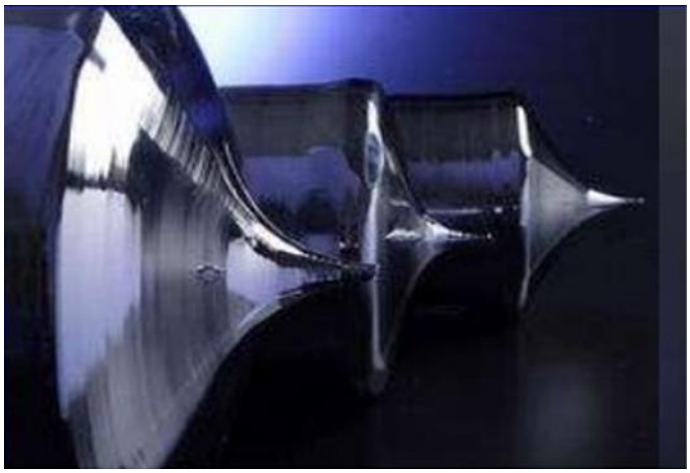
iPR ADVISORS 安擘諮詢

WAFER WORKS (6182 TT)

Flash Note

TSMC (2330 TT) 4Q21 earnings call memo & implication



TSMC (2330 TT)

4Q21 Earnings Call_20220113

Implication to WAFER WORKS (6182 TT)

Overall, positive to WAFER WORKS (6182 TT) on TSMC's YoY increase in CAPEX and reaffirmed long-term revenue growth of 15-20% (driven by semi-content structural growth). Interest rate assumption should play a crucial role in deriving fair values of all semi-supply chain companies.

Prepared remarks

- 1Q22 guidance: revenue USD16.6-17.2bn (7.4% q-q growth in mid-point) by growth in HPC, recovery of automobile, milder smartphone seasonality.
- 1Q22 margin guidance: GM 53-55%, OPM 42-44%, effective tax rate 10-11%.
- USD30bn CAPEX in 2021, CAPEX in 2022 guided USD40-44bn (70-80% advanced technology 2, 3, 5, 7nm; 10% advanced packaging, 10-20% specialty technology).
- Depreciation expenses increase low-to-mid teens y-y in 2022.

- 2022 forecasts: semi industry (excluding memory) to grow 9%, foundry to grow 20%. For TSMC, mid-to-high twenties revenue growth in USD.
- Higher level inventory than before, above seasonality levels.
- Short-term imbalance may or may not exist. 5G, High Performance PC (or HPC) megatrend and higher silicon content should continue to boost semi industry.
- Semi industry capacity should remain tight in 2022.

- Long-term revenue CAGR is 15-20% in USD.
- HPC is the strongest sector (such as Central Processing Unit (CPU), Graphics Processing Unit (GPU), Accelerated Processing Unit (APU), etc.). “Content” is first-time mentioned semi demand driver.
- L-T margin above 53% is achievable (guided 50% above previously), ROE 25%. (the 6 key factors to impact TSMC gross margin are: 1. price, 2. cost, 3. Product mix, 4. production utilization rate, 5. Foreign exchange rate and 6. New technology ramp)

- N4P performance boost 11% higher and 22% higher power efficiency compared with N5, 2H22 introduce. N4X is expected for mass production in 1H23.

- N3 start in production 2H22, revenue contribution in 2023.
- N3 tape-out number in first year is greater than N5 in first year.
- Customers' engagement in N3 and N3E is more than observed in N5
- N5 revenue contribution will increase in 2022 due to continuous ramp-up.

- 28nm is the sweet spot, supported by multiple specialty technologies. Increase capacity in China, Japan and TW

Q&A

1. Reasons for TSMC's higher revenue than foundry and fabless business in 2022 (CS)

- share gain, pricing adjustment and unit growth.

2. 2022 revenue growth by platform (CS)

- HPC and automobile should enjoy higher than corporate average, IOT similar growth, and smart phone same as corporate average revenue growth.

3. More prepayments by clients, strategy? (CS)

- collect prepayment for better CAPEX planning, for securing client commitment.

4. 28nm suffer low ut-rate (80%) in 2018-19, current capacity increase creates oversupply risk? (GS)

- Current demand is strong including CMOS and Power Management IC (PMIC). Multiple growth drivers will support 28nm demand.

5. Macro risks: inflation, fade away of work from home (WFH), crypto… (MS)

- higher level of inventory over long run for avoid supply-demand imbalance; TSMC remains as the technology leader should be lest impacted from macro risks.

6. CAPEX guidance (peak in 2022?), capital intensity? (JPM)

- at current point in time do not provide CAPEX guidance beyond 2022.
- industry in periods of high growth is ok to accommodate high capital intensity (mid 30's is appropriate overall).
- have taken consideration of Intel's insourcing (IDM 2.0) in the future capacity planning.

7. Building new capacity based on long-term customer profile; how to avoid overcapacity? (Citi)

- short-term supply-demand imbalance may fade away and caused a slow-down in

momentum but overall structural demand remains strong, supported by silicon content growth in key applications.

8. Talent retention (senior management) and recruitment (for overseas expansion) (Citi)

- no forced retirement for higher executive levels.
- looking to source local talents overseas.

9. Prepayment and government subsidies in P&L effect in 2021/22

- received prepayment totaling 6.7bn USD in 2021, will recognize in 2022 (expect to be more prepayment in 2022)
- subsidies in different forms and in different accounting treatment accordingly.

10. Smartphone just grew 8% YoY in TWD in 2021

- in USD will be much higher. Several smartphone companies' revenue growth is higher than 8% due to pricing. TSMC revenue growth is mainly correlated with unit growth.
- silicon content will continue to grow in the future.

11. N3 strongly supported by smartphone and HPC, 7-8 quarters to reach corporate average for advanced node before, is N3 will be shorter?

- hard to say

12. Equipment bottleneck for capacity increase, especially for ASML's EUV (UBS)?

- 2022 is OK, currently work on 2023

13. Is equation between CAPX and rev (CAPX double in 3 year, revenue double in 5yearr) still hold? If hold, L-T revenue CAGR will be higher than 15%

- not that simple.

14. Consider JV in Europe just like Japan? (KGI)

- Japan Fab is JV and is a special case. Will serve all customers and utilize Sony (JV partners) to help ramp-up.

15. Silicon content growth for all nodes?

- Yes. For example, ADAS (advanced nodes) and PMIC (mature nodes).