

A RAPIDLY GROWING U.S. SEMICONDUCTOR INDUSTRY

SIGNIFICANT INVESTMENTS IN INFRASTRUCTURE BOLSTERED BY THE CHIPS ACT

GCG INDUSTRY PERSPECTIVES



Industry Background

The global semiconductor industry is witnessing one of the biggest investment booms in the history of technology, with the potential to seismically shift the center of gravity for where chips are manufactured. Rising demand is coming from core sectors such as automotive, consumer electronics, and data centers, as well as rapid advancements in technologies like 5G, artificial intelligence, and the Internet of Things. Chip shortages experienced in recent years and ongoing geopolitical tensions have also placed a heightened focus on supply chain resilience and security. This is prompting increased investments into expanding manufacturing capacity, improving the diversity of suppliers, and enhancing chip design and fabrication capabilities.

Mckinsey estimates that an approximately \$600 billion global semiconductor industry will grow 6-8% per year for the remainder of the decade, resulting in a \$1 trillion industry by 2030. Governments and private entities worldwide have recognized the strategic importance of the semiconductor industry and have actively engaged in investment endeavors to foster its growth. Numerous countries are implementing policies and initiatives aimed at fortifying domestic semiconductor capabilities, reducing dependence on imports, and promoting innovation. These initiatives encompass funding research and development, establishing semiconductor manufacturing facilities, and facilitating collaborations among academia, industry, and government stakeholders. In particular, tensions between the U.S. and China have also reverberated across the global supply chain, resulting in increased governmental restrictions on the sale of select chips and manufacturing technologies to China.

The CHIPS and Science Act

The Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022 (CHIPS Act), was signed into law on August 9, 2022, aiming to enhance U.S.

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competitiveness, innovation, and national security. Its primary objective is to stimulate investments in domestic semiconductor manufacturing. Additionally, the law seeks to accelerate research and development and facilitate the commercialization of advanced technologies like quantum computing, Al, clean energy, and nanotechnology. It also aims to establish new high-tech hubs in various regions across the U.S. and promote a more diverse and inclusive STEM workforce.

The CHIPS Act directs \$280 billion in spending over the next ten years. The majority—\$200 billion—is for scientific R&D and commercialization. The CHIPS and Science Act provides \$52.7 billion for American semiconductor research, development, manufacturing, and workforce development. This includes \$39 billion in manufacturing incentives (including \$2 billion for legacy chips used in automobiles and defense systems), \$13.2 billion in R&D and workforce development, and \$500 million to provide for international information communications technology security and semiconductor supply chain activities. It also provides a 25 percent investment tax credit for capital expenses for manufacturing semiconductors and related equipment. These incentives aim to secure domestic supply, create tens of thousands of jobs, and catalyze hundreds of billions more in private investment.

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Announced Semiconductor Investments in the U.S.

Bolstered by the CHIPS Act, significant announcements have been made by industry participants regarding investment into new facilities or facility expansions in the U.S. While not intended to be exhaustive, GCG has compiled a list of \$1B+ investments that have been announced by company, size, and location, as highlighted in the graphic on the following page.

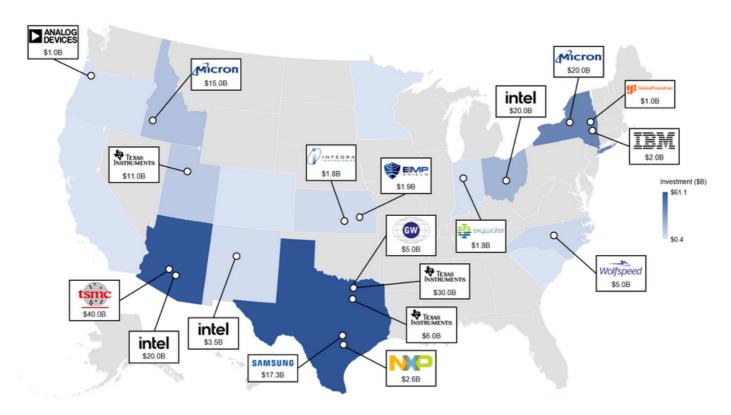
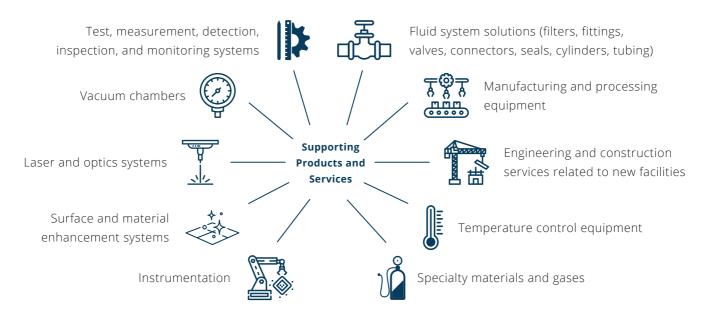


Figure 1: U.S. Semiconductor Investment

Impact on Middle-Market Supply Chain Participants

Looking beyond the largest industry participants, a much broader supply chain of middle-market companies will benefit from the transformational investments taking place. GCG observes a larger ecosystem of supporting products and services as highlighted below.

Figure 2: Supporting Products and Services





IN CONCLUSION

Notwithstanding the challenges represented by the highly global nature of the semiconductor industry and considerable investments made over many decades outside the U.S., the significance of domestic investment taking place is staggering. A broader middle-market supply chain stands poised to benefit in the coming years. If you would like to learn more about current M&A market conditions in the semiconductor industry and GCG's investment banking advisory services, please reach out to GCG Managing Director Peter Frankfort.



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ABOUT US



Greenwich Capital Group LLC ("GCG") is a leading investment bank that advises clients including closely-held and family-owned businesses, private equity firms, and public companies. GCG's senior bankers have collectively advised on hundreds of transactions over many years of experience in mergers and acquisitions, with most having backgrounds with large U.S. and global firms. GCG is focused on advising clients in key industry verticals throughout the U.S.

GCG was founded by entrepreneurially minded investment banking professionals focused on building an organization centered around advising clients. We strive to build relationships by representing our clients' long-term interests and earning their trust. In contrast to the practice of pushing transaction responsibilities to junior resources, our philosophy is to deliver personalized, senior-level attention and experience to every GCG engagement. We are proud to offer references that will speak to a differentiated level of service and results.