



# 2019 Fourth Quarter Earnings Conference

January 16, 2020

# Agenda

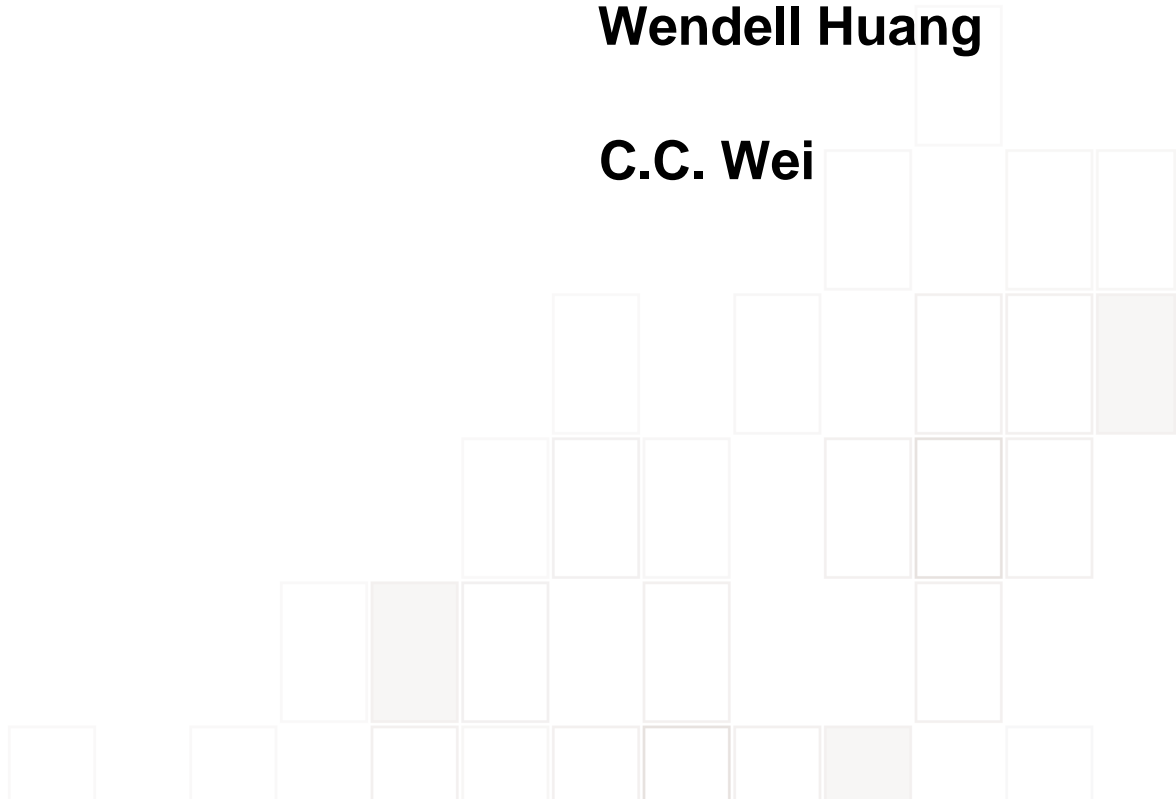
- **Welcome**
- **4Q19 Financial Results and 1Q20 Outlook**
- **Key Messages**
  
- **Q&A**

**Jeff Su**

**Wendell Huang**

**Wendell Huang**

**C.C. Wei**



# 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 17, 2019 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

## Selected Items from Statements of Comprehensive Income

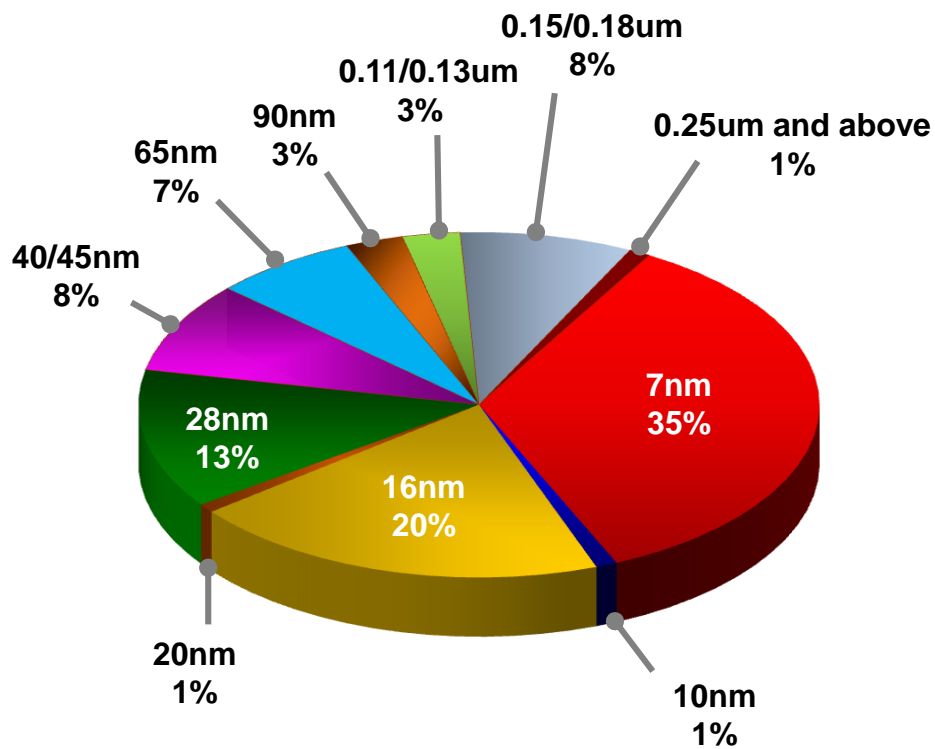
(In NT\$ billions unless otherwise noted)

|  | 4Q19         | 4Q19<br>Guidance     | 3Q19         | 4Q18         | 4Q19<br>over<br>3Q19 | 4Q19<br>over<br>4Q18 |
|--|--------------|----------------------|--------------|--------------|----------------------|----------------------|
| Net Revenue (US\$ billions)                      | 10.39        | 10.2-10.3            | 9.40         | 9.40         | +10.6%               | +10.6%               |
| Net Revenue                                      | 317.24       |                      | 293.05       | 289.77       | +8.3%                | +9.5%                |
| <b>Gross Margin</b>                              | <b>50.2%</b> | <b>48.0% - 50.0%</b> | <b>47.6%</b> | <b>47.7%</b> | <b>+2.6 pts</b>      | <b>+2.5 pts</b>      |
| Operating Expenses                               | (34.94)      |                      | (31.38)      | (30.85)      | +11.4%               | +13.3%               |
| <b>Operating Margin</b>                          | <b>39.2%</b> | <b>37.0% - 39.0%</b> | <b>36.8%</b> | <b>37.0%</b> | <b>+2.4 pts</b>      | <b>+2.2 pts</b>      |
| Non-Operating Items                              | 4.54         |                      | 4.45         | 3.96         | +2.0%                | +14.7%               |
| Net Income to Shareholders of the Parent Company | 116.04       |                      | 101.07       | 99.98        | +14.8%               | +16.1%               |
| <b>Net Profit Margin</b>                         | <b>36.6%</b> |                      | <b>34.5%</b> | <b>34.5%</b> | <b>+2.1 pts</b>      | <b>+2.1 pts</b>      |
| EPS (NT Dollar)                                  | 4.47         |                      | 3.90         | 3.86         | +14.8%               | +16.1%               |
| ROE  | 28.9%        |                      | 25.7%        | 24.6%        | +3.2 pts             | +4.3 pts             |
| Shipment (Kpcs, 12"-equiv. Wafer)                | 2,823        |                      | 2,733        | 2,686        | +3.3%                | +5.1%                |
| Average Exchange Rate--USD/NTD                   | 30.52        | 30.60                | 31.19        | 30.83        | -2.1%                | -1.0%                |

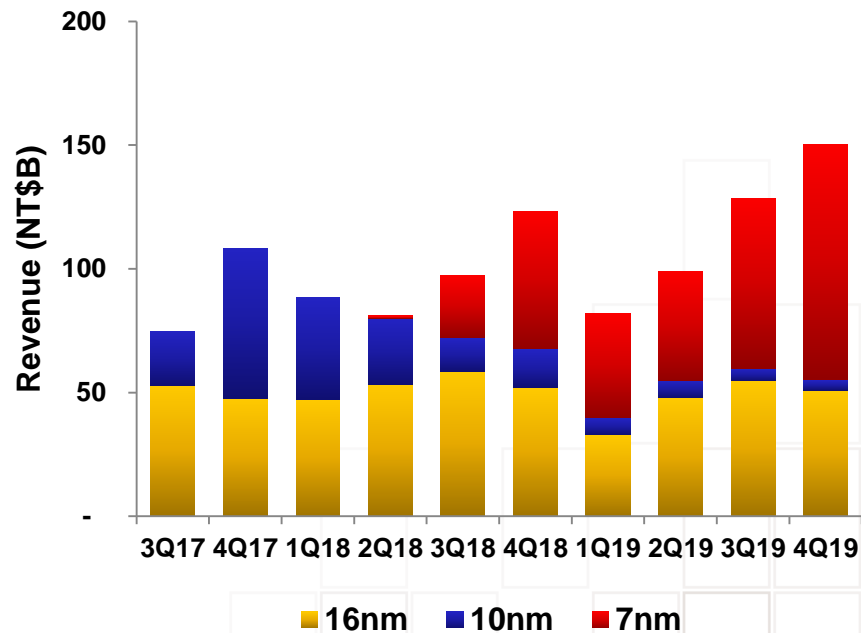
\* Diluted weighted average outstanding shares were 25,930mn units in 4Q19.

\*\* ROE figures are annualized based on average equity attributable to shareholders of the parent company.

# 4Q19 Revenue by Technology

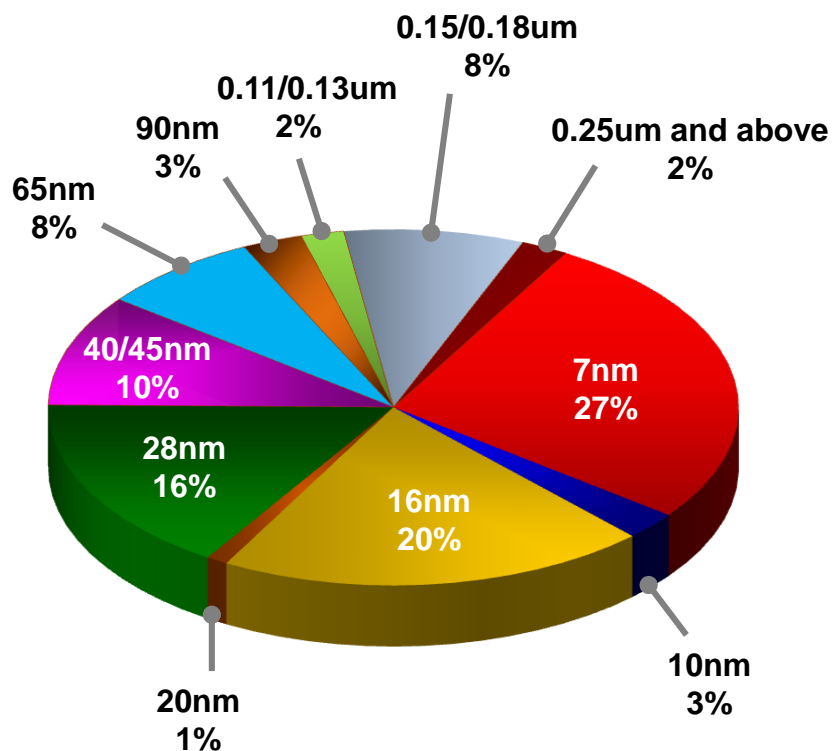


16nm and Below Revenue

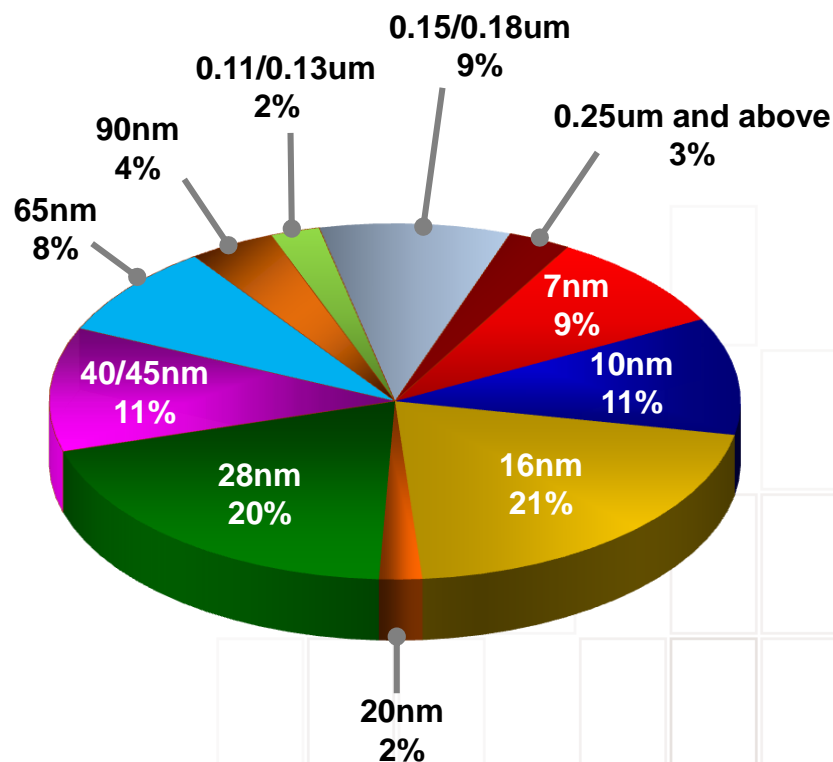


# Revenue by Technology

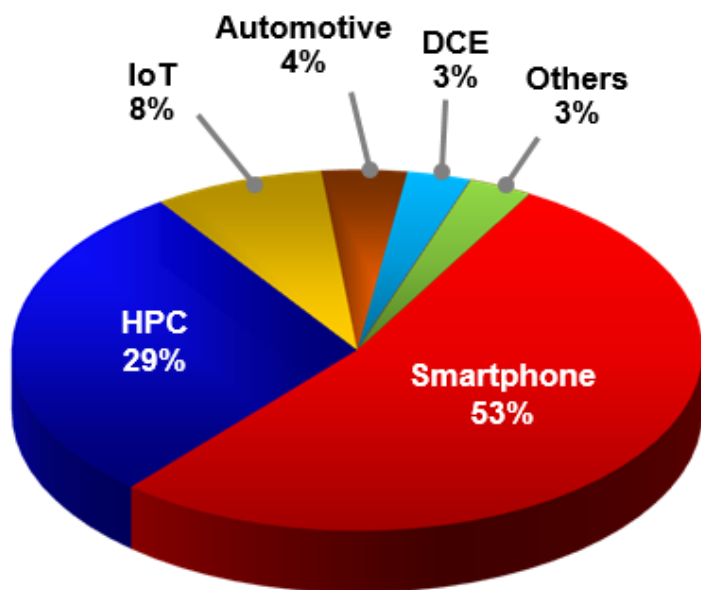
**2019**



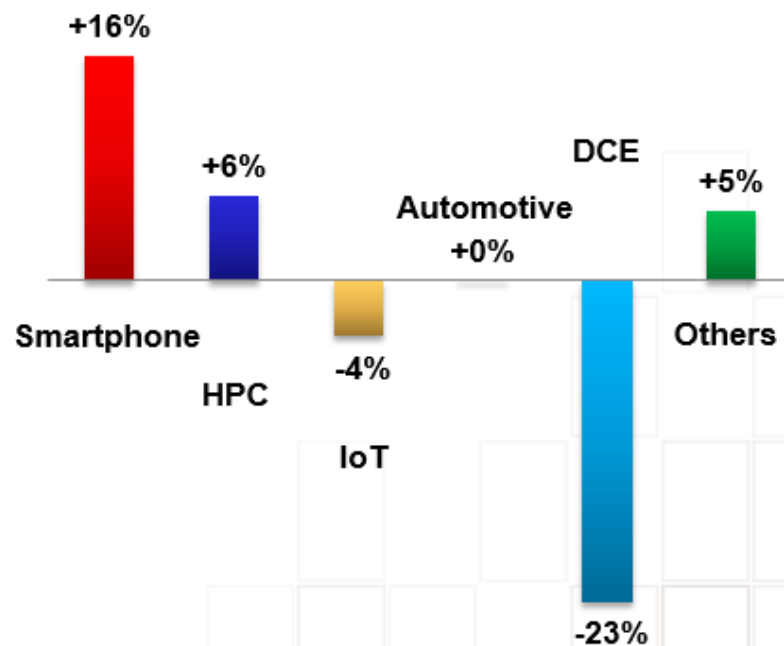
**2018**



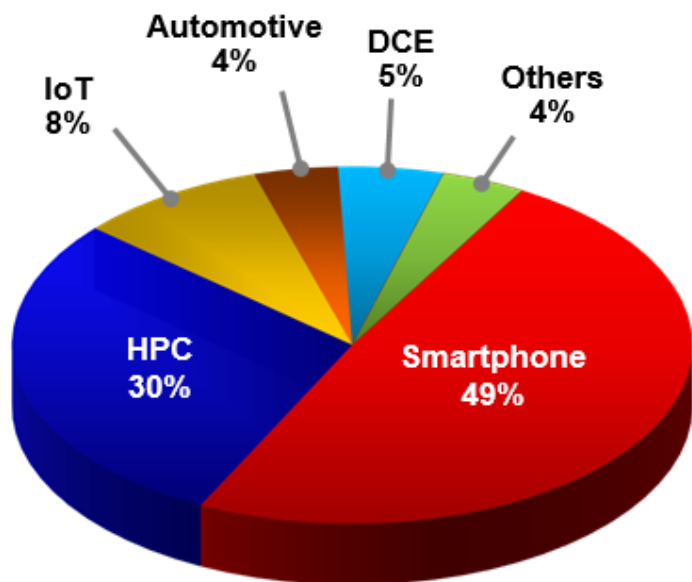
# 4Q19 Revenue by Platform



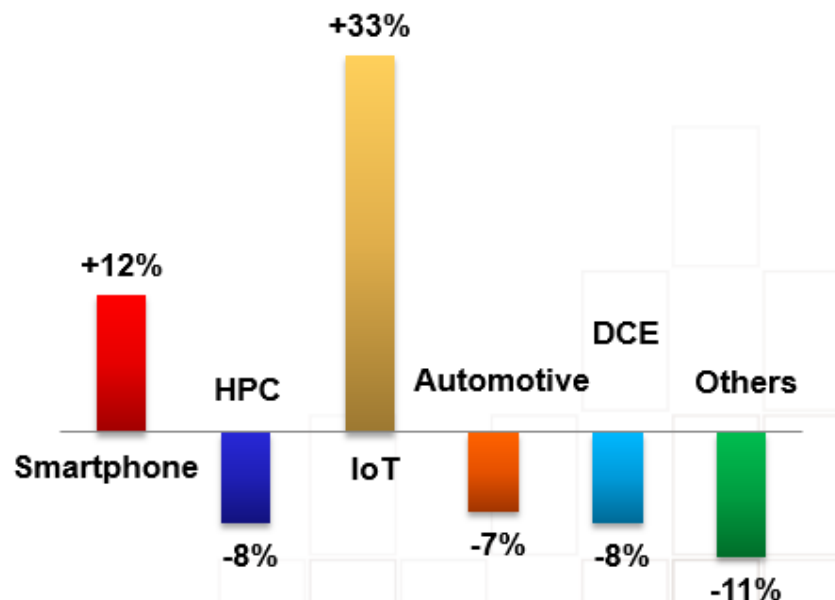
Growth rate by Platform (QoQ)



# 2019 Revenue by Platform



Growth rate by Platform (YoY)





# Balance Sheets & Key Indices

## Selected Items from Balance Sheets

(In NT\$ billions)

|                                   | 4Q19            |               | 3Q19            |               | 4Q18            |               |
|-----------------------------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|
|                                   | Amount          | %             | Amount          | %             | Amount          | %             |
| Cash & Marketable Securities      | 583.45          | 25.7%         | 584.92          | 27.4%         | 695.18          | 33.2%         |
| Accounts Receivable               | 139.77          | 6.2%          | 145.42          | 6.8%          | 129.20          | 6.2%          |
| Inventories                       | 82.98           | 3.7%          | 96.69           | 4.5%          | 103.23          | 4.9%          |
| Long-term Investments             | 30.17           | 1.3%          | 30.13           | 1.4%          | 29.31           | 1.4%          |
| Net PP&E                          | 1,352.38        | 59.7%         | 1,197.95        | 56.1%         | 1,072.05        | 51.3%         |
| <b>Total Assets</b>               | <b>2,264.81</b> | <b>100.0%</b> | <b>2,134.23</b> | <b>100.0%</b> | <b>2,090.13</b> | <b>100.0%</b> |
| Current Liabilities               | 590.74          | 26.1%         | 494.78          | 23.2%         | 340.54          | 16.3%         |
| Long-term Interest-bearing Debts  | 25.10           | 1.1%          | 25.10           | 1.2%          | 56.90           | 2.7%          |
| <b>Total Liabilities</b>          | <b>642.71</b>   | <b>28.4%</b>  | <b>546.74</b>   | <b>25.6%</b>  | <b>412.63</b>   | <b>19.7%</b>  |
| <b>Total Shareholders' Equity</b> | <b>1,622.10</b> | <b>71.6%</b>  | <b>1,587.49</b> | <b>74.4%</b>  | <b>1,677.50</b> | <b>80.3%</b>  |
| <b>Key Indices</b>                |                 |               |                 |               |                 |               |
| <b>A/R Turnover Days</b>          | <b>41</b>       |               | <b>41</b>       |               | <b>41</b>       |               |
| <b>Inventory Turnover Days</b>    | <b>55</b>       |               | <b>65</b>       |               | <b>67</b>       |               |
| <b>Current Ratio (x)</b>          | <b>1.4</b>      |               | <b>1.7</b>      |               | <b>2.8</b>      |               |
| <b>Asset Productivity (x)</b>     | <b>1.0</b>      |               | <b>1.0</b>      |               | <b>1.1</b>      |               |

\* Total outstanding shares were 25,930mn units at 12/31/19.

\*\* Asset productivity = Annualized net revenue / Average net PP&E

# Cash Flows

| <i>(In NT\$ billions)</i>      | <b>4Q19</b>   | <b>3Q19</b>   | <b>4Q18</b>   |
|--------------------------------|---------------|---------------|---------------|
| <b>Beginning Balance</b>       | <b>452.43</b> | <b>649.70</b> | <b>488.73</b> |
| Cash from operating activities | 202.96        | 141.75        | 189.37        |
| Capital expenditures           | (170.01)      | (98.12)       | (114.10)      |
| Cash dividends                 | (51.86)       | (207.44)      | 0.00          |
| Short-term loans               | 35.68         | 7.33          | 14.30         |
| Investments and others         | (13.80)       | (40.79)       | (0.49)        |
| <b>Ending Balance</b>          | <b>455.40</b> | <b>452.43</b> | <b>577.81</b> |
| Free Cash Flow*                | 32.95         | 43.63         | 75.27         |

\* Free cash flow = Cash from operating activities – Capital expenditures

# 2019 Financial Highlights

*(In NT\$ billions unless otherwise noted)*

|   | 2019            | 2018            | YoY             |
|---|-----------------|-----------------|-----------------|
| <b>Net Revenue (US\$ billions)</b>      | <b>34.63</b>    | <b>34.20</b>    | <b>+1.3%</b>    |
| <b>Net Revenue</b>                      | <b>1,069.99</b> | <b>1,031.47</b> | <b>+3.7%</b>    |
| <b>Gross Margin</b>                     | <b>46.0%</b>    | <b>48.3%</b>    | <b>-2.3 pts</b> |
| <b>Operating Margin</b>                 | <b>34.8%</b>    | <b>37.2%</b>    | <b>-2.4 pts</b> |
| <b>Income before Tax</b>                | <b>389.85</b>   | <b>397.51</b>   | <b>-1.9%</b>    |
| <b>EPS - Diluted (NT\$)</b>             | <b>13.32</b>    | <b>13.54</b>    | <b>-1.7%</b>    |
| <b>Operating Cash Flow</b>              | <b>615.14</b>   | <b>573.95</b>   | <b>+7.2%</b>    |
| <b>Capital Expenditures</b>             | <b>460.42</b>   | <b>315.58</b>   | <b>+45.9%</b>   |
| <b>Free Cash Flow (FCF)</b>             | <b>154.72</b>   | <b>258.37</b>   | <b>-40.1%</b>   |
| <b>Cash Dividends</b>                   | <b>259.30</b>   | <b>207.44</b>   | <b>+25.0%</b>   |
| <b>Cash &amp; Marketable Securities</b> | <b>583.45</b>   | <b>695.18</b>   | <b>-16.1%</b>   |
| <b>ROE</b>                              | <b>20.9%</b>    | <b>22.0%</b>    | <b>-1.1 pts</b> |

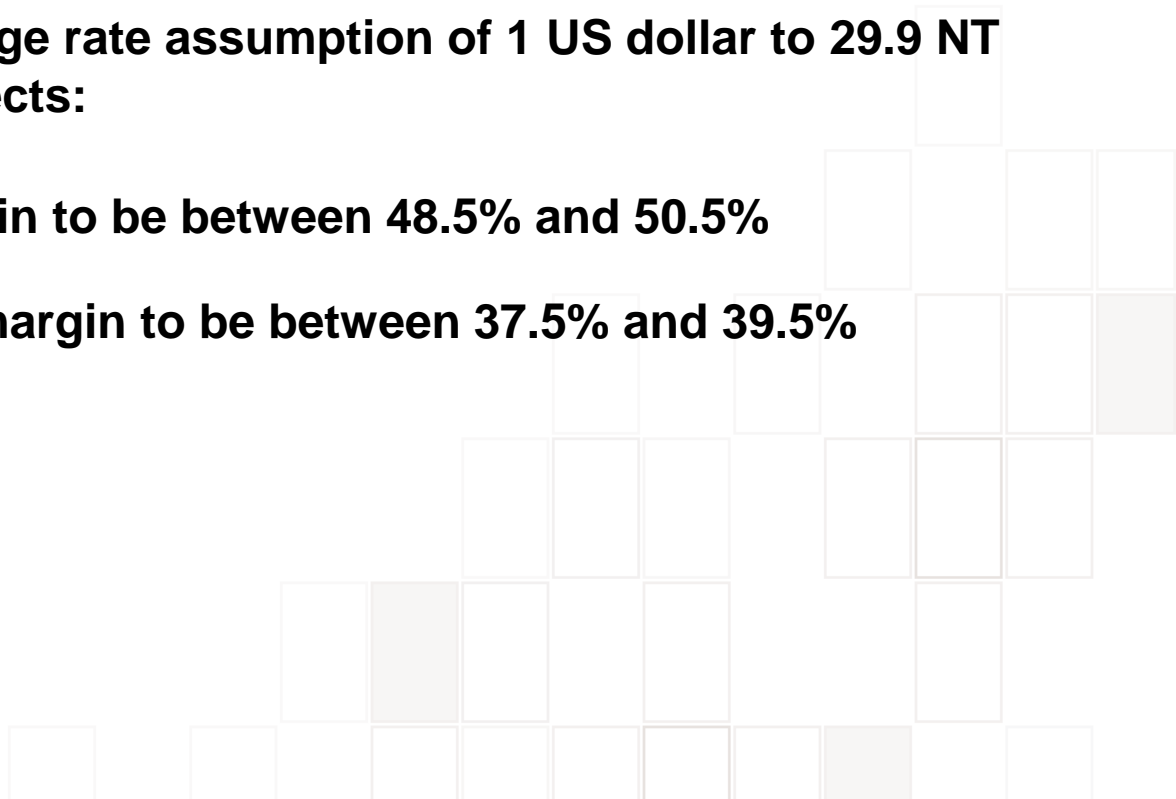
# 1Q20 Guidance

Based on our current business outlook, management expects:

- Revenue to be between US\$ 10.2 billion and US\$ 10.3 billion

And, based on the exchange rate assumption of 1 US dollar to 29.9 NT dollars, management expects:

- Gross profit margin to be between 48.5% and 50.5%
- Operating profit margin to be between 37.5% and 39.5%



# Recap of Recent Major Events

- **TSMC Recognizes Outstanding Suppliers at 2019 Supply Chain Management Forum (2019/12/05)**
- **University of Tokyo and TSMC Announce Organization-Wide Advanced Semiconductor Technology Collaboration (2019/11/27)**
- **TSMC Board of Directors Approves NT\$2.5 Cash Dividend for Third Quarter 2019 and Sets March 19 as Ex-Dividend Date, March 25 as the record date and April 16, 2020 as the distribution date (2019/11/12)**
- **MediaTek's World-Leading 8K DTV SoC in Volume Production on TSMC 12FFC Technology (2019/11/08)**
- **TSMC and GLOBALFOUNDRIES Announce Resolution of Global Disputes Through Broad Global Patent Cross-License (2019/10/29)**
- Please visit TSMC's website (<http://www.tsmc.com>) and Market Observation Post System (<http://mops.twse.com.tw>) for details and other announcements



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