



There was a global semiconductor shortage throughout the COVID-19 pandemic that severely disrupted supply chains across many industries, highlighting, more than ever, that semiconductors are an essential component to contemporary life. The Creating Helpful Incentives to Produce Semiconductors and Science Act (the CHIPS Act), which President Biden signed into law on August 9, 2022, is a \$280 billion funding package that specifically allocates \$52.7 billion in emergency supplemental appropriations to develop domestic semiconductor manufacturing capabilities. Lawmakers intend the CHIPS Act to help make it feasible for manufacturers to set up U.S.-based foundries that are capable of manufacturing the next generation of chips, which would in turn help reestablish the United States as a major force in the semiconductor industry that it pioneered.

Because of the semiconductor shortage during the pandemic, consumers found once-common products and amenities either prohibitively expensive or entirely unavailable despite spiking demand. Likewise, companies that otherwise relied on the readily available semiconductors suddenly found themselves facing extreme delays and suppliers willing to disrupt longstanding relationships by reopening contract negotiations. To make matters worse, the shortage struck at a time when many companies that have not traditionally been in the semiconductor space evolved from buying off-the-shelf components to competing on the margins by developing their own chips.

Largely motivated by the semiconductor shortage, lawmakers sought to increase the United States' semiconductor manufacturing capabilities. Despite the semiconductor industry having been originally established in the United States, semiconductor manufacturers predominately moved their foundries outside the country over the past few decades. Lawmakers intend for the CHIPS Act to incentivize semiconductor manufacturers to build new manufacturing facilities and update existing ones, which would create new manufacturing jobs and a more robust domestic supply chain for semiconductors.

Funding Overview

The majority of the CHIPS Act's funding is dedicated to the CHIPS for America Fund, a \$50 billion fund that will subsidize investment in facilities and equipment for semiconductor fabrication, research and development (R&D), and workforce development programs. Specifically, the CHIPS for America fund includes \$39 billion for incentivizing investment in semiconductor manufacturing and \$11 billion for funding general semiconductor research efforts, including the new National Semiconductor Technology Center (NSTC) and National Advanced Packaging Manufacturing Program (NAPMP).

The \$39 billion in investment incentives is tied to the U.S. Department of Commerce's (Commerce) semiconductor program, which was established by the National Defense Authorization Act (NDAA) for fiscal year 2021. To be eligible for funding, an entity must have a "demonstrated ability to substantially finance, construct, expand, or modernize a facility relating to fabrication, assembly, testing, advanced packaging, or research and development of semiconductors."^[1] Commerce generally has wide discretion on how it disperses the funds, but may only approve applications from eligible entities and for programs that are demonstrated to be in the interest of the United States. Recipients may only use the funds to:

- Finance the construction, expansion, or modernization of semiconductor facilities or equipment.
- Support workforce development for a semiconductor facility.
- Support site development of a semiconductor facility.
- Pay reasonable operating costs for a semiconductor facility.

The CHIPS Act also dedicates \$2 billion to the CHIPS for Defense Fund, which would establish a national network for onshore, university-based prototyping, and lab-to-fab transition of semiconductor technologies. The remaining funding will go towards international technology security efforts and National Science Foundation (NSF) grants to promote semiconductor workforce development.

Takeaway

With the manufacturing of new foundries [costing at least \\$10 billion](#), the CHIPS Act is undoubtedly a powerful step in the right direction. The hope is that the CHIPS Act's incentives will help make it feasible for manufacturers to set up U.S.-based foundries that are capable of manufacturing the next generation of chips. Further, the commitment to research is fundamentally important not only to U.S. national security interests, but also for fostering an environment where U.S.-based tech companies can regain the edge in technological development and access to supply.

Perkins Coie has been closely monitoring the developments in the semiconductor market over the past few decades and has continued to develop a depth of knowledge on the complexities of transacting within the semiconductor supply chain, including assisting clients in developing unique commercial arrangements to secure the necessary intellectual property (IP) rights, manufacturing capacity, and failure remedies necessary to succeed. Whether it is knowledge in design IP licensing, modification rights to unencrypted register transfer level (RTL), mass production, wafer dicing and assembly, packaging, testing, or collaborating to develop the next generation of integrated circuits to power the virtual world, the lawyers at Perkins Coie stand ready to assist clients in winning at the margins and changing the face of how we interact with technology.

Endnote

[1] Fiscal Year 2021 National Defense Authorization Act § 9902(b)

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