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Micron Pledges Up to $100 Billion for Semiconductor Factory in New York

The company is planning a giant complex in Clay, N.Y., a sign that the government's investments in semiconductors are steering firms' decisions.

By Steve Lohr

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Micron announced on Tuesday that it planned to spend as much as $100 billion over the next 20 years or more to build a huge computer chip factory complex in upstate New York, the latest move by a major semiconductor maker to invest in the United States.

The commitment by Micron is a sign that the federal government's prodding and package of generous incentives are helping to steer investment decisions. Legislation that passed in August, the CHIPS and Science Act of 2022, provides $52 billion in grants and subsidies for companies to build and expand computer chip factories in the country.

"There is no doubt that without the CHIPS Act, we would not be here today," said Sanjay Mehrotra, chief executive of Micron.

The legislation, and favorable tax treatment and partnerships with state governments like New York, are key ingredients needed to match the subsidies offered by Asian nations and "bring chip-making back to America," Mr. Mehrotra said

Senator Charles Schumer, Democrat of New York and the majority leader, has championed the chip legislation and his state as a site for semiconductor investment. Gov. Kathy Hochul worked on the state's behalf to persuade Micron.

The Micron decision, Mr. Schumer said, is a byproduct of the chips legislation he worked on for three years. "Had America not done that, I think our economy would have slipped," he said. "We've led in semiconductor research, but over the years we let the manufacturing slip away. But we're reversing that now."

The investment is a long-term bet by the company and by the federal and state governments. Micron estimated that it would spend $20 billion through the end of the decade and described that plan as a first phase. The company said it planned to invest as much as $100 billion in New York over the next two decades or more.

The giant factory will be built in Clay, N.Y., about 15 miles north of Syracuse. Micron said site preparation would begin next year, construction in 2024 and production in volume after 2025.

Over the next 20 years, Micron said, the project will generate nearly 50,000 jobs — about 9,000 Micron employees and more than 40,000 jobs for suppliers, contractors and others. The plan also calls for Micron and the state to spend $500 million on community and work force training.

The New York incentive package is put at $5.5 billion, one of the largest ever by a state. New York officials noted that the financial support would come in steps as milestones for job creation and private investment were met.

How much federal support will flow to the project is uncertain. Since the legislation passed only a couple of months ago, companies cannot apply for federal backing until next year.

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Both Mr. Schumer and Ms. Hochul met and spoke frequently with Mr. Mehrotra of Micron. "This is personal for me," said Ms. Hochul, who grew up in Buffalo. "I lived through the decline of manufacturing upstate."

The Micron investment, she said, is an opportunity to revive the region as an advanced manufacturing hub.

Upstate New York does have a legacy of chip-making. GlobalFoundries has a plant outside Albany. IBM also had semiconductor manufacturing operations, which it sold to GlobalFoundries. In Albany, there is a semiconductor research at the State University of New York Polytechnic Institute.

The semiconductor industry is both highly capital-intensive and cyclical. The Micron plan looks well beyond the current cycle.

Concerns that the United States was becoming too dependent on Asia to make computer chips — a vital technology for the economy and national security — had been growing for years. Those worries intensified when pandemic-induced supply chain disruptions and chip shortages hampered the production of cars and other goods just as China's technological abilities improved. China has also ramped up its rhetoric and its military threats to Taiwan, a vital chip supplier.

Those industry and geopolitical forces increased support for the federal chip legislation. To chip makers, it has been clear since the Trump administration that manufacturing in the United States would be encouraged and imports would be threatened with trade curbs. The final bill attracted both a rare measure of bipartisan backing in Congress and a rare endorsement of industrial policy.

There can be a role, experts say, for government intervention on behalf of industries deemed to be crucial to a nation's economy.

Japan effectively marshaled government support for its auto, mainframe computer and semiconductors industries in the 1960s and 1970s. Today, China is pouring state funding and incentives into high-tech fields like computer chips, artificial intelligence and quantum computing.

"It is clear that industrial policy works, though it has its limits," said Michael Cusumano, a professor at the Massachusetts Institute of Technology's Sloan School of Management. "And this looks like a real effort to kind of level the playing field."

In recent months, the chip market cycle has swung down. Covid-related lockdowns in China, the war in Ukraine and inflation have affected consumer spending, as many economies struggle or head for recession.

Personal computer shipments, for example, are expected to decline nearly 13 percent this year, according to IDC, a research firm. Smartphone sales are also soft.

Micron is a leading producer of memory and data storage chips used in personal computers, smartphones, data centers, cars and an array of other electronic products. The company, based in Boise, Idaho, reported a 20 percent falloff in sales in its most recent quarter, to $6.64 billion, and a 45 percent decline in profit, to $1.49 billion.

But beyond the current cycle, the demand for memory chips is expected to grow, doubling by the end of the decade, according to industry estimates.

The company joins other major chip makers in expanding operations in the United States. Intel, banking on investment incentives, announced in January its plan to invest $20 billion to build two chip plants in Ohio.

In late 2021, Samsung said it would build a $17 billion plant in Texas. It later raised the possibility of adding several more in the state with a total long-term investment of nearly $200 billion. In 2020, Taiwan Semiconductor Manufacturing Company announced it would construct a $12 billion factory in Arizona.

This year, Mark Liu, chairman of TSMC, told shareholders that the price tag was likely to go higher in part because the United States lacked the rich ecosystem of suppliers and large pool of skilled workers that had developed around TSMC, the world's largest chip maker, in Taiwan.

But Mr. Liu added that his company would proceed with its plans in the United States "no matter what."