Baillie Gifford

TSMC: Stock Story

November 2025

Investment Specialist Qian Zhang unwraps TSMC, the company behind the world's most advanced chips, and explains why we are excited about its future.

Your capital is at risk. Past performance is not a guide to future returns.

Tell us about the company

Qian Zhang: Semiconductors are tiny silicon chips that act like the brain and nerve systems of every digital device we use today. Without them, say goodbye to smartphones, cars, or even washing machines.

Chips are the invisible engines of modern life, and more than 90 per cent of the world's most advanced ones are made by a single company, TSMC.

What makes this company special?

What makes TSMC special is the expertise and skill in an indispensable industry. In the 1980s, it pioneered the Foundry model, splitting design and manufacturing. Designers like NVIDIA create the blueprints, and TSMC manufactures them at scale for many customers. This focus enables the company to relentlessly pursue technological leadership through deep research and development and massive capital investment.

Take a single Gigafab. TSMC's mega factory. It cost over 20 billion US dollars to build and spans the area of 140 football fields. Inside, cutting-edge chips are made with transistors just 3 nanometers wide. To visualise that, imagine fitting a million of these tiny switches across the body of a garden ant. That level of microposition and that kind of scale is almost impossible to replicate.

What could the future hold?

We've invested in TSMC over 20 years, and it has grown nearly 30 times. It hasn't been all plain sailing. TSMC can be a tricky stock to own. The chip industry is famously cyclical. Half of the company's quarterly earnings miss endless forecast. R&D cycles are long, and demands shift fast. In 2020, Chad GPT wasn't even considered in the company's valuation.

You might possibly wonder, what if we saw that others didn't? Certainly not predicting the quarters. It's seeing years and decades. Our process explicitly asks, what could a business earn in five years

or more? This gives us a differentiated angle on identifying a company's significant long-term earning power.

As Al spreads across industries, the world will need faster, thinner, smarter chips. TSMC will continue to shape the world's silicon future.

Risk factors

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