

SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP

Form 20-F

June 22, 2009

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 20-F**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2008  
Commission file number 1-31994**

**Semiconductor Manufacturing International Corporation  
(Exact name of Registrant as specified in its charter)  
(Translation of Registrant's name into English)**

**Cayman Islands  
(Jurisdiction of incorporation or organization)  
18 Zhangjiang Road, Pudong New Area, Shanghai, China 201203  
(Address of principal executive offices)  
Ms. Morning Wu, Acting Chief Financial Officer  
Telephone: (8621) 3861-0000  
Facsimile: (8621) 3895-3568**

**Securities registered or to be registered pursuant to Section 12(b) of the Act.**

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
<b>Ordinary Shares, par value US\$0.0004 American Depositary Shares</b>	<b>The Stock Exchange of Hong Kong Limited* The New York Stock Exchange, Inc.</b>

**Securities registered or to be registered pursuant to Section 12(g) of the Act.**

**None  
(Title of Class)**

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.**

**None  
(Title of Class)**

Indicate the number of outstanding shares of each of the issuer's classes of capital or ordinary shares as of the close of the period covered by the annual report.

As of December 31, 2008, there were 22,327,784,827 ordinary shares, par value US\$0.0004 per share, outstanding, of which 3,154,359,550 ordinary shares were held in the form of 63,087,191 ADSs. Each ADS represents 50 ordinary shares.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934. Yes  No

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Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Securities Exchange Act of 1934 (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued

Other

by the International Accounting Standards Board

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes  No

\* Not for trading, but only in connection with the listing of American Depositary Shares on the New York Stock Exchange, Inc.

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**CAUTIONARY STATEMENT FOR PURPOSES OF THE SAFE HARBOR PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995**

This annual report contains, in addition to historical information, forward-looking statements within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on SMIC's current assumptions, expectations and projections about future events. SMIC uses words like believe, anticipate, intend, estimate, expect, project and similar expressions to identify forward looking statements, although not all forward-looking statements contain these words. These forward-looking statements are necessarily estimates reflecting the best judgment of SMIC's senior management and involve significant risks, both known and unknown, uncertainties and other factors that may cause SMIC's actual performance, financial condition or results of operations to be materially different from those suggested by the forward-looking statements including, among others, risks associated with cyclical and market conditions in the semiconductor industry, intense competition, timely wafer acceptance by SMIC's customers, timely introduction of new technologies, SMIC's ability to ramp new products into volume, supply and demand for semiconductor foundry services, industry overcapacity, shortages in equipment, components and raw materials, availability of manufacturing capacity, the current global financial crisis, orders or judgments from pending litigation and financial stability in end markets. Except as required by law, SMIC undertakes no obligation and does not intend to update any forward-looking statement, whether as a result of new information, future events or otherwise.

**ADDITIONAL INFORMATION**

References in this annual report to:

Average selling price of wafers are to simplified average selling price which is calculated as total revenue divided by total shipments.

China or the PRC are to the People's Republic of China, excluding for the purpose of this annual report, Hong Kong, Macau and Taiwan;

Company or SMIC are to Semiconductor Manufacturing International Corporation;

EUR are to Euros;

global offering are to the initial public offering of our ADSs and our ordinary shares, which offering was completed on March 18, 2004;

HK\$ are to Hong Kong dollars;

Jpy are to Japanese Yen;

NYSE or New York Stock Exchange are to the New York Stock Exchange, Inc.;

Rmb or RMB are to Renminbi;

SEC are to the U.S. Securities and Exchange Commission;

SEHK, HKSE or Hong Kong Stock Exchange are to The Stock Exchange of Hong Kong Limited; and

US\$ or USD are to U.S. dollars.

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All references in this annual report to silicon wafer quantities are to 8-inch wafer equivalents, unless otherwise specified. Conversion of quantities of 12-inch wafers to 8-inch wafer equivalents is achieved by multiplying the number of 12-inch wafers by 2.25. When we refer to the capacity of wafer fabrication facilities, we are referring to the installed capacity based on specifications established by the manufacturers of the equipment used in those facilities. References to key process technology nodes, such as 0.35 micron, 0.25 micron, 0.18 micron, 0.15 micron, 0.13 micron, 90 nanometer, and 65 nanometer resolutions are down to but not including the next key process technology node of finer resolution. For example, when we state 0.25 micron process technology, that also includes 0.22 micron, 0.21 micron, 0.20 micron and 0.19 micron technologies. 0.18 micron process technology also includes 0.17 micron and 0.16 micron technologies; 0.15 micron process technology includes 0.14 micron technology; and 0.13 micron process technology includes 0.11 micron and 0.10 micron technologies. References to U.S. GAAP mean the generally accepted accounting principles in the United States. Unless otherwise indicated, our financial information presented in this annual report has been prepared in accordance with U.S. GAAP.

All references to our ordinary shares in this annual report gives effect to the 10-for-1 share split we effected in the form of a share dividend immediately prior to the completion of the global offering. All references to price per ordinary share and price per preference share reflect the share split referenced above.

The Glossary of Technical Terms contained in Annex A of this annual report sets forth the description of certain technical terms and definitions used in this annual report.

**PART I****Item 1. Identity of Directors, Senior Management and Advisors**

Not applicable.

**Item 2. Offer Statistics and Expected Timetable**

Not applicable.

**Item 3. Key Information****Selected Consolidated Financial Data**

The selected consolidated financial data presented below as of and for the years ended December 31, 2006, 2007 and 2008 are derived from, and should be read in conjunction with, and are qualified in their entirety by reference to, our audited consolidated financial statements, including the related notes, included elsewhere in this annual report. The selected consolidated financial data as of and for the years ended December 31, 2004 and 2005 is derived from our audited consolidated financial statements not included in this annual report. The selected consolidated financial data presented below has been prepared in accordance with U.S. GAAP.

	<b>For the year ended December 31,</b>				
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
	(in US\$ thousands, except for per share, per ADS data, percentages, and operating data)				

**Statement of Operations****Data:**

Sales	\$ 974,664	\$ 1,171,319	\$ 1,465,323	\$ 1,549,765	\$ 1,353,711
Cost of sales <sup>(1)</sup>	716,225	1,105,134	1,338,155	1,397,038	1,412,851
Gross profit	258,439	66,185	127,168	152,727	(59,140)

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	<b>For the year ended December 31,</b>				
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
	(in US\$ thousands, except for per share, per ADS data, percentages, and operating data)				
Operating expenses:					
Research and development	74,113	78,865	94,171	97,034	<b>102,240</b>
General and administrative	54,038	35,701	47,365	74,490	<b>58,841</b>
Selling and marketing	10,384	17,713	18,231	18,716	<b>20,661</b>
Litigation settlement	16,695				
Amortization of acquired intangible assets	14,368	20,946	24,393	27,071	<b>32,191</b>
Impairment loss of long-lived assets					<b>106,741</b>
Income from sale of plant and equipment and other fixed assets			(43,122)	(28,651)	<b>(2,877)</b>
Total operating expenses	169,598	153,225	141,038	188,659	<b>317,797</b>
Income (loss) from operations	88,841	(87,040)	(13,870)	(35,932)	<b>(376,937)</b>
Other income (expenses):					
Interest income	10,587	11,356	14,916	12,349	<b>11,542</b>
Interest expense	(13,698)	(38,784)	(50,926)	(37,936)	<b>(50,767)</b>
Foreign currency exchange gain (loss)	8,218	(3,355)	(21,912)	11,250	<b>3,230</b>
Other, net	2,441	4,462	1,821	2,238	<b>7,429</b>
Total other income (expense), net	7,548	(26,322)	(56,101)	(12,100)	<b>(28,566)</b>
Income (loss) before income tax	96,389	(113,362)	(69,971)	(48,032)	<b>(405,503)</b>



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	<b>For the year ended December 31,</b>				
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
	(in US\$ thousands, except for per share, per ADS data, percentages, and operating data)				
Income tax benefit (expense)	(186)	(285)	24,928	29,720	<b>(26,433)</b>
Minority interest		251	(19)	2,856	<b>(7,851)</b>
Loss from equity investment		(1,379)	(4,201)	(4,013)	<b>(444)</b>
Net (loss) income before cumulative effect of a change in accounting principle	96,203	(114,775)	(49,263)	(19,468)	<b>(440,231)</b>
Cumulative effect of a change in accounting principle			5,154		
Net (loss) income	96,203	(114,775)	(44,109)	(19,468)	<b>(440,231)</b>
Deemed dividend on preference shares <sup>(2)</sup>	18,840				
Income (loss) attributable to holders of ordinary shares	77,363	(114,775)	(44,109)	(19,468)	<b>(440,231)</b>
Income (loss) per ordinary share, basic	\$ 0.01	\$ (0.00)	\$ (0.00)	\$ (0.00)	<b>(0.02)</b>
Income (loss) per ordinary share, diluted	\$ 0.00	\$ (0.00)	\$ (0.00)	\$ (0.00)	<b>(0.02)</b>
Ordinary shares used in calculating basic income (loss) per ordinary share <sup>(4)</sup>	14,199,163,517	18,184,429,255	18,334,498,923	18,501,940,489	<b>18,682,544,866</b>
Ordinary shares used in calculating	17,934,393,066	18,184,429,255	18,334,498,923	18,501,940,489	<b>18,682,544,866</b>

diluted income  
(loss) per ordinary  
share<sup>(3)(4)</sup>

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	<b>For the year ended December 31,</b>				
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
	(in US\$ thousands, except for per share, per ADS data, percentages, and operating data)				
Income (loss) per ADS, basic <sup>(5)</sup>	\$ 0.27	\$ (0.32)	\$ (0.12)	\$ (0.05)	\$ <b>(1.18)</b>
Income (loss) per ADS, diluted <sup>(5)</sup>	\$ 0.22	\$ (0.32)	\$ (0.12)	\$ (0.05)	\$ <b>(1.18)</b>
ADS used in calculating basic income (loss) per ADS <sup>(5)</sup>	283,983,270	363,688,585	366,689,978	370,038,810	<b>373,650,897</b>
ADS used in calculating diluted income (loss) per ADS <sup>(5)</sup>	358,687,861	363,688,585	366,689,978	370,038,810	<b>373,650,897</b>
<b>Other Financial Data:</b>					
Gross margin	26.50%	5.70%	8.70%	9.90%	<b>-4.40%</b>
Operating margin	9.10%	-7.40%	-0.90%	-2.30%	<b>-27.80%</b>
Net margin	9.90%	-9.80%	-3.00%	-1.30%	<b>-32.50%</b>
<b>Operating Data:</b>					
Wafers shipped (in 8 equivalents)					
Total	943,463	1,347,302	1,614,888	1,849,957	<b>1,611,208</b>
ASP <sup>(6)</sup>	1,033	869	907	838	<b>840</b>

(1) Including amortization of deferred stock compensation for employees directly involved in manufacturing activities.

(2) Deemed dividend represents the difference between the sale and conversion

prices of  
warrants to  
purchase  
convertible  
preference  
shares we issued  
and their  
respective fair  
market values.

- (3) Anti-dilutive  
preference  
shares, options  
and warrants  
were excluded  
from the  
weighted  
average  
ordinary shares  
outstanding for  
the diluted per  
share  
calculation.
- (4) All share  
information has  
been adjusted  
retroactively to  
reflect the  
10-for-1 share  
split effected  
upon  
completion of  
the global  
offering of our  
ordinary shares  
in March 2004.
- (5) Fifty ordinary  
shares equals  
one ADS.
- (6) Total sales/total  
wafers shipped.

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	2004	2005	As of December 31, 2006 <i>(in US\$ thousands)</i>	2007	2008
<b>Balance Sheet Data:</b>					
Cash and cash equivalents	\$ 607,173	\$ 585,797	\$ 363,620	\$ 469,284	\$ 450,230
Restricted cash					6,255
Short-term investments	20,364	13,796	57,951	7,638	19,928
Accounts receivable, net of allowances	169,188	241,334	252,185	298,388	199,372
Inventories	144,018	191,238	275,179	248,310	171,637
Total current assets	955,418	1,047,465	1,049,666	1,075,302	926,858
Land use rights, net	39,198	34,768	38,323	57,552	74,293
Plant and equipment, net	3,311,925	3,285,631	3,244,401	3,202,958	2,963,386
Total assets	4,384,276	4,586,633	4,541,292	4,708,444	4,270,622
Total current liabilities	723,871	896,038	677,362	930,190	899,773
Total long-term liabilities	544,462	622,497	817,710	730,790	578,689
Total liabilities	1,268,333	1,518,535	1,495,072	1,660,980	1,478,462
Minority interest		38,782	38,800	34,944	42,795
Stockholders' equity	\$ 3,115,942	\$ 3,029,316	\$ 3,007,420	\$ 3,012,519	\$ 2,749,365

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	2004	For the year ended December 31,			2008
		2005	2006	2007	
		<i>(in US\$ thousands, except percentages)</i>			
<b>Cash Flow Data:</b>					
Net income (loss)	\$ 96,203	\$ (114,775)	\$ (49,263)	\$ (19,468)	\$ (440,231)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:					
Depreciation and amortization	456,961	769,472	919,616	706,277	761,809
Net cash provided by operating activities	518,662	648,105	769,649	672,465	569,782
Purchases of plant and equipment	(1,838,773)	(872,519)	(882,580)	(717,171)	(669,055)
Net cash used in investing activities	(1,826,787)	(859,652)	(917,369)	(643,344)	(761,713)
Net cash provided by (used in) financing activities	1,469,764	190,364	(74,440)	76,637	173,314
Net increase (decrease) in cash and cash equivalents	\$ 161,896	\$ (21,376)	\$ (222,177)	\$ 105,664	\$ (19,054)
<b>Other Financial Data:</b>					
Gross margin	26.50%	5.70%	8.70%	9.90%	-4.40%
Operating margin	9.10%	-7.40%	-0.90%	-2.30%	-27.80%
Net margin	9.90%	-9.80%	-3.00%	-1.30%	-32.50%

**Risk Factors****Risks Related to Our Financial Condition and Business**

*We may not be able to achieve or maintain a level of profitability, primarily due to our high fixed costs and correspondingly high levels of depreciation expenses.*

Our losses from operations totaled \$35.9 million in 2007 and \$376.9 million in 2008. We may not be able to achieve or maintain profitability on an annual or quarterly basis, primarily because our business is characterized by high fixed costs relating to equipment purchases, which result in correspondingly high levels of depreciation expenses. We will continue to incur high capital expenditures and depreciation expenses as we equip and ramp up additional fabs, expand our capacity at our existing fabs and construct new fabs.

*The cyclical nature of the semiconductor industry and periodic overcapacity in the industry make our business and operating results particularly vulnerable to economic downturns, such as the current global economic crisis.*

The semiconductor industry has historically been highly cyclical and, at various times, has experienced significant downturns characterized by fluctuations in end-user demand, reduced demand for integrated circuits, rapid erosion of average selling prices and production overcapacity. Companies in the semiconductor industry have expanded aggressively during periods of increased demand in order to have the capacity needed to meet expected demand in the future. If actual demand does not increase or declines, or if companies in the industry expand too aggressively in light of the actual increase in demand, the industry will generally experience a period in which industry-wide capacity exceeds demand, as was the case in the first quarter of 2009 during the current global economic crisis.

During the current global economic crisis, the United States and other countries around the world have been experiencing deteriorating economic conditions. There has been an erosion of global consumer confidence amidst concerns over declining asset values, inflation, energy costs, geopolitical issues, the availability and cost of credit, rising unemployment, and the stability and solvency of financial institutions, financial markets, businesses and sovereign nations.



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Adverse economic conditions could cause our expenses to vary materially from our expectations. The failure of financial institutions could negatively impact our treasury operations, as the financial condition of such parties may deteriorate rapidly and without notice in times of market volatility and disruption. Other income and expense could vary materially from expectations depending on changes in interest rates, borrowing costs and currency exchange rates. Economic downturns also may lead to restructuring actions and associated expenses.

During periods when industry-wide capacity exceeds demand, as was the case in the first quarter of 2009 during the current global economic crisis, our operations are subject to more intense competition, and our results of operations are likely to suffer because of the resulting pricing pressure and capacity underutilization. Severe pricing pressure could result in the overall foundry industry becoming less profitable, at least for the duration of the downturn, and could prevent us from achieving or maintaining profitability. We expect that industry cyclicality will continue. In addition, a slowdown in the growth in demand for, or the continued reduction in selling prices of, devices that use semiconductors may decrease the demand for our services and reduce our profit margins. If we cannot take appropriate or effective actions in a timely manner during the current and any future economic downturns, such as reducing our costs to sufficiently offset declines in demand for our services, our business and operating results may be adversely affected. A prolonged period of economic decline could have a material adverse effect on our results of operations. Economic uncertainty also makes it difficult for us to make accurate forecasts of revenue, gross margin and expenses.

***The impact of deteriorating economic conditions on our customers and suppliers could adversely affect our business.***

Customer financial difficulties have resulted, and could result in the future, in increases in bad debt write-offs and additions to reserves in our receivables portfolio. In particular, our exposure to certain financially troubled customers could have an adverse effect on our results of operations. In addition, we depend on suppliers of raw materials, such as silicon wafers, gases and chemicals, and spare equipment parts, in order to maintain our production processes. Our business may be disrupted if we are unable to obtain these raw materials from our suppliers and our suppliers from their suppliers due to the insolvency of key suppliers who may be unable to obtain credit.

***The former trend of increasing demand for foundry services has slowed down, primarily as a result of the current global economic crisis. As a result, we may achieve a lower rate of return on investments than previously anticipated and our business and operating results may be adversely affected.***

Until the onset of the current global economic crisis, the demand for foundry services by IDMs, fabless semiconductor companies and systems companies had been increasing in recent years. We made significant investments in anticipation of the continuation of this trend. The reversal of this trend as a result of the current global economic crisis will likely result in a lower rate of return on our investments than anticipated. For example, some IDMs have changed their strategy and targeted greater internal production, and consequently they have reduced their outsourcing of wafer fabrication. In addition, as a result of the current industry downturn, in order to maintain their equipment's utilization rates, these IDMs may allocate a smaller portion of their fabricating needs to foundry service providers and perform a greater amount of foundry services for system companies and fabless semiconductor companies. As a result, our business and operating results may be adversely affected.

***Our results of operations may fluctuate from year to year, which may make it difficult to predict our future performance which may be below our expectations or those of the public market analysts and investors in these periods.***

Our sales, expenses, and results of operations may fluctuate significantly from year to year due to a number of factors, many of which are outside our control. Our business and operations are subject to a number of factors, including:

- our customers' sales outlook, purchasing patterns and inventory adjustments based on general economic conditions or other factors;
- the loss of one or more key customers or the significant reduction or postponement of orders from such customers;
- timing of new technology development and the qualification of this technology by our customers;





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timing of our expansion and development of our facilities;  
our ability to obtain equipment and raw materials; and  
our ability to obtain financing in a timely manner.

Due to the factors noted above and other risks discussed in this section, many of which are beyond our control, you should not rely on year-to-year comparisons to predict our future performance. Unfavorable changes in any of the above factors may adversely affect our business and operating results. In addition, our operating results may be below the expectations of public market analysts and investors in some future periods.

***If we are unable to maintain high capacity utilization, optimize the technology and product mix of our services or improve our yields, our margins may substantially decline, thereby adversely affecting our operating results.***

Our ability to achieve and maintain profitability depends, in part, on our ability to:

maintain high capacity utilization, which is the actual number of wafers we produce in relation to our capacity;  
optimize our technology and product mix, which is the relative number of wafers fabricated utilizing higher margin technologies as compared to commodity and lower margin technologies; and  
continuously maintain and improve our yield, which is the percentage of usable fabricated devices on a wafer.

Our capacity utilization affects our operating results because a large percentage of our costs are fixed. In general, more advanced technologies sell for higher prices and higher margins. Therefore, our technology and product mix has a direct impact upon our average selling prices and overall margins. Our yields directly affect our ability to attract and retain customers, as well as the price of our services. If we are unable to maintain high capacity utilization, optimize the technology and product mix of our wafer production and continuously improve our yields, our margins may substantially decline, thereby adversely affecting our operating results.

***Our rapid expansion has presented significant challenges to our management and administrative systems and resources, and as a result, we may experience difficulties managing our growth, which may adversely affect our business and operating results.***

Since our inception in 2000, we have grown rapidly. Our wafer shipment and sales grew from zero in 2000 to 1,611,208 wafers and US\$1.4 billion in 2008. During this period, we commenced commercial production at two 8-inch fabs (which includes our Shanghai mega fab and Tianjin fab) and one 12-inch mega fab in Beijing, and the range of process technologies we offered grew significantly. We are also in the process of ramping up one additional 12-inch fab at our Shanghai site and have already undertaken management contracts to manage the operations of wafer manufacturing facilities in Chengdu and Wuhan, China. In addition, we are constructing one additional 8-inch fab in Shenzhen. At December 31, 2000, we had 122 employees; and at December 31, 2008, we had 10,598 employees. We may hire a significant number of additional employees as our fabs in Tianjin, Beijing, and Shanghai increase in production capacity. This expansion, as well as our participation in a joint venture with Toppan Printing Co., Ltd. in Shanghai and a joint venture with United Test and Assembly Center Ltd. to establish an assembly and testing facility in Chengdu, and the management of wafer manufacturing facilities in Chengdu and Wuhan, China, have presented, and continue to present, significant challenges for our management and administrative systems and resources. If we fail to develop and maintain management and administrative systems and resources sufficient to keep pace with our planned growth, we may experience difficulties managing our growth and our business and operating results could be adversely affected.

***If we lose one or more of our key personnel without obtaining adequate replacements in a timely manner or if we are unable to retain and recruit skilled personnel, our operations could become disrupted and the growth of our business could be delayed or restricted.***

Our success depends on the continued service of our key executive officers, and in particular, Richard Ru Gin Chang, our President and Chief Executive Officer. We do not carry key person insurance on any of our personnel. If we lose the services of any of our key executive officers, it could be very difficult to find, relocate and integrate adequate replacement personnel into our operations, which could seriously harm our operations and the growth of our business.



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We will require an increased number of experienced executives, engineers and other skilled employees in the future to implement our growth plans. There is intense competition for the services of these personnel in the semiconductor industry. In addition, we expect demand for skilled and experienced personnel in China to increase in the future as new wafer fabrication facilities and other similar high technology businesses are established there. If we are unable to retain our existing personnel or attract, assimilate and retain new experienced personnel in the future, our operations could become disrupted and the growth of our business could be delayed or restricted.

***Our customers generally do not place purchase orders far in advance, which makes it difficult for us to predict our future sales, adjust our production costs and efficiently allocate our capacity on a timely basis and could therefore have an adverse effect on our business and operating results.***

Our customers generally do not place purchase orders far in advance of the required shipping dates. In addition, due to the cyclical nature of the semiconductor industry, our customers' purchase orders have varied significantly from period to period. As a result, we do not typically operate with any significant backlog, which makes it difficult for us to forecast our sales in future periods. Also, since our cost of sales and operating expenses have high fixed cost components, including depreciation and employee costs, we may be unable to adjust our cost structure in a timely manner to compensate for shortfalls in sales. Our current and anticipated customers may not place orders with us in accordance with our expectations or at all. As a result, it may be difficult to plan our capacity, which requires significant lead time to ramp-up and cannot be altered easily. If our capacity does not match our customer demand, we will either be burdened with expensive and unutilized overcapacity or unable to support our customers' requirements, both of which could have an adverse effect on our business and results of operations.

***Our sales cycles can be long, which could adversely affect our operating results and cause our income stream to be unpredictable.***

Our sales cycles, which measure the time between our first contact with a customer and the first shipment of product orders to the customer, vary substantially and can last as long as one year or more, particularly for new technologies. Sales cycles to IDM customers typically take relatively longer since they usually require our engineers to become familiar with the customer's proprietary technology before production can commence. In addition, even after we make the initial product shipments, it may take the customer several more months to reach full production of that product using our foundry services. As a result of these long sales cycles, we may be required to invest substantial time and incur significant expenses in advance of the receipt of any product order and related revenue. Orders ultimately received may not be in accordance with our expectation with respect to product, volume, price or other terms, which could adversely affect our operating results and cause our income stream to be unpredictable.

***We must consistently anticipate trends in technology development or else we will be unable to maintain or increase our business and operating margins.***

The semiconductor industry is developing rapidly and the related technology is constantly evolving. If we are unable to anticipate the trends in technology development and rapidly develop and implement new and innovative technology that our customers require, we may not be able to produce sufficiently advanced products at competitive prices. As the life cycle for a process technology matures, the average selling price falls. Accordingly, unless we continually upgrade our capability to manufacture any new products that our customers design, our customers may use the services of our competitors instead of ours and the average selling prices of our wafers may fall, which could adversely affect our business and operating margins.

***Our sales are dependent upon a small number of customers and any decrease in sales to any of them could adversely affect our results of operations.***

We have been dependent on a small number of customers for a substantial portion of our business. For the year ended December 31, 2008, our five largest customers accounted for 58.2% of our total sales. We expect that we will continue to be dependent upon a relatively limited number of customers for a significant portion of our sales. Sales generated from these customers, individually or in the aggregate, may not reach or exceed our expectations or historical levels in any future period. Our sales could be significantly reduced if any of these customers cancels or reduces its orders, significantly changes its product delivery schedule, or demands lower prices, which could have an adverse effect on our results of operations.



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***Since our operating cash flows will not be sufficient to cover our planned capital expenditures, we will require additional external financing, which may not be available on acceptable terms or at all. Any failure to raise adequate funds in a timely manner could adversely affect our business and operating results.***

In 2008, our capital expenditures totaled approximately US\$666 million and we currently expect our capital expenditures in 2009 to total approximately US\$190 million to be adjusted based on market conditions. These capital expenditures will be used primarily to expand our operations at our mega-fabs in Shanghai and Beijing. In addition, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in our business plan, our process technology, market conditions, equipment prices, customer requirements or interest rates. Future acquisitions, mergers, strategic investments, or other developments also may require additional financing. The amount of capital required to meet our growth and development targets is difficult to predict in the highly cyclical and rapidly changing semiconductor industry.

Our operating cash flows may not be sufficient to meet our capital expenditure requirements in 2009. If our operating cash flows are insufficient, we plan to fund the expected shortfall through bank loans. If necessary, we will also explore other forms of external financing. Our ability to obtain external financing is subject to a variety of uncertainties, including:

- our future financial condition, results of operations and cash flows;

- general market conditions for financing activities of semiconductor companies;

- our future stock price; and

- our future credit rating.

External financing may not be available in a timely manner, on acceptable terms, or at all. Since our capacity expansion is a key component of our overall business strategy, any failure to raise adequate funds could adversely affect our business and operating results.

***The construction and equipping of new fabs and the expansion of existing fabs are subject to certain risks that could result in delays or cost overruns, which could require us to expend additional capital and adversely affect our business and operating results.***

We plan to continue to expand our business through the development of new fabs. There are a number of events that could delay these expansion projects or increase the costs of building and equipping these or future fabs in accordance with our plans. Such potential events include, but are not limited to:

- shortages and late delivery of building materials and facility equipment;

- delays in the delivery, installation, commissioning and qualification of our manufacturing equipment;

- seasonal factors, such as a long and intensive wet season that limits construction;

- labor disputes;

- design or construction changes with respect to building spaces or equipment layout;

- delays in securing the necessary governmental approvals and land use rights; and

- technological, capacity and other changes to our plans for new fabs necessitated by changes in market conditions.

As a result, our projections relating to capacity, process technology capabilities or technology developments may significantly differ from actual capacity, process technology capabilities or technology developments.

Delays in the construction and equipping or expansion of any of our fabs could result in the loss or delayed receipt of earnings, an increase in financing costs, or the failure to meet profit and earnings projections, any of which could

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adversely affect our business and operating results.

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***If we cannot compete successfully in our industry, particularly in China, our results of operations and financial condition will be adversely affected.***

The worldwide semiconductor foundry industry is highly competitive. We compete with other foundries, such as TSMC, United Microelectronics Corporation, or UMC, and Chartered Semiconductor Manufacturing Ltd., or Chartered Semiconductor, as well as the foundry services offered by some IDMs, such as IBM. We also compete with smaller semiconductor foundries in China, Korea, Malaysia and other countries. Some of our competitors have greater access to capital and substantially higher capacity, longer or more established relationships with their customers, superior research and development capability, and greater marketing and other resources than we do. As a result, these companies may be able to compete more aggressively over a longer period of time than we can.

Our competitors have established operations in mainland China in order to compete for the growing domestic market in China. TSMC has commenced commercial production at its fab in China, and UMC has established a relationship with a fab in commercial production in China. We understand that the ability of these fabs to manufacture wafers using certain more advanced technologies is subject to restrictions by the home jurisdiction of TSMC and UMC. Such restrictions could be reduced or lifted at any time, which may lead to increased domestic competition with such competitors and adversely affect our business and operating results.

Our ability to compete successfully depends to some extent upon factors outside of our control, including import and export controls, exchange controls, exchange rate fluctuations, interest rate fluctuations and political developments. If we cannot compete successfully in our industry or are unable to maintain our position as a leading foundry in China, our results of operations and financial condition will be adversely affected.

***We may be unable to obtain in a timely manner and at a reasonable cost the equipment necessary for our business and therefore may be unable to achieve our expansion plans or meet our customers' orders, which could negatively impact our competitiveness, financial condition and results of operations.***

The semiconductor industry is capital-intensive and requires investment in advanced equipment that is available from a limited number of manufacturers. The market for equipment used in semiconductor foundries is characterized, from time to time, by significant demand, limited supply and long delivery cycles. Our business plan depends upon our ability to obtain our required equipment in a timely manner and at acceptable prices. During times of significant demand for the types of equipment we use, lead times for delivery can be as long as one year. Shortages of equipment could result in an increase in equipment prices and longer delivery times. If we are unable to obtain equipment in a timely manner and at a reasonable cost, we may be unable to achieve our expansion plans or meet our customers' orders, which could negatively impact our competitiveness, financial condition, and results of operations.

***We expect to have an ongoing need to obtain licenses for the proprietary technology of others, which subjects us to the payment of license fees and potential delays in the development and marketing of our products.***

While we continue to develop and pursue patent protection for our own technologies, we expect to continue to rely on third party license arrangements to enable us to manufacture certain advanced wafers. As of December 31, 2008, we had been granted four hundred fifty six patents worldwide, of which, fifty three are in Taiwan, fifty four are in the U.S., and three hundred forty nine are in China, whereas we believe our competitors and other industry participants have been issued numerous patents concerning wafer fabrication in multiple jurisdictions. Our limited patent portfolio may in the future adversely affect our ability to obtain licenses to the proprietary technology of others on favorable license terms due to our inability to offer cross-licensing arrangements. The fees associated with such licenses could adversely affect our financial condition and operating results. They might also render our services less competitive. If for any reason we are unable to license necessary technology on acceptable terms, it may become necessary for us to develop alternative technology internally, which could be costly and delay the marketing and delivery of key products and therefore have an adverse effect on our business and operating results. In addition, we may be unable to independently develop the technology required by our customers on a timely basis or at all, in which case our customers may purchase wafers from our competitors.



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***We may be subject to claims of intellectual property rights infringement owing to the nature of our industry, our limited patent portfolio and limitations of the indemnification provisions in our technology license agreements. These claims could adversely affect our business and operating results.***

There is frequent intellectual property litigation, involving patents, copyrights, trade secrets, mask works and other intellectual property subject matters, in our industry. In some cases, a company can avoid or settle litigation on favorable terms because it possesses patents that can be asserted against the plaintiff. The limited size of our current patent portfolio will not likely place us in such a bargaining position. Moreover, some of our technology license agreements with our major technology partners do not provide for us to be indemnified in the event that the processes we license pursuant to such agreements infringe third party intellectual property rights. We could be sued for allegedly infringing one or more patents as to which we will be unable to obtain a license and unable to design around. As a result, we would be foreclosed from manufacturing or selling the products which are dependent upon such technology, which could have a material adverse effect on our business. We may litigate the issues of whether these patents are valid or infringed, but in the event of a loss we could be required to pay substantial monetary damages and be enjoined from further production or sale of such products.

***If we breach the terms and conditions of a settlement agreement regarding the patent and trade secret litigation with TSMC, we may be required to accelerate the payment of the then outstanding amounts due under the settlement agreement. If we are unable to successfully defend ourselves within the current ongoing litigation with TSMC, we may be required to pay damages, obtain a license from TSMC, or discontinue sales of certain of our products.***

On August 25, 2006, TSMC filed a lawsuit against the Company and certain subsidiaries, namely SMIC (Shanghai), SMIC (Beijing) and SM IC (Americas) in the Superior Court of the State of California, County of Alameda for alleged breach of a settlement agreement, alleged breach of promissory notes and alleged trade secret misappropriation by the Company. TSMC seeks, among other things, damages, injunctive relief, attorneys' fees, and the acceleration of the remaining payments outstanding under that settlement agreement.

In the present litigation, TSMC alleges that the Company has incorporated TSMC trade secrets in the manufacture of the Company's 0.13 micron or smaller process products. TSMC further alleges that as a result of this claimed breach, TSMC's patent license is terminated and the covenant not to sue is no longer in effect with respect to the Company's larger process products. The Company has vigorously denied all allegations of misappropriation. The Court has made no finding that TSMC's claims are valid. The Court has set a trial date of September 8, 2009.

On September 13, 2006, the Company announced that in addition to filing a response strongly denying the allegations of TSMC in the United States lawsuit, it filed on September 12, 2006, a cross-complaint against TSMC seeking, among other things, damages for TSMC's breach of contract and breach of implied covenant of good faith and fair dealing.

On November 16, 2006, the High Court in Beijing, the People's Republic of China, accepted the filing of a complaint by the Company and its wholly-owned subsidiaries, namely, SMIC (Shanghai) and SMIC (Beijing), regarding the unfair competition arising from the breach of bona fide (i.e. integrity, good faith) principle and commercial defamation by TSMC ( PRC Complaint ). In the PRC Complaint, the Company is seeking, among other things, an injunction to stop TSMC's infringing acts, public apology from TSMC to the Company and compensation from TSMC to the Company, including profits gained by TSMC from their infringing acts.

On August 14, 2007, the Company filed an amended cross-complaint against TSMC seeking, among other things, damages for TSMC's breach of contract and breach of patent license agreement. TSMC thereafter denied the allegations of the Company's amended cross-complaint and subsequently filed additional claims that the Company breached a settlement agreement by filing an action in the Beijing High Court. The Company has denied these additional claims by TSMC.

On August 15-17, 2007, the California Court held a preliminary injunction hearing on TSMC's motion to enjoin use of certain process recipes in certain of the Company's 0.13 micron logic process flows.

On September 7, 2007, the Court denied TSMC's preliminary injunction motion, thereby leaving unaffected the Company's development and sales. However, the court required the Company to provide 10 days' advance notice to TSMC if the Company plans to disclose logic technology to non-SMIC entities under certain circumstances, to allow

TSMC to object to the planned disclosure.

In May 2008, TSMC filed a motion in the California Court for summary adjudication against the Company on several of the Company's cross claims. The Company opposed the motion and on August 6, 2008, the Court granted in part and denied in part TSMC's motion.

On June 23, 2008, the Company filed in the California court a cross-complaint against TSMC seeking, among other things, damages for TSMC's unlawful misappropriation of trade secrets from SMIC to improve its competitive position against SMIC.

On July 10, 2008, the California Court held a preliminary injunction hearing on TSMC's motion to enjoin disclosure of information on certain process recipes in the Company's 0.30 micron logic process flows to 3rd parties. On August 8, 2008, the Court granted-in-part TSMC's motion and preliminarily enjoined SMIC from disclosing fourteen 0.30 μm process steps. On October 3, 2008, SMIC filed a notice of appeal of the Court's August 8, 2008 Order with the California Court of Appeal. This appeal is currently pending.

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During the pre-trial proceedings in the matter, questions arose regarding the actual terms of the 2005 Settlement Agreement between SMIC and TSMC. Accordingly, the California Court held a preliminary trial on January 13 to 16, 2009, limited to a determination of the terms of the Settlement Agreement and an interpretation of any requirements to meet and confer prior to institution of litigation. On March 10, 2009, the Court issued a Statement of Decision finding, in part, that an agreement between the parties was executed on January 30, 2005, and thereafter amended on February 2, 2005, as urged by TSMC. The Company believes the Court's ruling is erroneous. The ruling may be appealed by SMIC following the filing of a final judgment by the Court in this matter.

On May 1, 2009, the Company filed motions for summary adjudication against TSMC's claims for breach of promissory notes and violation of The California Uniform Trade Secrets Act. The motions will be heard by the Court on July 17, 2009.

The California Court has further scheduled a trial upon all liability issues related to a selected list of TSMC trade secret claims and SMIC trade secret claims to commence on September 8, 2009.

In the Company's action in the Beijing High People's Court, following an unsuccessful challenge to that Court's jurisdiction by TSMC, the Court has held evidentiary hearings on October 15, October 29, and November 25, 2008. The Court rendered its first-instance judgment on June 10, 2009. Claims of SMIC against TSMC were not supported by the Court in the first-instance judgment. The first-instance judgment is not final and either TSMC or SMIC may further appeal to the PRC Supreme People's Court according to the law.

If TSMC were to succeed on its claims in the United States, we may be ordered to pay damages for breach of contract and discontinue sales of certain of our products in the United States or elsewhere.

The occurrence of any of these events could have a material adverse effect on our business and operating results and, in any event, the cost of litigation is substantial.

***If our relationships with our technology partners deteriorate or we are unable to enter into new technology alliances, we may not be able to continue providing our customers with leading edge process technology, which could adversely affect our competitive position and operating results.***

Enhancing our process technologies is critical to our ability to provide high quality services for our customers. We intend to continue to advance our process technologies through internal research and development efforts and technology alliances with other companies. Although we have an internal research and development team focused on developing new process technologies, we depend upon our technology partners to advance our portfolio of process technologies. We currently have joint technology development arrangements and technology sharing arrangements with several companies and research institutes. If we are unable to continue our technology alliances with these entities, or maintain on mutually beneficial terms any of our other joint development arrangements, research and development alliances and other similar agreements, or are unable to enter into new technology alliances with other leading developers of semiconductor technology, we may not be able to continue providing our customers with leading edge process technology, which could adversely affect our competitive position and operating results.

***Global or regional economic, political and social conditions could adversely affect our business and operating results.***

External factors such as potential terrorist attacks, acts of war, financial crises, such as the current global economic crisis, or geopolitical and social turmoil in those parts of the world that serve as markets for our products could significantly adversely affect our business and operating results in ways that cannot presently be predicted. These uncertainties could make it difficult for our customers and us to accurately plan future business activities. More generally, these geopolitical, social and economic conditions could result in increased volatility in worldwide financial markets and economies that could adversely impact our sales. We are not insured for losses and interruptions caused by terrorist acts or acts of war. Therefore, any of these events or circumstances could adversely affect our business and operating results.

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***The recent outbreak of the H1N1 swine flu, the recurrence of an outbreak of the H5N1 strain of bird flu (Avian Flu), Severe Acute Respiratory Syndrome (SARS), or an outbreak of any other similar epidemic could, directly or indirectly, adversely affect our operating results.***

The recent outbreak of the H1N1 virus in North America and Europe has caused governments to take measures to prevent spread of the virus. In addition, there have been reports of swine flu cases in Asia. If the H1N1 virus further spreads, the epidemic could negatively affect the economy. For example, past occurrences of epidemics such as SARS have caused different degrees of damage to the national and local economies in China. If any of our employees are identified as a possible source of spreading the H1N1 virus, the Avian Flu or any other similar epidemic, we may be required to quarantine employees that are suspected of being infected, as well as others that have come into contact with those employees. We may also be required to disinfect our affected premises, which could cause a temporary suspension of our manufacturing capacity, thus adversely affecting our operations. The current outbreak of the H1N1 virus or a recurrence of an outbreak of SARS, Avian Flu or other similar epidemic could restrict the level of economic activities generally and/or slow down or disrupt our business activities which could in turn adversely affect our results of operations.

***Exchange rate fluctuations could increase our costs, which could adversely affect our operating results and the value of our ADSs.***

Our financial statements are prepared in U.S. dollars. Our sales are generally denominated in U.S. dollars and our operating expenses and capital expenditures are generally denominated in U.S. dollars, Japanese Yen, Euros and Renminbi. Although we enter into foreign currency forward exchange contracts, we are still affected by fluctuations in exchange rates between the U.S. dollar and each of the Japanese Yen, the Euro and the Renminbi. Any significant fluctuations among these currencies may lead to an increase in our costs, which could adversely affect our operating results. See Risks Related to Conducting Operations in China Devaluation or appreciation in the value of the Renminbi or restrictions on convertibility of the Renminbi could adversely affect our business and operating results for a discussion of risks relating to the Renminbi.

Fluctuations in the exchange rate of the Hong Kong dollar against the U.S. dollar will affect the U.S. dollar value of the ADSs, since our ordinary shares are listed and traded on the Hong Kong Stock Exchange and the price of such shares are denominated in Hong Kong dollars. While the Hong Kong government has continued to pursue a pegged exchange rate policy, with the Hong Kong dollar trading in the range of HK\$7.75 to HK\$7.85 per US\$1.00 for 2008, we cannot assure you that such policy will be maintained. Exchange rate fluctuations also will affect the amount of U.S. dollars received upon the payment of any cash dividends or other distributions paid in Hong Kong dollars and the Hong Kong dollar proceeds received from any sales of ordinary shares. Therefore, such fluctuations could also adversely affect the value of our ADSs.

***If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud and, because of the inherent limitation of internal control over financial reporting, material misstatements due to error or fraud may not be prevented or detected on a timely basis.***

We are subject to reporting obligations under the United States securities laws. The SEC, as required by Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, adopted rules requiring public companies to include a management report on such company's internal controls over financial reporting in its annual report, which contains management's assessment of the effectiveness of the company's internal controls over financial reporting. In addition, an independent registered public accounting firm must attest to the effectiveness of the company's internal controls over financial reporting. Our management has concluded that our internal controls over our financial reporting as of December 31, 2008 are effective. However, we cannot assure you that in the future we or our independent registered public accounting firm will not identify material weaknesses during the Section 404 of the Sarbanes-Oxley Act audit process or for other reasons. In addition, because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. As a result, if we fail to maintain effective internal controls over financial reporting or should we be unable to prevent or detect material misstatements due to error or fraud on a timely basis, investors could lose confidence in the reliability of our financial statements, which in

turn could harm our business and negatively impact the trading price of our securities. Furthermore, we have incurred and expect to continue to incur considerable costs and to use significant management time and other resources in an effort to comply with Section 404 and other requirements of the Sarbanes-Oxley Act.

**Table of Contents****Risks Related to Manufacturing**

***Our manufacturing processes are highly complex, costly and potentially vulnerable to impurities and other disruptions, which could significantly increase our costs and delay product shipments to our customers.***

Our manufacturing processes are highly complex, require advanced and costly equipment, demand a high degree of precision and may have to be modified to improve yields and product performance. Dust and other impurities, difficulties in the fabrication process or defects with respect to the equipment or facilities used can lower yields, cause quality control problems, interrupt production or result in losses of products in process. As system complexity has increased and process technology has become more advanced, manufacturing tolerances have been reduced and requirements for precision have become even more demanding. As a result, we may experience production difficulties, which could significantly increase our costs and delay product shipments to our customers.

***We may have difficulty in ramping up production, which could cause delays in product deliveries and loss of customers and adversely affect our business and operating results.***

As is common in the semiconductor industry, we may experience difficulty in ramping up production at new or existing facilities, such as our Beijing mega-fab in which we expect to add a significant amount of new equipment. This could be due to a variety of factors, including hiring and training of new personnel, implementing new fabrication processes, recalibrating and re-qualifying existing processes and the inability to achieve required yield levels.

In the future, we may face construction delays or interruptions, infrastructure failure, or delays in upgrading or expanding existing facilities or changing our process technologies, which may adversely affect our ability to ramp up production in accordance with our plans. Our failure to ramp up our production on a timely basis could cause delays in product deliveries, which may result in the loss of customers and sales. It could also prevent us from recouping our investments in a timely manner or at all, and adversely affect our business and operating results.

***We have formed joint ventures that, if not successful, may adversely impact our business and operating results.***

In July 2004, we announced an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd., a joint venture in Shanghai, to manufacture color filters and micro-lenses for CMOS image sensors. In May 2005, we announced an agreement with United Test and Assembly Center Ltd. to establish a joint venture in Chengdu to provide assembly and testing services for memory and logic devices.

The results of the joint ventures are reflected in our operating results to the extent of our ownership interest, and losses of the joint ventures could adversely impact our operating results. For example, as a result of our ownership of Toppan SMIC Electronics (Shanghai) Co., Ltd., we recorded a loss of US\$0.44 million in 2008. Integration of assets and operations being contributed by each partner will involve complex activities that must be completed in a short period of time. The joint ventures are likely to continue to face numerous challenges in commencing their operations and operating successfully. The business of the joint ventures will be subject to operational risks that would normally arise for these types of businesses pertaining to manufacturing, sales, service, marketing, and corporate functions.

Competition in the CMOS image sensor market and semiconductor assembly and testing industry will involve challenges from well-established companies with substantial resources and significant market share.

If the joint ventures are not successful or less successful than we anticipate, we may incur higher costs for performing assembly and testing services through our current partners or for manufacturing color filters and micro-lenses, which typically require mature technologies and thus command a lower wafer price and generate lower margins, at our existing fabs. Either result may adversely affect our business and operating results.

***If we are unable to obtain raw materials and spare parts in a timely manner, our production schedules could be delayed and our costs could increase.***

We depend on suppliers of raw materials, such as silicon wafers, gases and chemicals, and spare equipment parts, in order to maintain our production processes. To maintain operations, we must obtain from our suppliers sufficient quantities of quality raw materials and spare equipment parts at acceptable prices and in a timely manner. The most important raw material used in our production is silicon in the form of raw wafers. We currently purchase approximately 68.0% of our overall raw wafer requirements from our top three raw wafer suppliers. In addition, a portion of our gas and chemical requirements currently must be sourced from outside China. We may not be able to obtain adequate supplies of raw materials and spare parts in a timely manner and at a reasonable cost. In addition,

from time to time, we may need to reject raw materials and parts that do not meet our specifications, resulting in potential delays or declines in output. If the supply of raw materials and necessary spare parts is substantially reduced or if there are significant increases in their prices, we may incur additional costs to acquire sufficient quantities of these parts and materials to maintain our production schedules and commitments to customers.

**Table of Contents*****Our production may be interrupted, limited or delayed if we cannot maintain sufficient sources of fresh water and electricity, which could adversely affect our business and operating results.***

The semiconductor fabrication process requires extensive amounts of fresh water and a stable source of electricity. As our production capabilities increase and our business grows, our requirements for these resources will grow substantially. While we have not, to date, experienced any instances of the lack of sufficient supplies of water or material disruptions in the electricity supply to any of our fabs, we may not have access to sufficient supplies of water and electricity to accommodate our planned growth. Droughts, pipeline interruptions, power interruptions, electricity shortages or government intervention, particularly in the form of rationing, are factors that could restrict our access to these utilities in the areas in which our fabs are located. In particular, our fab in Tianjin and our Beijing mega-fab are located in areas that are susceptible to severe water shortages during the summer months. If there is an insufficient supply of fresh water or electricity to satisfy our requirements, we may need to limit or delay our production, which could adversely affect our business and operating results. In addition, a power outage, even of very limited duration, could result in a loss of wafers in production and a deterioration in yield.

***Our operations may be delayed or interrupted due to natural disasters which could adversely affect our business and operating results.***

We depend on suppliers of raw materials, such as silicon wafers, gases and chemicals, and spare equipment parts, in order to maintain our production processes in addition to requiring extensive amounts of fresh water and a stable source of electricity. The occurrence of natural disasters such as earthquakes may disrupt this required access to goods and services provided by our suppliers as well as access to fresh water and electricity. As a result, our production could be limited or delayed due to the disruption of access to required supplies, in addition to possible damage caused to our manufacturing equipment and related infrastructure, which could adversely affect our business and operating results.

***We are subject to the risk of damage due to fires or explosions because the materials we use in our manufacturing processes are highly flammable. Such damage could temporarily reduce our manufacturing capacity, thereby adversely affecting our business and operating results.***

We use highly flammable materials such as silane and hydrogen in our manufacturing processes and are therefore subject to the risk of loss arising from explosions and fires. While we have not, to date, experienced any explosion or fire due to the nature of our raw materials, the risk of explosion and fire associated with these materials cannot be completely eliminated. Although we maintain comprehensive fire insurance and insurance for the loss of property and the loss of profit resulting from business interruption, our insurance coverage may not be sufficient to cover all of our potential losses due to an explosion or fire. If any of our fabs were to be damaged or cease operations as a result of an explosion or fire, it could temporarily reduce our manufacturing capacity, which could adversely affect our business and operating results.

***Our Beijing mega-fab is located in an area that is susceptible to seasonal dust storms, which could create impurities in the production process at these facilities and require us to take additional measures or spend additional capital to further insulate these fabs from dust, thereby adversely affecting our business and operating results.***

The location of our Beijing mega-fab makes it susceptible to seasonal dust storms, which could cause dust particles to enter the buildings and affect the production process. Although we are constructing precautionary filtration systems, these may not adequately insulate the Beijing mega-fab against dust contamination. If dust were to affect production in the Beijing mega-fab, we could experience quality control problems, losses of products in process and delays in shipping products to our customers. In addition, we may have to spend additional capital to further insulate the Beijing mega-fab from dust if our current precautionary measures are insufficient. The occurrence of any of these events could adversely affect our business and operating results.

***Our operations may be delayed or interrupted and our business could suffer as a result of steps we may be required to take in order to comply with environmental regulations.***

We are subject to a variety of Chinese environmental regulations relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our production processes. Any failure or any claim that we have failed to comply with these regulations could cause delays in our production and capacity expansion and affect our company's



public image, either of which could harm our business. In addition, any failure to comply with these regulations could subject us to substantial fines or other liabilities or require us to suspend or adversely modify our operations.

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**Risks Related to Conducting Operations in China**

***Our business is subject to extensive government regulation and benefits from certain government incentives, and changes in these regulations or incentives could adversely affect our business and operating results.***

The Chinese government has broad discretion and authority to regulate the technology industry in China. China's government has also implemented policies from time to time to regulate economic expansion in China. The economy of China has been transitioning from a planned economy to a market-oriented economy. Although in recent years the Chinese government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets, and the establishment of sound corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the Chinese government. In addition, the Chinese government continues to play a significant role in regulating industrial development. It also exercises significant control over China's economic growth through the allocation of resources, controlling payment of foreign currency-denominated obligations, setting monetary policy, and providing preferential treatment to particular industries or companies. New regulations or the readjustment of previously implemented regulations could require us to change our business plan, increase our costs or limit our ability to sell products and conduct activities in China, which could adversely affect our business and operating results.

In addition, the Chinese government and provincial and local governments have provided, and continue to provide, various incentives to domestic companies in the semiconductor industry, including our company, in order to encourage the development of the industry. Such incentives include tax rebates, reduced tax rates, favorable lending policies, and other measures. Any of these incentives could be reduced or eliminated by governmental authorities at any time. For example, in 2004, the Chinese government announced that by April 1, 2005, the preferential value-added tax policies, which previously entitled certain qualified companies to receive a refund of the amount exceeding 3% of the actual value-added tax burden relating to self-made integrated circuit product sales, would be eliminated. While we have not previously benefited materially from such preferential value-added tax policies, any reduction or elimination of other incentives currently provided to us could adversely affect our business and operating results.

***Because our business model depends on growth in the electronics manufacturing supply chain in China, any slowdown in this growth could adversely affect our business and operating results.***

Our business is dependent upon the economy and the business environment in China. In particular, our growth strategy is based upon the assumption that demand in China for devices that use semiconductors will continue to grow. Therefore, any slowdown in the growth of consumer demand in China for products that use semiconductors, such as computers, mobile phones or other consumer electronics, could have a serious adverse effect on our business. In addition, our business plan assumes that an increasing number of non-domestic IDMs, fabless semiconductor companies and systems companies will establish operations in China. Any decline in the rate of migration to China of semiconductor design companies or companies that require semiconductors as components for their products could adversely affect our business and operating results.

***Limits placed on exports into China could substantially harm our business and operating results.***

The growth of our business will depend on the ability of our suppliers to export, and our ability to import, equipment, materials, spare parts, process know-how and other technologies and hardware into China. Any restrictions placed on the import and export of these products and technologies could adversely impact our growth and substantially harm our business. In particular, the United States requires our suppliers and us to obtain licenses to export certain products, equipment, materials, spare parts and technologies from that country. If we or our suppliers are unable to obtain export licenses in a timely manner, our business and operating results could be adversely affected.

In July 1996, thirty-three countries ratified the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, which established a worldwide arrangement to restrict the transfer of conventional arms and dual-use goods and technologies. Under the terms of the Wassenaar Arrangement, the participating countries, including the United States, have restricted exports to China of technology, equipment, materials and spare parts that potentially may be used for military purposes in addition to their commercial applications. To the extent that technology, equipment, materials or spare parts used in our manufacturing processes are or become subject to the restrictions of the arrangement, our ability to procure these products and technology

could be impaired, which could adversely affect our business and operating results. There could also be a change in the export license regulatory regime in the countries from which we purchase our equipment, materials and spare parts that could delay our ability to obtain export licenses for the equipment, materials, spare parts and technology we require to conduct our business.

**Table of Contents*****Devaluation or appreciation in the value of the Renminbi or restrictions on convertibility of the Renminbi could adversely affect our business and operating results.***

The value of the Renminbi is subject to changes in China's governmental policies and to international economic and political developments. Since 1994, the conversion of Renminbi into foreign currencies, including Hong Kong and U.S. dollars, has been based on rates set by the People's Bank of China ( PBOC ), which are set daily based on the previous day's interbank foreign exchange market rates and current exchange rates on the world financial markets. The Renminbi to U.S. dollar exchange rate experienced significant volatility prior to 1994, including periods of sharp devaluation. On July 21, 2005, the PBOC announced an adjustment of the exchange rate of the U.S. dollar to Renminbi from 1:8.27 to 1:8.11 and modified the system by which the exchange rates are determined. The central parity rate of the U.S. Dollar to Renminbi was set at 6.8346 on December 31, 2008 versus 7.3046 on December 28, 2007 by PBOC. The cumulative appreciation of the Renminbi against the U.S. dollar in 2008 was approximately 6.43%. There remains significant international pressure on the PRC government to adopt an even more flexible currency policy, which could result in a further and more significant appreciation of the Renminbi against the U.S. dollar. As a result, the exchange rate may become volatile and the Renminbi may be devalued again against the U.S. dollar or other currencies, or the Renminbi may be permitted to enter into a full or limited free float, which may result in an appreciation in the value of the Renminbi against the U.S. dollar, any of which could have an adverse affect on our business and operating results.

In the past, financial markets in many Asian countries have experienced severe volatility and, as a result, some Asian currencies have experienced significant devaluation from time to time. The devaluation of some Asian currencies may have the effect of rendering exports from China more expensive and less competitive and therefore place pressure on China's government to devalue the Renminbi. An appreciation in the value of the Renminbi could have a similar effect. Any devaluation of the Renminbi could result in an increase in volatility of Asian currency and capital markets. Future volatility of Asian financial markets could have an adverse impact on our ability to expand our product sales into Asian markets outside of China.

We receive a portion of our sales in Renminbi, which is currently not a freely convertible currency. For the year ended December 31, 2008, approximately 5.4% of our sales were denominated in Renminbi. While we have used these proceeds for the payment of our Renminbi expenses, we may in the future need to convert these sales into foreign currencies to allow us to purchase imported materials and equipment, particularly as we expect the proportion of our sales to China-based companies to increase in the future. Under China's existing foreign exchange regulations, payments of current account items, including profit distributions, interest payments and expenditures from trade may be made in foreign currencies without government approval, except for certain procedural requirements. The Chinese government may, however, at its discretion, restrict access in the future to foreign currencies for current account transactions and prohibit us from converting our Renminbi sales into foreign currencies. If this were to occur, we may not be able to meet our foreign currency payment obligations.

***China's entry into the World Trade Organization has resulted in lower Chinese tariff levels, which benefit our competitors from outside China and could adversely affect our business and operating results.***

As a result of joining the World Trade Organization, or WTO, China has reduced its average rate of import tariffs to 11.5% in 2003 and will reduce it further by 2010. The import tariff for some information technology-related products has been reduced to zero. As a consequence, we expect stronger competition in China from our foreign competitors, particularly in terms of product pricing, which could adversely affect our business and operating results.

***China's legal system embodies uncertainties that could adversely affect our business and operating results.***

Since 1979, many new laws and regulations covering general economic matters have been promulgated in China. Despite this activity to develop the legal system, China's system of laws is not yet complete. Even where adequate law exists in China, enforcement of existing laws or contracts based on existing law may be uncertain and sporadic, and it may be difficult to obtain swift and equitable enforcement or to obtain enforcement of a judgment by a court of another jurisdiction. The relative inexperience of China's judiciary in many cases creates additional uncertainty as to the outcome of any litigation. In addition, interpretation of statutes and regulations may be subject to government policies reflecting domestic political changes.

Our activities in China will be subject to administrative review and approval by various national and local agencies of China's government. See Item 4 Information on the Company Regulation. Because of the changes occurring in China's legal and regulatory structure, we may not be able to secure the requisite governmental approval for our activities. Failure to obtain the requisite governmental approval for any of our activities could adversely affect our business and operating results.

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***Our corporate structure may restrict our ability to receive dividends from, and transfer funds to, our Chinese operating subsidiaries, which could restrict our ability to act in response to changing market conditions and reallocate funds from one Chinese subsidiary to another in a timely manner.***

We are a Cayman Islands holding company and substantially all of our operations are conducted through our Chinese operating subsidiaries, Semiconductor Manufacturing International (Shanghai) Corporation, or SMIC Shanghai, Semiconductor Manufacturing International (Beijing) Corporation, or SMIC Beijing, and Semiconductor Manufacturing International (Tianjin) Corporation. The ability of these subsidiaries to distribute dividends and other payments to us may be restricted by factors that include changes in applicable foreign exchange and other laws and regulations. In particular, under Chinese law, these operating subsidiaries may only pay dividends after 10% of their net profit has been set aside as reserve funds, unless such reserves have reached at least 50% of their respective registered capital. In addition, the profit available for distribution from our Chinese operating subsidiaries is determined in accordance with generally accepted accounting principles in China. This calculation may differ from the one performed in accordance with U.S. GAAP. As a result, we may not have sufficient distributions from our Chinese subsidiaries to enable necessary profit distributions to us or any distributions to our shareholders in the future, which calculation would be based upon our financial statements prepared under U.S. GAAP.

Distributions by our Chinese subsidiaries to us may be subject to governmental approval and taxation. Any transfer of funds from our company to our Chinese subsidiaries, either as a shareholder loan or as an increase in registered capital, is subject to registration or approval of Chinese governmental authorities, including the relevant administration of foreign exchange and/or the relevant examining and approval authority. In addition, it is not permitted under Chinese law for our Chinese subsidiaries to directly lend money to each other. Therefore, it is difficult to change our capital expenditure plans once the relevant funds have been remitted from our company to our Chinese subsidiaries. These limitations on the free flow of funds between us and our Chinese subsidiaries could restrict our ability to act in response to changing market conditions and reallocate funds from one Chinese subsidiary to another in a timely manner.

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**Risks Related to Ownership of Our Shares and ADSs and Our Trading Markets**

***Future sales of securities by us or our shareholders may decrease the value of your investment.***

Future sales by us or our existing shareholders of substantial amounts of our ordinary shares or ADSs in the public markets could adversely affect market prices prevailing from time to time.

We cannot predict the effect, if any, of any such future sales or of the perception that any such future sales will occur, on the market price for our ordinary shares or ADSs.

***Holders of our ADSs will not have the same voting rights as the holders of our shares and may not receive voting materials in time to be able to exercise their right to vote.***

Holders of our ADSs may not be able to exercise voting rights attaching to the shares evidenced by our ADSs on an individual basis. Holders of our ADSs have appointed the depositary or its nominee as their representative to exercise the voting rights attaching to the shares represented by the ADSs. You may not receive voting materials in time to instruct the depositary to vote, and it is possible that you, or persons who hold their ADSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote.

***You may not be able to participate in rights offerings and may experience dilution of your holdings as a result.***

We may from time to time distribute rights to our shareholders, including rights to acquire our securities. Under the deposit agreement for the ADSs, the depositary will not offer those rights to ADS holders unless both the rights and the underlying securities to be distributed to ADS holders are either registered under the Securities Act or exempt from registration under the Securities Act with respect to all holders of ADSs. We are under no obligation to file a registration statement with respect to any such rights or underlying securities or to endeavor to cause such a registration statement to be declared effective. In addition, we may not be able to take advantage of any exemptions from registration under the Securities Act. Accordingly, holders of our ADSs may be unable to participate in our rights offerings and may experience dilution in their holdings as a result.

***The laws of the Cayman Islands and China may not provide our shareholders with benefits provided to shareholders of corporations incorporated in the United States.***

Our corporate affairs are governed by our memorandum and articles of association, by the Companies Law (Revised) and the common law of the Cayman Islands. The rights of shareholders to take action against our directors, actions by minority shareholders and the fiduciary responsibilities of our directors to us under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law in the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands and from English common law, the decisions of whose courts are of persuasive authority but are not binding on a court in the Cayman Islands. The rights of our shareholders and the fiduciary responsibilities of our directors under Cayman Islands law are not as clearly established as they would be under statutes or judicial precedents in the United States. In particular, the Cayman Islands have a less developed body of securities laws as compared to the United States. Therefore, our public shareholders may have more difficulty protecting their interests in the face of actions by our management, directors or controlling shareholders than would shareholders of a corporation incorporated in a jurisdiction in the United States. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action before the federal courts of the United States.

***It may be difficult for you to enforce any judgment obtained in the United States against our company, which may limit the remedies otherwise available to our shareholders.***

Substantially all of our assets are located outside the United States. Almost all of our current operations are conducted in China. Moreover, a number of our directors and officers are nationals or residents of countries other than the United States. All or a substantial portion of the assets of these persons are located outside the United States. As a result, it may be difficult for you to effect service of process within the United States upon these persons. In addition, there is uncertainty as to whether the courts of the Cayman Islands or China would recognize or enforce judgments of United States courts obtained against us or such persons predicated upon the civil liability provisions of the securities law of the United States or any state thereof, or be competent to hear original actions brought in the Cayman Islands or China, respectively, against us or such persons predicated upon the securities laws of the United States or any state thereof. See Item 4 Information on the Company Business Overview Enforceability of Civil Liabilities.





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### **Item 4. Information on the Company**

#### **History and Development of the Company**

We were established as an exempted company under the laws of the Cayman Islands on April 3, 2000. Our legal name is Semiconductor Manufacturing International Corporation. Our principal place of business is 18 Zhangjiang Road, Pudong New Area, Shanghai, China 201203, telephone number: (86) 21-3861-0000. Our registered office is located at PO Box 309, Uglund House, Grand Cayman, KY1-1104, Cayman Islands. Since our global offering, we have been listed on the New York Stock Exchange under the symbol SMI and the Stock Exchange of Hong Kong under the stock code 0981.

We were founded by Dr. Richard Ru Gin Chang, our Chief Executive Officer and President, who has more than 29 years of experience in the semiconductor industry. In August 2000, we started construction of the first fab in our Shanghai mega-fab. The first fab in the Shanghai mega-fab commenced pilot production in September 2001. That fab and the portion of our second fab in our Shanghai mega-fab which provides aluminum interconnects, commenced commercial production in January 2002. The portion of this second fab which provides copper interconnects and a third fab in our Shanghai mega-fab commenced commercial production in January 2003. All the fabs comprising the Shanghai mega-fab are located in the Zhangjiang High-Tech Park. In January 2004, we completed the acquisition of an 8-inch wafer fab located in the Xiqing Economic Development Area in Tianjin, China, and commenced mass production in May 2004. We commenced construction of our Beijing mega-fab in the Beijing Economic and Technological Development Area in December 2002. The Beijing mega-fab consists of three twelve-inch fabs and commenced commercial production in March 2005. The Beijing mega-fab is China's first 12-inch fab. In January 2008, the Company announced its plan to start a new IC production project in Shenzhen with extensive support from the Shenzhen municipal government. The project broke ground in the first half of 2008.

We have entered into an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd., to manufacture color filters and micro-lenses for CMOS image sensors and a joint venture agreement with United Test and Assembly Center Ltd. to provide assembly and testing services in Chengdu focusing on memory and logic devices. We have also entered into agreements to manage the operations of wafer manufacturing facilities in Chengdu and Wuhan, China. We maintain customer service and marketing offices in Japan, Europe, and the United States and a representative office in Hong Kong.

The foundry industry requires a significant amount of capital expenditures in order to construct, equip, and ramp up fabs. We incurred capital expenditures of US\$912 million, US\$860 million, and US\$666 million in 2006, 2007 and 2008, respectively, for these purposes. We anticipate that in 2009, we will incur approximately US\$190 million of capital expenditures to be adjusted based on market conditions, principally to expand our operations at our mega-fabs in Shanghai and Beijing and fab in Tianjin and new fab in Shenzhen. If our operating cash flows are insufficient, we plan to fund the expected shortfall through bank loans. If necessary, we will also explore other forms of external financing.

Our fabs had an aggregate capacity, as of December 31, 2008, of 160,500 8-inch wafer equivalents per month for wafer fabrication. We anticipate a slight increase to aggregate capacity by the end of 2009 subject to market conditions.

For additional information, see Item 5 Operating and Financial Review and Prospects Factors that Impact Our Results of Operations Substantial Capital Expenditures and Capacity Expansion.

#### **Business Overview**

We are one of the leading semiconductor foundries in the world. We operate three 8-inch wafer fabrication facilities in our Shanghai mega-fab located in the Zhangjiang High-Tech Park in Shanghai, China, an 8-inch wafer fab in Tianjin, China and a 12-inch wafer fab in our Beijing mega-fab located in the Beijing Economic and Technological Development Area in Beijing, China. These fabs had an aggregate capacity as of December 31, 2008 of 160,500 8-inch wafer equivalents per month for wafer fabrication which positions us as the leading foundry in China. In addition, we have a 12-inch fab in Shanghai currently engaged primarily in research and development activities, and a 8-inch fab under construction in Shenzhen. We have also entered into agreements to manage the operations of wafer manufacturing facilities in Chengdu and Wuhan, China. We also operate a fab at our Shanghai site which produces solar cells and modules. Due to the unique nature of solar cells and modules, this fab is not considered a part of our

Shanghai mega-fab.

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We currently provide semiconductor fabrication services using 0.35 micron to 65 nanometer process technology for the following devices:

logic technologies, including standard logic, mixed-signal, RF and high voltage circuits;

memory technologies, including DRAM, SRAM, Flash, and EEPROM; and

specialty technologies, including LCoS, and CIS.

During the first quarter of 2008, the Company reached an agreement with our customers to completely exit the commodity DRAM business. The conversion of DRAM capacity into logic production was completed on schedule in the fourth quarter. As a result, our Beijing 300mm logic capacity has placed us in a better position to serve our global and China customers. In connection with the decision to exit the commodity DRAM business, we recorded an impairment loss of \$105.8 million on long-lived assets during the first quarter of 2008.

In addition to wafer fabrication, our service offerings include a comprehensive portfolio of intellectual property consisting of libraries and circuit design blocks, design support, mask-making, wafer probing, gold/solder bumping and redistribution layer manufacturing. We also work with our partners to provide assembly and testing services. We have a global and diversified customer base that includes some of the world's leading IDMs and fabless semiconductor companies.

### **Our Industry**

#### ***The Semiconductor Industry***

Since the invention of the first semiconductor transistor in 1947, integrated circuits have become critical components in an increasingly broad range of electronics applications, including personal computers, wired and wireless communications equipment, televisions, consumer electronics and automotive and industrial control applications. Advancements in semiconductor design techniques and process technologies have allowed for the mass production of increasingly smaller and more powerful semiconductor devices at lower costs. This has resulted in the availability and proliferation of more complex integrated circuits with higher functionality. These integrated circuits may now each contain up to millions of transistors.

The key raw material for a semiconductor foundry is a raw wafer, which is a circular silicon plate. Raw wafers are available in different diameters (e.g., 5-inch, 6-inch, 8-inch or 12-inch) to meet the capabilities of different equipment. A fab capable of manufacturing integrated circuits on an 8-inch raw wafer is commonly described as an 8-inch fab. A raw wafer with a larger diameter has a greater surface area and consequently yields a greater number of integrated circuit dies. One method that foundries attempt to use to maintain their competitiveness is to increase the diameter of the wafers they use in manufacturing, such as the recent trend toward developing 12-inch wafers, each of which has approximately 2.25 times the number of gross dies achievable on an 8-inch wafer. In addition, since 12-inch fabs have been constructed more recently, the equipment used in these fabs permits smaller line-width process technologies to be utilized. However, this equipment is more expensive than equipment for the fabrication of 8-inch wafers as the market for this equipment is less mature with fewer suppliers and the technology involved is more complex. Process technologies are the set of specifications and parameters implemented for manufacturing the circuitry on integrated circuits. The transistor circuitry on an integrated circuit typically follows lines that are less than one micron wide (1/1,000,000 of a meter). The line-widths of the circuitry, or the minimum physical dimensions of the transistor gate of integrated circuits in production, is used as a general rule for classifying generations of process technology of integrated circuits. Progress in the advancement of the integrated circuit has been driven by the scaling, or downsizing, of its components, primarily the transistors. By systematically shrinking the size of the transistors, the number of allowable transistors per die increases, and thus the number of dies on a given wafer, has also increased. Our current process technology ranges from 0.35 micron to 45-nanometer.

#### ***Importance of Integrated Circuits for China's Domestic Market and China's Emergence as a Global Electronics Manufacturing Center***

China has emerged as a global manufacturing center for electronic products that are sold both within China and abroad. In recent years, numerous international companies have established facilities in China for the manufacture of a variety of electronic products, including household appliances, computers, mobile phones, telecommunications

equipment, digital consumer products and products with industrial applications. An increasing number of electronic systems manufacturers are relocating production facilities from the United States, Taiwan, and Southeast Asia to China. China is establishing itself as a favorable manufacturing location due to its well educated labor force, significantly lower costs of operations, large domestic market for semiconductors and cultural similarities and geographical proximity to Japan, Hong Kong, Taiwan, Singapore and Korea, among other factors. Such production growth represents additional potential demand for semiconductors manufactured in China.

**Table of Contents*****Increasing Importance of the Semiconductor Foundry Industry***

As the cost of establishing new fabrication capacity has continued to rise, foundries have progressed from simply providing manufacturing capacity to becoming key strategic partners offering research and development capabilities and manufacturing process technologies. There have historically been a limited number of semiconductor foundries in the industry due to the high barriers to entry, which include significant capital commitments, scarcity of qualified engineers and advanced intellectual property and technology requirements. Many IDMs have begun outsourcing their fabrication requirements for complex and high performance semiconductor devices to foundries in order to supplement their own internal capacities and become more cost competitive. In addition, fabless semiconductor companies have shifted from relying on the excess fabrication capacity of IDMs to utilizing independent foundries to meet the majority of their wafer production needs.

**Our Fabs**

The table below sets forth a summary of our current fabs:

	<b>Shanghai Mega-Fab</b>	<b>Beijing Mega-Fab</b>	<b>Tianjin</b>
Number and Type of fab	(3) 8-inch fabs (1) 12-inch fab in R&D phase	(2) 12-inch fabs	(1) 8-inch fab
Pilot production commencement	September 2001	July 2004	February 2004
Commercial production commencement	January 2002	March 2005	May 2004
Wafer size	8-inch 12-inch (being equipped)	12-inch	8-inch
Production clean room size	34,610 m <sup>2</sup>	23,876 m <sup>2</sup>	8,463 m <sup>2</sup>

In addition to our Shanghai mega-fab, we have two additional fabs at our Shanghai site. A portion of one facility in Shanghai is being leased to Toppan SMIC Electronics (Shanghai) Co., Ltd., which manufactures color filters and micro-lenses for CMOS image sensors. The other fab in Shanghai manufactures solar cells and modules. Most of the administrative and management functions of our fabs in different locations are centralized at our corporate headquarters in the Zhangjiang High-Tech Park in the Pudong New Area of Shanghai.

Additionally, we have one 8-inch fab under construction in Shenzhen. The expansion plan for this project will be adjusted based on overall market conditions.

**Management of Fabs**

We also have undertaken agreements relating to wafer manufacturing facilities in Chengdu and Wuhan, China. Under these agreements, we do not own any equity interest but will manage the operations of the facilities.

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### **Our Services**

#### ***Wafer Fabrication Services***

We currently provide semiconductor fabrication services using 0.35 micron to 65 nanometer technology for the following devices:

logic technologies, including standard logic, mixed-signal, RF and high voltage circuits; memory technologies, including DRAM, SRAM, Flash, EEPROM and Mask ROM; and specialty technologies, including LCoS, and CIS.

These semiconductors are used in various computing, communications, consumer and industrial applications, such as computers, mobile telephones, digital televisions, digital cameras, DVD players, entertainment devices, other consumer electronics devices and automotive and industrial applications.

#### ***Our Technologies***

We manufacture the following types of semiconductors:

*Logic Semiconductors.* Logic semiconductors process digital data to control the operation of electronic systems. The largest segment of the logic market, standard logic devices, includes microprocessors, microcontrollers, DSPs and graphic chips. Logic semiconductors are used in communications devices, computers and consumer products, with the most advanced logic semiconductors dedicated primarily to computing applications.

*Mixed-Signal and RF.* Analog/digital semiconductors combine analog and digital devices on a single semiconductor to process both analog signals and digital data. We make 0.35 micron to 0.13 micron mixed-signal and RF semiconductors using the CMOS process. The primary uses of mixed-signal semiconductors are in hard disk drives, wireless communications equipment and network communications equipment, while RF semiconductors are primarily used in communications devices, such as cell phones.

*High Voltage.* High voltage semiconductors are semiconductor devices that can drive high voltage electricity to systems that require voltage of between five volts to several hundred volts. Our high voltage technologies provide solutions for display driver integrated circuits, power supplies, power management, telecommunications, automotive electronics and industrial controls.

*Memory Semiconductors.* Memory semiconductors, which are used in electronic systems to store data and program instructions, are generally classified as either volatile memory, which lose their data content when power supplies are switched off, or non-volatile memory, which retain their data content without the need for a constant power supply. Examples of volatile memory include SRAM and DRAM, and examples of non-volatile memory include electrically erasable programmable read-only memory, or EEPROM, NAND Flash and OTP. Memory semiconductors are used in communications devices, computers and many consumer products.

*Specialty Semiconductors.*

*LCoS.* LCoS microdisplays are tiny, high resolution, low power displays designed for high definition televisions, projectors and other products that use or rely on displays. Compared with other display technologies, such as liquid crystal and plasma, LCoS displays have higher resolution and higher fill factor, resulting in superior images, colors and performance. LCoS process technology represents an enhancement of mixed-signal CMOS process technology with the addition of a highly reflective mirror layer.

*CIS.* CIS devices are sensors that are used in a wide range of camera-related systems, such as digital cameras, digital video cameras, handset cameras, personal computer cameras and surveillance cameras, which integrate image-capturing capabilities onto a chip. CIS is rapidly becoming a cost-effective and low power replacement for competing charged-coupled devices, or CCDs. Since CIS devices are fabricated with CMOS technology, they are easier to produce and more cost-effective than CCDs. By combining camera functions on a chip, from the capture of photos to the output of digital bits, CMOS image sensors reduce the parts required for a digital camera system, which in turn enhances reliability, facilitates miniaturization, and enables on-chip programming. Our CIS process is based on our CIS array technology.



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We are one of the leading foundries in the world in terms of the process technologies that we are capable of using in the manufacturing of semiconductors.

Fab	Month and year of commencement of commercial production of initial fab	Process technology (in microns)			
		2006	2007	2008	2009
Wafer fabrication: Shanghai Mega-fab (8 )	January 2002	0.35/0.25/ 0.18/0.15/ 0.13/0.11/0.09	0.35/0.25/ 0.18/0.15/ 0.13/0.11/0.09	0.35/0.25/ 0.18/0.15/ 0.13/0.11/0.09	0.35/0.25/ 0.18/0.15/ 0.13/0.11/0.09
Shanghai fab (12 )				0.09	0.11/0.09/0.065
Beijing Mega-fab (12 )	March 2005	0.15/0.13/0.11/ 0.10/0.09	0.13/0.11/ 0.10/0.09	0.18/0.13/ 0.09	0.18/0.13/0.09/0.065
Tianjin fab (8 )	May 2004	0.35/0.25/ 0.18/0.15	0.35/0.25/ 0.18/0.15	0.35/0.25/ 0.18/0.15	0.35/0.25 0.18/0.15

The following table sets forth a percentage breakdown of wafer sales by process technology for the years ended December 31, 2006, 2007, and 2008 and each of the quarters in the year ended December 31, 2008:

Process Technologies	For the year ended		For the three months ended				For the year ended
	December 31, 2006	December 31, 2007	March 31, 2008	June 30, 2008	September 30, 2008	December 31, 2008	December 31, 2008
(based on sales in US\$)							
0.13 micron and below	49.60%	53.10%	44.70%	41.30%	44.50%	45.50%	43.90%
0.15 micron	5.70%	2.90%	4.30%	2.10%	2.00%	2.20%	2.70%
0.18 micron	35.70%	30.50%	32.10%	37.70%	33.90%	32.50%	34.10%
0.25 micron	2.00%	0.70%	0.50%	0.60%	0.50%	0.60%	0.60%
0.35 micron	7.00%	12.80%	18.40%	18.30%	19.10%	19.20%	18.70%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



**Table of Contents****Manufacturing Capacity**

We currently manufacture 8-inch silicon wafers based on proprietary designs provided by our customers or third party designers. Since commencing commercial production, we have the largest 8-inch wafer fabrication capacity among the semiconductor foundries in China. We have the most advanced process technology among foundries in China. In January 2003, we commenced commercial production using 0.13 micron copper interconnects process technology.

We are currently one of the few fabs in China to offer 0.13 micron copper interconnects process technology and both 90 nanometer and 65 nanometer wafer fabrication process technology.

The following table sets forth the historical capacity of our wafer fabrication and copper interconnects fabs as December 31, 2008:

<b>Fab</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>Wafer Fabrication:</b>			
Wafer fabrication capacity as of year-end <sup>(1)</sup> :			
Shanghai mega-fab	106,000	98,000	88,000
Beijing mega-fab	56,250	65,250	40,500
Tianjin fab	20,000	22,000	32,000
Total monthly wafer fabrication capacity as of year-end <sup>(1)</sup>	182,250 <sup>(3)</sup>	185,250 <sup>(3)</sup>	160,500 <sup>(3)</sup>
Wafer fabrication capacity utilization	90%	91%	86%

All output and capacity data is provided as 8-inch wafers or 8-inch wafer equivalents per month.

(1) Conversion of 12-inch wafers to 8-inch wafer equivalents is achieved by multiplying the number of 12-inch wafers by 2.25.

(2) Reflects wafers fabricated using the copper interconnects line and does not include wafers fabricated using

the aluminum interconnects line. As a small number of wafers produced by our aluminum interconnects lines also utilize the copper interconnects capabilities, our reported capacity and output data for our copper interconnects line overlaps to a limited extent with such data for our aluminum interconnects line.

- (3) Mega fab structure includes copper interconnects in the total monthly capacity.

As of December 31, 2008, our aggregate wafer fabrication capacity was 160,500 8-inch wafer equivalents per month for wafer fabrication.

A key factor influencing our profit margins is our capacity utilization. Because a high percentage of our cost of sales is of a fixed nature, operations at or near full capacity have a significant positive effect on output and profitability. In 2005 our wafer fabs had an average annual utilization rate of 89%, in 2006, our wafer fabs had an average annual utilization rate of 90%, and in 2007, our wafer fabs had an average annual utilization rate of 91%. In 2008 our wafer fabs had an average utilization of 86%. Factors affecting utilization rates are the overall industry conditions, the level of customer orders, the complexity of the wafers and of the mix of wafers produced, mechanical failures and other operational disruptions such as the expansion of capacity or the relocation of equipment, and our ability to manage the production facilities and product flows efficiently. In addition, we have manufactured DRAM to fill our production lines when the volume demand of other products does not fully utilize our available capacity. As a result, our utilization rate has historically remained high.

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We determine the capacity of a fab based on the capacity ratings given by manufacturers of the equipment used in the fab, adjusted for, among other factors, actual output during uninterrupted trial runs, expected down time due to setup for production runs and approximately one to two days of scheduled annual maintenance, and expected product mix. Because these factors include subjective elements, our measurement of capacity utilization rates may not be comparable to those of our competitors. All of our fabs currently operate 24 hours per day, seven days per week, except during periods of annual maintenance. Employees in our fabs work shifts of 12 hours each day on a two-days-on, two-days-off basis.

We have often used DRAM as the initial product to test the production capabilities at a new fab. This is because DRAM requires higher process accuracy, more precise process control and a higher degree of engineering skills and operational disciplines, and can therefore assist in early identification of any potential process, equipment or fab-related production problems. This DRAM is either manufactured on a foundry basis for our customers or sold by us to the market through our distributors under technology licensing and royalty arrangements. However, the market for DRAM devices has also been more volatile and susceptible to sudden price drops in recent years. We expect that our production of DRAM wafers as a percentage of our overall production will decrease. During the first quarter of 2008, the Company reached an agreement with our customers to completely exit the commodity DRAM business. The conversion of DRAM capacity into logic production was completed on schedule in the fourth quarter of 2008. As a result, our Beijing 300mm logic capacity has placed us in a better position to serve our global and China customers. In connection with the decision to exit the commodity DRAM business, we recorded an impairment loss of \$105.8 million on long-lived assets during the first quarter of 2008.

### ***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. Our capital expenditures in 2007 were approximately US\$860 million and our capital expenditures in 2008 were approximately US\$666 million. We currently expect that our capital expenditures in 2009 will be approximately US\$190 million to be adjusted based on market conditions, which we plan to fund through our operating cash flows and bank loans. If necessary, we will also explore other forms of external financing. We plan to use this capital primarily to expand our operations at our mega-fabs in Shanghai and Beijing. In addition, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in our business plan, our process technology, market conditions, equipment prices, or customer requirements. We will monitor the global economy, the semiconductor industry, the demands of our customers, and our cash flow from operations to adjust our capital expenditure plans.

We also will seek to participate in strategic partnerships to meet the demands of our customers. For example, 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 color filters and micro-lenses for CMOS image sensors. These products are increasingly being used in consumer products such as mobile phone cameras, digital cameras and automobile and home security applications. Toppan SMIC Electronics (Shanghai) Co., Ltd. commenced production in December 2005. We hold a 30% equity interest in Toppan SMIC Electronics (Shanghai) Co., Ltd.

### ***Our Integrated Solutions***

In addition to wafer fabrication, we provide our customers with a range of complementary services, from circuit design support and mask-making to wafer level probing and testing. This range of services is supported by our network of partners that assist in providing design, probing, final testing, packaging, assembly and distribution services.

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The diagram below sets forth our service model and our key points of interaction with our customers:

(1) A portion of this work is outsourced to our service partners.

(2) A portion of these services are outsourced to our service partners.

***Design Support Services***

Our design support services include providing our customers with access to the fundamental technology files and intellectual property libraries that facilitate customers' own integrated circuit design. We also offer design reference flows and access to our design center alliance, as well as layout services. In addition, we collaborate with industry leaders in electronic design automation, library and intellectual property services to create a worldwide network of expertise, resources and services that are available to implement and produce a customer's designs. As of December 31, 2008, we employed over 200 engineers devoted solely to design support services.

***Libraries***

As part of the necessary building blocks for our customers' semiconductor designs, we offer libraries of compatible designs for portions of semiconductors, such as standard cells, I/O and selected memory blocks, in addition to technology files. We have a dedicated team of engineers who work with our research and development department to develop, license or acquire from third parties selected key libraries early on in the development of new process technologies so that our customers can quickly design sophisticated integrated circuits that utilize the new process technologies. We also have arrangements with other providers of libraries to provide our customers with access to a broad library portfolio for their designs. In particular, we offer a portfolio of ASIC library and design kits for a wide range of tested and verified circuit applications and design-flow implementation. These include standard cell, I/O and memory compilers in 0.35 micron, 0.25 micron, 0.18 micron, 0.15 micron, 0.13 micron, 90 nanometer, and 65 nanometer process technologies. They have been developed primarily through our third party alliances, as well as by our internal research and development team, to facilitate easy design reuse and fast integration into the overall design system. We are currently developing additional libraries. Our library partners include ARM, Synopsys, Inc., VeriSilicon, and Virage Logic.

**Table of Contents*****Intellectual Property***

Together with the intellectual property developed by our internal design team, our alliances with intellectual property providers enable us to offer foundational designs ranging from 0.35 micron to 65 nanometer and relating to mixed-signal, embedded memory, high-speed interface, digital peripheral device controllers, and embedded processors, among others. We use our own and third party design expertise to realize the functions of these various types of intellectual property. Our intellectual property partners include ARM, MIPS, Virage, Synopsys, and Verisilicon.

***Design Reference Flows***

Customers implementing designs on our processes can utilize our design reference flows. These flows have been created using design tools developed by our electronic design automation partners, including Cadence Design Systems, Inc., Magma Design Automation, Inc., Mentor Graphics Corporation, and Synopsys, Inc. They include training guides and sample test cases to provide a step-by-step explanation on how the hierarchical design flow works.

***Design Center Alliance***

If a customer requires assistance in designing its semiconductors, we are able to recommend design partners from among our extensive design services network. This network consists of design companies that we have successfully worked with in the past. In addition, we are also able to offer our own internal design team members to help our clients to complete their designs.

***Mask-making Services***

Many of our foundry customers utilize our mask-making services.

While most of our mask-making services are for customers that also utilize our wafer fabrication services as part of our overall foundry service, we also produce masks for other domestic and overseas fabs as a separate revenue-generating service. Our mask shop also cooperates with our research and development department to develop new technologies and designs.

Our mask-making facility, which is located in Shanghai, includes a 3,750 square meters clean room with up to class I specifications. At present, our mask shop offers both five-inch by five-inch, six-inch by six-inch, and seven-inch round reticles. Our facility is capable of producing binary masks, optical proximity correction masks and phase shift masks. Our mask facility also offers mask repair services. As of December 31, 2008, we had 183 personnel employed in our mask shop.

We also offer a multi-project wafer service that allows the cost of manufacturing one mask set to be shared among several customers. See [Customers and Markets](#) for more details regarding this service.

Intellectual property protection is a key focus of our mask-making services. See [Intellectual Property](#) for more details regarding the intellectual property protection measures we have instituted in our mask facility.

***Wafer Probing, Assembly and Testing Services***

We have our own probing facilities in Shanghai and Beijing that provide test program development, probe card fabrication, wafer probing, failure analysis, and failure testing. We also outsource these services to our partners for those customers that request them.

Our probing facility in Shanghai occupies a clean room space of 3,000 square meters, and our probing facility in Beijing occupies a clean room space of 1,400 square meters. Both facilities are rated at class 1,000 cleanliness and are equipped with advanced testers, probers and laser repair machines for logic, memory, and mixed-signal products. The probing facility in Beijing supports testing of Beijing's 12-inch wafers and Tianjin's 8-inch wafers. We employ more than 200 personnel to provide these probing services. We have testing equipment for memory, logic and mixed signal applications, including some equipment that has been consigned to our Shanghai facility by our customers. This consigned testing equipment has been specially designed and built by our customers in order to probe their particular products at our facility.

Our facility with United Test and Assembly Center Ltd. is located in Chengdu, China and provides both assembly and testing services for 8-inch and 12-inch wafers. This facility focuses on memory and discrete devices. Our facility in Chengdu occupies a total area of 215,000 square meters. Construction area is 40,668 square meters, including approximately 11,000 square meters of clean room area. We have also established a network of partners that provide additional probing services, as well as assembly and testing services, for our customers that request these additional

services. We have relationships with assembly and testing partners, including Amkor Assembly & Test (Shanghai) Co., Ltd. and ST Assembly Test Services Ltd., which have helped to enhance the range of services that we are able to offer our customers.

**Table of Contents****Customers and Markets**

Our customers include IDMs, fabless semiconductor companies and systems companies. The following table sets forth the breakdown of our sales by customer type for 2006, 2007 and 2008:

Customer Type	For the year ended December 31,					
	2006		2007		2008	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Fabless semiconductor companies	601,200	41.00%	720,416	46.50%	768,707	56.80%
Integrated device manufacturers	737,275	50.30%	634,607	40.90%	341,933	25.30%
Systems companies and others	126,848	8.70%	194,742	12.60%	243,072	17.90%
Total	1,465,323	100.00%	1,549,765	100.00%	1,353,711	100.00%

We categorize our sales geographically based on the headquarter of customer operations and is not related to shipment destination. The following table sets forth the geographical distribution of our sales and percentage of sales for 2006, 2007 and 2008:

Region	For the year ended December 31,					
	2006		2007		2008	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
United States	602,506	41.10%	657,603	42.40%	766,708	56.70%
Europe	440,328	30.00%	328,710	21.20%	92,573	6.80%
Asia Pacific (excluding Japan and Taiwan)(1)	168,608	11.50%	227,973	14.70%	269,611	19.90%
Taiwan	153,058	10.50%	183,114	11.80%	185,849	13.70%
Japan	100,823	6.90%	152,365	9.90%	38,970	2.90%
Total	\$ 1,465,323	100.00%	\$ 1,549,765	100.00%	1,353,711	100.00%

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We have a global and diversified customer base that includes IDMs. Although we are not dependent on any single customer, a significant portion of our sales is attributable to a relatively small number of our customers. Our sales could be significantly reduced if any of these customers cancels or reduces its orders, significantly changes its product delivery schedule or demands lower prices.

Our President and Chief Executive Officer, Richard Ru Gin Chang, and his wife together hold shareholding interests of less than 0.1% in one of our five largest customers in 2006, 2007 and 2008, Texas Instruments.

During the first quarter of 2008, the Company reached an agreement with our customers to completely exit the commodity DRAM business. The conversion of DRAM capacity into logic production was completed on schedule in the fourth quarter. As a result, our Beijing 300mm logic capacity has placed us in a better position to serve our global and China customers. In connection with the decision to exit the commodity DRAM business, we recorded an impairment loss of \$105.8 million on long-lived assets during the first quarter of 2008.

The following table sets forth a breakdown of our sales by application type for 2006, 2007 and 2008:

Application Type <sup>(1)</sup>	For the year ended December 31,					
	2006		2007		2008	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Computing	498,135	34.00%	402,262	26.00%	106,184	7.80%
Communications	618,911	42.20%	695,645	44.90%	696,399	51.50%
Consumer	280,873	19.20%	323,230	20.90%	430,282	31.80%
Others	67,404	4.60%	128,628	8.20%	120,846	8.90%
Total	\$ 1,465,323	100.00%	\$ 1,549,765	100.00%	1,353,711	100.00%

(1) Computing consists of integrated circuits such as hard disk drive controllers, DVD-ROM/CD-ROM driver integrated circuits, graphic processors and other components that are commonly used in personal digital assistants and desktop and notebook computers and peripherals.

Communications consists of integrated circuits used in digital subscriber lines, digital signal processors, wireless LAN, LAN controllers, LCD



drivers, handset  
components and caller  
ID devices. Consumer  
consists of integrated  
circuits used for DVD  
players, game  
consoles, digital  
cameras, smart cards  
and toys.

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The following table sets forth a breakdown of our sales by service type for 2006, 2007 and 2008:

Service Type	For the year ended December 31,					
	2006		2007		2008	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Fabrication of memory wafers	476,970	32.60%	428,355	27.60%	71,935	5.30%
Fabrication of logic wafers <sup>(1)</sup>	923,411	63.00%	985,776	63.60%	1,139,535	84.20%
Other <sup>(2)</sup>	64,942	4.40%	135,634	8.80%	142,241	10.50%
Total	\$ 1,465,323	100.00%	\$ 1,549,765	100.00%	1,353,711	100.00%

(1) Includes copper interconnects and memory devices whose manufacturing process is similar to that for a logic device.

(2) Includes mask-making and probing, etc.

We have customer service and marketing offices located in California, Milan, Shanghai, and Tokyo and a representative office in Hong Kong. Our Shanghai office serves China and other non-Japan Asian markets, our California office serves the North American market, and our Milan and Tokyo offices serve the European and Japanese markets, respectively. We also sell some products through sales agents in selected markets.

We also provide our customers with the ability to share costs through our multi-project wafer processing shuttle service. This service allows customers to share costs with other customers by processing multiple designs on a single mask set.

We provide our customers with 24-hour online access to necessary information to conduct business with us. From our technical capabilities to a customer's order status, we provide an online solution for our customers. From wafer fabrication, wafer sorting and assembly to final testing and shipping, our data center electronically transfers data, work-in-progress tracking, yield/cycle-time reports, and quality/engineering data to customers.

Our sales cycle, meaning the time between our first contact with a customer in relation to a particular product and our first shipment of that product to the customer, typically lasts between three months to one year, depending on the type of process and product technology involved in the product we are requested to fabricate. Because of the fast-changing technology and functionality in integrated circuit design, foundry customers generally do not place purchase orders far in advance to fabricate a particular type of product. However, we engage in discussions with customers commencing in advance of the placement of purchase orders regarding customers' expected fabrication requirements. See Risk Factors Risks Related to Our Financial Condition and Business Our sales cycles can be long, which could adversely

affect our operating results and cause our income stream to be unpredictable.

See Item 5 Operating and Financial Review and Prospects Sales for a description of the seasonality of our business.

### **Research and Development**

Our research and development activities are principally directed toward the development and implementation of more advanced and lower cost process technology. We spent US\$94.2 million in 2006, US\$97.0 million in 2007, and US\$102.2 million in 2008 on research and development expenses, which represented 6.4%, 6.3%, and 7.6% respectively, of our sales in those respective years. Our research and development costs are partially offset by related government subsidies and include non-recurring engineering costs associated with the ramp-up of a new wafer facility. We plan to continue to invest significant amounts in research and development in 2009 for our 65 and 45 nanometer manufacturing process.

The research and development efforts were focused primarily on our logic and system-on-chip (SOC) business. 2008 marked many milestones for SMIC. Early on in the year, Synopsis and SMIC released an enhanced 90-nanometer hierarchical, multi-voltage RTL-to-GDSII reference design flow that will benefit advanced synthesis with built-in capability of design-for-test and design-for-manufacturing. In April, working with a leading China domestic fabless, we developed a 90 nanometer digital photo frame chip, which is one of the most integrated multimedia SOC in the market. For advanced CMOS logic, the Company demonstrated a silicon success in our 45-nanometer process ahead of schedule, and also added new intellectual properties in 65 nanometer and 90 nanometer technology services. In addition, the Company successfully developed a 0.11 micron CMOS image sensor (CIS) process technology, one of the most advanced process technologies for CIS currently available in the industry. In Non-Volatile Memory (NVM) technology, the 0.13um ETox went into production in early 2008 and 90nm ETox is currently in risk production now. Our research and development in Micro-Electromechanical System (MEMS) areas also advanced to risk production for the 1st customer in 2008. Other areas of phase-change memory, HV, mix-signal-signal, and RF technologies were also successfully advanced for smaller size, less power, and lower cost to meet customer demands.

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We employ over 800 research and development personnel. This research and development team includes many experienced semiconductor engineers with advanced degrees from leading universities around the world, as well as top graduates from the leading universities in China. We believe this combination has enabled us to quickly bring our technology in line with the semiconductor industry technology roadmap and ensures that we will have skilled personnel to lead our technology advancement in the future.

### **Intellectual Property**

While we continue to develop and patent our own technologies, we expect to have an ongoing need to obtain licenses for the proprietary technologies of third parties to enable us to manufacture certain advanced wafers for our customers. As of 2008 year-end, we have been granted five hundred fifty seven patents, and have more than one thousand nine hundred ninety three patent applications pending worldwide. We believe our competitors and other industry participants have numerous patents concerning wafer fabrication and related technologies in multiple countries. We implement a variety of measures to protect the intellectual property and related interests of our company, customers and technology partners. We require our employees to execute a confidential information and invention assignment agreement relating to non-competition and intellectual property protection issues prior to commencing their employment at our company. Access to customer information is granted to employees strictly on a need-to-know basis both during and after mask tooling.

We have applied for trademarks relating to our corporate logo, English trade name **SMIC**, and Chinese trade name in the United States, China, Hong Kong and Taiwan. We have been granted registration of trademarks for our corporate logo in China, English trade name in China and Taiwan, and Chinese trade name in Hong Kong, United States and China (except a dispute in China for certain applied product/service category). There can be no assurance that other trademarks registration will be granted.

### **Competition**

We compete internationally and domestically with dedicated foundry service providers, as well as with semiconductor companies that allocate a portion of their fabrication capacity to foundry operations. While the principal elements of competition in the wafer foundry market include technical competence, production speed and cycle time, time-to-market, research and development quality, available capacity, yields, customer service and price, we seek to compete on the basis of process technology capabilities, performance, quality and service, rather than solely on price. The level of competition differs according to the process technology involved.

Our competitors and potential competitors include other pure-play foundries such as TSMC, UMC and Chartered Semiconductor. TSMC has commenced commercial production at its fab in China, and UMC has established a relationship with a fab in commercial production in China. Another group of potential competitors consists of IDMs that have established their own foundry capabilities. These include Fujitsu Limited, IBM, Samsung Electronics Co., Ltd. and Toshiba. IDMs are primarily dedicated to fabricating integrated circuits for the end products of their respective affiliates. See **Risk Factors** **Risks Related to Our Financial Condition and Business** If we cannot compete successfully in our industry, particularly in China, our results of operations and financial condition will be adversely affected.

### **Quality and Reliability**

We have implemented quality assurance measures relating to material quality control, monitoring of our in-line processes and wafer-level reliability control at every stage of our operations from technology development to production. By combining advanced quality assurance procedures and e-commerce technology, we monitor all processes, services and materials in our mask-making, wafer fabrication and probing facilities. These quality assurance measures include inspection of incoming materials, supplier and subcontractor management, manufacturing environmental control and monitoring, in-line defect monitoring, engineering change control, calibration monitoring, chemical analysis and visual inspection. Quality assurance measures also include on-going process and product reliability monitors and failure tracking for early identification of production problems.

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We incorporate reliability control in our entire production process and have adopted a system that enables us to track and record wafer-, package- and product-level reliability data throughout the development, qualification and production stages of the relevant process or device. This data enables us to identify problems at an early stage and provide an immediate diagnosis and solution, so as to further reduce our failure rate.

We achieved ISO 9001:2000 certification from the British Standards Institute with zero-defect performance for our Fab 1 in July 2002 and for our Fab 2 and Fab 3B in March 2003. The ISO 9001 quality standards were established by the International Standards Organization, an organization formed by delegates from member countries to establish international quality assurance standards for products and manufacturing processes. International Standards Organization certification is required in connection with sales of industrial products in many countries. To further enhance our quality management system, we obtained TS 16949:2002 certification from the British Standards Institute (BSI) in February 2004. This is an International Standards Organization quality management certification that relates to automobile applications and primarily measures a device's ability to handle extreme changes in temperature. In January 2005, we obtained TL9000 Quality Management System certification from BSI. This is a management certification relating to the telecommunications industry and evaluates research and development, production and installation and maintenance of communication product and services.

**Raw Materials**

Our fabrication processes uses many raw materials, primarily silicon wafers, chemicals, gases, and various types of precious and other metals. Raw material costs constituted 18.3% of our manufacturing costs in 2006, 21% of our manufacturing costs in 2007 and 19% of our manufacturing costs in 2008.

The three largest components of raw material costs—raw wafers, chemicals and gases—accounted for approximately 43%, 21% and 11%, respectively, of our raw material costs in 2006, approximately 47%, 20%, and 10%, respectively, of our raw material costs in 2007, and approximately 40%, 20%, and 9%, respectively, of our raw materials in 2008.

Most of our raw materials generally are available from several suppliers, but substantially all of our principal materials requirements must currently be sourced from outside China.

The most important raw material used in our production is silicon in the form of raw wafers. In 2008, we purchased approximately 68.0% of our overall raw wafer requirements from our three major raw wafer suppliers. The prices of our principal raw material are not considered to be volatile.

For 2008, our largest and five largest raw materials suppliers accounted for approximately 8.0% and 32.3%, respectively, of our overall raw materials purchases. For 2007, our largest and five largest raw materials suppliers accounted for approximately 14.0% and 48.2%, respectively, of our overall raw materials purchases. For 2006, our largest and five largest raw materials suppliers accounted for approximately 14.7% and 46.1%, respectively, of our overall raw materials purchases. Having made all reasonable inquiry, we are not aware of any director or shareholder (which to the knowledge of our directors own more than 5% of our issued share capital) or their respective associates, which had shareholding interests in any of our five largest suppliers. Most of our materials are imported free of value-added tax and import duties due to concessions granted to our industry in China.

**Electricity and Water**

We use substantial amounts of electricity in our manufacturing process. This electricity is sourced from the Pudong Electricity Corporation (for Shanghai), the Beijing Municipal Electricity Department, the Tianjin Municipal Electricity Department, the PiXian Municipal Electricity Department (for Chengdu), and the Shenzhen PanGuShi Municipal Electricity Department. We maintain Uninterrupted Power Supply (UPS) systems and emergency back-up generators to power life safety and critical equipment and systems for emergencies.

The semiconductor manufacturing process uses extensive amounts of fresh water. We source our fresh water for our Shanghai mega-fab from Pudong Vivendi Water Corporation Limited, for our Beijing mega-fab from Beijing Waterworks Group Co. Ltd., for our Tianjin fab from the Tianjin Municipal Water Department, for our Chengdu facility from the Xipu Water Corporation, Ltd., and for our Shenzhen facility from Grand Industrial Zone Water Company of Shenzhen. Because Beijing and Tianjin are subject to potential water shortages in the summer, our fabs in Beijing and Tianjin are equipped with back-up reservoirs. We have taken steps to reduce fresh water consumption in our fabs and capture rainwater for use at our Beijing facilities, and our water recycling systems in each of our fabs allow us to recycle 40% to 70% of the water used during the manufacturing process. The Beijing site is also equipped

to use recycled/treated industrial waste water from the Beijing Economic and Technological Development Area for non-critical operations.

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### **Regulation**

Integrated circuit industry in China is subject to substantial regulation by the Chinese government. This section sets forth a summary of the most significant Chinese regulations that affect our business in China.

#### ***Scope of Regulation***

The *Several Policies to Encourage the Development of Software and Integrated Circuit Industry*, or the Integrated Circuit Policies, promulgated by the State Council of The People's Republic of China on June 24, 2000, together with other ancillary laws and regulations, regulates integrated circuit production enterprises, or ICPEs. The State Council issued the Integrated Circuit Policies in order to encourage the development of the software and integrated circuits industry in China. The Integrated Circuit Policies form the basis for a series of laws and regulations that set out in detail the preferential policies relating to ICPEs. Such laws and regulations include:

the *Notice of the Ministry of Finance, the State Administration of Taxation and the General Administration of Customs on Relevant Taxation Policy Encouraging the Further Development of the Software Industry and the Integrated Circuit Industry*, or the Integrated Circuit Notice, jointly issued by the Ministry of Finance, the State Administration of Taxation and the General Administration of Customs on September 22, 2000, as amended by the *Notice of the Ministry of Finance and the State Administration of Taxation on Approval Procedure Concerning Foreign Invested Enterprises Implementing Enterprise Income Tax Policies of the Software and Integrated Circuit Industry*, or the Approval Notice, jointly issued by the Ministry of Finance and the State Administration of Taxation on July 1, 2005;

the *Notice of the Ministry of Finance, the State Administration of Taxation on Taxation Policies Concerning the Tax Policies for Further Encouraging the Development of the Software and the Integrated Circuit Industry*, or the Further Development Taxation Notice, jointly issued by the Ministry of Finance and the State Administration of Taxation on October 10, 2002, as amended by *Notice of the Ministry of Finance, the State Administration of Taxation on Termination of Value-added Tax Refund Policies for Integrated Circuits*, or the Termination Notice, jointly issued by the Ministry of Finance and the State Administration of Taxation on October 25, 2004;

the *Notice of the Ministry of Finance on Taxation Policies Concerning the Import of Self-used Raw Materials and Consumables by Part of Integrated Circuit Production Enterprises*, or the Raw Materials Taxation Notice, issued by the Ministry of Finance on August 24, 2002;

the *Notice on Taxation Policies Concerning the Import of Construction Materials Specially used for Clean Rooms by Part of the Integrated Circuit Production Enterprises*, or the Construction Materials Taxation Notice, issued by the Ministry of Finance on September 26, 2002;

the *Notice by the Ministry of Finance and the State Administration of Taxation on Increasing Tax Refund Rate for Export of Certain Information Technology(IT) Products*, or the Export Notice, issued by the Ministry of Finance and the State Administration of Taxation on December 10, 2004;

the *Measures for the Accreditation of the Integrated Circuit Enterprise Encouraged by the State (For Trial Implementation)*, or the Accreditation Measures, jointly issued by the National Development and Reform Commission, the Ministry of Information Industry, the State Administration of Taxation and the General Administration of Customs on October 21, 2005; and

the *Interim Measures for the Management of the Special Fund for the Research and Development of the Integrated Circuit Industry*, or the Fund Measures, jointly issued by the Ministry of Finance, the Ministry of Information Industry and the National Development and Reform Commission on March 23, 2005.





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***Preferential Industrial Policies Relating to ICPEs***

ICPEs which are duly accredited in accordance with relevant laws and regulations may qualify for preferential industrial policies. Under the Integrated Circuit Policies, accreditation of ICPEs is determined by the competent examination and approval authorities responsible for integrated circuit projects after consultation with relevant taxation authorities. Under the Accreditation Measures, an integrated circuit enterprise refers to an independent legal entity duly established in the PRC (except for Hong Kong, Macao, and Taiwan) engaging in the fabrication, package, or testing of integrated circuit chips and the production of mono-crystalline silicon of six inches or above, excluding the integrated circuit design enterprise. The accreditation of ICPEs is included in the accreditation of the integrated circuit enterprises. Such accreditation is determined by the competent authorities consisting of the National Development and Reform Commission, the Ministry of Information Industry, the State Administration of Taxation and the General Administration of Customs, which jointly designate the China Semiconductor Industrial Association as the accreditation institution. Any enterprise qualified under the requirements set forth in the Accreditation Measures is entitled to apply to the China Semiconductor Association for the Accreditation of the ICPEs. The accreditation of ICPEs is annually reviewed. If the enterprise fails to apply for the annual review in time, it shall be deemed as giving up such accreditation and if the enterprise fails in the annual review, the accreditation will also be canceled.

SMIC Shanghai, SMIC Beijing, and SMIC Tianjin have been accredited as ICPEs and are entitled to the preferential industrial policies described below.

***Encouragement of Domestic Investment in ICPEs***

Pursuant to the *Interim Provisions on Promoting Industrial Structure Adjustment*, or the Interim Provisions, issued by the State Council on December 2, 2005, and the *Catalogue for the Guidance of Industrial Structure Adjustment*, or the Guidance Catalogue, which is the basis and criteria for implementing the Interim Provisions, issued by the National Development and Reform Commission and all the State Council Institutions on December 2, 2005, the Chinese government encourages (i) the design and fabrication of large scale integrated circuits with a line width of less than 1.2 micron, (ii) the fabrication of the equipment of large scale integrated circuit and (iii) the fabrication of mixed integrated circuits. Under the Interim Provisions, imported equipment that is used for a qualifying domestic investment project and that falls within such project's approved total investment amount is exempt from custom duties and import-linked value-added tax, except for such equipment listed in the *Catalogue of Import Commodities for Domestic Investment Projects Not Entitled to Tax Exemptions*, as stipulated by the State Council and amended in 2006.

***Encouragement of Foreign Investment in ICPEs***

Pursuant to the Integrated Circuit Policies and the *Guideline Catalogue of Foreign Investment Industries* promulgated jointly by the State Development and Reform Commission and the Ministry of Commerce on October 11, 2007, the following foreign investment categories are encouraged:

design of integrated circuits;

fabrication of large scale integrated circuits with a line width of less than 0.18 micron (including 0.18 micron);

fabrication of analog and analog digital integrated circuits with a line width of less than 0.8 micron (including 0.8 micron);

advanced packaging and testing of BGA, PGA, CSP, MCM;

fabrication of mixed integrated circuits.

Foreign investment in such encouraged projects may enjoy preferential treatment as stipulated by the laws and regulations.

***Preferential Taxation Policies***

***Preferential Value-added Tax Policy***

Under Article 1 of the Further Development Taxation Notice (October 10, 2002 No. 70 [2002] Cai-Shui), from January 1, 2002 to the end of 2010, the sale of integrated circuits (including monocrystalline silicon chips) is subject to a value-added tax levy of 17%. After the value-added tax is levied, the taxpayer is to be entitled to a refund for the portion exceeding 3% of the actual value-added tax burden. The tax refund was required to be used by the enterprise for the research and development of integrated circuits and to increase production.

Under the Termination Notice (No. 174 [2004] of the Ministry of Finance), as of April 1, 2005, implementation of Article 1 of the Further Development Taxation Notice was terminated.

Under the Export Notice (No. 200 [2004] Cai-Shui), as of November 1, 2004, the tax refund rate for exports of electronic integrated circuits and micro-assemblies is to increase from 13% to 17%.

**Table of Contents***Preferential Enterprise Income Tax Policies*

Under Article 42 of the Integrated Circuit Policies (No. 18 [2000] Guo-Fa), Article 2(3) of the Integrated Circuit (Notice No. 25 [2000] Cai-Shui) and Article 1 of the Notice by the Ministry of Finance and the State Administration of Taxation on Several Preferential Policies for Income Tax (No. 1 [2000] Cai-Shui), ICPEs whose total investment exceeds Rmb 8,000 million (approximately US\$967 million) or whose integrated circuits have a line-width of less than 0.25 micron are entitled to preferential tax treatment similar to that granted for foreign investment in the energy and communications industries. SMIC Shanghai, SMIC Beijing and SMIC Tianjin are entitled to a full exemption from FEIT for five years starting with the first year of positive accumulated earnings and a 50% reduction for the following five years or five year exemption and five year reduction .

From January 1, 2002 to the end of 2010, investors in ICPEs and integrated circuit packaging enterprises that reinvest their after-income-tax profits from ICPEs for the purpose of increasing the registered capital in the ICPEs, or to establish other ICPEs and integrated circuit packaging enterprises for a period of operation of not less than five years, are entitled to a refund of 40% of the total amount of enterprise income tax paid on the reinvested portion. If the investment is withdrawn before the period of operation reaches five years, the amount of enterprise income tax refunded shall be repaid. From January 1, 2002 to the end of 2010, domestic or foreign investors that reinvest their after income-tax profits from sources within China in order to establish ICPEs or integrated circuit package enterprises in China's western regions for a period of operation of not less than five years are entitled to a refund of 80% of total amount of enterprise income tax paid on the reinvested portion. If the investment is withdrawn before the period of operation reaches five years, the amount of enterprise income tax refunded shall be repaid.

On March 16, 2007, the National People's Congress, the PRC legislature, approved and promulgated a new tax law named Enterprise Income Tax Law, On December 6, 2007, the PRC State Council issued the Implementation Regulations of the Enterprise Income Tax Law, both of which became effective on January 1, 2008. The Enterprise Income Tax Law and its Implementation Regulations, or the new EIT law, FIEs and domestic companies are subject to a uniform tax rate of 25%. The new EIT law eliminates or modifies most of the tax exemptions, reductions and preferential treatments available under the previous tax laws and regulations. The State Council issued the Notice of the State Council on the Implementation of the Transitional Preferential Policies in respect of Enterprise Income Tax on December 26, 2007, enterprises that were established before March 16, 2007 and already enjoy preferential tax treatments will (i) in the case of preferential tax rates, continue to enjoy the tax rates which will be gradually increased to the new tax rates within five years from January 1, 2008 or (ii) in the case of preferential tax exemption or reduction for a specified term, continue to enjoy the preferential tax holiday until the expiration of such term. Thus, SMIC Shanghai, SMIC Beijing and SMIC Tianjin could fall into condition (ii) and may be entitled to the five year exemption and five year reduction as subject to the final recognition by the PRC tax authorities. While the new EIT Law equalizes the tax rates for FIEs and domestic companies, preferential tax treatment would continue to be given to companies in certain encouraged sectors and to entities classified as high and new technology enterprises supported by the PRC government, whether FIEs or domestic enterprises. According to the new EIT Law, entities that qualify as high and new technology enterprises especially supported by the PRC government are expected to benefit from a tax rate of 15% as compared to the uniform tax rate of 25%. Implementation Regulations of the Enterprise Income Tax Law, a high and new technology enterprise shall have core self-owned intellectual properties and its products shall be within the scope provided by the high-technology field highly supported by the State .

Under the new EIT law, dividends, interests, rent, royalties and gains on transfers of property payable by a foreign-invested enterprise in the PRC to its foreign investor who is a non-resident enterprise will be subject to a 10% withholding tax, unless such non-resident enterprise's jurisdiction of incorporation has a tax treaty with the PRC that provides for a reduced rate of withholding tax. The Cayman Islands, where SMIC is incorporated, does not have such a tax treaty with the PRC. If SMIC is considered a non-resident enterprise, this new 10% withholding tax imposed on SMIC's dividend income received from SMIC Shanghai, SMIC Beijing and SMIC Tianjin would reduce its net income and have an adverse effect on its operating results.

Under the new EIT law, an enterprise established outside the PRC with its de facto management body within the PRC is considered a resident enterprise and will be subject to the enterprise income tax at the rate of 25% on its worldwide income. The de facto management body is defined as the organizational body that effectively exercises overall

management and control over production and business operations, personnel, finance and accounting, and properties of the enterprise. It remains unclear how the PRC tax authorities will interpret such a broad definition. Substantially the majority of management members of SMIC are based in the PRC. If the PRC tax authorities subsequently determine that SMIC should be classified as a resident enterprise, then SMIC's worldwide income will be subject to income tax at a uniform rate of 25%, which may have a material adverse effect on SMIC's financial condition and results of operations. Notwithstanding the foregoing provision, the new EIT law also provides that, if a resident enterprise directly invests in another resident enterprise, the dividends received by the investing resident enterprise from the invested enterprise are exempted from income tax, subject to certain conditions. Therefore, if SMIC is classified as a resident enterprise, the dividends received from our PRC subsidiary may be exempted from income tax and the dividends paid to our non-PRC shareholders and gains derived by our non-PRC shareholders from transferring our shares or ADSs may be subject to 10% withholding tax. However, it remains unclear how the PRC tax authorities will interpret the PRC tax resident treatment of an offshore company, like SMIC, having indirect ownership interests in PRC enterprises through intermediary holding vehicles.

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### *Exemption of Customs Duties and Import-related Value-added Tax*

Under the Integrated Circuit Policies (No. 18 [2000] Guo-Fa) and the Integrated Circuit Notice (No. 25 [2000] Cai-Shui), ICPEs whose total investment exceeds Rmb 8,000 million or whose integrated circuits have a line-width of less than 0.25 micron are exempt from customs duties and import-related value-added tax for the raw materials and consumables used for production purposes.

Under the Integrated Circuit Notice, integrated circuit technology, production equipment, and equipment and instruments specialized for use in fabricating integrated circuits that are imported by a duly accredited ICPE are, with the exception of commodities listed in the *Catalogue of Imported Commodities for Foreign Investment Projects Not Entitled to Tax Exemptions* and the *Catalogue of Imported Commodities for Domestic Investment Projects Not Entitled to Tax Exemptions* as stipulated by the Ministry of Finance and all the State Council Institutions and Departments and amended in 2006, exempt from customs duties and import-related value-added tax.

Under the Construction Materials Taxation Notice (No. 152 [2002] Cai-Shui), commencing January 1, 2001, the importation of construction materials, auxiliary equipment and spare parts for the production of integrated circuits, specifically for clean rooms (as listed in the annex to the Construction Materials Taxation Notice), by ICPEs whose total investment exceeds Rmb 8,000 million or whose integrated circuits have a linewidth of less than 0.25 micron is exempt from customs duties and import-related value-added tax.

### *Preferential Policies Encouraging Research and Development*

The new Corporate Income Tax ( CIT ) has provided tax incentives in relation to technologies as a means to encourage advancement and adoption of technologies. Among these incentives is the 50% additional tax deduction of the research and development ( R&D ) expenses (generally known as R&D Super-Deduction ). In December 2008, the State Administration of Taxation ( SAT ) issued a circular, Guoshuifa [2008] No.116 ( Circular 116 ) with retrospective effective date from 1 January 2008, to provide the implementation rules for the R&D Super-Deduction. An enterprise is allowed to claim an additional deduction of 50% of R&D expenses incurred for the development of new technologies, new products and new craftsmanship. If the R&D expenses result in an intangible asset, the enterprise is allowed to amortize the intangible asset based on 150% of the the capitalized R&D costs.

### ***Legal Framework Concerning the Protection of Intellectual Property Relating to Integrated Circuits***

China has formulated various laws and regulations on intellectual property protection in respect of integrated circuits including:

the *Patent Law of the People's Republic of China*, adopted at the fourth meeting of the Standing Committee of the Sixth National People's Congress on March 12, 1984, effective April 1, 1985 and amended by the Ninth National People's Congress on August 25, 2000;

the *Paris Convention for the Protection of Industrial Property* of the World Intellectual Property Organization, in which China became a member state as of March 19, 1985;

the *General Principles of the Civil Law of the People's Republic of China* adopted at the fourth session of the Sixth National People's Congress on April 12, 1986, effective January 1, 1987. In this legislation, intellectual property rights were defined in China's basic civil law for the first time as the civil rights of citizens and legal persons;

the *Copyright Law of the People's Republic of China*, adopted by the 15th meeting of the Seventh National People's Congress Standing Committee on September 7, 1990, effective June 1, 1991 and amended by the Ninth National People's Congress on October 27, 2000;

the *Regulations for the Protection of the Layout Design of Integrated Circuits*, or the Layout Design Regulations, adopted April 2, 2001 at the thirty-sixth session of the executive meeting of the State Council, effective October 1, 2001; and

the World Intellectual Property Organization's *Washington Treaty on Intellectual Property in Respect of Integrated Circuits*, for which China was among the first signatory states in 1990.

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***Protection of the Layout Design of Integrated Circuits***

Under the Layout Design Regulations, layout design of an integrated circuit refers to a three dimensional configuration in an integrated circuit that has two or more components, with at least one of these being an active component, and part or all of the interconnected circuitry or the three-dimensional configuration prepared for the production of integrated circuits.

Chinese natural persons, legal persons or other organizations that create layout designs are entitled to the proprietary rights in the layout designs in accordance with the Layout Design Regulations. Foreign persons or enterprises that create layout designs and have them first put into commercial use in China are entitled to the proprietary rights in the layout designs in accordance with the Layout Design Regulations. Foreign persons or enterprises that create layout designs and that are from a country that has signed agreements with China regarding the protection of layout designs, or is a party to an international treaty concerning the protection of layout designs to which China is also a party, are entitled to the proprietary rights of the layout designs in accordance with the Layout Design Regulations.

***Proprietary Rights in Layout Design of Integrated Circuits***

Holders of proprietary rights in a layout design are entitled to the following proprietary rights:

to duplicate the whole protected layout design or any part of the design that is original; and

to make commercial use of the protected layout design, the integrated circuit containing the layout design, or commodities containing the integrated circuit.

Proprietary rights in layout designs become valid after being registered with the administrative department of the State Council responsible for intellectual property. Unregistered layout designs are not protected by the Layout Design Regulations.

The protection period of the proprietary rights in a layout design is ten years, commencing from the date of the application for registration of the layout design or the date that it is put into commercial use anywhere in the world, whichever is earlier. However, regardless of whether or not a layout design is registered, or whether or not it is put into commercial use, it is not protected after 15 years from the time of its creation.

***Registration of a Layout Design***

The administrative departments of the State Council responsible for intellectual property are responsible for the registration of layout designs and accepting applications for the registration of layout designs. If an application for a layout design registration is not made with the administrative department of the State Council responsible for intellectual property within two years after it has been put into commercial use anywhere in the world, the administrative department of the State Council responsible for intellectual property will not register the application. A holder of proprietary rights in a layout design may transfer the proprietary rights or give permission for other parties to use the layout design.

***Compulsory Licenses for Exploitation of Patents in Respect of Semiconductor Technology***

Under the Patent Law and the Implementing Regulations of the Patent Law, after three years from the date of granting the patent rights, any person or enterprise that has made good faith reasonable proposals to the holder of proprietary rights seeking a license to those rights, but has been unable to obtain such license after an extended period of time, may request the administrative department responsible for patents under the State Council to grant a compulsory license for the relevant patent. However, where a compulsory license involves semiconductor technology, the implementation of a compulsory license is restricted to public and non-commercial uses, or to uses that counteract anti-competitive actions, as determined by judicial or administrative procedures.

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### ***PRC Tax for Resident Enterprises***

Under China's New EIT Law, we may be classified as a resident enterprise of China. This classification could result in unfavorable tax consequences to us and our non-PRC shareholders. The implementing rules of the New EIT Law define de facto management bodies as management bodies that exercises substantial and overall management and control over the production and operations, personnel, accounting, and properties of the enterprise. Currently no official interpretation or application of this new resident enterprise classification is available, therefore it is unclear how tax authorities will determine tax residency based on the facts of each case.

If the PRC tax authorities determine that our Cayman Islands holding company is a resident enterprise for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. First, we may be subject to enterprise income tax at a rate of 25% on our worldwide taxable income as well as PRC enterprise income tax reporting obligations. Second, although under the New EIT Law and its implementing rules dividends income between qualified resident enterprises is exempted income, it is not clear what is considered a qualified resident enterprise under the New EIT Law. Finally, it is possible that future guidance issued with respect to the new resident enterprise classification could result in a situation in which a 10% withholding tax is imposed on dividends we pay to our non-PRC shareholders and with respect to gains derived by our non-PRC shareholders from transferring our shares or ADSs. Similarly, these unfavorable consequences could apply to our other overseas intermediary holding companies if they are classified as a PRC resident enterprises.

### ***Environmental Regulation***

Our Chinese subsidiaries are subject to a variety of Chinese environmental laws and regulations promulgated by the central and local governments concerning examination and acceptance of environmental protection measures in construction projects, the use, discharge and disposal of toxic and hazardous materials, the discharge and disposal of waste water, solid waste, and waste gases, control of industrial noise and fire prevention. These laws and regulations set out detailed procedures that must be implemented throughout a project's construction and operation phases.

A key document that must be submitted for the approval of a project's construction is an environmental impact assessment report that is reviewed by the relevant environmental protection authorities. Upon completion of construction, and prior to commencement of operations, an additional examination and acceptance by the relevant environmental authority of such projects is also required. Within one month after receiving approval of the environmental impact assessment report, a semiconductor manufacturer is required to apply to and register with the competent environmental authority the types and quantities of liquid, solid and gaseous wastes it plans to discharge, the manner of discharge or disposal, as well as the level of industrial noise and other related factors. If the above wastes and noise are found by the authorities to have been managed within regulatory levels, renewable discharge registrations for the above wastes and noise are then issued for a specified period of time. SMIC Shanghai, SMIC Beijing, SMIC Tianjin, and SMIC Chengdu have all received approval with respect to their relevant environmental impact assessment reports and discharge registrations.

From time to time during the operation of our Chinese subsidiaries, and also prior to renewal of the necessary discharge registrations, the relevant environmental protection authority will monitor and audit the level of environmental protection compliance of these subsidiaries. Discharge of liquid, solid or gaseous waste over permitted levels may result in imposition of fines, imposition of a time period within which rectification must occur or even suspension of operations.

### ***Enforceability Of Civil Liabilities***

We are a Cayman Islands holding company. We are incorporated in the Cayman Islands because of the following benefits associated with being a Cayman Islands corporation:

political and economic stability;

an effective judicial system;

a favorable tax system;

the absence of exchange control or currency restrictions; and



the availability of professional and support services.

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However, the Cayman Islands have a less developed body of securities laws as compared to the United States and provides significantly less protection for investors. In addition, Cayman Islands companies may not have standing to sue before the federal courts of the United States. Substantially all of our assets are located outside the United States. In addition, most of our directors and officers are nationals and/or residents of countries other than the United States, and all or a substantial portion of our or such persons' assets are located outside the United States. As a result, it may be difficult for a shareholder to effect service of process within the United States upon us or such persons or to enforce against them or against us, judgments obtained in United States courts, including judgments predicated upon the civil liability provisions of the securities laws of the United States or any state thereof.

Conyers Dill & Pearman, our counsel as to Cayman Islands law, Slaughter and May, our counsel as to Hong Kong law, and Fangda Partners, our counsel as to Chinese law, have advised us that there is uncertainty as to whether the courts of the Cayman Islands, Hong Kong and China, respectively, would:

recognize or enforce judgments of United States courts obtained against us or our directors or officers predicated upon the civil liability provisions of the securities laws of the United States or any state thereof, or

be competent to hear original actions brought in each respective jurisdiction, against us or our directors or officers predicated upon the securities laws of the United States or any state thereof.

Conyers Dill & Pearman has further advised us that a final and conclusive judgment in the federal or state courts of the United States under which a sum of money is payable, other than a sum payable in respect of taxes, fines, penalties or similar charges, may be subject to enforcement proceedings as a debt in the Courts of the Cayman Islands under the common law doctrine of obligation.

**Organizational Structure**

We operate primarily through three wholly owned subsidiaries in China. The chart below sets forth our significant operating subsidiaries or affiliates, including their jurisdictions of incorporation and principal activities:

<b>Name of company</b>	<b>Place and date of incorporation/establishment</b>	<b>Attributable equity interest held</b>	<b>Principal Activity</b>
Garrison Consultants Limited ( Garrison )	Samoa April 3, 2000	100%	Consultancy services
Betterway Enterprises Limited ( Better Way )	Samoa April 5, 2000	100%	Trading of semiconductor products
Semiconductor Manufacturing International (Shanghai) Corporation ( SMIC Shanghai or SMIS )*#	PRC December 21, 2000	100%	Manufacturing and trading of semiconductor products
SMIC, Americas	United States of America June 22, 2001	100%	Marketing related activities
Semiconductor Manufacturing International (Beijing) Corporation ( SMIC Beijing or SMIB )*#	PRC July 25, 2002	100%	Manufacturing and trading of semiconductor products
SMIC Japan Corporation*	Japan October 8, 2002	100%	Marketing related activities

SMIC Europe S.R.L.

Italy  
July 3, 2003

100%

Marketing related  
activities

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<b>Name of company</b>	<b>Place and date of incorporation/establishment</b>	<b>Attributable equity interest held</b>	<b>Principal Activity</b>
Semiconductor Manufacturing International (Tianjin) Corporation ( SMIC Tianjin or SMIT )*#	PRC November 3, 2003	100%	Manufacturing and trading of semiconductor products
SMIC Commercial (Shanghai) Limited Company (formerly SMIC Consulting Corporation) *#	The PRC September 30, 2003	100%	Operation of a convenience store
Semiconductor Manufacturing International (AT) Corporation ( AT )*#	Cayman Islands July 26, 2004	57.3%	Investment holding
Semiconductor Manufacturing International (Chengdu) Corporation ( SMIC Chengdu or SMICD )*#	The PRC December 28, 2004	57.3%	Manufacturing and trading of semiconductor products
Semiconductor Manufacturing International (Solar Cell) Corporation	Cayman Islands June 30, 2005	100%	Investment holding
SMIC Energy Technology (Shanghai) Corporation ( Energy Science)*#	PRC September 9, 2005	100%	Manufacturing and trading of solar cells and modules
SMIC Development (Chengdu) Corporation*#	The PRC December 29, 2005	100%	Construction, operation, management of SMICD s living quarter, schools and supermarket
Magnificent Tower Limited	British Virgin Islands January 5, 2006	100%	Investment Holding
Semiconductor Manufacturing International (BVI) Corporation ( SMIC (BVI) )*	British Virgin Islands April 26, 2007	100%	Trading of semiconductor products
SMIC AT (HK) Company Limited ( SMIC AT (HK) )*	Hong Kong October 22, 2007	57.3%	Investment Holding
SMIC Solar Cell (HK) Company Limited ( SMIC Solar Cell (HK) )*	Hong Kong October 23, 2007	100%	Investment Holding
SMIC Shanghai (HK) Company Limited ( SMIC SH (HK) )*	Hong Kong November 1, 2007	100%	Investment Holding
		100%	Investment Holding

SMIC Beijing (HK) Company Limited ( SMIC BJ (HK) )*	Hong Kong November 2, 2007		
SMIC Tianjin (HK) Company Limited ( SMIC TJ (HK) )*	Hong Kong November 2, 2007	100%	Investment Holding
SMIC Shanghai (Cayman) Corporation ( SMIC SH (Cayman) )*	Cayman Islands November 8, 2007	100%	Investment Holding
SMIC Beijing (Cayman) Corporation ( SMIC BJ (Cayman) )*	Cayman Islands November 8, 2007	100%	Investment Holding

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<b>Name of company</b>	<b>Place and date of incorporation/establishment</b>	<b>Attributable equity interest held</b>	<b>Principal Activity</b>
SMIC Tianjin (Cayman) Corporation ( SMIC TJ (Cayman) )*	Cayman Islands November 8, 2007	100%	Investment Holding
SMIC (Wuhan) Development Corporation**	PRC March 27, 2007	100%	Construction, operation, management of living quarter, schools
Admiral Investment Holdings Limited	British Virgin Islands October 10, 2007	100%	Investment Holding
SMIC Shenzhen (Cayman) Corporation	Cayman Islands January 21, 2008	100%	Investment Holding
SMIC Shenzhen (HK) Company Limited	Hong Kong January 29, 2008	100%	Investment Holding
SilTech Semiconductor Corporation	Cayman Islands February 13, 2008	100%	Investment Holding
SilTech Semiconductor (Hong Kong) Corporation Limited*	Hong Kong March 20, 2008	100%	Investment Holding
Semiconductor Manufacturing International (Shenzhen) Corporation**	PRC March 20, 2008	100%	Manufacturing and trading of semiconductor products

# Companies registered as wholly-owned foreign enterprises in the *People's Republic of China*. ( PRC ), excluding for the purpose of this report, Hong Kong, Macau, and Taiwan.

\* For identification

purposes only.

## **Property, plant and equipment**

### *Equipment*

The quality and level of technology of the equipment used in the semiconductor fabrication process are important because they dictate the limits of the process technology that we use. Advances in process technology cannot be achieved without corresponding advances in equipment technology. The principal pieces of equipment used by us to fabricate semiconductors are scanners, cleaners and track equipment, inspection equipment, etchers, furnaces, wet stations, strippers, implanters, sputterers, CVD equipment, testers and probers. We source substantially all of our equipment from vendors located in the United States, Europe and Japan.

In implementing our capacity expansion and technology advancement plans, we expect to make significant purchases of equipment required for semiconductor fabrication. Some of the equipment is available from a limited number of vendors and/or is manufactured in relatively limited quantities, and in some cases has only recently become commercially available. Our ability to obtain certain kinds of equipment from outside of China may be subject to restrictions. See **Risk Factors** **Risks Related to Conducting Operations in China** **Limits placed on exports into China** could substantially harm our business and operating results.

We maintain our equipment through a combination of in-house maintenance and outside contracting to our equipment vendors. We decide whether to maintain ourselves, or subcontract the maintenance of, a particular piece of equipment based on a variety of factors, including cost, complexity and regularity of the required periodic maintenance and the availability of maintenance personnel in China. Most of our equipment vendors offer maintenance services through technicians based in China.

**Table of Contents***Property*

Our corporate headquarters and our mega-fab in Shanghai occupy 367,895 square meters of land, for which we hold valid land use rights certificates. These fabs currently occupy approximately 45% of this total land area. We also hold valid land use rights for the 240,140 square meters of land that comprise our Beijing site, approximately 75% of which will be occupied by the Beijing mega-fab. In 2005, we received land use rights certificates for 215,733 square meters of land in Tianjin, which is occupied by the Tianjin fab. We own all of the buildings and equipment for our fabs, except for certain customer-owned tooling provided to our Shanghai operations for test production on a consignment basis from our customers.

The following table sets forth the location, size and primary use of our real properties and whether such real properties are owned or leased.

<b>Location</b>	<b>Size (Land/Building) (in square meters)</b>	<b>Primary Use</b>	<b>Owned<sup>(1)</sup> or Leased (Land/Building)</b>
Zhangjiang High-Tech Park, Pudong New Area, Shanghai	367,895/164,795	Wafer fabrication	owned/owned
Beijing Economic and Technological Development Area	240,140/143,017	Wafer fabrication	owned/owned
Xiqing Economic Development Area, Tianjin Export Processing Zone (West Area), Chengdu	215,733/61,990	Wafer fabrication	owned/owned
Japan	252,831/35,850	Assembly and Test	owned/owned
USA	na/55	Marketing activities	na/leased
Italy	na/743	Marketing activities	na/leased
Hong Kong <sup>(2)</sup>	na/280	Marketing activities	na/leased
	na/300	Representative Office	na/owned

(1) With respect to land located in China, ownership refers to holding a valid land use rights certificate. All land within municipal zones in China is owned by the Chinese government. Limited liability companies, joint stock companies, foreign-invested enterprises, privately held companies and



individual  
natural persons  
must pay fees to  
be granted rights  
to use land  
within municipal  
zones. Legal use  
of land is  
evidenced and  
sanctioned by  
land use  
certificates  
issued by the  
local municipal  
administration of  
land resources.  
Land use rights  
granted for  
industrial  
purposes are  
limited to a term  
of no more than  
50 years.

- (2) In  
February 2006,  
we purchased  
approximately  
300 square meter  
of property in  
Hong Kong  
through our  
indirect  
wholly-owned  
subsidiary,  
Magnificent  
Tower Limited,  
a company  
incorporated in  
the British  
Virgin Islands.

The construction of our 8-inch fab in Shenzhen began in 2008 in an effort to expand our production capacity and is expected to commence commercial production in 2010. We plan to gradually increase the capacity in the Shenzhen fab based on market conditions. This project will be financed through our operating cash flows as well as through external financing. See **Risk Factors** **Risks Related to Our Financial Condition and Business** Since our operating cash flows will not be sufficient to cover our planned capital expenditures, we will require additional external financing, which may not be available on acceptable terms or at all. Any failure to raise adequate funds in a timely manner could adversely affect our business and operating results, and **Risk Factors** **Risks Related to Our Financial Condition and Business** The construction and equipping of new fabs and the expansion of existing fabs are subject to certain risks that could result in delays or cost overruns, which could require us to expend additional capital and adversely affect our business and operating results.

Our right to continued use of the land is subject to our continued compliance with the land use agreement that each of our Chinese subsidiaries has executed. The Chinese government has reserved the right to revoke our land use rights for special eminent domain purposes, in which case the government will compensate us. In addition, pursuant to an amendment to its domestic bank loan agreements, SMIC Beijing and SMIC Tianjin have pledged a portion of its land use right to the lenders. See Item 5 Operating and Financial Review and Prospects Liquidity and Capital Resources. For a description concerning our capacity, capacity utilization rate and capacity expansion plans, please see Item 5-Operating and Financial Review and Prospects-Factors that Impact our Results of Operations.

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### **Risk Management and Insurance**

Our safety management philosophy is based on incident prevention and frequent safety audits. Incident prevention is achieved through:

mandatory staff and vendor safety training;

compliance of equipment and facilities to safety criteria, including the Semiconductor Equipment and Materials International and Chinese National Fire Protection Association standards; and

standard management procedures established by our environmental, health and safety committee.

Regularly scheduled safety audits are performed in accordance with established world standards, and we have been qualified under OHSAS 18001 internal auditing standards as of September 2003.

We have established a risk management committee and an emergency response center to respond to all emergencies.

The facility monitoring and control system and security monitoring room located within our emergency response center are where all emergency responses begin. These rooms are equipped with 24-hour safety and security monitoring systems such as closed circuit television, gas monitoring systems, chemical dispensing systems, very early smoke detection apparatus, public announcement systems, and fire alarm systems.

Each department conducts emergency drills on a quarterly basis in accordance with our emergency response plan to address all possible emergency situations that could arise. These emergency scenarios include fires, gas leakages, chemical spills, and power losses.

We maintain insurance with respect to our facilities, equipment, and inventories. The insurance for the fabs and their equipment covers, subject to some limitations, various risks, including industrial accidents and natural disasters, generally up to their respective replacement values and loss due to business interruption. We have not made any significant claims under these insurance policies. Equipment and inventories in transit are also insured.

### **Environmental Matters**

The semiconductor production process generates gaseous chemical wastes, liquid waste, waste water, and other industrial wastes in various stages of the fabrication process. We have installed various types of pollution control equipment for the treatment of gaseous chemical waste and liquid waste and equipment for the recycling of treated water in our fabs. Our operations are subject to regulation and periodic monitoring by PRC's State Environmental Protection Bureau, as well as local environmental protection authorities, including those under the Shanghai Pudong Municipal Government, the Beijing Municipal Government, the Tianjin Municipal Government, and the Chengdu Municipal Government, which may in some cases establish stricter standards than those imposed by the State Environmental Protection Bureau. The Chinese national and local environmental laws and regulations impose fees for the discharge of waste substances above prescribed levels, require the payment of fines for serious violations, and authorize the Chinese national and local governments to suspend any facility that fails to comply with orders requiring it to cease or remedy operations causing environmental damage. No such penalties have been imposed on us or any of our subsidiaries for violations of environmental pollution.

We believe our pollution control measures are effective, complying with the requirements applicable to the semiconductor industry in China and comparable to other countries. Waste generated from our operations, including acid waste, alkaline waste, flammable waste, toxic waste, oxidizing waste, and self-igniting waste, are collected and sorted for proper disposal. Furthermore, we have in many cases implemented waste reduction steps beyond the scope of current regulatory requirements. In addition, we continuously investigate methods to lower our energy consumption, including making existing processes more efficient and introducing green energy.

The ISO14001 standard is a voluntary standard and part of a comprehensive series of standards for environmental management published by the International Standards Organization. The ISO14001 standard cover environmental management principles, systems and supporting techniques. Starting in August 2002, all operating fabs have since achieved ISO14001 certification.

Furthermore, by March of 2007, these fabs have been third-party certified to be compliant with the RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) Directive of the European Union, which bans the use of various chemicals determined to be harmful to the environment. Once the Shenzhen facility is

in operation, it too will undergo certification for ISO14001 and RoHS compliance.

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### **Item 4A. Unresolved Staff Comments**

Not applicable.

### **Item 5. Operating and Financial Review and Prospects**

#### **Overview**

We were founded in April 2000. In 2000 and 2001, our company was in its development stage and did not have any sales. During this period, we established our management structure, acquired land use rights, constructed, equipped and commenced the ramp-up of production at our 8-inch wafer facilities in Shanghai which are referred to as the Shanghai mega-fab, and began our research and development activities. The first fab in the Shanghai mega-fab and the portion of our second fab, commenced commercial production in January 2002. The remaining portion of our second fab and a third fab commenced commercial production in January 2003. In January 2004, we acquired an 8-inch fab in Tianjin, China, which we refer to as our Fab 7, from MCEL, a wholly owned subsidiary of Motorola. The first fab in the Beijing mega-fab commenced commercial production in March of 2005. As of December 31, 2008, we had reached total wafer fabrication capacity of 160,500 8-inch wafer equivalents per month. Our wafers shipped and sales increased from 1,614,888 wafers and US\$1,465.3 million for 2006 to 1,849,957 wafers and US\$1,549.8 million for 2007 and decreased to 1,611,208 wafers and US\$1,353.7 million for 2008.

We manage our business and measure our results of operations based on a single operating segment. We anticipate a slight increase to aggregate capacity by the end of 2009 subject to market conditions. As we increase our capacity and corresponding wafer production, we benefit from economies of scale. When our capacity utilization is high, these economies of scale enable us to reduce our per wafer production cost and improve our margins. On the other hand, when our capacity utilization rate is low, our unused capacity results in higher per wafer production cost and decreased margins.

#### **Factors that Impact Our Results of Operations**

##### ***Cyclicalities of the Semiconductor Industry***

The semiconductor industry is highly cyclical due mainly to the cyclicalities of demand in the markets of the products that use semiconductors. As these markets fluctuate, the semiconductor market also fluctuates. This fluctuation in the semiconductor market is exacerbated by the tendency of semiconductor companies, including foundries, to make capital investments in plant and equipment during periods of high demand since it may require several years to plan, construct and commence operations at a fab. Absent sustained growth in demand, this increase in capacity often leads to overcapacity in the semiconductor market, which in the past has led to a significant underutilization of capacity and a sharp drop in semiconductor prices. The semiconductor industry is generally slow to react to declines in demand due to its capital-intensive nature and the need to make commitments for equipment purchases well in advance of the planned expansion.

##### ***Substantial Capital Expenditures***

The semiconductor foundry industry is characterized by substantial capital expenditures. This is particularly true for our company as we have recently constructed and equipped fabs and are continuing to construct and equip new fabs. In connection with the construction and ramp-up of our capacity since our inception, we incurred capital expenditures of US\$912 million, US\$860 million, and US\$666 million in 2006, 2007, and 2008 respectively. We depreciate our manufacturing machinery and equipment on a straight-line basis over an estimated useful life of five to seven years. We recorded depreciation and amortization of US\$919.6 million, US\$706.3, and US\$761.8 million in 2006, 2007, and 2008 respectively.

The semiconductor industry is also 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 US\$94.2 million in 2006, US\$97.0 million in 2007, and US\$102.2 million in 2008 for research and development, which represented 6.4%, 6.3%, and 7.6% respectively, of our sales for 2006, 2007, and 2008. Our research and development costs are partially offset by related government subsidies and include non-recurring engineering costs associated with the ramp-up of a new wafer facility. In 2008, we continued to equip our new 12-inch fab at the Shanghai mega-fab.



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We currently expect that our capital expenditures in 2009 will be approximately US\$190 million to be adjusted based on market conditions, which we plan to fund through our operating cash flows and bank loans in order to expand our operations. If necessary, we will also explore other forms of external financing. In addition, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in our business plan, our process technology, market conditions, equipment prices, or customer requirements. We will monitor the global economy, the semiconductor industry, the demands of our customers, and our cash flow from operations to adjust our capital expenditure plans.

**Capacity Expansion**

We have expanded, and plan to continue to expand, our capacity through internal growth and acquisitions. An increase in capacity may have a significant effect on our results of operations, both by allowing us to produce and sell more wafers and achieve higher sales, and as a cost component in the form of acquisition costs and depreciation expenses. We anticipate a slight increase to aggregate capacity by the end of 2009 subject to market conditions.

**Pricing**

We price our foundry services on either a per wafer or a per die basis, taking into account the complexity of the technology, the prevailing market conditions, the order size, the cycle time, the strength and history of our relationship with the customer, and our capacity utilization. Since a majority of our costs and expenses are fixed or semi-fixed, fluctuations in the average selling prices of semiconductor wafers have historically had a substantial impact on our margins. The average selling price of the wafers we shipped increased 0.2% from US\$838 per wafer in 2007 to US\$840 per wafer in 2008.

The following table sets forth a percentage breakdown of wafer sales by process technology for the years ended December 31, 2006, 2007 and 2008 and each of the quarters in the year ended December 31, 2008:

Process Technologies	For the year ended		For the three months ended				For the year ended
	December 31, 2006	December 31, 2007	March 31, 2008	June 30, 2008	September 30, 2008	December 31, 2008	December 31, 2008
	(based on sales in US\$)						
0.13 micron and below	49.60%	53.10%	44.70%	41.30%	44.50%	45.50%	43.90%
0.15 micron	5.70%	2.90%	4.30%	2.10%	2.00%	2.20%	2.70%
0.18 micron	35.70%	30.50%	32.10%	37.70%	33.90%	32.50%	34.10%
0.25 micron	2.00%	0.70%	0.50%	0.60%	0.50%	0.60%	0.60%
0.35 micron	7.00%	12.80%	18.40%	18.30%	19.10%	19.20%	18.70%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Change in Process Mix and Technology Migration**

Because the price of wafers processed with different technologies varies significantly, the mix of wafers that we produce is among the primary factors that affect our sales and profitability. The value of a wafer is determined principally by the complexity of the process technology used to fabricate the wafer. In addition, production of devices with higher levels of functionality and greater system-level integration requires more fabrication steps, and these devices generally sell for higher prices.

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Prices for wafers of a given level of technology generally decline over the relevant process technology life cycle. As a result, we and our competitors are continuously in the process of developing and acquiring advanced process technologies and migrating our customers to use such technologies to maintain or improve our profit margins. This technology migration requires continuous investment in research and development and technology-related acquisitions, and we expect to continue to spend a substantial amount of capital on upgrading our technologies. Our initial sales after commencing commercial operations in 2002 consisted mainly of DRAM fabricated and sold on a foundry basis, as well as commodity-type DRAM fabricated using technology licensed from a third party and sold by us to distributors. This commodity-type DRAM was fabricated during our start-up phase in order to test and ramp up our facilities and train our personnel. As our business has grown and our fabs have matured, we have produced proportionately less commodity-type DRAM and more logic products and memory products utilizing more advanced technologies, which generally command a higher margin. During the first quarter of 2008, the Company reached an agreement with our customers to completely exit the commodity DRAM business. The conversion of DRAM capacity into logic production was completed on schedule in the fourth quarter. As a result, our Beijing 300mm logic capacity has placed us in a better position to serve our global and China customers. In connection with the decision to exit the commodity DRAM business, we recorded an impairment loss of \$105.8 million on long-lived assets during the first quarter of 2008.

The following table sets forth a breakdown of our sales by service type for 2006, 2007 and 2008:

Service Type	For the year ended December 31,					
	2006		2007		2008	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Fabrication of memory wafers	476,970	32.60%	428,355	27.60%	71,935	5.30%
Fabrication of logic wafers <sup>(1)</sup>	923,411	63.00%	985,776	63.60%	1,139,535	84.20%
Other <sup>(2)</sup>	64,942	4.40%	135,634	8.80%	142,241	10.50%
Total	\$ 1,465,323	100.00%	\$ 1,549,765	100.00%	1,353,711	100.00%

(1) Includes copper interconnects and memory devices whose manufacturing process is similar to that for a logic device.

(2) Includes mask-making and probing, etc.

**Capacity Utilization Rates**



Operations at or near full capacity have a significant positive effect on our profitability because a substantial percentage of our cost of sales is of a fixed nature. In 2006, 2007 and 2008, approximately 59%, 47%, and 46% respectively, of our cost of sales consisted of depreciation expenses, which are fixed costs. If we increase our utilization rates, the number of wafers we fabricate will increase, and therefore our average fixed costs per wafer will decrease. Therefore, our capacity utilization rates have a significant effect on our margins. Our utilization rates have varied from period to period due to capacity ramp-ups and fluctuations in customer orders. Our annual capacity utilization rate was 89.6% in 2006, 91.0% in 2007, and 86.0% in 2008. Factors affecting utilization rates are the overall industry conditions, the level of customer orders, the complexity of the wafers and of the mix of wafers produced, mechanical failures and other operational disruptions such as the expansion of capacity or the relocation of equipment, and our ability to manage the production facilities and product flows efficiently.

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Our capacity is determined by us based on the capacity ratings for each piece of equipment, as specified by the manufacturers of such equipment, adjusted for, among other factors, actual output during uninterrupted trial runs, expected down time due to set up for production runs and maintenance, and expected product mix. Because these factors include subjective elements, our measurement of capacity utilization rates may not be comparable to those of our competitors.

***Yield Rates***

Yield per wafer is the ratio of the number of functional dies on that wafer to the maximum number of dies that can be produced on that wafer. A significant portion of our services, particularly our memory semiconductor wafer fabrication services, is priced on a per die basis.

We continuously upgrade the process technologies that we use. At the beginning of each technology migration, the yield utilizing the new technology is generally lower, sometimes substantially lower, than the yield under the then-current technology. This is because it requires time to stabilize, optimize and test a new process technology. We do not ship wafers to a customer until we have achieved that customer's minimum yield requirements. Yield is generally improved through the expertise and cooperation of our research and development personnel, process engineers, and equipment suppliers.

**Critical Accounting Policies**

The methods, estimates and judgments we use in applying our accounting policies have a significant impact on the results we report in our financial statements. Some of our accounting policies require us to make difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Below we have summarized our accounting policies that we believe are both important to the portrayal of our financial results and involve the need to make estimates about the effect of matters that are inherently uncertain. We also have other policies that we consider to be key accounting policies. However, these policies do not meet the definition of critical accounting estimates because they do not generally require us to make estimates or judgments that are difficult or subjective.

***Inventory***

Inventories are stated at the lower of cost or market. Market represents the net realizable value for finished goods and work-in-progress. Inventory cost is determined using standard cost and an allocation of the cost variances arising in the period of production, which approximates actual costs determined on the weighted average basis. We determine the standard cost of each wafer based on estimates of the materials, labor, and other costs incurred in each process step associated with the manufacture of our products. We allocate labor and overhead costs to each step in the wafer production process based on normal fab capacity, with costs arising from abnormal under-utilization of capacity expensed when incurred. The unit cost of a wafer generally decreases as fixed overhead charges, such as depreciation expense on the facility and semiconductor equipment, are allocated over a larger number of units produced.

We estimate the net realizable value for such finished goods and work-in-progress based primarily upon the latest invoice prices and current market conditions. If the market value of a good drops below its carrying value, we record a write-off to cost of sales for the difference between the carrying cost and the market value. During the years ended December 31, 2006, 2007 and 2008, the Company recorded inventory write downs of US\$16.1 million, US\$22.7 million, and US\$40.8 million, respectively, to reflect a decline in the estimated market value of the inventory we held. We carry out an inventory review at each quarter-end.

***Depreciation and Amortization***

We operate in a capital-intensive business. We periodically review and assess the estimated useful life of our assets based on expected use by the Company, taking into account effects of obsolescence, demand, and other economic factors. The net book value of our plant and equipment, including land use rights, at December 31, 2008 was US\$3,038 million. Depreciation of manufacturing buildings and related improvements is provided on a straight-line basis over the estimated useful life of 25 years and commences from the date the facility is ready for its intended use. Depreciation of our manufacturing machinery and equipment, as well as our facility, machinery and equipment, is provided on a straight-line basis over the estimated useful life, commencing from the date that the equipment is placed into productive use. A 5 to 7 year useful life is used for manufacturing machinery and equipment while a 10 year useful life is used for facility, machinery and equipment. Amortization of land use rights is over the term of the land

use right agreement, which ranges from 50 to 70 years. Amortization of intangible assets is computed using the straight-line method over the expected useful life of the assets ranging from 3 to 10 years. The estimated useful life and dates that the equipment is placed into productive use reflects our estimate of the periods that we intend to derive future economic benefits from the use of our plant and equipment and land use rights.

**Table of Contents*****Long-lived Assets***

The Company assesses the impairment of long-lived assets when events or changes in circumstances indicate that the carrying value of the assets or the asset group may not be recoverable. Factors that we consider in deciding when to perform an impairment review include, but are not limited to significant under-performance of a business or product line in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in our use of the assets. An impairment analysis is performed at the lowest level of identifiable independent cash flows for an asset or asset group. We make subjective judgments in determining the independent cash flows that can be related to specific asset group based on our asset usage model and manufacturing capabilities. We measure the recoverability of assets that will continue to be used in our operations by comparing the carrying value of the asset group to our estimate of the related total future undiscounted cash flows. If an asset group's carrying value is not recoverable through the related undiscounted cash flows, the impairment loss is measured by comparing the difference between the asset group's carrying value and its fair value, based on the best information available, including market prices or discounted cash flow analysis.

In order to remain technologically competitive in our industry, we have entered into technology transfer and technology license arrangements with third parties in an attempt to advance our process technologies. The payments made for such technology licenses are recorded as an intangible asset or as a deferred cost and amortized on a straight-line basis over the estimated useful life of the asset. We routinely review the remaining estimated useful lives of these intangible assets and deferred costs. We also evaluate these intangible assets and deferred costs for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. We have continued to construct, acquire, and expand our manufacturing facilities since our inception. We will continue to review impairment factors as described above and, as a result, impairment charges may be necessary in the future as circumstances change.

During the first quarter of 2008, the Company reached an agreement with our customers to completely exit the commodity DRAM business. The conversion of DRAM capacity into logic production was completed on schedule in the fourth quarter. As a result, our Beijing 300mm logic capacity has placed us in a better position to serve our global and China customers. In connection with the decision to exit the commodity DRAM business, we recorded an impairment loss of \$105.8 million on long-lived assets during the first quarter of 2008.

As of March 31, 2008 the sensitivity of the fair values to an independent change of one point in the discount rate were as follows:

<b>Reporting Unit</b>	<b>Excess of carrying value over estimated fair value (in millions)</b>	<b>Impact of one point change in the discount rate (in millions)</b>	
		<b>+1 point</b>	<b>-1 point</b>
		SMIB	-105.8

***Revenue Recognition***

We manufacture semiconductor wafers for our customers based on the customers' designs and specifications pursuant to manufacturing agreements and purchase orders. We also sell certain semiconductor standard products to customers. Customers do not have any rights of return except pursuant to warranty provisions, which returns have been minimal. We typically perform tests of our products prior to shipment to identify yield of acceptable products per wafer. Occasionally, product tests performed after shipment identify yields below the level agreed with the customer. In those circumstances, the customer arrangement may provide for a reduction to the price paid or for its costs to ship replacement products. We estimate the amount of sales returns and the cost of replacement products based on the historical trend of returns and warranty replacements relative to sales and any current information regarding specific customer yield issues that may exceed historical trends. We recognize revenue upon shipment and title transfer, if all other criteria have been met. We also provide certain services such as mask making and probing and revenue is

recognized when our services are completed.

**Table of Contents*****Share-based Compensation Expense***

Our share-based employee compensation plans are described in more detail under Share Ownership. We grant stock options to our employees and we record a compensation charge for the excess of the fair value of the stock at the measurement date over the amount an employee must pay to acquire the stock. We amortize share-based compensation using the straight-line method over the vesting periods of the related options, which are generally four years.

We grant stock options to our employees and certain non-employees. Prior to January 1, 2006, we accounted for share-based compensation in accordance with Accounting Principles Board Opinion No. 25, ( APB 25 ), Accounting for Stock Issued to Employees, and related interpretations. We also followed the disclosure requirements of SFAS No. 123, Accounting for Stock-Based Compensation, as amended by SFAS 148, Accounting for Stock-Based Compensation-Transition and Disclosure. As a result, no expense was recognized for options to purchase our ordinary shares that were granted with an exercise price equal to fair market value at the day of the grant prior to January 1, 2006. Effective January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards No. 123(R), ( SFAS 123(R) ) Share-Based Payment, which establishes accounting for equity instruments exchanged for services. Under the provisions of SFAS 123(R), share-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the employee's requisite service period (generally the vesting period of the equity grant). We elected to adopt the modified prospective transition method as provided by SFAS 123(R) and, accordingly, financial statement amounts for the prior periods presented in this report have not been restated to reflect the fair value method of expensing share-based compensation. As a result of adopting SFAS 123(R) on January 1, 2006, we recognized a benefit of US\$5.2 million as a result of the cumulative effect of a change in accounting principle, in relation to the forfeiture rate applied on the unvested portion of the stock options. Our total actual share-based compensation expense for the year ended December 31, 2006, 2007 and 2008 was US\$23.5, US\$20.6, and US\$11.6 million respectively.

The fair value of options and shares issued pursuant to our option plans at the grant date was estimated using the Black-Scholes option pricing model. This model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the expected stock price volatility. We use projected volatility rates based upon the company's historical volatility rates. Because our employee stock options issued under our 2001 Stock Plan, 2001 Regulation S Stock Plan, 2001 Preference Shares Stock Plan and 2001 Regulation S Preference Shares Stock Plan had characteristics significantly different from those of publicly traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of our stock options.

**Inflation**

Although there can be no assurance as to the impact in future periods, we believe that, to date, inflation in China has not had a material impact on our results of operations. Inflation in China was approximately 1.5%, 4.8%, and 5.9% in 2006, 2007, and 2008, respectively.

**Income Tax**

As an exempted company incorporated in the Cayman Islands, we are exempt from Cayman Islands taxation. Our Chinese subsidiaries are subject to taxation pursuant to Enterprise Income Tax Law and various local income tax laws. Under relevant regulations and after approval by the local Tax Bureau, our Shanghai, Beijing and Tianjin subsidiaries will become entitled to a full exemption from foreign enterprise income tax, or FEIT, for five years starting with the first year of positive accumulated earnings, and a 50% reduction for the following five years. The tax holiday enjoyed by our Shanghai subsidiary took effect in 2004 when SMIS completed its first profit-making year. As of December 31, 2008, both Beijing and Tianjin entities were in loss positions and as a result the tax holiday had not yet taken effect.

According to PRC tax regulations, the Company's Chengdu subsidiary is entitled to a full exemption from FEIT for two years starting with the first year of positive accumulated earnings and a 50% reduction for the following three years. As of December 31, 2008, SMICD was still in a loss position. Pursuant to the New EIT Law, the tax holiday began in 2008 at the statutory tax rate of 25% despite the fact that SMICD had yet to be profitable.



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Our other subsidiaries are subject to their respective jurisdictions' income tax laws, including Japan, United States, and Europe. Our income tax obligations to date have been minimal.

We account for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires an asset and liability approach for financial accounting and reporting for income tax purposes. Under the asset and liability method, deferred income taxes are recognized for temporary differences, net operating loss carry-forwards and credits by applying enacted statutory tax rates applicable to future years. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. We conduct this analysis on a quarterly basis. As of December 31, 2008, the Company has recognized deferred tax assets including \$55.5 million from net operating loss carry forward and \$59.2 million from temporary difference between the tax and book base of certain fixed assets. We provided full valuation allowance on net operating loss carry forward as we believe it is more likely than not that it would not be realized. The temporary difference generated from depreciation of fixed assets relates specially to one of the Company's subsidiaries and this subsidiary has achieved profitability in prior years and is expected to continue to be profitable based on the current forecast. We have recognized \$20.3 million valuation allowance based on the analysis on available positive and negative evidences, including profitability, utilization and production efficiency, industry cyclical risk and technology development risk.

Effective January 1, 2007, the Company adopted FASB Interpretation No. 48 Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement 109 (FIN 48), which prescribes a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This interpretation also provides guidance on de-recognition of income tax assets and liabilities, classification of current and deferred income tax assets and liabilities, accounting for interest and penalties associated with tax positions, accounting for income taxes in interim periods and income tax disclosures.

On March 16, 2007, the National People's Congress, the PRC legislature, approved and promulgated a new tax law named Enterprise Income Tax Law, On December 6, 2007, the PRC State Council issued the Implementation Regulations of the Enterprise Income Tax Law, both of which became effective on January 1, 2008. The Enterprise Income Tax Law and its Implementation Regulations, or the new EIT law, FIEs and domestic companies are subject to a uniform tax rate of 25%. The new EIT law eliminates or modifies most of the tax exemptions, reductions and preferential treatments available under the previous tax laws and regulations. The State Council issued the Notice of the State Council on the Implementation of the Transitional Preferential Policies in respect of Enterprise Income Tax on December 26, 2007, enterprises that were established before March 16, 2007 and already enjoy preferential tax treatments will (i) in the case of preferential tax rates, continue to enjoy the tax rates which will be gradually increased to the new tax rates within five years from January 1, 2008 or (ii) in the case of preferential tax exemption or reduction for a specified term, continue to enjoy the preferential tax holiday until the expiration of such term. Thus, SMIC Shanghai, SMIC Beijing and SMIC Tianjin could fall into condition (ii) and may be entitled to the five year exemption and five year reduction as subject to the final recognition by the PRC tax authorities. While the EIT Law equalizes the tax rates for FIEs and domestic companies, preferential tax treatment would continue to be given to companies in certain encouraged sectors and to entities classified as high and new technology enterprises companies supported by the PRC government, whether FIEs or domestic companies. According to the new EIT Law, entities that qualify as high and new technology enterprises especially supported by the PRC government are expected to benefit from a tax rate of 15% as compared to the uniform tax rate of 25%. Implementation Regulations of the Enterprise Income Tax Law, a high and new technology enterprise shall have core self-owned intellectual properties and its products shall be within the scope provided by the high-technology field highly supported by the State. Under the new EIT law, dividends, interests, rent, royalties and gains on transfers of property payable by a foreign-invested enterprise in the PRC to its foreign investor who is a non-resident enterprise will be subject to a 10% withholding tax, unless such non-resident enterprise's jurisdiction of incorporation has a tax treaty with the PRC that provides for a reduced rate of withholding tax. The Cayman Islands, where SMIC is incorporated, does not have such a tax treaty with the PRC. If SMIC is considered a non-resident enterprise, this new 10% withholding tax imposed on SMIC's dividend income received from SMIC Shanghai, SMIC Beijing and SMIC Tianjin would reduce its net income and have an adverse effect on its operating results.



Under the new EIT law, an enterprise established outside the PRC with its de facto management body within the PRC is considered a resident enterprise and will be subject to the enterprise income tax at the rate of 25% on its worldwide income and foreign tax credit may be applicable. The de facto management body is defined as the organizational body that effectively exercises overall management and control over production and business operations, personnel, finance and accounting, and properties of the enterprise. It remains unclear how the PRC tax authorities will interpret such a broad definition. Substantially the majority of management members of SMIC are based in the PRC. If the PRC tax authorities subsequently determine that SMIC should be classified as a resident enterprise, then SMIC's worldwide income will be subject to income tax at a uniform rate of 25%, which may have a material adverse effect on SMIC's financial condition and results of operations. Notwithstanding the foregoing provision, the new EIT law also provides that, if a resident enterprise directly invests in another resident enterprise, the dividends received by the investing resident enterprise from the invested enterprise are exempted from income tax, subject to certain conditions. Therefore, if SMIC is classified as a resident enterprise, the dividends received from our PRC subsidiary may be exempted from income tax. However, it remains unclear how the PRC tax authorities will interpret the PRC tax resident treatment of an offshore company, like SMIC, having indirect ownership interests in PRC enterprises through intermediary holding vehicles.

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On February 22, 2008, the PRC government promulgated Caishui (2008) No.1, the Notice of the Ministry of Finance and State Administration of Tax concerning Certain Enterprise Income Tax Preferential Policies ( Caishui No.1 ). Pursuant to Caishui No.1, integrated circuit production enterprises whose total investment exceeds RMB8,000 million (approximately \$1,095 million) or whose integrated circuits have a line width of less than 0.25 micron are entitled to preferential tax rate of 15%. If the operation period is more than 15 years, those enterprises are entitled to a full exemption from inco