong></td>
<td>142.64</td>
<td>130.07</td>
<td>170.45</td>
</tr>
</tbody>
</table>

*(In NT$ billions)*

* Free cash flow = Cash from operating activities – Capital expenditures
## 2021 Financial Highlights

### (In NT$ billions unless otherwise noted)

<table>
<thead>
<tr>
<th>Metric</th>
<th>2021</th>
<th>2020</th>
<th>YoY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Revenue (US$ billions)</td>
<td>56.82</td>
<td>45.51</td>
<td>+24.9%</td>
</tr>
<tr>
<td>Net Revenue</td>
<td>1,587.42</td>
<td>1,339.26</td>
<td>+18.5%</td>
</tr>
<tr>
<td>Gross Margin</td>
<td>51.6%</td>
<td>53.1%</td>
<td>-1.5 ppts</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>40.9%</td>
<td>42.3%</td>
<td>-1.4 ppts</td>
</tr>
<tr>
<td>Income before Tax</td>
<td>663.13</td>
<td>584.78</td>
<td>+13.4%</td>
</tr>
<tr>
<td>EPS - Diluted (NT$)</td>
<td>23.01</td>
<td>19.97</td>
<td>+15.2%</td>
</tr>
<tr>
<td>Operating Cash Flow</td>
<td>1,112.16</td>
<td>822.67</td>
<td>+35.2%</td>
</tr>
<tr>
<td>Capital Expenditures</td>
<td>839.20</td>
<td>507.24</td>
<td>+65.4%</td>
</tr>
<tr>
<td>Free Cash Flow (FCF)</td>
<td>272.96</td>
<td>315.43</td>
<td>-13.5%</td>
</tr>
<tr>
<td>Cash Dividends</td>
<td>265.79</td>
<td>259.30</td>
<td>+2.5%</td>
</tr>
<tr>
<td>Cash &amp; Marketable Securities</td>
<td>1,188.46</td>
<td>791.48</td>
<td>+50.2%</td>
</tr>
<tr>
<td>ROE</td>
<td>29.7%</td>
<td>29.8%</td>
<td>-0.1 ppt</td>
</tr>
</tbody>
</table>
Recap of Recent Major Events

- TSMC Presents 2021 Excellent Performance Award to Outstanding Suppliers (2021/12/16)
- TSMC Introduces N4X Process, the Newest 5nm Enhancement Tailored for High Performance Computing Products (2021/12/16)
- MediaTek and TSMC Unveil the World’s First 7nm 8K Resolution Digital TV System-on-Chip (2021/11/22)
- TSMC to Build Specialty Technology Fab in Japan with Sony Semiconductor Solutions as Minority Shareholder (2021/11/09)
- TSMC Board of Directors Approved NT$2.75 Cash Dividend for the Third Quarter of 2021 and Set March 16 as Ex-Dividend Date, March 22 as the Record Date and April 14, 2022 as the Distribution Date (2021/11/09)
- TSMC Recognizes Partners of the Year at 2021 OIP Ecosystem Forum (2021/10/27)
- TSMC Expands Advanced Technology Leadership with N4P Process (2021/10/26)

Please visit TSMC’s website (https://www.tsmc.com) and Market Observation Post System (https://mops.twse.com.tw) for details and other announcements.