# **Business Review**

In 2005, SMIC continued to grow its business despite a slowdown in the semiconductor industry in the early part of the year, thereby affirming SMIC's business strategy.

#### OVERVIEW OF BUSINESS DEVELOPMENTS

Our operations continue to remain strong. At the end of 2005, we had increased our monthly capacity to 152,219 8-inch equivalents per month. During 2005, our wafers shipped and sales increased from 943,463 wafers and US\$974.7 million in 2004 to 1,347,302 8-inch wafers and US\$1.1 billion in 2005, representing a 42.8% and 20.2% increase, respectively. According to a leading IC industry market research company, we held 6% of the foundry market in 2005, which represents a growth rate of approximately 20%, the highest growth rate among the foundries.

We generated US\$648.1 million in cash from operations in 2005 which represents a 24.9% increase from 2004. However, our depreciation expenses remain among the highest in the foundry industry. Furthermore, because we are a new foundry with only four years of commercial operations and continue to expand our capacity to meet the increasing capacity demands of our customers, our depreciation expense as a percentage of revenues remains the highest in the foundry industry.

Despite these high depreciation expenses, we believe that we will become profitable by improving our product mix, thereby increasing our average selling price. In 2005, 40.6% of our overall sales were from products that utilized advanced technology of 0.13 micron and below. Revenues generated from 0.13 micron and below technology nodes as a percentage of our logic revenues increased from 14.0% in 2004 to 23.4% in 2005. We expect that this upward trend will continue for the rest of 2006 and expect this to reach approximately 35% in the fourth quarter of 2006 as some of our fabless and IDM customers are migrating a significant portion of their products to the 0.13 micron and below technology nodes.

In 2005, we have also entered into agreements with Saifun Semiconductor to license Saifun's NROM technology to manufacture NAND flash products. We will use our 90nm logic process with this technology. We expect to commence production of our first product using this licensed technology which will be a 2-gigabit NAND flash product by the end of this year.

We entered into an agreement in 2005 with one of the top fabless companies in the world to codevelop our 65nm process. These efforts have begun already and we aim to deliver engineering samples by the end of 2006.

#### **CUSTOMERS AND MARKETS**

We target a diversified and global customer base, consisting of leading IDMs, fabless semiconductor companies, and systems and other companies and seek to maintain our leadership position in China.

At the end of 2005, we had commenced commercial production for 5 of the top 10 fabless and IDMs in the world. Overall in 2005, we engaged 93 new customers, bringing the total number of our customers to 254. For 2005, our revenue by region was led by North America at 40.8%, then Europe at 27.0%, then Asia Pacific (excluding Japan) at 26.8%, and Japan at 5.3%. These customers participate in the consumer, communications or computer market segments. We intend to maintain a diversified customer mix in terms of end-market applications, processes, and geographical focus in order to manage our exposure to each market segment.

We seek to maintain our leadership position in the semiconductor industry in China by exploiting our first mover advantage to capture the growing China IC industry. According to a leading technology market research, China's IC consumption has registered a compound annual growth rate of 33% since 2000, and reached US\$40.8 billion in IC consumption in 2005, becoming the world's largest regional IC market for the first time. A leading technology market research expects that by 2010, China's IC market is projected to more than triple and estimated to reach US\$124 billion in terms of overall consumption. The main types of products driving this demand relate to communication ICs (i.e., 3G) and smart phones, digital television, MP3, wireless LAN, CPU and DSP.

At the same time, the gap between the domestic demand for integrated circuits in China and the domestic supply continues to increase. According to market researches, China's domestic manufacturers currently meets less than 5% of its IC demand, representing a gap between domestic supply and demand, of almost US\$38 billion. This gap will increase to almost US\$112 billion by 2010.

We believe that by establishing our company as a key foundry partner to local semiconductor companies at an early stage of their development, we will be well positioned to take advantage of the potential semiconductor growth in China. In 2005, our Mainland Chinese customers represented an area of growth as we engaged 55 new customers. In December 2005, more than 8% of our revenues were generated from Mainland Chinese companies. Among the new products we manufactured for these companies include the first 3G baseband chips on 0.13 micron process for the TD-SCDMA, WCDMA and CDMA2000 standards, a digital satellite receiver chip for set-top boxes and a HDTV video processor. We also commenced manufacturing for Hangzhou Guoxin Science & Technology Co., Ltd, a satellite broadcast receiver chip which received the 2005 Technology Innovation award from China's Ministry of Information Industry. We expect that the percentage of revenues from our Mainland Chinese customers will increase in 2006 as more of these customers commence commercial production. We are also working closely with our customers to migrate their products to more advanced technology nodes in order for the customers to reap benefits of economies of scale at these technology nodes.

We generate our sales primarily from fabricating semiconductors. We also derive a relatively small portion of our sales from the mask-making and wafer probing services that we perform for third parties separately from our foundry services.

## **CAPACITY EXPANSION PLANS**

We intend to maintain our strategy of expanding capacity and improving our process technology to meet both the capacity requirements and the technological needs of our customers. In 2005, our capital expenditures were approximately US\$903.4 million and we recorded depreciation and amortization costs of US\$745.9 million. We currently expect that our capital expenditures in 2006 will be approximately \$1.1 billion.

We plan to use this capital expenditure mainly to ramp up our fabs in Beijing, Shanghai, and Tianjin. We are scheduling that by the end of 2006, our monthly capacity will be over 185,000 8-inch wafer equivalents. In addition, we have taken on management contracts to operate wafer fabs in Chengdu and Wuhan, and are building a shell to house our first 12-inch facility in Shanghai in order to take advantage of anticipated demand from our customers from China and the rest of the world.

## **RESEARCH AND DEVELOPMENT**

The semiconductor industry is characterized by rapid changes in technology, frequently resulting in obsolescence of process technologies and products. As a result, our research and development efforts are essential to our overall success. We spent approximately \$78.9 million in 2005 on research and development expenses, which represented 6.7% of our sales. We employ over 600 research and development personnel, combining experienced semiconductor engineers with advanced degrees from leading universities around the world with top graduates from the leading universities in China. We believe this combination has enabled us to guickly bring our technology in line with the semiconductor industry roadmap and ensures that we will have skilled personnel to lead our technology advancement in the future. We are also developing our 65 nanometer technology with one of the top fabless companies in the world. We hope to produce engineering samples by the end of 2006.

# **JOINT VENTURES**

We have established numerous joint ventures in order to expand our service offerings to our customers. In July 2004, we entered into an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd., a joint venture in Shanghai for the manufacture of on-chip color filters and microlenses for CMOS image sensors. That joint venture began pilot production in December 2005 and is currently under qualification.

Our assembly and testing facility in Chengdu, China with United Test and Assembly Center Ltd. began commercial production in the first quarter of 2006. The facility can offer in-house turn-key manufacturing services in China.

We have also announced plans for a wafer reclamation project in Shanghai to produce solar power modules. We believe that this project will be profitable but that the scale is not sufficient. Therefore, we are considering, with partners, the establishment of a facility to manufacture polysilicon to meet the needs of our solar power project as well as the needs of other solar power companies.

## **MATERIAL LITIGATION**

On January 30, 2005 we resolved pending patent and trade secret litigation with Taiwan Semiconductor Manufacturing Company Limited ("TSMC"). Under the terms of the settlement, the two parties will cross license to each other's patent portfolio through December 2010 and we will pay TSMC US\$175 million, payable in installments over six years (US\$30 million in each of the first five years and US\$25 million in the sixth year). The agreement also provides for the dismissal of all pending legal actions without prejudice between the two companies in the U.S. Federal District Court, the California State Superior Court, the U.S. International Trade Commission, and the Taiwan District Court. In the settlement agreement, TSMC covenants not to sue SMIC for itemized acts of trade secret misappropriation as alleged in the complaints,

although the settlement does not grant a license to use any of TSMC's trade secrets. The patent cross license and settlement agreement are terminable upon a breach by SMIC, which may result in the reinstitution of the legal proceedings and acceleration of the outstanding payments under the settlement agreement.

## **OUTLOOK FOR 2006**

Our main focus in 2006 will be to achieve and maintain long-term profitability. We believe that we can achieve this goal primarily by improving our product mix, thereby increasing average selling price per wafer. We will be able to improve our product mix by:

- Migrating our customers' products down to 90 nanometer production process;
- Producing a larger proportion of our customer's logic products at 0.13 micron and below;
- Expanding our advanced wafer capacity according to customer demand; and
- Increasing the percentage of our revenues from logic products and reducing the percentage of revenue from DRAM products.

We will also continue to expand technology offerings to attract even more global customers. During the first half of 2006, we currently expect to see 90 nanometer logic and DRAM products in commercial production at our 12-inch fab in Beijing. Meanwhile, we will also be supporting our customers as they migrate to more advanced technologies, with a particular emphasis on our domestic customers as they migrate from 0.35 micron down to 0.18 micron and below process technology.

We will also continue to consider other strategic alliances and partnerships that will enable us to leverage our unique position in China to maximize shareholder return.