

TSMC's chip dominance is expected to continue as it plans \$100B expansion

Article

The news: As most of the world relies on chip production from **TSMC**, the global shortage and the lack of a diversified semiconductor supply chain pose risks to the global economy, [per](#) The Wall Street Journal.

How we got here: TSMC's microchips are in billions of products ranging from iPhones, PCs, smart home devices, and IoT sensors. TSMC produces high-performance processors

designed by companies like Apple and Qualcomm for the latest smartphones and computers, but it also dominates the market for less-sophisticated microcontrollers used for automating smart cars and smart home appliances.

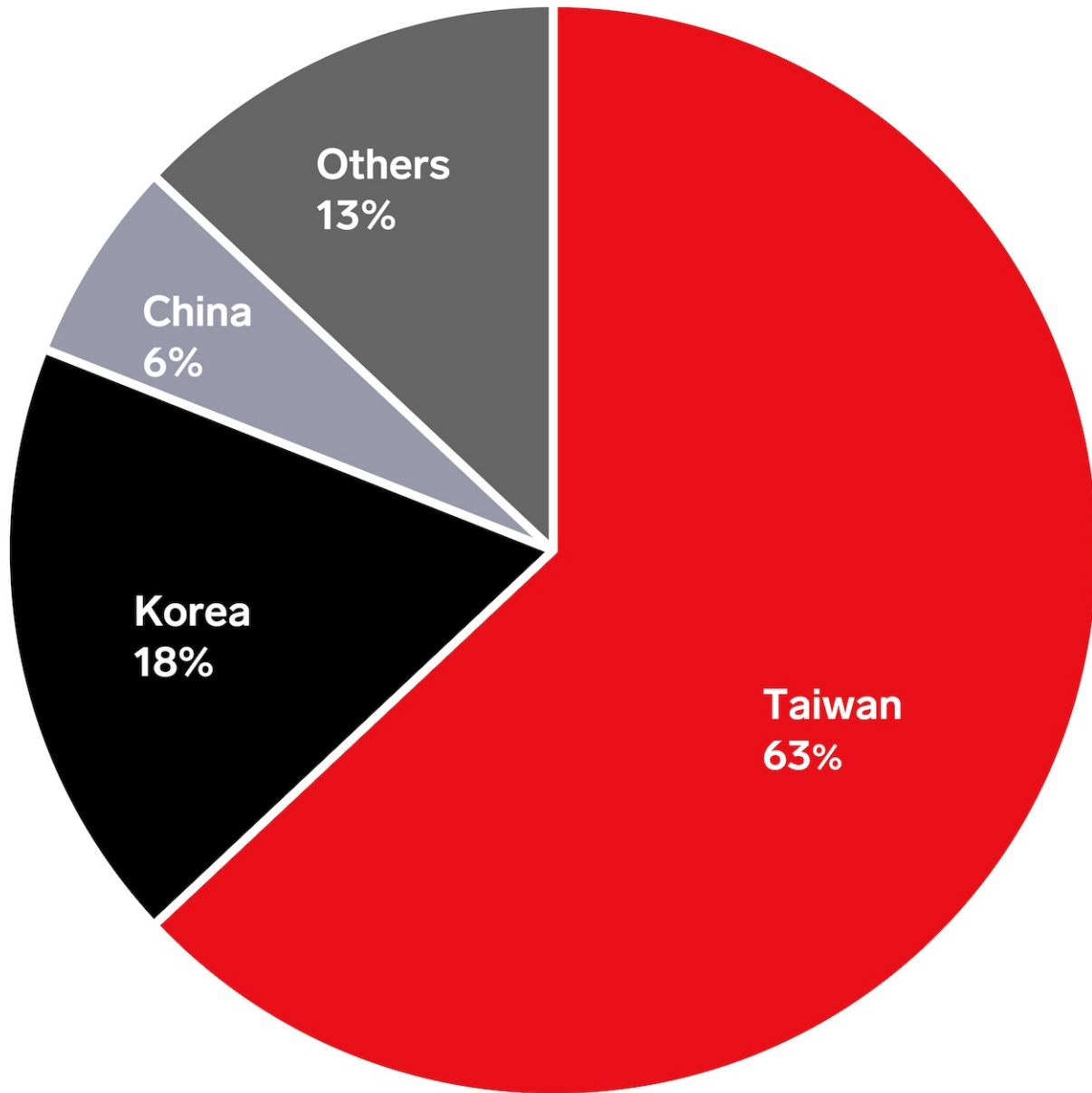
Heavy reliance on a single chip producer is exposing risks to the global economy, a reality that's only become clearer amid the [global semiconductor shortage](#) and which is resulting in higher costs being shouldered by [consumers](#). Surging demand for electronics during the pandemic overwhelmed the semiconductor industry and led to a global shortage expected to last another 18 months, [per](#) CNBC. China, [Europe](#), and the [US](#) have started to invest in various chip foundries to satisfy future demand and better diversify supply chains, but these efforts [will have no effect](#) on the current shortage.

The bigger picture: Several chip manufacturers are [building chip factories](#) in the US, the scale of investment pales beside [TSMC's planned expansion](#), which will cost \$100 billion over the next three years. TSMC's investment is a quarter of the entire industry's capital spending [per](#) VLSI Research. Investments matching or surpassing TSMC's planned expansion are needed to create a more diversified microchip fab industry.

The global chip shortage is starting to push up prices of items like laptops, displays, and printers and could make smartphones and cars even more expensive. PC manufacturers like Asus and HP have already started to raise prices by as much as 8%, while printer prices have gone up by 20%, [per](#) StockXpo. Pricing is also going up for new vehicles, even as carmakers are [producing fewer units](#) because of the chip shortage.

Global Foundry Revenues, by Country, 2020

% of total



Note: Total foundry revenues totaled \$85.13 billion in 2020. Taiwan-based TSMC made up 54% of global foundry revenues.

Source: TrendForce, March 2021

1042381378601

[InsiderIntelligence.com](https://www.insiderintelligence.com)