

SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP
Form 20-F
June 29, 2010

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, 2009

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)

Mr. Gary Tseng, 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.

Title of each class
Ordinary Shares, par value US\$0.0004
American Depositary Shares

Name of each exchange on which registered
The Stock Exchange of Hong Kong Limited*
The New York Stock Exchange, Inc.

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.

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As of December 31, 2009, there were 22,375,886,604 ordinary shares, par value US\$0.0004 per share, outstanding, of which 2,969,131,050 ordinary shares were held in the form of 59,382,621 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

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 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
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

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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 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;
- “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.

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 and 45 nanometer include the stated resolution of the process technology, as well as intermediate resolutions 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 and “0.18 micron process technology” also includes 0.17 micron and 0.16 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, 2007, 2008 and 2009 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, 2005 and 2006 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.

	For the year ended December 31,				
	2005	2006	2007	2008	2009
	(in US\$ thousands, except for share, ADS, percentages, and operating data)				
Statement of Operations Data:					
Sales	\$ 1,171,319	\$ 1,465,323	\$ 1,549,765	\$ 1,353,711	\$ 1,070,387
Cost of sales(1)	1,105,134	1,338,155	1,397,038	1,412,851	1,184,589
Gross (loss) profit	66,185	127,168	152,727	(59,140)	(114,202)
Operating expenses (income):					
Research and development	78,865	94,171	97,034	102,240	160,754
General and administrative	35,701	47,365	74,490	58,841	215,566
Selling and marketing	17,713	18,231	18,716	20,661	26,566
Litigation settlement	—	—	—	—	269,637
Amortization of acquired intangible assets	20,946	24,393	27,071	32,191	35,064
Impairment loss of long-lived assets	—	—	—	106,741	138,295
Loss (gain) from sale of plant and equipment and other fixed assets	—	(43,122)	(28,651)	(2,877)	3,832
Total operating expenses, net	153,225	141,038	188,659	317,797	849,714
Loss from operations	(87,040)	(13,870)	(35,932)	(376,937)	(963,917)
Other income (expenses):					
Interest income	11,356	14,916	12,349	11,542	2,591

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	For the year ended December 31,				
	2005	2006	2007	2008	2009
	(in US\$ thousands, except for share, ADS, percentages, and operating data)				
Interest expense	(38,784)	(50,926)	(37,936)	(50,767)	(24,690)
Change in the fair value of commitment to issue shares and warrants	—	—	—	—	(30,100)
Foreign currency exchange gain (loss)	(3,355)	(21,912)	11,250	3,230	4,180
Other, net	4,462	1,821	2,238	7,429	4,620
Total other expense, net	(26,322)	(56,101)	(12,100)	(28,566)	(43,400)
Loss before income tax	(113,362)	(69,971)	(48,032)	(405,503)	(1,007,310)
Income tax benefit (expense)	(285)	24,928	29,720	(26,433)	46,620
Loss from equity investment	(1,379)	(4,201)	(4,013)	(444)	(1,780)
Net loss before cumulative effect of a change in accounting principle	(115,026)	(49,244)	(22,324)	(432,380)	(962,470)
Cumulative effect of a change in accounting principle	—	5,154	—	—	—
Net loss	(115,026)	(44,090)	(22,324)	(432,380)	(962,470)
Accretion of interest to non-controlling interest	251	(19)	2,856	(7,851)	(1,060)
Loss attributable to Semiconductor Manufacturing International Corporation	(114,775)	(44,109)	(19,468)	(440,231)	(963,530)
Loss per share, basic	\$ (0.00)	\$ (0.00)	\$ (0.00)	\$ (0.02)	\$ (0.00)
Loss per share, diluted	\$ (0.00)	\$ (0.00)	\$ (0.00)	\$ (0.02)	\$ (0.00)
Shares used in calculating basic loss per share(2)(3)	18,184,429,255	18,334,498,923	18,501,940,489	18,682,544,866	22,359,237,080
Ordinary shares used in calculating diluted loss per share(2)	18,184,429,255	18,334,498,923	18,501,940,489	18,682,544,866	22,359,237,080
Loss per ADS, basic(3)	\$ (0.32)	\$ (0.12)	\$ (0.05)	\$ (1.18)	\$ (2.10)

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	For the year ended December 31,				
	2005	2006	2007	2008	2009
	(in US\$ thousands, except for share, ADS, percentages, and operating data)				
Loss per ADS, diluted(3)	\$ (0.32)	\$ (0.12)	\$ (0.05)	\$ (1.18)	\$ (2.15)
ADS used in calculating basic loss per ADS(3)	363,688,585	366,689,978	370,038,810	373,650,897	447,184,742
ADS used in calculating diluted loss per ADS(3)	363,688,585	366,689,978	370,038,810	373,650,897	447,184,742
Other Financial Data:					
Gross margin	5.70%	8.70%	9.90%	-4.40%	-10.67%
Operating margin	-7.40%	-0.90%	-2.30%	-27.80%	-90.05%
Net margin	-9.80%	-3.00%	-1.30%	-32.50%	-89.92%
Operating Data:					
Wafers shipped (in 8" equivalents)					
Total	1,347,302	1,614,888	1,849,957	1,611,208	1,376,663
ASP(4)	869	907	838	840	778

- (1) Including amortization of deferred stock compensation for employees directly involved in manufacturing activities.
- (2) Anti-dilutive preference shares, options and warrants were excluded from the weighted average ordinary shares outstanding for the diluted per share calculation.
- (3) Fifty ordinary shares equals one ADS.
- (4) Total sales/total wafers shipped.

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	As of December 31,				
	2005	2006	2007	2008	2009
	(in US\$ thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 585,797	\$ 363,620	\$ 469,284	\$ 450,230	\$ 443,463
Restricted cash	—	—	—	6,255	20,360
Short-term investments	13,796	57,951	7,638	19,928	—
Accounts receivable, net of allowances	241,334	252,185	298,388	199,372	204,290
Inventories	191,238	275,179	248,310	171,637	193,705
Total current assets	1,047,465	1,049,666	1,075,302	926,858	907,058
Prepaid land use rights	34,768	38,323	57,552	74,293	78,112
Plant and equipment, net	3,285,631	3,244,401	3,202,958	2,963,386	2,251,614
Total assets	4,586,633	4,541,292	4,708,444	4,270,622	3,524,077
Total current liabilities	896,038	677,362	930,190	899,773	1,031,523
Total long-term liabilities	622,497	817,710	730,790	578,689	661,472
Total liabilities	1,518,535	1,495,072	1,660,980	1,478,462	1,692,995
Noncontrolling interest	38,782	38,800	34,944	42,795	34,842
Equity:					
Ordinary shares, \$0.0004 par value, 50,000,000,000 shares authorized 18,301,680,867, 18,432,756,463, 18,558,919,712, 22,327,784,827 and 22,375,886,604 shares issued and outstanding at December 31, 2005, 2006, 2007, 2008 and 2009 respectively	7,320	7,373	7,424	8,931	8,950
Additional paid-in capital	3,291,440	3,288,765	3,313,376	3,489,382	3,499,723
Accumulated other comprehensive loss (income)	139	92	(2)	(439)	(386)
Deferred share-based compensation	(24,882)	-	-	-	-
Accumulated deficit	(244,701)	(288,810)	(308,279)	(748,509)	(1,712,047)
Total equity	\$ 3,029,316	\$ 3,007,420	\$ 3,012,519	\$ 2,749,365	\$ 1,796,240

	For the year ended December 31,				
	2005	2006	2007	2008	2009
	(in US\$ thousands, except percentages)				
Cash Flow Data:					
Net loss	\$ (115,026)	\$ (44,090)	\$ (22,324)	\$ (432,380)	\$ (962,477)
Adjustments to reconcile net loss to net cash provided by operating activities:					
Depreciation and amortization	769,472	919,616	706,277	761,809	748,188
Net cash provided by operating activities	648,105	769,649	672,465	569,782	283,566
Purchases of plant and equipment	(872,519)	(882,580)	(717,171)	(669,055)	(217,266)
Net cash used in investing activities	(859,652)	(917,369)	(642,344)	(761,713)	(211,499)
Net cash provided by (used in) financing activities	190,364	(74,440)	75,637	173,314	(78,900)
Net increase (decrease) in cash and cash equivalents	\$ (21,376)	\$ (222,177)	\$ 105,664	\$ (19,054)	\$ (6,766)

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 \$376.9 million in 2008 and \$963.9 million in 2009. 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 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.

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 could have an adverse effect on our results of operations.

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 may also 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, 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.

Demand instability for foundry services may result in 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 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. A reversal of this trend will likely result in a lower rate of return on our investments than anticipated. For example, some IDMs may change their strategy and target greater internal production, and consequently they have reduced their outsourcing of wafer fabrication. During industry downturn, 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 in order to maintain their equipment's utilization rates. 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;
- 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 continuing expansion may present 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 1,376,663 wafers and US\$1.1 billion in 2009. 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 have also undertaken management contracts to manage the operations of wafer manufacturing facilities in Chengdu and Wuhan, China. In addition, we are equipping our new 8-inch fab in Shenzhen. At December 31, 2000, we had 122 employees; and at December 31, 2009, we had 10,307 employees. We may hire a significant number of additional employees as for our fabs in, Beijing, and Shenzhen to meet future increases 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, David NK Wang, 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.

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 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, 2009, our five largest customers accounted for 60.0% 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.

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 2009, our capital expenditures totaled approximately US\$189.9 million and we currently expect our capital expenditures in 2010 to total approximately US\$335 million to be adjusted based on market conditions. These capital expenditures will be used primarily to expand our operations at our mega-fab in Beijing and 8-inch fab in Shenzhen. 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 2010. 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 adversely affect our business and operating results.

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 GlobalFoundries, 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, 2009, we had been granted nine hundred sixty two patents worldwide, of which, fifty seven are in Taiwan, ninety one are in the U.S., and eight hundred fourteen 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.

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 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, global economic crisis, natural disaster, 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.

The recurrence of an outbreak of the H5N1 strain of 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.

Past outbreaks of the H1N1 virus, commonly known as swine flu, in North America and Europe caused governments to take measures to prevent spread of the virus. In addition, there have been reports of swine flu cases in Asia. The spread of epidemics 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. A recurrence of an 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\$7.7498 to HK\$7.7596 per US\$1.00 for 2009, 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, 2009 were not effective due to a material weakness identified in Report by Management on Internal Control over Financial Reporting. We cannot assure you that in the future we or our independent registered public accounting firm will not identify additional 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.

We have twice settled pending litigation with TSMC at a substantial cost to us, and, if we materially breach our 2009 settlement agreement with TSMC (or certain related documents), we could be required to pay substantial liquidated damages in addition to the money damages or other remedies TSMC may be entitled to in connection with such material breach.

Taiwan Semiconductor Manufacturing Company, Limited (“TSMC”) has brought legal claims against us and our personnel on several occasions since 2002. On January 31, 2005, we entered into a settlement agreement with TSMC and agreed to pay them \$175 million in installments over a period of six years (the 2005 “Settlement Agreement”).

On August 25, 2006, TSMC filed a new lawsuit against us and certain of our subsidiaries in the Superior Court of the State of California for alleged breach of the 2005 Settlement Agreement between us and TSMC, alleged breach of promissory notes and alleged trade secret misappropriation by us. We filed counterclaims against TSMC in the same court in September 2006 and also filed suit against TSMC in Beijing in November 2006. We settled these 2006 lawsuits with TSMC (the “Settled Actions”) on November 9, 2009 with a settlement agreement (the “2009 Settlement Agreement”) which replaced the 2005 Settlement Agreement.

Under the terms of the 2009 Settlement Agreement, our obligation to make the remaining payments of approximately US\$40 million under the 2005 Settlement Agreement was terminated, but we agreed to pay TSMC an aggregate of US\$200 million over a period of four years and committed, subject to certain terms and conditions, to issue TSMC 1,789,493,218 of our shares and one or more warrants exercisable within three years of issuance to subscribe for an aggregate of 695,914,030 of our shares, subject to adjustment, at a purchase price of HK\$1.30 per share, subject to adjustment. See “Item 10 – Additional Disclosure – Other Contracts” for a more detailed description of the share and warrant issuance agreement entered into by us and TSMC in connection with the 2009 Settlement Agreement and the warrant agreement to be entered into (subject to receipt of required government and regulatory approvals) between us and TSMC in connection with the 2009 Settlement Agreement. In addition, the 2009 Settlement Agreement terminated that certain patent cross license agreement that was entered into in connection with the 2005 Settlement Agreement under which we had previously cross-licensed patent portfolios with TSMC (the “2005 Patent Cross-License”).

Under the 2009 Settlement Agreement, both parties released the other from all claims arising out of or related to claims and counterclaims that were or could have been brought in the Settled Actions, but this release does not apply to claims of breach of the 2009 Settlement Agreement. In addition, each party covenanted not to sue the other for misappropriation or infringement of intellectual property rights, but this covenant not to sue did not extend to claims for breach of the 2009 Settlement Agreement or claims for patent or trademark infringement.

Further, the 2009 Settlement Agreement provides that if we materially breach the 2009 Settlement Agreement or certain related documents and fail to cure that breach within 30 days after notice from TSMC, that we will pay TSMC liquidated damages, in addition to any damages arising from such breach, in the amount of US\$44 million plus a royalty equal to 5% of our gross revenues derived from foundry services in respect of our 90nm and larger manufacturing processes for 20 years from the date of the breach.

There can be no assurance that TSMC will not sue us again in the future. For example, TSMC is not prohibited under the 2009 Settlement Agreement from bringing infringement claims against us which could not have been brought in the Settled Actions. Further, we are subject to several obligations under the 2009 Settlement Agreement, including obligations to protect the confidentiality of certain information, and TSMC could, in the future, allege a breach by us of the 2009 Settlement Agreement. If TSMC were successful in a claim of material breach by us of the 2009 Settlement Agreement (or certain related documents), we have agreed to pay substantial liquidated damages as described above.

TSMC is a competitor of ours and has substantially greater resources than we do to investigate and pursue legal actions. If TSMC successfully brings additional legal actions against us, we could be subject to significant penalties which could include monetary payments and/or injunctive relief such as requirements to discontinue sales of products.

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 could be substantial.

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\$ 1.8 million in 2009. 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 76% 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.

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.

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 the past, 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.

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 6.8282 on December 31, 2009 versus 6.8346 on December 31, 2008 by PBOC. The cumulative appreciation of the Renminbi against the U.S. dollar in 2009 was approximately 0.09%. 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, 2009, approximately 11.7% 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 9.8% in 2003 and may further decrease. 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.

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.

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.

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, Uglan 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.HK"

In August 2000, we started construction of the first fabrication (fab) in our Shanghai mega-fab, which commenced pilot production in September 2001 and commenced commercial production in January 2002. The second fab in our Shanghai mega-fab was completed in two stages, commencing commercial production in January 2002 (for aluminum interconnects) and January 2003 (for copper interconnects). The third fab in our Shanghai mega-fab also 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, which commenced mass production in May 2004. We started construction of our Beijing mega-fab in the Beijing Economic and Technological Development Area in December 2002. The Beijing mega-fab consists of two 12-inch fabs and commenced commercial production in March 2005. The Beijing mega-fab is mainland 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., which manufactures 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, China focusing on memory and logic devices. We 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, as well as 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\$860 million, US\$666 million, and US\$190 million in 2007, 2008 and 2009, respectively, for these purposes. We anticipate that in 2010, we will incur approximately US\$335 million in capital expenditures to be adjusted based on market conditions, principally to expand our operations at mega-fab in Beijing. 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, 2009, of 162,050 8-inch wafer equivalents per month for wafer fabrication. We anticipate an increase to aggregate capacity by the end of 2010.

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, 2009 of 162,050 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 currently provide semiconductor fabrication services using 0.35 micron to 45 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.

In 2009, the effect of adverse market conditions and significant changes in the Company's operation strategy lead to the Company's identification and commitment to abandon a group of long-lived assets. This group of long-lived assets is equipped with outdated technologies and no longer receives vendor support. As of December 31, 2009, this group of assets ceased to be used. As a result, the Company recorded an impairment loss of \$104,676,535 after writing down the carrying value to zero.

In 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 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.

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:

	Shanghai Mega-Fab	Beijing Mega-Fab	Tianjin
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 ²	23,876 m ²	8,463 m ²

In addition to our Shanghai mega-fab, we have an 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. 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.

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.

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
Shanghai fab (12")	—	—	—	0.09	0.11/0.09
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

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The following table sets forth a percentage breakdown of wafer sales by process technology for the years ended December 31, 2007, 2008, and 2009 and each of the quarters in the year ended December 31, 2009:

Process Technologies	For the year ended December 31,		For the three months ended			For the year ended December 31,	
	2007	2008	March 31, 2009	June 30, 2009	September 30, 2009	December 31, 2009	2009
	(based on sales in US\$)						
0.13 micron and below	53.10%	43.90%	38.99%	46.41%	52.75%	58.16%	51.07%
0.15 micro	2.90%	2.70%	0.79%	1.49%	2.60%	2.72%	2.12%
0.18 micron	30.50%						