

TSMC Shows Where AI Demand is Headed

By Dan Gallagher

Investors remain as fixated as ever on reading the tea leaves for signs of AI demand. They should look carefully at the companies that face the highest stakes if they get it wrong.

Taiwan Semiconductor Manufacturing is one of those. The company better known as TSMC is the world's largest producer of the type of advanced semiconductors that power everything from AI servers to smartphones to personal computers.

TSMC's business is lucrative, but also expensive to operate. Proof of that: While its customer list includes the world's richest companies (Nvidia, Apple and Google), they have studiously avoided getting into chip manufacturing themselves.

How expensive? TSMC used its last earnings report three months ago to project capital expenditures between \$52 billion and \$56 billion this year. That was well above the \$44 billion Wall Street had been expecting and more than 60% higher than what TSMC's capex bill has averaged over the past five years.

Runaway capital spending is hardly unique in the AI race. But if companies like Amazon, Microsoft and Google overshoot a bit in their data-center build-outs, they at least have the comfort of knowing they eventually can make use of that capacity.

Underused chip-production facilities have high fixed costs and can immediately weigh on the bottom line. "If we didn't do it carefully, that would be a big disaster to TSMC for sure," its chief, CC Wei, said in the company's last earnings call.

TSMC is widely expected to at least maintain that capex target in its first-quarter report, due early Thursday morning New York time. And that spending hasn't been worrisome to investors so far. TSMC's stock price is up 25% this year—far ahead of Nvidia's 4% gain.

Like Nvidia, TSMC's position as a key player in the AI build-out has conveyed unmatched pricing power that is boosting its profits. Analysts expect TSMC to report gross-profit margins of 65% for the first quarter. This would be their highest level in more than 20 years, according to data from S&P Global Market Intelligence. And that is even with weakness in other markets that TSMC serves such as smartphones.

Robust AI demand isn't likely to last forever. The chip business is notoriously cyclical. But those cycles are why TSMC's investment plans are such an important early indicator. Unused chip-production tools make for expensive paperweights.

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