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Baruch Investment Management Group
Industrials

Taiwan Semiconductor Mfg. Co. Ltd. (NYSE: TSM) Assumptions

Data Collection

Data was collected from Bloomberg Terminals through “as presented” with units in millions and currency in USD. TSM is headquartered in Hsinchu, Taiwan but are listed on the New York Stock Exchange. Therefore, they comply with SEC protocols but as an international company file differently. Traditionally, we are accustomed to 10-K’s but TSM files 20-F’s as an international company. One difference is that TSM denotes their currency in Taiwanese Dollars and not U.S. Dollars. Therefore, our initial data collection through Capital IQ among other sources failed to be as accurate as Bloomberg. In keeping with accurate, consistent, and reliable information our valuation was built using Bloomberg. However, we did take into account multiple methods of forming a valuation using currency rates, TSMC hedging strategies, and other models.

Revenue Growth

Revenue growth was forecasted through product and other revenue. We implemented conservative projections that align with analyst consensus. Our Investment Rationale reveals increased market capitalization that will decrease costs, increase pricing power, and quantity sourced to customers. Therefore, we projected an initial 18% revenue due to the Semiconductor macro environment and shifted analysis towards 5% in 2025. The “Other Revenue” is a newer segment that shows 23090% increases from 2017 to 2018 as other revenue increased from \$17 million to 3.4 Billion in 2018. This is due to TSMC redistributing their resources and we’ve seen other revenue remain consistent from 2018 to 2020.

COGS

We’ve increased our COGS (as percent of sales) over time to 53% to remain conservative in our expectations.

SG&A

SG&A has been projected to stay consistent. Even though SG&A is a benefit to TSM and is a strong characteristic among competitors, we kept it conservative at 6% and decreased to 5% by 2025.

Working Capital Changes

All working capital changes are fully broken down in the valuation model under “Inputs” and is available in the pitch deck on the Appendix.