Executive Summary

Taiwan Semiconductor Quarterly Report
Annual Review, 2009

INTRODUCTION

The US-Taiwan Business Council is committed to providing our members with tactical and strategic advice on how to succeed in the Taiwan market. As part of a suite of information products distributed to our members, the Council publishes several analysis reports each year. These reports are published each quarter, with an expanded report in the fourth quarter that covers the entire previous year.

The Taiwan Semiconductor Report focuses on the semiconductor industry as it relates to Taiwan, China, and the U.S., and provides up-to-date analysis of developments during each quarter. Each report also contains contact information valuable in initiating and maintaining a relationship with Taiwan private and government entities, as well as other useful information including trend charts and a glossary.

The US-Taiwan Business Council's Taiwan Semiconductor Report has been published since the first quarter of 2002. Although these reports are distributed exclusively to members and to U.S. government employees, this executive summary provides some insight into the focus and contents of the report.

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QUARTERLY TAIWAN SEMICONDUCTOR ANALYSIS
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The global semiconductor industry started to rebound in early 2009, long before it was clear that the world financial system was pulling out of a tailspin. The chip recovery started with inventory rebuilding after orders fell to multi-year lows in the final months of 2008 and into early 2009. Government stimulus projects, including massive spending on telecommunications infrastructure in China, further boosted the chip recovery.

Now industry watchers say that the chip industry is in the second year of its cycle - a year of factory building and massive investments in new production lines – and the planned capital expenditures of Taiwan companies support this theory so far.

Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest contract chipmaker, surprised everyone with plans to spend US$4.8 billion (NT$153.74 billion) in 2010 on new capital equipment and factory space. Most of that spending will take place in the first half of the year to prepare for anticipated strong demand for advanced chips later in the year. The company predicts that the global chip industry will grow 18 percent in 2010, after contracting 9 percent in 2009.

Taiwan chip industry executives believe that the key driver for the global chip industry in 2010 will be the corporate adoption of Microsoft's new operating system, Windows 7, released in October of 2009. The fabled corporate refresh cycle, where companies make mass-purchases to replace aging fleets of computers, is expected to start this year and to drive the computer industry. Such mass buying has not really happened in the past decade the way it did in the 1990s, but executives believe that this time will be different. Most corporations still use the decade-old Windows XP operating system, and thus they have pressing needs to upgrade. Corporations have been awaiting a new, stable operating system before buying new computers and upgrading their technology infrastructure, and Windows 7 seems to fit the bill as the right software at the right time.

A boom in computer demand would also be good news for Taiwan's DRAM makers, as these companies continue to struggle under heavy debt loads. In addition, memory chipmakers on the island are falling behind the world's top DRAM makers, such as Samsung Electronics and Micron Technology, in production technology, which is vital to being competitive in the DRAM industry. Without more financial support from the Taiwan government, it is likely that they will fall further behind in 2010.

In early 2009, Taipei promised wide-reaching assistance to DRAM makers and up to NT$100 billion (US$3.2 billion) in stimulus funds. However, a rebound in chip prices turned government officials stingy. Taiwan lawmakers told the Ministry of Economic Affairs (MOEA) to dump its plan to inject aid into DRAM makers through the Taiwan Memory Company (TMC), even though the ministry is now asking for far less funding than before - only NT$8.1 billion (US$252.89 million). The ministry has promised, however, to fight for the money.

The DRAM upturn has helped chipmakers so far, and in the fourth quarter of 2009 most Taiwan DRAM makers posted their first net profit in years. Yet profits were slim, and it is difficult to tell whether DRAM prices will remain strong enough, long enough for companies to pay down their outstanding debt. Softer prices in the first quarter of 2010 indicate that companies may not be able to report consecutive profitable quarters – something that could prove devastating for some. A government program to work with banks to delay DRAM loan repayment ended on December 31, and companies say that the government has discontinued the program due to an investigation by U.S. trade authorities into alleged unfair government subsidies for DRAM makers.

Without money to repay debt, Taiwan's DRAM companies face a bleak future. Creditors may sue and force them into bankruptcy - or at best, the companies will emerge whole far behind the leaders in production technology. If that happens, only a DRAM boom would keep them afloat.

This report will focus on several issues, starting with the global chip rebound and what it has meant in Taiwan. The report will then turn to the China investment issue. In late December, South Korea began allowing its LCD makers to build factories in China, a move that has changed the game and should lead to a breakthrough in Taiwan's cross-Strait high tech investment policies. Next the report will explore the plight of DRAM makers in Taiwan, followed by an analysis on the impact of Globalfoundries on TSMC and United Microelectronics (UMC), as well as a look at other TSMC issues such as its controversial out-of-court settlement with Semiconductor Manufacturing International Corporation (SMIC) of China.

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