
U.S.-TAIWAN BUSINESS COUNCIL SAYS U.S. SHOULD EASE CHIP EQUIPMENT SALES

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The U.S.-Taiwan Business Council argued in a new report released last week that the U.S. should not restrict sales of semiconductor equipment to China, as the growth of chip production there has helped both U.S. chip design companies and U.S. companies that produce equipment used to make those chips.

The Council's second quarter semiconductor report for 2005 was in part a response to a February report from the U.S. Defense Science Board Task Force on High Performance Microchip Supply, which said there are fears in the U.S. that China's increasing capacity to produce semiconductors could lead to larger national security questions. The government report said the rate of technology migration to China is "alarming," and could force the U.S. to rely on foreign semiconductors for defense and intelligence purposes.

However, the Council, which has as its members U.S. companies that design chips and produce semiconductor equipment, said these fears are misplaced for several reasons. Most importantly, the Council said, increased chip production in China reflects a shift within the industry to the establishment of companies that design chips and separate companies that produce them. This shift has benefited many U.S. companies, according to the Council.

For example, the Council noted that eight of the top 10 semiconductor design firms, or so-called "fabless" chipmakers, are U.S. companies. Revenues for these companies have increased in recent years in large part because they are allowed to design chips and send these designs overseas for production. The ability to send designs overseas for production has allowed many small, innovative U.S. designers to enter the market without first having to spend upwards of \$1 billion or more to build a foundry.

The report said the combined revenue of the top eight U.S. design companies in 2004 was about \$14 billion, and all U.S. design companies' revenues were about \$24 billion.

In contrast, the report said, China's strength has been in the production of chips designed elsewhere, which is far less profitable, more vulnerable to downturns in the market, and is not an area in which the U.S. competes at any significant level. The report added that the challenge posed by China has been "overstated," as revenues of all China's chip-producing companies was about \$2.3 billion in 2004. In contrast, Taiwan's top two chip-producing companies had combined revenues of more than \$11 billion last year, they said.

"The point here is not to downplay China's potential challenge -- it is obvious with the size of the China market and the growing electronics industry there that its demand for chips and that production will continue to grow," the report said. "Nevertheless, the challenge is emerging slowly, and its technology remains behind the rest of the world."

The establishment of foundries in China and elsewhere that can produce chips designed by other companies has also allowed U.S. chip equipment producers to expand sales overseas, the Council said. For example, the Council cited data from Semiconductor Equipment and Materials International (SEMI) showing that the fastest growing markets for chip-making equipment were in China, Taiwan and other areas in Asia. The Council said this data shows that without increased access to these markets, U.S. leadership in the area of semiconductor equipment is not assured.

“It is therefore imperative that any new policy governing the U.S. chip industry take into consideration the importance of new markets like China to maintain U.S. domination of chip production research,” the report said. “Regulations that impair the ability of U.S. chip equipment makers to sell their machinery in China or elsewhere could lead to the loss of such fast growing markets to rivals in Europe and Japan.”

The report added that there is little risk of transferring cutting edge technology to China through increased sales, as U.S. companies continue to innovate by creating new manufacturing processes, which “ensures U.S. leadership in chip manufacturing.”

On this point, the Council argued that the U.S. Export-Import Bank should consider an application for financing that would allow China’s Semiconductor Manufacturing International Corporation (SMIC) to buy \$800 million worth of semiconductor equipment from Applied Materials of California. “If clear majorities of chip equipment sales are being made outside the U.S., and given that U.S. suppliers will only be able to keep their lead in the industry if they are allowed access to emerging markets like China, it is deeply troubling that financing for this important sale is not even being considered.”

Most recently, sources have said that if a change in leadership at Ex-Im does not prompt the bank to reconsider SMIC’s application, SMIC might buy from Applied Materials with financing from China or buy equipment from Japan (Inside US-China Trade, July 20).

The report acknowledged that semiconductor production is growing overseas, but said this is due in part to the investment incentives China and other countries provide. As examples, the report said China allows companies to pay no rent for using land, and has even offered free utilities and other benefits.

As a result, any fear that the U.S. is losing direct control of production facilities must be remedied by offering “matching incentives,” the report said. It added that these incentives are the primary reason why many companies are building production facilities in China.

“U.S.-based Intel, the world’s largest chipmaker, estimates it could save \$1 billion over a decade on a new fab with the kind of tax incentives offered overseas, a fact that will certainly drive the company to consider overseas investment locations for future facilities,” the report said.

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