South Korea joins a growing list of countries doubling down on chip manufacturing with \$450B spending plan

Article









The South Korean government unveiled an ambitious plan to spend \$450 billion over the next decade to establish itself as the world leader in semiconductor manufacturing, per Bloomberg. The plan is part of President Moon Jae-in's administration's broader national blueprint, which uses tax breaks, lower interest rates, and loosened regulation to incentivize chipmakers to accelerate production. Moon teased his long-term vision in a May 10 speech, saying he sees semiconductors "as an opportunity for a new leap forward."

The move comes amid the ongoing global chip shortage—stemming from a pandemicinduced surge in demand for consumer electronics—which has wreaked havoc on the auto industry and consumer electronics-makers, among others. Some analysts predict chip demand could outstrip supply into 2023.

South Korea joins the US, China, and the EU in announcing massive government-backed efforts to shore up semiconductor manufacturing.

- This February, the Biden administration pushed forward an executive order requiring federal agencies to conduct a 100-day review of supply chains related to semiconductor chips.
- In March, the European Commission announced new goals challenging member states to produce around 20% of the world's chips by value by 2030, as part of its Digital Compass plan.
- China recently unveiled a five-year plan prioritizing the research and development of advanced chips.

The chip shortage exposed the world's reliance on a select few Asian semiconductor manufacturers. Taiwan, home to chip manufacturing giant TSMC, accounted for over 60% of global foundry revenues in 2020, according to TrendForce. That market dominance eclipses the next leading country (South Korea), which made up just 18% of global foundry revenues. However, the ravenous increase in chip demand has stretched chipmakers to full capacity and forced TSMC and others to readjust production and prioritize chips for the hemorrhaging auto industry. Confounding issues even further, Taiwan is experiencing its worst drought in nearly 60 years. That's bad news for chip manufacturing, which requires large volumes of water.

Taiwan's chip shortage struggles present an opportunity for South Korea and other countries to create a more diverse global chip manufacturing ecosystem. Increased chip manufacturing would diversify the global supply chain and mitigate future supply chain disruptions. Countries currently investing heavily in semiconductors manufacturing are



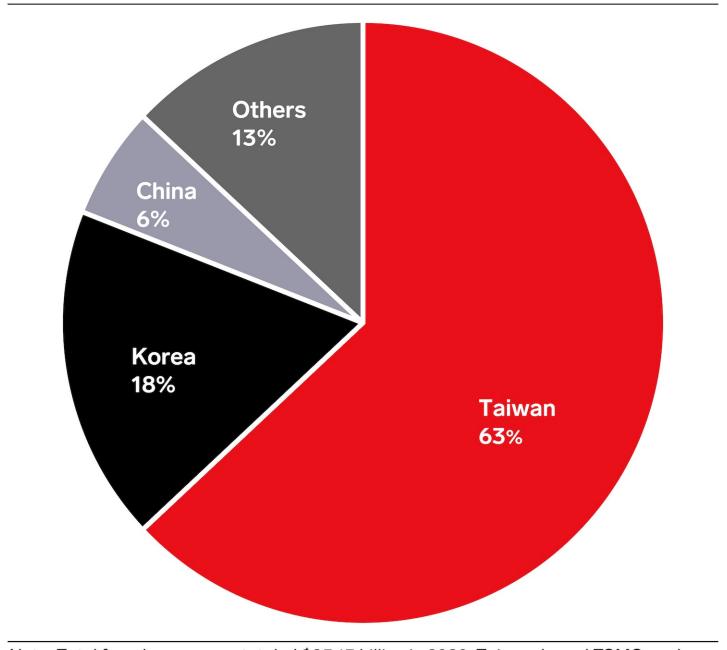


jockeying to emerge on the other side as global industry leaders. Here, South Korea has a leg up on competitors thanks to local giant Samsung, which represented around 17% of total global foundry revenues in 2020, per TrendForce.





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

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