

SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP

Form 20-F

June 28, 2005

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, 2004

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)

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Ordinary Shares, par value US\$0.0004 American Depositary Shares	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.

As of December 31, 2004, there were 18,232,959,139 ordinary shares, par value US\$0.0004 per share, outstanding, of which 1,082,173,250 ordinary shares were held in the form of 21,643,465 ADSs. The number of shares outstanding does not include 780,000 ordinary shares we repurchased from some of our employees pursuant to our employee stock option plans, but which for accounting purposes have been reflected in our consolidated statement of shareholders' equity and comprehensive income (loss). Each ADS represents 50 ordinary shares.

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 which financial statement item the registrant has elected to follow. Item 17 Item 18

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

<u>CAUTIONARY STATEMENT FOR PURPOSES OF THE SAFE HARBOR PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995</u>	1
<u>Item 1. Identity of Directors, Senior Management and Advisers</u>	2
<u>Item 2. Offer Statistics and Expected Timetable</u>	2
<u>Item 3. Key Information</u>	2
<u>Item 4. Information on the Company</u>	21
<u>History and Development of the Company</u>	21
<u>Business Overview</u>	21
<u>Organizational Structure</u>	46
<u>Item 5. Operating and Financial Review and Prospects</u>	49
<u>Operating Results</u>	57
<u>Liquidity and Capital Resources</u>	63
<u>Research and Development, Patents and Licenses, etc.</u>	66
<u>Off-Balance Sheet Arrangements</u>	66
<u>Tabular Disclosure of Contractual Obligations</u>	66
<u>Item 6. Directors, Senior Management and Employees</u>	67
<u>Directors and Senior Management</u>	67
<u>Director and Executive Compensation</u>	69
<u>Board Practices</u>	70
<u>Employees</u>	73
<u>Share Ownership</u>	74
<u>Item 7. Major Shareholders</u>	79
<u>Major Shareholders</u>	79
<u>Related Party Transactions</u>	80
<u>Item 8. Financial Information</u>	85
<u>Consolidated Statements and Other Financial Information</u>	85
<u>Significant Changes</u>	86
<u>Item 9. The Offer and listing</u>	86
<u>Item 10. Additional Information</u>	87
<u>Memorandum and Articles of Association</u>	87
<u>Material Contracts</u>	88
<u>Exchange Controls</u>	88
<u>Taxation</u>	88
<u>Documents on Display</u>	92
<u>Item 11. Quantitative and Qualitative Disclosures About Market Risk</u>	92
<u>Item 12. Description of Securities other than equity securities</u>	93
<u>PART II</u>	93
<u>Item 13. Defaults, Dividend Arrearages, and Delinquencies</u>	93
<u>Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds</u>	93
<u>Item 15. Controls and Procedures</u>	94
<u>Item 16A. Audit Committee Financial Expert</u>	94
<u>Item 16B. Code of Ethics</u>	94
<u>Item 16C. Principal Accountant Fees and Services</u>	94
<u>Item 16D. Exemptions from the Listing Standards of the Audit Committees</u>	95
<u>Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers</u>	95

<u>PART III</u>	96
<u>Item 17. Financial Statements</u>	96
<u>Item 18. Financial Statements</u>	96
<u>Item 19. Exhibits</u>	96
<u>SIGNATURES</u>	97

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

This annual report may contain, 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 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:

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;

HK\$ are to Hong Kong dollars;

Rmb are to Renminbi, the legal currency of China;

US\$ are to U.S. dollars;

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

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

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

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

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

IPO registration statement are to our registration statement on Form F-1 (File No. 333-112720), as filed with the Securities and Exchange Commission on March 11, 2004, sections of which are incorporated by reference into this annual report.

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, and 0.13 micron, 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. 0.18 micron process technology also includes 0.17 micron and 0.16 micron technologies; 0.15

micron process technology includes 0.14 micron technology; and 0.13 micron process technology includes 0.11 micron and 0.10 micron technologies. References to U.S. GAAP mean the generally accepted accounting principles in the United States. Unless otherwise indicated, our financial information presented in this annual report has been prepared in accordance with U.S. GAAP.

All references to our ordinary shares in this annual report gives effect to the 10-for-1 share split we affected 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 Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

Selected Consolidated Financial Data

The summary consolidated financial data presented below as of and for the years ended December 31, 2002, 2003 and 2004 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 December 31, 2000 and 2001, and for the period from April 3, 2000 (inception) through December 31, 2000 and for the year ended December 31, 2001 is derived from audited consolidated financial statements not included in this annual report. The summary consolidated financial data presented below has been prepared in accordance with U.S. GAAP.

	For the period from April 3, 2000 (inception) through	For the year ended December 31,			
	December 31, 2000	2001	2002	2003	2004
(in US\$ thousands, except for per share, per ADS data, percentages and operating data)					
Statement of Operations Data:					
Sales	\$	\$	\$ 50,315	\$ 365,823	\$ 974,665
Cost of sales ⁽¹⁾			105,238	363,241	721,401
Gross profit (loss)			(54,923)	2,582	253,264
Operating expenses:					
Research and development		9,326	37,459	32,070	78,167
General and administrative	929	16,870	17,782	27,912	46,015
Selling and marketing		751	4,371	9,447	8,130
Litigation settlement					23,153
Amortization of deferred stock compensation		712	1,769	5,900	15,416
Total operating expenses	929	27,659	61,381	75,329	170,881
Income (loss) from operations	(929)	(27,659)	(116,304)	(72,747)	82,383
Other income (expenses):					
Interest income	2,153	18,681	10,980	5,616	10,587
Interest expense			(176)	(1,425)	(13,698)
Foreign currency exchange gain	2	197	247	1,523	8,218
Other, net		187	2,650	888	2,441
Subsidy income		5,942			
Total other income, net	2,155	25,007	13,701	6,602	7,547
Income (loss) before income tax	1,226	(2,652)	(102,603)	(66,145)	89,931
Income tax current					186
Net income (loss)	1,226	(2,652)	(102,603)	(66,145)	89,745
Deemed dividend on preference shares ⁽²⁾				37,117	18,839
Income (loss) attributable to holders of ordinary shares	\$ 1,226	\$ (2,652)	\$ (102,603)	\$ (103,262)	\$ 70,905
Income (loss) per ordinary share, basic	\$ 0.02	\$ (0.03)	\$ (1.27)	\$ (1.14)	\$ 0.01
Income (loss) per ordinary share, diluted	\$ 0.02	\$ (0.03)	\$ (1.27)	\$ (1.14)	\$ 0.00
Ordinary shares used in calculating basic income (loss) per share ⁽³⁾⁽⁴⁾	80,000,000	80,000,000	80,535,800	90,983,200	14,199,163,517
Ordinary shares used in calculating diluted income (loss) per share ⁽³⁾⁽⁴⁾	80,000,000	80,000,000	80,535,800	90,983,200	17,934,393,066
Income (loss) per ADS, basic ⁽⁵⁾					\$ 0.25
Income (loss) per ADS, diluted ⁽⁵⁾					\$ 0.20
ADS used in calculating basic income (loss) per ADS ⁽⁵⁾					283,983,290
ADS used in calculating diluted income (loss) per ADS ⁽⁵⁾					358,687,861
Other Financial Data:					
Gross margin			(109.2)%	0.7%	26.0%
Operating margin			(231.2)%	(19.9)%	8.5%
Net margin			(203.9)%	(18.1)%	9.2%
Operating Data:					
Wafers shipped (in units):					
Logic ⁽⁶⁾			26,419	188,316	597,533
Total ⁽⁷⁾			82,486	476,451	943,463
Average selling price (in US\$):					
Logic ⁽⁶⁾			\$ 794	\$ 896	\$ 1,066
Total ⁽⁷⁾			\$ 558	\$ 733	\$ 979

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

- (2) Deemed dividend represents the difference between the sale and conversion prices of warrants to purchase convertible preference shares we issued and their respective fair market values.
- (3) Anti-dilutive preference shares, options and warrants were excluded from the weighted average ordinary shares outstanding for the diluted per share calculation. For 2000, 2001, 2002 and 2003, basic income (loss) per share did not differ from diluted loss per share.
- (4) All share information has been adjusted retroactively to reflect the 10-for-1 share split effected upon completion of the Global Offering.
- (5) Fifty ordinary shares equals one American Depository Share (ADS).
- (6) Excluding copper interconnects and DRAM wafers.
- (7) Including logic, DRAM, copper interconnects and all other wafers.

	As of December 31,				
	2000	2001	2002	2003	2004
	(in US\$ thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 94,290	\$ 178,920	\$ 91,864	\$ 445,276	\$ 607,173
Short-term investments			27,709	27,165	20,364
Accounts receivable, net of allowances			20,110	90,539	169,188
Inventories		4,749	39,826	69,924	144,018
Total current assets	102,949	235,196	185,067	680,882	955,418
Land use rights, net		48,913	49,354	41,935	39,198
Plant and equipment, net	14,284	478,950	1,290,910	1,523,564	3,311,925
Total assets	117,233	763,059	1,540,078	2,290,506	4,384,276
Total current liabilities	115,965	249,071	263,655	325,430	730,330
Total long-term liabilities			405,432	479,961	544,462
Total liabilities	115,965	249,071	669,087	805,391	1,274,792
Stockholders' equity	\$ 1,268	\$ 513,988	\$ 870,991	\$ 1,485,115	\$ 3,109,484

	For the year ended December 31,				
	2000	2001	2002	2003	2004
	(in US\$ thousands)				
Cash Flow Data:					
Net income (loss)	\$ 1,226	\$ (2,652)	\$ (102,603)	\$ (66,145)	\$ 89,745
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:					
Depreciation and amortization	10	1,445	84,537	233,905	456,961
Net cash provided by (used in) operating activities	904	3,360	(48,802)	114,270	518,662
Purchases of plant and equipment	(9,774)	(459,779)	(761,704)	(453,097)	(1,838,773)
Net cash used in investing activities	(17,774)	(501,779)	(751,144)	(454,498)	(1,826,787)
Net cash provided by financing activities	111,120	583,152	712,925	693,497	1,469,764
Net increase (decrease) in cash and cash equivalents	\$ 94,290	\$ 84,630	\$ (87,056)	\$ 353,412	\$ 161,896

Risk Factors

Risks Related to Our Financial Condition and Business

Our short operating history makes it difficult to evaluate our business and prospects.

We were founded in April 2000 and did not commence commercial production until January 2002. Because of our limited operating history, there may not be an adequate basis upon which to evaluate our future operating results and prospects, and we have only limited insight into the trends that may emerge that may adversely affect our business and operating results.

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

After over three years of losses from operations totaling in excess of US\$216 million, we achieved profitability on an annual basis in 2004. We may not be able to 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. In the next two years, we will continue to incur high capital expenditures and depreciation expenses as we equip and ramp up additional fabs in Beijing and expand our capacity at our existing fabs in Shanghai, Beijing and Tianjin. We expect to continue to incur high capital expenditures and depreciation expenses as we expand our capacity and construct new fabs. Accordingly, we may not be able to maintain profitability.

The cyclical nature of the semiconductor industry and periodic overcapacity in the industry make our business and operating results particularly vulnerable to economic downturns.

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. If industry-wide capacity exceeds demand, our operations would be subject to more intense competition, and our results of operations may 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 maintaining our current level of profitability. For example, from 2001 to mid-2003, the semiconductor industry experienced a downturn due to a

number of factors, including a slowdown in the global economy and in the communications sector in particular. 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 future downturns, such as reducing our costs to sufficiently offset declines in demand for our services, 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 and may result in a decline in the prices of our ordinary shares and ADSs if we fail to meet 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 the recent trend of increasing demand for foundry services reverses or slows down, we may achieve a lower rate of return on investments than anticipated and our business and operating results will be adversely affected.

The demand for foundry services by IDMs, fabless semiconductor companies and systems companies has been increasing in recent years. We have made and are planning to make significant investments in anticipation of the continuation of this trend. A reversal of, or slowdown in, this trend will likely result in a lower rate of return on our investments than anticipated. For example, if IDMs change their strategy and target greater internal production or become dissatisfied with the services of independent foundry service providers, such as our company, they may reduce their outsourcing of wafer fabrication. In addition, in the event of an industry downturn, in order to maintain their equipment's utilization rates, these IDMs may allocate a smaller portion of their fabricating needs to foundry service providers and perform a greater amount of foundry services for system companies and fabless semiconductor companies. If this occurs, our business and operating results will be adversely affected.

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

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

maintain high capacity utilization, which is the actual number of wafers we produce in relation to our capacity;

optimize our technology and product mix, which is the relative number of wafers fabricated utilizing higher margin technologies as compared to commodity and lower margin technologies; and

continuously maintain and improve our yield, which is the percentage of usable fabricated devices on a wafer.

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

Our rapid growth has presented significant challenges to our management and administrative systems and resources, and we may experience difficulties managing our growth, particularly as we handle the additional responsibilities of being a public company, which may adversely affect our business and operating results.

Since our inception in 2000, we have grown rapidly. Our wafers shipped and sales grew from zero in 2000 to 943,463 wafers and US\$974.7 million in 2004. During this period, we commenced commercial production at four 8-inch fabs, and the range of process technologies we offered grew significantly. In addition, we commenced pilot production at our 12-inch fab in Beijing in July 2004. We are also in the process of constructing three additional 8-inch fabs at our Shanghai site. At December 31, 2000, we had 122 employees; at December 31, 2001, we had 1,476 employees; at December 31, 2002, we had 3,193 employees; at December 31, 2003, we had 4,443 employees; and at December 31, 2004, we had 7,640 employees. We plan to hire a significant number of additional employees as our fabs in Tianjin and Beijing ramp up and fabs currently under construction become operational. This expansion, as well as our participation in a joint venture with Toppan Printing Co., Ltd. and an assembly and testing facility in Chengdu, has presented, and continues 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 or to handle the additional responsibilities of becoming a public company, we may experience difficulties managing our growth and our business and operating results could be adversely affected.

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

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

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 would 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 initial product shipments, it may take the customer several more months to reach full production of that product using our foundry services. As a result of these long sales cycles, we may be required to invest substantial time and incur significant expenses in advance of the receipt of any product order and related revenue. Orders ultimately received may not be in accordance with our expectation with respect to product, volume, price or other terms, which could adversely affect our operating results and cause our income stream to be unpredictable.

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

The semiconductor industry is developing rapidly and the related technology is constantly evolving. If we are unable to anticipate the trends in technology development and rapidly develop and implement new and innovative technology that our customers require, we may not be able to produce sufficiently advanced products at competitive prices. As the life cycle for a process technology matures, the average selling price falls. Accordingly, unless we continually upgrade our capability to manufacture any new products that our customers design, our customers may use the services of our competitors instead of ours and the average selling prices of our wafers may fall, which would 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, 2004, our five largest customers accounted for 59.1% 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 would 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 2004, our capital expenditures totaled approximately US\$2,000 million and we currently expect our capital expenditures in 2005 to total approximately US\$1,000 million. These capital expenditures will be used primarily to expand our operations in Shanghai, Beijing and Tianjin and complete the construction, equipping and ramp-up of our Fab 4 in Beijing. In addition, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in our business plan, our process technology, market conditions, equipment prices, customer requirements or interest rates. Future acquisitions, mergers, strategic investments, or other developments also may require additional financing. The amount of capital required to meet our growth and development targets is difficult to predict in the highly cyclical and rapidly changing semiconductor industry.

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Our operating cash flows may not be sufficient to meet our capital expenditure requirements in 2005. 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, in particular using the additional land we have available at our Shanghai and Beijing sites. We also plan to expand significantly the capacity at our existing fab in Beijing. 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 would 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 Taiwan Semiconductor Manufacturing Company, Ltd., or TSMC, United Microelectronics Corporation, or UMC, and Chartered Semiconductor Manufacturing Ltd., or Chartered Semiconductor, as well as the foundry services offered by some IDMs, such as IBM. We also compete with smaller semiconductor foundries in China, Korea, Malaysia and other countries. Some of our competitors have greater access to capital and substantially higher capacity, longer or more established relationships with their customers, superior research and development capability, and greater marketing and other resources than we do. As a result, these companies may be able to compete more aggressively over a longer period of time than we can.

Both TSMC and UMC have announced plans to establish operations in mainland China in order to compete for the growing domestic market in China. TSMC has announced the commencement of pilot 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 and 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, 2004, we had been granted twenty-three patents, twenty-one in Taiwan and two in the U.S., 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 matter, in our industry. In some cases, a company can avoid or settle litigation on favorable terms because it possesses patents that can be asserted against the plaintiff. The limited size of our current patent portfolio will not likely place us in such a bargaining position. Moreover, some of our technology license agreements with our major technology partners do not provide for us to be indemnified in the event that the processes we license pursuant to such agreements infringe third party intellectual property rights. We could be sued for allegedly infringing one or more patents as to which we will be unable to obtain a license and unable to design around. As a result, we would be foreclosed from manufacturing or selling the products which are dependent upon such technology, which could have a material adverse effect on our business. We may litigate the issues of whether these patents are valid or infringed, but in the event of a loss we could be required to pay substantial monetary damages and be enjoined from further production or sale of such products.

If we breach the terms and conditions of the settlement agreement regarding the patent and trade secret litigation with TSMC, we may be required to accelerate the payment of the then outstanding amounts due under the settlement agreement and the litigation proceedings may be recommenced or re-filed. If the litigation is recommenced and we are unable to successfully defend ourselves, we may be required to pay damages, obtain a license from TSMC or discontinue sales of certain of our products in the United States.

In December 2003, we became the subject of a lawsuit in U.S. federal district court brought by TSMC relating to alleged infringement of five U.S. patents and misappropriation of alleged trade secrets relating to methods for conducting semiconductor fab operations and manufacturing integrated circuits. After the dismissal without prejudice of the trade secret misappropriation claims by the U.S. federal district court on April 21, 2004, TSMC refiled the same claims in California State Superior Court and alleged infringement of an additional 6 patents in the U.S. federal district court lawsuit. In August 2004, TSMC filed a complaint with the U.S. International Trade Commission (ITC) alleging similar trade secret misappropriation claims and asserting 3 new patent infringement claims and simultaneously filed another patent infringement suit in federal district court on the same 3 patents as alleged in the ITC complaint. Prior to the start of the initial lawsuit in the United States, TSMC had instituted a legal proceeding in Taiwan in January 2002 that alleged improper hiring practices and trade secret misappropriation. In the Taiwan proceeding, the Hsinchu District Court in Taiwan issued an ex parte provisional injunction that prohibits our wholly owned subsidiary, Semiconductor Manufacturing International (Shanghai) Corporation, or SMIC Shanghai, and Richard Ru Gin Chang, our president and chief executive officer, from improperly soliciting or hiring certain categories of employees of TSMC or causing such employees to divulge to us, or use, trade secrets of TSMC.

On January 31, 2005, we entered into a settlement agreement with TSMC that provides for the dismissal of all pending legal actions without prejudice between TSMC and our company in U.S. federal district court, California State Superior Court, the ITC and Taiwan District Court. In the settlement agreement, TSMC covenants not to sue us for itemized acts of trade secret misappropriation as alleged in the complaints, although the settlement does not grant a license to use any of TSMC's trade secrets. Furthermore, the parties also entered into a patent cross-license agreement under which each party will license the other party's patent portfolio through December 2010. As a part of the settlement, we also agreed to pay TSMC an aggregate amount of US\$175 million, in installments of US\$30 million each year for five years and US\$25 million in the sixth year.

The patent cross-license agreement and settlement agreement are terminable upon a breach of the settlement agreement by SMIC. Any such breach may result in the filing of a lawsuit relating to such breach, recommencement or re-filing of the legal proceedings and acceleration of the outstanding monetary payment obligations under the settlement agreement. If the legal proceedings were reinstated or refiled and TSMC were to succeed on its patent infringement claims in the United States, we may be ordered to pay damages for past infringement, discontinue sales of certain of our products in the United States and, as to future sales, either enter into a license agreement with TSMC or incur the cost of designing around the patents that were found to have been infringed, if any. If TSMC were to succeed on its trade secret claim, it could seek damages or an injunction, the materiality of which would depend on the amount, nature and significance of the trade secrets we would be found to have misappropriated, if any. 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.

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.

We may be unable to integrate successfully the Beijing fabs and Fab 7 with our existing operations in Shanghai in a timely manner, which could adversely affect our operating results.

The ramp-up of our Beijing fabs and Fab 7 in Tianjin involve the integration of new facilities with our existing operations in Shanghai. These facilities are located in three different locations and have different operating configurations. We are currently in the process of implementing this integration.

The challenges of combining our Beijing and Tianjin fabs operations with our Shanghai operations include integrating technologies with different wafer sizes, integrating personnel with diverse business backgrounds, combining different corporate cultures and managing a geographically dispersed organization. Since most of our Tianjin employees previously worked for Motorola (China) Electronics Limited (MCEL), it will require additional time for them to become familiar with our corporate culture and become fully integrated. Operating in three different locations also requires us to liaise with three different sets of local and municipal governmental authorities, which places additional administrative burdens on our management. In addition, we are currently in the process of obtaining the approval of the Chinese governmental authorities to defer our capital contribution to the registered capital of our wholly owned subsidiary Semiconductor Manufacturing International (Tianjin) Corporation, or SMIC Tianjin, until such time as the transfer of title to the land use rights, buildings and equipment of SMIC Tianjin has been approved by or registered with the relevant Chinese governmental authorities. If such approval to defer our capital contribution is not granted, the validity of SMIC Tianjin's certificate of approval under Chinese law could be affected, and SMIC Tianjin could be subject to various administrative sanctions, including the possible revocation of its business license.

As a result of these factors, we may be unable to complete successfully this integration in a timely manner, which could adversely affect our operating results.

Our internal controls and management systems are not currently consistent with international practices in certain respects and we are in the process of improving these controls and systems to enable us to certify the effectiveness of our internal controls under the Sarbanes-Oxley Act of 2002. Our failure to timely and successfully upgrade these controls and systems could subject us to regulatory actions and affect the price of our ordinary shares and ADSs.

In June 2004, the Public Company Accounting Oversight Board, or PCAOB, adopted rules for purposes of implementing Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act. Pursuant to the Sarbanes-Oxley Act and the various rules and regulations adopted pursuant thereto or in conjunction therewith, we are required, for fiscal year 2006, to perform an evaluation of our internal controls over financial reporting and file an assessment of its effectiveness with the SEC. For fiscal year 2006, our external auditors are required to attest to such valuation.

We have engaged PricewaterhouseCoopers LLC as an outside consultant to review our current internal controls and assist us in implementing measures to comply with Section 404 of the Sarbanes-Oxley Act. Although we are not currently subject to Section 404, we have examined the definitions contained in PCAOB pronouncement. The PCAOB rules describe certain circumstances as being both significant deficiencies and strong indicators that a material weakness in internal control over financial reporting exists. PricewaterhouseCoopers has brought to our attention a number of areas in which our current internal controls and management systems may not reduce to a relatively low level the risk of undetected material errors or fraud and could adversely affect our ability to accurately and timely record, process, summarize and report financial data. We have taken and continue to take steps to correct these internal control deficiencies. The efficacy of the steps we have taken to date and the steps we are still in the process of taking to improve the reliability of our financial statements is subject to continued management review supported by confirmation and testing by our internal auditors, as well as audit committee oversight. We cannot be certain that these measures will ensure that we implement and maintain adequate controls over our financial processes and reporting in the future. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. In addition, we cannot assure you that we will not in the future identify further material weaknesses or significant deficiencies in our internal control over financial reporting that we have not discovered to date.

Beginning with the year ending December 31, 2006, pursuant to Section 404 of the Sarbanes-Oxley Act, our management will be required to deliver a report that assesses the effectiveness of our internal control over

financial reporting, and we will be required to deliver an attestation report of our auditors on our management's assessment of and operating effectiveness of internal controls. An inability to complete and document this assessment could result in a scope limitation qualification or a scope limitation disclaimer by our auditors on their attestation of our internal controls. If a material weakness were identified with respect to our internal control over financial reporting, we would not be able to conclude that our internal controls over financial reporting were effective, which could result in the inability of our external auditors to deliver an unqualified report, or any report, on our internal controls. Moreover, even if our management does conclude that our internal controls over financial reporting are effective, if as of the end of fiscal year 2006, our external auditors are not satisfied with our internal controls, the level at which our controls are documented, designed, operated or reviewed, or if our external auditors interpret the requirements, rules or regulations differently from us, then they may decline to attest to our management's assessment or may issue a report that is qualified. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our securities.

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 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.

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 and the Euro. 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 fixed exchange rate policy, with the Hong Kong dollar trading in the range of HK\$7.75 to HK\$7.85 per US\$1.00, 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.

Our earnings may be adversely affected once we change our accounting policies with respect to the expensing of stock options.

We currently account for share-based compensation transactions, such as stock option grants, using the intrinsic value method (based on the discount to fair market value on the date of grant) as prescribed by Accounting Principles Board, or APB, Opinion No. 25, *Accounting for Stock Issued to Employees*. On December 16, 2004, the Financial Accounting Standards Board, FASB, issued FAS 123R, *Share-Based Payment, an amendment of FASB Statements No. 123 and 95*, which, as amended in April 2005, requires that such transactions be accounted for using a fair value based method and recognized as expenses in our consolidated statement of income, effective as of the start of our fiscal reporting period commencing after June 15, 2005, the effective date. FAS 123R requires that a

modified prospective method be used to account for share-based compensation transactions. Under FAS 123R, we will be required to expense the fair value of our stock option grants rather than expensing the intrinsic value of stock options as we do now. This means that the fair value of new awards granted on or after the effective date (plus unvested awards as of the effective date) will be expensed over the remaining vesting period. This change in the accounting policy with respect to the treatment of employee stock option grants may adversely affect our earnings and may have a significant impact on our consolidated statement of income.

Implementation of FAS 123R may result in inconsistent financial disclosure.

Under FAS 123R, we have the option of adopting a modified retrospective application. This means that we generally may restate previously reported financial results so that our results reflect a consistent treatment of share-based compensation transactions, regardless of the accounting rules that were in effect at the time of the initial report. If we decide to adopt a modified retrospective application of FAS 123R, our previously reported financial results may be significantly affected. If we decide not to adopt a modified retrospective application, or if we adopt a modified retrospective application commencing with the start of our 2006 fiscal year, our financial performance for periods when FAS 123R accounting is not applied will not be comparable with the performance for periods when FAS 123R accounting is applied. If a comparison is made, performance for periods when FAS 123R is applied may appear to be significantly below performance for earlier periods.

In addition, under FAS 123R we have the option of selecting an appropriate option pricing model. For purposes of pro forma disclosure under the provisions of FAS 123, we currently use a Black-Scholes option pricing model. FAS 123R expresses a preference for a lattice model. In the event we choose to use a lattice model, previously reported pro forma disclosure and future share-based compensation reporting will be inconsistent.

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 Fab 4, Fab 5 and Fab 6C in Beijing and Fab 7 in Tianjin 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 requalifying 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 announced agreements to form 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 may be reflected in our operating results to the extent of our ownership interest, and losses of the joint ventures could adversely impact our operating results. Operational challenges confront the joint ventures. 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 new joint ventures are likely to confront 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 numerous, 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 69.5% 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 factors will grow substantially. While we have not, to date, experienced any instances of 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 7 in Tianjin and our fabs in Beijing 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.

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 loss of property and 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 would temporarily reduce our manufacturing capacity, which could adversely affect our business and operating results.

Our Beijing fabs are 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 fabs in Beijing makes them 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 fabs against dust contamination. If dust were to affect production in the Beijing fabs, 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 fabs 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 development of the industry. Such incentives include tax rebates, reduced tax rates, favorable lending policies and other measures. Any of these incentives could be reduced or eliminated by governmental authorities at any time. For example, in 2004, the Chinese government announced that by April 1, 2005, the preferential value-added tax policies, which previously entitled certain qualified companies to receive a refund of the amount exceeding 3% of the actual value-added tax burden relating to self-made integrated circuit product sales, would be

eliminated. While we have not previously benefited materially from such preferential value-added tax policies, any reduction or elimination of other incentives currently provided to us could adversely affect our business and operating results.

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

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

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

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

In July 1996, thirty-three countries ratified the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, which established a worldwide arrangement to restrict the transfer of conventional arms and dual-use goods and technologies. Under the terms of the Wassenaar Arrangement, the participating countries, including the United States, have restricted exports to China of technology, equipment, materials and spare parts that potentially may be used for military purposes in addition to their commercial applications. To the extent that technology, equipment, materials or spare parts used in our manufacturing processes are or become subject to the restrictions of the arrangement, our ability to procure these products and technology could be impaired, which could adversely affect our business and operating results. There could also be a change in the export license regulatory regime in the countries from which we purchase our equipment, materials and spare parts that could delay our ability to obtain export licenses for the equipment, materials, spare parts and technology we require to conduct our business.

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, 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, and the Chinese government remains under international pressure to allow this rate to float. 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, 2003, approximately 2.0% of our sales were denominated in Renminbi, while approximately 1.7 % of our sales were denominated in Renminbi for the year ended December 31, 2004. 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 might not be able to meet our foreign currency payment obligations.

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

As a result of joining the World Trade Organization, or WTO, China has reduced its average rate of import tariffs to 11.5% in 2003 and will further reduce it to 10% by 2008. 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, SMIC Shanghai, Semiconductor Manufacturing International (Beijing) Corporation, or SMIC Beijing, and SMIC Tianjin. The ability of these

subsidiaries to make dividend 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 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 other than as dividends 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. In connection with our global offering, we entered into an amended and restated registration rights agreement with Richard Ru Gin Chang and our securityholders prior to our global offering. Under the terms of this agreement, every 180-day period, substantially all of our securityholders that beneficially own, directly or indirectly and whether individually or as a group with its affiliates, more than 7,500,000 of our ordinary shares immediately prior to the global offering, whom we collectively refer to as our large securityholders, may sell 15% of the shares held by such large securityholder immediately prior to the completion of the global offering in an annual, demand or incidental offering or without our consent in the open market or in privately negotiated transactions. We refer to the shares sold as released shares and these sales as permitted sales/transfers. The 15% limit for each 180-day period is cumulative, such that if any large securityholder does not sell or transfer the 15% released shares from a previous 180-day period, any unsold or non-transferred released shares will roll over and may be sold or transferred at any time in the future, together with all other accumulated released shares from previous periods.

In addition, we have entered into an agreement with each of Motorola and MCEL, which are deemed to be large securityholders under the amended and restated registration rights agreement, pursuant to which we have consented to release from the monetization restrictions described above an additional 15% of the shares they each held immediately prior to the completion of the global offering commencing on the date of expiration of the 180-day post-global offering lock-up period and an additional 15% every 180 days thereafter.

Like the 15% limit for each 180-day period applicable to other large securityholders, such 30% limit applicable to Motorola and MCEL is cumulative. In addition, such additional released shares may only be sold or transferred by Motorola or MCEL pursuant to the same terms and conditions applicable to the sale or transfer of their released shares under the amended and restated registration rights agreement. In addition, to the extent that at any time during the term of the amended and restated registration rights agreement we increase the percentage of released shares that may be transferred or sold by any large securityholder who holds more than 1% of our outstanding shares (on a pre-global offering basis) to more than the percentage of released shares that may be transferred or sold by Motorola and MCEL (regardless of whether or not Motorola or MCEL actually sold any released shares), we have consented to increase the percentage of released shares for Motorola and MCEL to match the increased percentage for such large securityholder. We have also agreed with each of Motorola and MCEL that we will not consent to any amendment or waiver of any provision of the amended and restated registration rights agreement that adversely affects either Motorola or MCEL but does not so adversely affect all other parties to the amended and restated registration rights agreement unless such amendment or waiver is approved in writing by Motorola.

An example of a permitted sale pursuant to the terms of the amended and restated registration rights agreement and the agreement we signed with Motorola was the reported sale on or about February 28, 2005 by Motorola and MCEL of an aggregate of 517,489,221 of our ordinary shares, representing approximately 2.8% of our total outstanding shares as of December 31, 2004. Subsequent to the completion of this permitted sale, our price per ordinary share decreased by HK\$0.06.

We cannot predict the effect, if any, of a permitted sale or the perception that a permitted sale 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 (2004 Revision) 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 has 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) 21-5080-2000. Our registered agent is M&C Corporate Services Limited, located at P.O. Box 309 GT, Uglan House, South Church Street, George Town, Grand Cayman, Cayman Islands. After several rounds of equity funding with venture capitalists and other strategic investors, with total funds invested amounting to approximately US\$1.7 billion, we completed the global offering of our ADSs and ordinary shares on the New York Stock Exchange and the Stock Exchange of Hong Kong in March 2004. We raised an aggregate of US\$1,017 million in the global offering. We have been listed on the New York Stock Exchange under the symbol **SMI** and the Stock Exchange of Hong Kong under the stock code **0981**.

We were founded by Dr. Richard Ru Gin Chang, our Chairman, Chief Executive Officer and President, who has more than 26 years of experience in the semiconductor industry. In August 2000, we started construction of our first fab, which we refer to as Fab 1, in the Zhangjiang High-Tech Park in Shanghai and commenced pilot production in September 2001. We achieved internal qualification of our 0.18 micron CMOS logic at Fab 1 in December 2001. Our Fab 1 and Fab 3B-A commenced commercial production in January 2002 and our Fab 2 and Fab 3B-C commenced commercial production in January 2003. Fab 3B-A and Fab 3B-C constitute the two halves of our Fab 3B, with Fab 3B-A providing aluminum interconnects and Fab 3B-C providing copper interconnects. Fab 2 and Fab 3B are also located in the Zhangjiang High-Tech Park. In January 2004, we completed the acquisition of our Fab 7, an 8-inch wafer fab located in the Xiqing Economic Development Area in Tianjin, China, and commenced mass production in May 2004. We commenced construction in the Beijing Economic and Technological Development Area of our Fab 4, which is China's first 12-inch fab and our fifth fab overall, in December 2002 and commenced commercial production at that fab in March 2005. We are also constructing two additional 12-inch fabs in Beijing, which we refer to as Fab 5 and Fab 6C. We have entered into an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd., to manufacture color filters and micro-lenses for CMOS image sensors and a joint venture agreement with United Test and Assembly Center Ltd. to provide assembly and testing services in Chengdu focusing on memory and logic devices. We maintain operations in Japan, Europe and the United States to perform marketing-related activities.

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\$897 million, US\$492 million and US\$2,000 million in 2002, 2003 and 2004, respectively, for these purposes. We anticipate that in 2005, we will incur US\$1,000 million of capital expenditures to expand our operations at our existing fabs and complete the construction, equipping and ramp-up of our Fab 4 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, 2004 of 102,615 8-inch wafer equivalents per month for wafer fabrication and 17,802 wafers per month for copper interconnects. We anticipate that as of the end of 2005, we will have an aggregate capacity of 147,000 8-inch wafer equivalents per month.

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 the Zhangjiang High-Tech Park in Shanghai, China, an 8-inch wafer fab in Tianjin, China and a 12-inch wafer fab in the Beijing Economic and Technological Development Area in Beijing, China. These fabs had an aggregate capacity as of December 31, 2004 of 102,615 8-inch wafer equivalents per month for wafer fabrication and 17,802 wafers per month for copper interconnects, which positions us as the leading foundry in China. In addition, we are currently constructing two additional 12-inch fabs in Beijing and three additional 8-inch fabs in Shanghai.

We currently provide semiconductor fabrication services using 0.35 micron to 0.10 micron 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.

We also have developed internally a 90 nanometer prototype SRAM chip. We expect to commercially offer manufacturing services using 90 nanometer process technology to our customers in 2005.

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 1948, 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 many 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. IC Insights estimates that foundries with 12-inch facilities are expected to realize economies of scale from the increased number of dies per wafer and yield a manufacturing cost savings of approximately 30% on a per square centimeter basis once they enter into volume production. In addition, since 12-inch fabs have been constructed more recently, the equipment used in these fabs permits smaller line-width process technologies to be utilized. However, this equipment is more expensive than equipment for the fabrication of 8-inch wafers as the market for this equipment is less mature with fewer suppliers and the technology involved is more complex.

Process technologies are the set of specifications and parameters implemented for manufacturing the circuitry on integrated circuits. The transistor circuitry on an integrated circuit typically follows lines that are less than one micron wide (1/1,000,000 of a meter). The linewidths 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 0.10 micron.

Importance of Integrated Circuits for China's Domestic Market and Its 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, such as Flextronics and Solectron, are relocating production facilities from the United States, Taiwan, Southeast Asia and Mexico 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. According to International Finance Corporation, the private investment arm of the World Bank, US\$46 billion, or 77%, of emerging markets production growth through 2005 will be attributable to China, at which point China would become the world's third largest manufacturing region behind North America and Japan. Such production growth represents additional potential demand for semiconductors manufactured in China. We believe that these electronics manufacturers will be likely to source a greater portion of their demand for integrated circuits from domestic integrated circuit suppliers in order to reduce production cycle time, lower costs, simplify supply chain logistics and meet local content requirements.

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, such as Elpida, Infineon and Motorola, 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. We believe that we are well positioned to benefit from the growth of fabless semiconductor companies and the increase in outsourcing by IDMs, particularly because our facilities are equipped to manufacture integrated circuits using leading edge technologies at competitive costs.

The increasing trend in IDM outsourcing and the further development of fabless semiconductor companies are the two key drivers for the growth of the foundry industry, which is expected to significantly outpace the growth of the overall semiconductor industry. According to IC Insights, the size of the foundry industry in terms of worldwide sales reached US\$14.0 billion in 2003, representing a 20.5% compound annual growth rate from US\$5.5 billion in 1998, and is projected to reach US\$39.5 billion by 2008, representing a compound annual growth rate of 21.8% since 1998. In contrast, the overall semiconductor industry is expected to grow at a compound annual rate of 9.5% over the same time period.

Our Strategy

Our goal is to maintain our position as one of the leading semiconductor foundries in the world. We plan to continue to offer our services to leading semiconductor suppliers worldwide while maintaining our leadership position in China. The key elements of our strategy include the following:

Capitalize on Our Early Mover Advantage to Capture Semiconductor Industry Growth Opportunities in China

We are a leader and an early mover in the advanced semiconductor foundry industry in China. According to the China Center for Information Industry Development, there are more than 463 fabless semiconductor companies and design centers in China. The majority of these potential customers are located around the Greater Shanghai and Beijing metropolitan areas in the vicinity of our existing fabs. Most of these domestic fabless companies focus on the design of integrated circuits in an attempt to meet the needs of domestic market demand in

terms of features and functionality. We believe that as the fabless integrated circuit industry in China matures, there will be an increased demand for foundry services in China. We are committed to offering them best-in-class services and solutions that are customized for their particular technological capabilities and financial resources. We have already established foundry relationships with a significant number of leading local fabless semiconductor companies in China. We believe that by establishing our company as a key foundry partner to local semiconductor companies at an early stage of their development, we will be well positioned to take advantage of the potential semiconductor industry growth in China.

We believe we currently have the largest installed 8-inch wafer fabrication capacity and the only 12-inch wafer fabrication capacity in China. Our location in China allows us to develop close relationships with the increasing number of IDMs and systems companies that are, or whose customers are, moving their existing manufacturing facilities to, or establishing new facilities in, China. Similar to our strategy regarding fabless semiconductor companies, we believe our close proximity to these IDMs and systems companies will allow us to form close partnerships with them to meet the growing demand for electronic devices both within China and around the world.

Target a Diversified and Global Customer Base

We have a global customer base consisting of leading IDMs, fabless semiconductor companies, and systems and other companies. We believe these customers have high growth potential and business plans that are directed towards utilizing our manufacturing services and solutions. In order to maximize the utilization of our fabs and optimize our process technology offerings, we plan to focus on attracting potential customers with advanced design capabilities that require leading edge foundry services in high volumes. The semiconductor industry is developing rapidly and demand for products associated with different applications and technical standards continues to grow. We intend to maintain a diversified customer mix in terms of end-market applications, processes and geographical focus in order to manage our exposure to each market segment.

Maintain Leading Edge Technology and Innovation through Internal Research and Development and Strategic Alliances and Partnerships

In order to serve our customers' diverse needs, we intend to continue to expand our portfolio of leading edge process technology capabilities in logic, mixed signal, RF, memory and specialty semiconductor devices. An expanded portfolio of process technologies is a key factor in being able to produce a wide spectrum of semiconductor devices while minimizing production volume fluctuations. To achieve this strategic goal in technology and innovation, we rely on our internal research and development team, as well as our leading global technology partners. This two-pronged strategy allows us to shorten the development cycle and provide our customers with quality manufacturing capabilities while also sharing development costs with other parties. As a result, we were, for example, among the first foundries to offer customers the option of outsourcing their 0.13 micron copper interconnects.

We have established partnerships with leading semiconductor companies and research institutes, such as Fujitsu Limited, Infineon Technologies AG, Interuniversitair Micro-Elektronica Centrum vzw, or IMEC, Motorola and Toshiba, and intend to continue to maintain and broaden our list of technology partners. Our partnerships with leading semiconductor companies have not only provided us with access to a diverse portfolio of technologies, but have also helped to strengthen our relationships with these companies, some of which are our customers. We believe our relationships with these customers have, in turn, helped us establish credibility in the market and attract new customers.

Provide High Quality Customer Service

We believe that our focus on offering high quality customer service is an important factor in attracting and retaining leading semiconductor companies as our customers, and has been a key contributor to our growth. We have established a strong customer- and teamwork-oriented culture that focuses on maintaining close interactions with our customers at multiple levels and functional areas within our organization. The key areas of our customer service are:

responsiveness to customers requirements in terms of lead times and product cycle time;

flexibility in providing customized solutions and in production scheduling;

timely delivery of products in the required volumes;

strict adherence to high quality technical specifications;

confidentiality and protection of customer intellectual property and proprietary information;

cost effectiveness;

real time online information; and

integrated 24-hour customer support.

Shift Product Mix to Logic Wafers While Maintaining Expertise in DRAM Technology

We believe we are the only foundry among our key competitors to have adopted the strategy of offering leading edge technology for both DRAM and logic semiconductors. We believe our strategy of maintaining core competency in manufacturing both logic and DRAM semiconductors is particularly important in the development of system-on-chip product technology. We have historically utilized a relatively high percentage of our total capacity for the production of DRAM wafers for shipment to certain of our strategic partners on a foundry basis and for sale to our distributors. DRAM wafers produced for sale to our distributors are essentially commodity-type DRAM wafers we manufacture on spec without a purchase order or a specific customer in mind. These wafers are sold into the market to various customers through our distributors.

Through the production of DRAM wafers, we have been able to quickly ramp up our production facilities, debug our production processes and equipment, and train our personnel in a high volume, advanced process fabrication environment. We will continue to manufacture DRAM wafers for our customers on a foundry basis and expect that our production of DRAM wafers on spec will decrease. At the same time, we have increased in 2004, and intend to continue increasing, the relative production volume of logic wafers since these products generally have more stable prices and margins than commodity-type DRAM. As a result, we expect that our production of DRAM wafers as a percentage of overall production will decrease.

Our Fabs

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

	Shanghai				Beijing			Tianjin
	Fab 1	Fab 2	Fab 3B ⁽¹⁾		Fab 4	Fab 5	Fab 6C	Fab 7
			Fab 3B-A	Fab 3B-C				
	(actual) Pre-metalization wafer fabrication ⁽²⁾	(actual) Pre-metalization wafer fabrication ⁽²⁾	(actual) Aluminum interconnects	(actual) Copper interconnects	(actual) Wafer fabrication with aluminum interconnects	(estimated) Pre-metalization wafer fabrication ⁽²⁾	(estimated) Copper interconnects	(actual) Wafer fabrication with aluminum interconnects
Type of fab								
Pilot production commencement	September 2001	July 2002	September 2001	September 2002	July 2004	2006 or thereafter	2005	February 2004
Commercial production commencement	January 2002	January 2003	January 2002	January 2003	March 2005	2006 or thereafter	2005	May 2004
Wafer size	8-inch	8-inch	8-inch	8-inch	12-inch	12-inch	12-inch	8-inch
Production clean room size	8,555 m ²	8,555 m ²	2,800 m ²	3,400 m ²	7,366 m ²	7,366 m ²	3,213 m ²	8,463 m ²

- (1) Fab 3B contains both an aluminum interconnects line, referred to as Fab 3B-A, that provides the aluminum interconnects for wafers fabricated at Fab 1 and Fab 2, as well as a copper interconnects line, referred to as Fab 3B-C. Fab 3B-A utilizes some steppers and scanners from Fab 1 for its aluminum interconnects process, while Fab 3B-C uses its own steppers and scanners for the copper interconnects process.
- (2) Pre-metalization wafer fabrication refers to all of the manufacturing steps in the fabrication of a semiconductor wafer from a raw silicon wafer until, but not including, the attachment of metal interconnects, such as aluminum or copper.

A portion of our Fab 9 in Shanghai will be leased to Toppan SMIC Electronics (Shanghai) Co., Ltd., which will manufacture color filters and micro-lenses for CMOS image sensors.

Most of the administrative and management functions of our fabs are centralized at our corporate headquarters in the Zhangjiang High-Tech Park in the Pudong New Area of Shanghai.

We have begun to implement a "One Mega Fab" project to align the capabilities of our fabs by standardizing our equipment and processes. Our goal is for a semiconductor wafer produced at any of our fabs to have statistically the same wafer acceptance test results and wafer yields as a semiconductor wafer produced at any of our other fabs that are producing the same product. This increases the flexibility of our total capacity and allows us to avoid costs and delays relating to additional customer qualifications when we shift production from one fab to another.

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Our fabs are organized into bays grouped by function. The general production environment consists of class 1000 or class 100 clean rooms. Within the larger clean rooms, the actual fabrication steps are performed in a class 1 clean standard mechanical interface box, within which the wafers are also transferred between each step in the fabrication process. The use of these boxes and other mini-environments results in reductions of building structure costs, mechanical and electrical system requirements and operating costs, allows flexibility with respect to the layout and reconfiguration of equipment and facilitates the ramping-up process during capacity expansions.

Shanghai Operations

The diagram below illustrates our distinctive tri-fab architecture utilized for our current Shanghai fabs:

Our current fab configuration in Shanghai consists of two pre-metalization wafer fabs, Fab 1 and Fab 2, attached to a separate metal interconnects fab, Fab 3B. Fab 3B contains both an aluminum interconnects line, referred to as Fab 3B-A, that provides the aluminum interconnects for wafers fabricated at Fab 1 and Fab 2, as well as a copper interconnects line, referred to as Fab 3B-C, that currently provides copper interconnects. Our Shanghai fabs are located in the Zhangjiang High-Tech Park in Shanghai, China. They have a total floor space of 164,795 square meters, of which approximately 23,310 square meters is occupied by the production clean room area. These fabs had an aggregate wafer fabrication capacity, as of December 31, 2004, of 81,406 wafers per month and, through Fab 3B-C, an aggregate capacity for copper interconnects of 17,802 wafers per month.

Our tri-fab design offers complete operational redundancy between Fab 1 and Fab 2 with respect to the equipment that represents the main bottlenecks in production. The hallways connecting these two fabs permit wafers in production to be easily switched from one fab to the other to take advantage of unused equipment and reduce overall production cycle time. In addition, our configuration offers our customers the option to use copper interconnects for the wafers they have fabricated in-house at their own facilities or through other third parties. It also prevents metal line contamination to the wafer fabrication processes while allowing for more flexibility with respect to our capacity and loading capabilities. All of these fabs are automated and equipped with inter-bay automatic material handling systems.

Our Fab 1 was selected as one of the two Top Fabs of 2003 by Semiconductor International, a leading industry publication. This award was based on fabrication capabilities, ramp-up time, degree of automation, contamination control procedures, worker health and safety and environmental concerns. In addition, we were ranked second in a readers poll of top global foundries of 2003 conducted by Silicon Strategies, another leading semiconductor industry publication. In 2004, we received the Shanghai Industrial Exhibition Organization Silver Award from the Shanghai Industrial Exhibition Organization Committee for being the first company in China to manufacture a 12-inch wafer.

In July 2004, we entered into an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd., a joint venture in Shanghai, for the manufacture of color filters and micro-lenses for CMOS image sensors. We will lease a portion of Fab 9 to Toppan SMIC Electronics (Shanghai) Co., Ltd.

Tianjin Operations

In January 2004, we acquired assets constituting, and assumed certain obligations relating to, a wafer fab located in Tianjin, China from Motorola (China) Electronics Limited, or MCEL, a wholly owned subsidiary of Motorola. Our Tianjin fab, which we refer to as Fab 7, is located in the Xiqing Economic Development Area and has an estimated total floor space of 49,463 square meters, including approximately 8,463 square meters of production clean room area. Fab 7 performs pre-metalization fabrication of 8-inch wafers as well as provides aluminum interconnects for such wafers. As of December 31, 2004, Fab 7 had increased its capacity to 14,182 wafers per month and produces primarily logic, mixed-signal, high voltage and other memory products. Given our current product mix and sales forecast, we anticipate that Fab 7's capacity will reach 15,000 wafers per month in the fourth quarter of 2005. We are currently in the process of seeking the approval of the Chinese governmental authorities to defer our capital contribution to SMIC Tianjin's registered capital until such time as the transfer of title to the land use rights, buildings and equipment of SMIC Tianjin has been approved by or registered with the relevant Chinese governmental authorities.

Beijing Operations

Our Fab 4 is the first 12-inch fab in production in China. We recently completed construction at our Fab 5 and Fab 6C, which will also be 12-inch fabs. All of these fabs are located in the Beijing Economic and Technological Development Area. Twelve-inch wafers have a surface area that is 2.25 times larger than the current industry standard 8-inch wafers, thereby enabling us to manufacture more integrated circuits on each wafer with lower per die costs. Fab 6C is being situated between the two wafer fabs, Fab 4 and Fab 5, and will provide the copper interconnects for the 0.13 micron and below logic wafers produced by both of these fabs. This design is intended to prevent metal line

contamination to the wafer fabrication processes while achieving greater flexibility in production. Our fab layout in Beijing is more compact than in Shanghai, which helps to reduce the risk of dust contamination.

Our Beijing fabs have a total floor space of 179,858 square meters, 17,945 square meters of which will consist of production clean room areas. We commenced commercial production at Fab 4 in March of 2005. As of December 31, 2004, Fab 4 had a capacity of 7,027 8-inch wafer equivalents per month. Given our current product mix and sales forecast, we plan to have wafer fabrication capacity of 29,000 8-inch wafer equivalents by the end of 2005. We plan to commence commercial production at Fab 6C in late 2005 and at Fab 5 in 2006 or thereafter.

Our Services

Wafer Fabrication Services

We currently provide semiconductor fabrication services using 0.35 micron to 0.10 micron process 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.

We believe we are one of the few foundries in the world to offer copper interconnects technologies to our global customers. We believe we are also the first fab in China to introduce copper technology on a 0.13 micron production line. The capacity for our copper interconnects line was 17,802 wafers per month as of December 31, 2004.

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 0.18 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: 68.5% of our wafer sales in 2004 were from products that utilized advanced technology of 0.18 micron and below.

The following table sets forth the actual and projected range of process technology capabilities of our fabs:

Fab ⁽¹⁾	Month and year of commencement of commercial production	Process technology (in microns)			
		2002	2003	2004	2005 (estimated)
Wafer fabrication⁽²⁾:					
Fab 1	January 2002	0.35/0.25/ 0.18/0.15	0.35/0.25/ 0.18/0.15/0.13	0.35/0.25/ 0.18/0.15/ 0.13/0.11	0.35/0.25/ 0.18/0.15/ 0.13/0.11/0.09
Fab 2	January 2003	0.35/0.25/ 0.18/0.15	0.35/0.25/ 0.18/0.15/0.13	0.35/0.25/ 0.18/0.15/0.13	0.35/0.25/ 0.18/0.15/ 0.13/0.11/0.09
Fab 4	March 2005			0.15/0.13/ 0.10 ⁽³⁾	0.15/0.13/0.11/ 0.10/0.09
Fab 5	2006 or thereafter				
Fab 7	May 2004			0.35/0.18 ⁽⁴⁾	0.35/0.25/ 0.18 ⁽⁴⁾
Metal Interconnects (aluminum and copper):					
Fab 3B-A ⁽⁵⁾	January 2002	0.35/0.25/ 0.18/0.15	0.35/0.25/ 0.18/0.15/0.13	0.35/0.25/ 0.18/0.15/0.11	0.35/0.25/ 0.18/0.15/0.11
Fab 3B-C	January 2002	0.13	0.13	0.13	0.13/0.09
Fab 6C ⁽⁶⁾					0.13/0.09

Second half
of 2005

-
- (1) Fabs 1, 2 and 3B are located in Shanghai and produce 8-inch wafers, while Fabs 4, 5 and 6C are located in Beijing and produce or will produce 12-inch wafers. Fab 7 in Tianjin produces 8-inch wafers.
 - (2) Fab 1, Fab 2, Fab 4 and Fab 5 perform pre-metalization wafer fabrication.
 - (3) Fab 4 commenced pilot production using 0.11 micron process technology in July 2004.
 - (4) Aluminum interconnects only.

- (5) Fab 3B-A is only utilized to provide aluminum interconnects for wafers produced by Fab 1 and Fab 2 and therefore has the same technology range as Fab 1 and Fab 2.
- (6) Copper interconnects for Fab 4 and Fab 5 will be provided by Fab 6C, and therefore Fab 6C will have the same technology range as Fab 4 and Fab 5. Fab 6C will also provide aluminum interconnects.

The following table sets forth a percentage breakdown of wafer sales by process technology for the years ended December 31, 2002, 2003 and 2004, and each of the quarters in the year ended December 31, 2004:

Process Technologies	For the year ended December 31,		For the three months ended				For the year ended
	2002	2003	March 31, 2004	June 30, 2004	September 30, 2004	December 31, 2004	December 31, 2004
	(based on sales in US\$)						
0.13 micron	0.0%	11.8%	10.1%	9.9%	11.9%	13.8%	11.7%
0.15 micron	0.0%	9.9%	15.7%	13.3%	13.2%	14.9%	14.2%
0.18 micron	4.7%	22.0%	44.4%	48.6%	46.2%	33.6%	42.6%
0.25 micron	74.2%	34.5%	8.3%	8.3%	6.4%	6.0%	7.1%
0.35 micron	21.1%	21.8%	21.5%	19.9%	22.3%	31.7%	24.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Technology Partners

Our technology partners have licensed to us leading process technology and design intellectual property. Our technology partners include the following:

Chartered Semiconductor for 0.18 micron logic;

Fujitsu Limited for 0.22 micron DRAM and 0.18 micron FCRAM;

Infineon Technologies AG for 0.14 micron and 0.11 micron DRAM;

Elpida Memory, Inc. for 0.10 micron DRAM; and

Toshiba for 0.21 micron and 0.15 micron SRAM.

Two of these technology partners, specifically Fujitsu Limited and Infineon Technologies AG, are among our five largest customers in 2004.

Our other technology partners include Aplus Flash Technology, Inc., ARM Limited, Artisan Components, Inc., IMEC, Motorola, VeriSilicon Holdings, Ltd. and Virage Logic Corporation. Some of these technology arrangements involve corresponding foundry or supply agreements in which we agree to guarantee a minimum capacity for the fabrication of specific products for these technology partners. Certain of our technology partners only allow us to use their technology to manufacture wafers for them.

Manufacturing Capacity

We currently manufacture 8-inch silicon wafers based on proprietary designs provided by our customers or third party designers. Since commencing commercial production, we believe we have the largest 8-inch wafer fabrication capacity among semiconductor foundries in China. We believe we have the most advanced process technology among foundries in China and were the first fab to use 0.18 micron process technology. In January 2003, we commenced commercial production using 0.13 micron copper interconnects process technology. We believe we are currently the only fab in China to offer 0.13 micron copper interconnects process technology, and we began offering 0.13 micron wafer fabrication process technology in the first quarter of 2004.

The following table sets forth the historical and projected capacity of our current and planned wafer fabrication and copper interconnects fabs:

Fab	2002	2003	2004	2005 (estimated) ⁽¹⁾
Wafer Fabrication:				
Wafer fabrication capacity as of year-end ⁽²⁾ :				
Fab 1 ⁽³⁾	22,000	28,000	45,536	45,000
Fab 2 ⁽³⁾		21,000	35,870	45,000
Fab 4 ⁽⁴⁾			7,027	29,000
Fab 5 ⁽⁴⁾⁽⁵⁾				
Fab 7			14,182	15,000
Total monthly wafer fabrication capacity as of year-end ⁽²⁾	22,000	49,000	102,615	134,000
Total annual wafer fabrication capacity ⁽²⁾	117,000	503,000	1,036,173	1,500,000
Wafer fabrication capacity utilization	94%	94%	98%	95%
Copper Interconnects:				
Copper interconnects capacity as of year-end ⁽²⁾ :				
Fab 3B-C ⁽⁶⁾		9,000	17,802	13,000
Fab 6C				
Total monthly copper interconnects capacity as of year-end ⁽²⁾		9,000	17,802	13,000

- (1) Actual capacity and output for future periods may vary significantly from the projected data set forth in the table above, particularly in the event of a change in the projected product mix.
- (2) All output and capacity data is provided as 8-inch wafers or 8-inch wafer equivalents per month. Conversion of 12-inch wafers to 8-inch wafer equivalents is achieved by multiplying the number of 12-inch wafers by 2.25.
- (3) Aluminum interconnects for Fab 1 and Fab 2 are provided by Fab 3B-A. Thus, capacity data for Fab 3B-A is not separately presented.
- (4) Aluminum and copper interconnects for Fab 4 and Fab 5 will be provided by Fab 6C.
- (5) We plan to commence commercial production at Fab 5 in 2006 or thereafter.
- (6) Reflects wafers fabricated using the copper interconnects line of Fab 3B-C and does not include wafers fabricated using the aluminum interconnects line of Fab 3B-A. As a small number of wafers produced by Fab 1 and Fab 2 also utilize the copper interconnects capabilities of Fab 3B-C, our reported capacity and output data for Fab 3B overlaps to a limited extent with such data for Fab 1 and Fab 2.

As of December 31, 2004, our aggregate wafer fabrication capacity was 102,615 8-inch wafer equivalents per month, and our copper interconnects capacity was 17,802 wafers per month.

A key factor influencing our profit margins is our capacity utilization. Because a high percentage of our cost of sales is of a fixed nature, operations at or near full capacity have a significant positive effect on output and profitability. In both 2002 and 2003, our wafer fabs had an average annual utilization rate of 94% and in 2004, our wafer fabs had an average annual utilization rate of 98%. Factors affecting utilization rates are our ability to manage the production facilities and product flows efficiently, the percentage line yield of wafers during the fabrication process, the complexity of the wafer produced and the actual product mix. In addition, we have manufactured DRAM to fill our production lines when the volume demand of other products does not fully utilize our available capacity. As a result, our utilization rate has historically remained high.

We determine the capacity of a fab based on the capacity ratings given by manufacturers of the equipment used in the fab, adjusted for, among other factors, actual output during uninterrupted trial runs, expected down time due to setup for production runs and approximately one to two days of scheduled annual maintenance, and expected product mix. All of our fabs currently operate 24 hours per day, seven days per week, except during periods of annual maintenance. Employees work shifts of 12 hours each day on a two-days-on, two-days-off basis.

We often use DRAM as the initial product to test the production capabilities at a new fab. This is because DRAM requires higher process accuracy, more precise process control and a higher degree of engineering skills and operational disciplines, and can therefore assist in early identification of any potential process, equipment or

fab-related production problems. This DRAM is either manufactured on a foundry basis for our customers or sold by us to the market through our distributors under technology licensing and royalty arrangements. However, the market for DRAM devices has also been more volatile and susceptible to sudden price drops in recent years. We expect that our production of DRAM wafers as a percentage of our overall production will decrease.

Capacity Expansion Plans

We intend to maintain our strategy of expanding capacity and improving our process technology to meet both the capacity requirements and the technological needs of our customers. Our capital expenditures in 2004 were US\$2,000 million. We currently expect that our capital expenditures in 2005 will be approximately US\$1,000 million, which we plan to fund through our operating cash flows and bank loans. If necessary, we will also explore other forms of external financing. We plan to use this capital primarily to continue the ramp up of our existing fabs in Shanghai, Tianjin and Beijing and complete the construction, equipping and ramp-up of our Fab 4 in Beijing. In addition, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in our business plan, our process technology, market conditions, equipment prices, customer requirements or interest rates. We will monitor the global economy, the semiconductor industry, the demands of our customers, and our cash flow from operations to adjust our capital expenditure plans.

We also will seek to participate in strategic partnerships to meet the demands of our customers. For example, in July 2004, we entered into an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd., a joint venture in Shanghai, for the manufacture of color filters and micro-lenses for CMOS image sensors. These products are increasingly being used in consumer products such as mobile phone cameras, digital cameras and automobile and home security applications. In 2004, we commenced construction of Fab 9, which we will lease to Toppan SMIC Electronics (Shanghai) Co., Ltd. We understand that Toppan SMIC Electronics (Shanghai) Co., Ltd. plans to commence pilot production by the end of 2005. We hold a 30% equity interest in Toppan SMIC Electronics (Shanghai) Co., Ltd.

Our Integrated Solutions

In addition to wafer fabrication, we provide our customers with a range of complementary services, from circuit design support and mask-making to wafer level probing and testing. This range of services is supported by our network of partners that assist in providing design, probing, final testing, packaging, assembly and distribution services. Our main goal in the provision of these services is to help our customers achieve higher performance products and greater yield in the most cost-effective and timely manner. Because of our ability to provide an array of services in addition to wafer fabrication, we are able to accommodate customers with a variety of needs. Many of our customers choose to have us make the masks to be used during the fabrication process, as this decreases the risk of damage to the masks that can result from having to transport them. The flexibility in input stages allows us to cater to a variety of customers with different in-house capabilities and thus to service a wider class of customers as compared to a foundry that cannot offer design support or mask-making services.

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

-
- (1) A portion of this work is outsourced to our service partners.
 - (2) All of these services are outsourced to our service partners.

Design Support Services

Our design support services include providing our customers with access to the fundamental technology files and intellectual property libraries that facilitate customers' own integrated circuit design. We also offer design reference flows and access to our design center alliance, as well as layout services. In addition, we collaborate with industry leaders in electronic design automation, library and intellectual property services to create a worldwide network of expertise, resources and services that are available to implement and produce a customer's designs. As of December 31, 2004, we employed over 117 engineers devoted solely to design support services.

Libraries

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

Intellectual Property

As semiconductors grow in complexity and time-to-market pressures mount, the intellectual property designs that we offer can assist our customers to attain faster cycle times. Together with the intellectual property developed by our internal design team, our alliances with intellectual property providers enable us to offer foundational designs ranging from 0.35 micron to 0.13 micron and relating to mixed-signal, embedded memory, high-speed interface, digital peripheral device controllers and embedded processors, among others. We use our own and third party design expertise to realize the functions of these various types of intellectual property. Our intellectual property partners include Aplus, ARM and Mosys, Inc.

Design Reference Flows

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

Design Center Alliance

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

Mask-making Services

We believe we are currently the most advanced mask supplier in China and are one of the few foundries in the world to offer in-house mask-making services. Many of our foundry customers utilize our mask-making services. We believe that having our own mask facility ensures a seamless flow of service from design to mask to wafer. This in-house capability facilitates the interaction of our mask and wafer engineers, thereby optimizing photo mask specifications for the achievement of high yield and quality and minimal cycle times. We believe this capability results in cost reductions for our customers and enables them to shorten their time-to-market.

While most of our mask-making services are for customers that also utilize our wafer fabrication services as part of our overall foundry service, we also produce masks for other domestic and overseas fabs as a separate revenue-generating service. For 2004, our management estimates that these mask-only customers constituted approximately 35% of our mask-related business. Our mask shop also cooperates with our research and development department to develop new technologies and designs.

Our mask-making facility, which is located in Shanghai, includes 2,750 square meters of class 1 clean room area. It is designed for flexible expansion and is equipped with advanced equipment. We believe that much of this equipment is the most advanced in the world. At present, our mask shop offers both five-inch by five-inch and six-inch by six-inch reticles. Our facility is capable of producing binary masks, optical

proximity correction masks and phase shift masks. Our mask facility also offers mask repair services. As of December 31, 2004, we had 137 personnel employed in our mask shop.

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

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

Wafer Probing, Assembly and Testing Services

We have our own probing facilities in Shanghai and Beijing that provide test program development, probe card fabrication, wafer probing, failure analysis and failure testing. We do not perform final testing and packaging at our facilities, but instead outsource these services to our partners for those customers that request them.

Our probing facility in Shanghai occupies a clean room space of 3,000 square meters, and our probing facility in Beijing occupies a clean room space of 1,400 square meters. Both facilities are rated at class 1,000 cleanliness and are equipped with advanced testers, probers and laser repair machines for logic, memory and mixed-signal products. The probing facility in Beijing supports testing of Beijing's 12-inch wafers and Tianjin's 8-inch wafers. We estimate that these facilities' current aggregate capacity for the probing of memory and logic devices is 65,500 wafers per month. We employ more than 190 personnel to provide these probing services. We have testing equipment for memory, logic and mixed signal applications, including some equipment that has been consigned to our Shanghai facility by our customers. This consigned testing equipment has been specially designed and built by our customers in order to probe their particular products at our facility.

We have also established a network of partners that provide additional probing services, as well as assembly and testing services, for our customers that request these additional services. We have relationships with assembly and testing partners, including Amkor Assembly & Test (Shanghai) Co., Ltd. and ST Assembly Test Services Ltd., which have helped to enhance the range of services that we are able to offer our customers. We estimate that as of December 31, 2004, approximately 50% of the wafers we fabricated were probed at our in-house probing facility, with the remainder being outsourced to our partners.

On May 3, 2005, we entered into a joint venture agreement with United Test and Assembly Center Ltd. to provide assembly and testing services in Chengdu, Sichuan Province, focusing on memory and logic devices. We will invest US\$51 million through cash and own 51% of the joint venture company and UTAC will invest US\$30 million through a combination of cash and other consideration, including intellectual property, for a 30% stake. UTAC and other investors (except the company and the joint venture's employees) will be granted a right to require the joint venture to buy back its shares under certain circumstances starting in 2009, subject to any applicable laws and regulations. Commercial production is expected to commence in the fourth quarter of 2005.

Customers and Markets

Our customers include IDMs, fabless semiconductor companies and systems companies. The following table sets forth the breakdown of our sales by customer type for 2002, 2003 and 2004:

Customer Type	For the year ended December 31,					
	2002		2003		2004	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Fabless semiconductor companies	\$ 26,244	52.2%	\$ 125,416	34.3%	\$ 391,788	40.2%
Integrated device manufacturers	8,877	17.6%	169,329	46.3%	515,282	52.9%
Systems companies and others	15,194	30.2%	71,078	19.4%	67,595	6.9%

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Total	\$ 50,315	100.0%	\$ 365,823	100.0%	\$ 974,665	100.0%
-------	-----------	--------	------------	--------	------------	--------

We categorize our sales geographically based on the headquarters of the customer that issues the purchase order. The following table sets forth the geographical distribution of our sales and percentage of sales for 2002, 2003 and 2004:

Region	For the year ended December 31,					
	2002		2003		2004	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
North America	\$ 15,425	30.7%	\$ 134,080	36.7%	\$ 391,433	40.2%
Taiwan	23,980	47.7%	97,820	26.7%	120,652	12.4%
South Korea	60	0.1%	45,876	12.5%	140,933	14.5%
Japan	8,044	16.0%	40,982	11.2%	135,101	13.9%
Europe	120	0.2%	40,251	11.0%	125,596	12.7%
Asia Pacific (excluding Japan, South Korea and Taiwan) ⁽¹⁾	2,686	5.3%	6,814	1.9%	60,950	6.3%
Total	\$ 50,315	100.0%	\$ 365,823	100.0%	\$ 974,665	100.0%

- (1) We believe a significant portion of the semiconductors ordered from customers headquartered in China are eventually exported as components in electronic products assembled in China.

We have a global and diversified customer base that includes IDMs, namely Fujitsu Limited, Infineon Technologies AG, Samsung Electronics Co., Ltd., STMicroelectronics Pte. Ltd. and Texas Instruments Incorporated, and fabless semiconductor companies, namely Broadcom Corporation, Elite Semiconductor Memory Technology Inc. and Marvell Semiconductor, Inc. The foregoing is not intended to identify our top customers, but rather to provide a representative sampling of our customer base. IDMs generally provide more stable and longer term purchase contracts, have higher order volumes and license process technology to us. Although we are not dependent on any single customer, a significant portion of our sales is attributable to a relatively small number of our customers. Our sales could be significantly reduced if any of these customers cancels or reduces its orders, significantly changes its product delivery schedule or demands lower prices. In 2002, 2003, and 2004, our five largest customers accounted for approximately 68.8%, 57.0%, and 59.1% of our sales, respectively. In 2002, our largest customer, ISSI, accounted for approximately 24.9% of our sales. Our second largest customer in 2002, Fujitsu, accounted for approximately 16.0% of our sales. Our two largest customers in 2003, Samsung Electronics and Texas Instruments, accounted for approximately 12.1% and 11.7% of our sales in that year, respectively. Our two largest customers in 2004, Broadcom and Fujitsu accounted for approximately 13.4% and 12.7% of our sales in that year, respectively.

Our director, Lip-Bu Tan, is also a director of, and holds a shareholding interest of less than 1.0% in, ISSI, one of our five largest customers in 2003. In 2003, ISSI accounted for approximately 10.7% of our sales. In 2004, ISSI accounted for less than 6% of our sales.

Our Chairman, President and Chief Executive Officer, Richard Ru Gin Chang, and his wife together hold shareholding interests of less than 0.1% in one of our five largest customers in 2003 and 2004, Texas Instruments.

Our initial sales after commencing commercial operations in 2002 were mainly of DRAM that was fabricated and sold on a foundry basis, as well as commodity-type DRAM fabricated using technology licensed from Fujitsu and sold by us to distributors. This commodity-type DRAM was fabricated during our start-up phase in order to test and ramp up our facilities and train our personnel. As our business has grown and our fabs have matured, we have produced less commodity-type DRAM and more higher margin logic and advanced memory products. However, we intend to continue to produce commodity-type DRAM to maintain full utilization of our capacity.

The following table sets forth a breakdown of our sales by application type for 2002, 2003 and 2004:

Application Type ⁽¹⁾	For the year ended December 31,					
	2002		2003		2004	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Computing	\$ 24,084	47.9%	\$ 139,375	38.1%	\$ 231,235	23.7%
Communications	11,614	23.1%	162,520	44.4%	551,635	56.6%
Consumer	9,929	19.7%	44,339	12.1%	138,314	14.2%
Others	4,688	9.3%	19,589	5.4%	53,481	5.5%
Total	\$ 50,315	100.0%	\$ 365,823	100.0%	\$ 974,665	100.0%

(1) Computing consists of integrated circuits such as hard disk drive controllers, DVD-ROM/CD-ROM driver integrated circuits, graphic processors and other components lines, digital signal processors, wireless LAN, LAN controllers, LCD drivers, handset components and caller ID devices. Consumer consists of integrated circuits used for DVD players, game consoles, digital cameras, smart cards and toys.

The following table sets forth a breakdown of our sales by service type for 2002, 2003 and 2004:

Service Type	For the year ended December 31,					
	2002		2003		2004	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
	(in US\$ thousands, except percentages)					
Fabrication of memory wafers ⁽¹⁾	\$ 25,047	49.8%	\$ 139,553	38.2%	\$ 193,950	19.9%
Fabrication of logic wafers ⁽²⁾	20,974	41.7%	209,914	57.3%	730,160	74.9%
Other ⁽³⁾	4,294	8.5%	16,356	4.5%	50,555	5.2%
Total	\$ 50,315	100.0%	\$ 365,823	100.0%	\$ 974,665	100.0%

(1) Memory includes only DRAM devices.

(2) Logic includes all other devices, including memory devices whose manufacturing process is similar to that for a logic device.

(3) Includes mask-making and probing.

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

We believe that the most effective means of marketing our foundry services is by developing direct relationships with our customers. Our customer engineers work closely with our sales force by providing detailed technical advice and specifications to customers. We believe a significant portion of our business also arises through customer referrals. We believe that our focus on customer service has been an important factor in attracting leading semiconductor companies as customers. The key elements of our customer service are our customer-oriented culture, responsiveness, flexibility and delivery accuracy. We offer the advantage of a short lead time and product cycle to customers who need finished products within a short time frame.

We also provide our customers with the ability to share costs through our multi-project wafer processing shuttle service. This service allows customers to share costs with other customers by processing multiple designs on a single mask set. In addition to the significant cost savings, this shuttle service also provides fast turnaround time for customers that need to verify and/or redesign their products and allows us to perform low-volume test production runs for customers in the prototype stage. This service also helps to eliminate costly and time-consuming repetitive mask and wafer production runs, resulting in accelerated time-to-market for our customers.

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

Our sales cycle, meaning the time between our first contact with a customer in relation to a particular product and our first shipment of that product to the customer, typically lasts between three months to one year, depending on the type of process and product technology involved in the product we are requested to fabricate. Because of the fast-changing technology and functionality in integrated circuit design, foundry

customers generally do not place purchase orders far in advance to fabricate a particular type of product. However, we engage in discussions with customers commencing in advance of the placement of purchase orders regarding customers' expected fabrication requirements. See Risk Factors - Risks Related to Our Financial Condition and Business. Our sales cycles can be long, which could adversely affect our operating results and cause our income stream to be unpredictable.

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

Research and Development

Our research and development activities are principally directed toward the development and implementation of more advanced and lower cost process technology. We spent US\$37.5 million in 2002, US\$32.1 million in 2003 and US\$78.2 million in 2004 on research and development expenses, which represented 74.4%, 8.8%, and 8.0%, respectively, of our sales in those respective years. Our research and development costs in 2004 include non-recurring engineering costs associated with the ramp-up of Fab 4 and Fab 7. We plan to continue to invest significant amounts in research and development in 2005. In order to increase the efficiency of our research and development efforts, we have formed separate logic and memory technology development centers.

We employ over 600 research and development personnel. This research and development team includes many experienced semiconductor engineers with advanced degrees from leading universities around the world, as well as top graduates from the leading universities in China. We believe this combination has enabled us to quickly bring our technology in line with the semiconductor industry technology roadmap and ensures that we will have skilled personnel to lead our technology advancement in the future.

Intellectual Property

While we continue to develop and patent our own technologies, we expect to have an ongoing need to obtain licenses for the proprietary technologies of third parties to enable us to manufacture certain advanced wafers for our customers. To date, we have been granted thirty-five patents, twenty-nine in Taiwan, two in the U.S. and one in China, and have more than 300 patent applications pending in the United States, China and Taiwan. We believe our competitors and other industry participants have numerous patents concerning wafer fabrication and related technologies in multiple countries.

To obtain patent protection in Taiwan, an inventor must file an application with the Intellectual Property Office, which will subject the application to procedural and substantive reviews. If a patent application is preliminarily approved, it will be published in an official gazette for a three-month opposition period. If there are no oppositions or if the inventor is able to overcome opposition actions, then the patent will be granted. Assuming no opposition actions, the patent application process may be completed in approximately twelve to eighteen months. The validity period for the ten patents we have been granted is 20 years from the date the application is filed. As with patent rights in most other jurisdictions, a patentholder in Taiwan enjoys the exclusive right to exclude others from using, licensing, and otherwise exploiting the patent within Taiwan.

We believe it is customary in the semiconductor industry for companies with large patent portfolios to have greater leverage in negotiating license arrangements with third parties due to their ability to offer cross-licensing arrangements. We believe that, to date, the disparity between our patent portfolio and the substantially larger portfolios of our competitors has not had a material impact on our ability to negotiate license arrangements on terms acceptable to us. For example, as a part of the settlement agreement of the patent infringement claims with TSMC, we and TSMC entered into a patent cross-license agreement under which each party will license the other party's patent portfolio through December 2010. However, in the future, we may not have the ability to negotiate license agreements on terms acceptable to us, and thus we may have to accept unfavorable and more costly licensing terms, which could adversely affect our margins, operating results and competitiveness. 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.

In order to minimize risks to us from any intellectual property infringement claims, we have implemented a screening procedure whereby customers are evaluated for infringement risk based on size, reputation and product specifications, and those that are identified as high-risk are

examined closely for potential infringement. Some of our technology partners do not indemnify us for losses arising out of infringement of intellectual property rights relating to licensed-in processes they provide to us, but we are indemnified by most of our customers for losses arising out of infringement of intellectual property rights relating to the integrated circuit designs they provide to us.

We implement a variety of measures to protect the intellectual property and related interests of our company, customers and technology partners. We require our employees to execute a confidential information and invention assignment agreement relating to non-competition and intellectual property protection issues prior to commencing their employment at our company. Other measures include internal document and network control and a separate dedicated server for technical data. In our mask facility, we track all masks daily, delete all mask data after each project is completed and securely store all tapes and reticles. Access to customer information is granted to employees strictly on a need-to-know basis both during and after mask tooling.

We have applied for trademarks relating to our corporate logo and trade name SMIC in the United States, China and Taiwan, although there can be no assurance that such trademarks will be granted.

Competition

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

Our competitors and potential competitors include TSMC, UMC and Chartered Semiconductor. According to IC Insights, TSMC, UMC and Chartered Semiconductor had market shares of approximately 47%, 23% and 7%, respectively, in the semiconductor foundry industry in 2004. We had a market share of approximately 6% in 2004. Both TSMC and UMC have announced plans to build and acquire fabs in mainland China in order to compete for the growing domestic market in China. See Risk Factors Risks Related to Our Financial Condition and Business If we cannot compete successfully in our industry, particularly in China, our results of operations and financial condition will be adversely affected.

We believe we are the only emerging semiconductor foundry to have reached foundry capacity in excess of 100,000 8-inch wafers per month. We aim to use our competitive advantages of geographic location, scale and technology partnerships to maintain and enhance our position in the global market.

Another group of potential competitors consists of IDMs that have established their own foundry capabilities. These include Fujitsu Limited, Hynix, MagnaChip, IBM, Samsung Electronics Co., Ltd. and Toshiba. IDMs are primarily dedicated to fabricating integrated circuits for the end products of their respective affiliates.

Quality and Reliability

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

As a result of these quality assurance measures, we have achieved a visual die defect rate that we believe is consistent with industry standards. We believe that wafers fabricated at our fabs provide consistently high die yield, which allows our customers to determine with greater certainty the appropriate number of wafers to order.

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

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

Raw Materials

Our fabrication processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious and other metals. Raw material costs constituted 23.2% of our cost of sales in 2002, 21.7% of our cost of sales in 2003, and 19.6% of our cost of sales in 2004. The three largest components of raw material costs—raw wafers, chemicals and gases—accounted for approximately 45%, 24% and 7%, respectively, of our raw material costs in 2002, approximately 41%, 32% and 9%, respectively, of our raw material costs in 2003 and approximately 41%, 20% and 11%, respectively, of our raw material costs in 2004. Most of our raw materials generally are available from several suppliers, but substantially all of our principal materials requirements must currently be sourced from outside China. Our raw material procurement policy is to select only those vendors who have demonstrated quality control and reliability with respect to delivery time and to maintain multiple sources for each raw material so that a quality or delivery problem with any one vendor will not adversely affect our operations. The quality and delivery performance of each vendor is evaluated on a quarterly basis and quantity allocations are adjusted for subsequent periods based on these evaluations and on the prices offered by these vendors. To date, we have not experienced any shortages in the supply of our raw materials, and we do not expect to experience any such shortages in the foreseeable future.

The most important raw material used in our production is silicon in the form of raw wafers. The principal suppliers of our raw wafers are Hong Kong Topco Scientific Co., Ltd., Komatsu Electronic Metals Co., Ltd. and MEMC Electronic Materials, Inc. We purchase approximately 69.5% of our overall raw wafer requirements from these three raw wafer suppliers. We have in the past obtained sufficient quantities of 8-inch wafers and believe we will continue to be able to obtain a sufficient supply of 8-inch and 12-inch raw wafers.

For 2004, our largest and five largest raw materials suppliers accounted for approximately 10.6% and 40.7%, respectively, of our overall raw materials purchases. For 2003, our largest and five largest raw materials suppliers accounted for approximately 12% and 46%, respectively, of our overall raw materials purchases. In 2002, our largest and five largest raw materials suppliers accounted for approximately 13% and 51%, respectively, of our overall raw materials purchases. None of our directors or shareholders which to the knowledge of our directors own more than 5% of our issued share capital, or their respective associates, had shareholding interests in any of our five largest suppliers. Almost all of our materials are imported free of value-added tax and import duties due to concessions granted to our industry in China.

Electricity and Water

We use substantial amounts of electricity in our manufacturing process. This electricity is sourced for our three locations from the Pudong Electricity Corporation, the Beijing Municipal Electricity Department and the Tianjin Municipal Electricity Department. We enjoy a preferential electricity supply for our Shanghai fabs due to our location in the Zhangjiang High-Tech Park. We have not experienced any material disruptions in the electricity supply to any of our fabs to date, and also maintain emergency back-up generators to power safety and emergency systems.

The semiconductor manufacturing process uses extensive amounts of fresh water. We source our fresh water for our Shanghai fabs from Pudong Vivendi Water Corporation Limited, for our Beijing fabs from Beijing Waterworks Group Co. Ltd. and for our Tianjin fab from the Tianjin municipal water department. We believe these water supplies are adequate for our requirements and are not subject to any seasonal or periodic shortages. Because Beijing and Tianjin are subject to potential water shortages in the summer, our fabs in Beijing and Tianjin are equipped with back-up reservoirs. We have taken steps to reduce fresh water consumption in our fabs and capture rainwater for use at our Beijing facilities, and our water recycling systems in each of our fabs allow us to recycle 40% to 70% of the water used during the manufacturing process.

Regulation

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

Scope of Regulation

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

the Notice of the Ministry of Finance, the State Administration of Taxation and the General Administration of Customs on Relevant Taxation Policy Issues Concerning the Further Development of the Software Industry and the Integrated Circuit Industry, or the Integrated Circuit Notice, jointly issued by the Ministry of Finance, the State Administration of Taxation and the General Administration of Customs on September 22, 2000;

the Notice on Taxation Policies Concerning the Further Development of the Software and the Integrated Circuit Industry, or the Further Development Taxation Notice, jointly issued by the Ministry of Finance and the State Administration of Taxation on October 10, 2002, as amended by *Notice on Termination of Value-added Tax Refund Policies for Integrated Circuits*, or the Termination Notice, jointly issued by the Ministry of Finance and the State Administration of Taxation on September 30, 2004;

the Notice on Taxation Policies Concerning the Import of Raw Materials and Consumables Used for Production by Some Integrated Circuit Production Enterprises for Their Own Use, or the Raw Materials Taxation Notice, issued by the Ministry of Finance on August 24, 2002;

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

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

Preferential Industrial Policies Relating to ICPEs

ICPEs duly accredited in accordance with relevant laws and regulations may qualify for preferential industrial policies. Under the Integrated Circuit Policies, accreditation of ICPEs is determined by the competent examination and approval authorities responsible for integrated circuit projects after consultation with relevant taxation authorities. Specific provisions and procedures for accreditation of ICPEs are not set forth in current laws and regulations, and actual accreditation of ICPEs is conducted on a case-by-case basis.

SMIC Shanghai, SMIC Beijing and SMIC Tianjin have received accreditation as ICPEs entitling them to the preferential industrial policies described below.

Encouragement of Domestic Investment in ICPEs

Pursuant to the *Catalogue of Key Industries, Products and Technology Currently Encouraged for Development in China*, or the Domestic Catalogue, issued by the former State Planning Commission and the former State Economic and Trade Commission on September 1, 2000, the Chinese government encourages the design and fabrication of integrated circuits with a linewidth of less than 1.2 micron and of mixed integrated circuits. Under the Domestic Catalogue, imported equipment used for a qualifying domestic investment project and that falls within such project's approved total investment amount is exempt from customs duties and import-linked value-added tax, except for those goods included in the *Catalogue of Import Commodities for Domestic Investment Projects Not Subject to Tax Exemptions*, as stipulated by the State Council.

Encouragement of Foreign Investment in ICPEs

Pursuant to the Integrated Circuit Policies and the *Guideline Catalogue of Foreign Investment Industries* promulgated jointly by the former State Development and Planning Commission, the former State Economic and Trade Commission and the former Ministry of Foreign Trade and Economic Relations on March 11, 2002, as amended by the State Development and Reform Commission and the Ministry of Commerce on November 30, 2004, the following foreign investment categories are encouraged:

design and fabrication of integrated circuits with a linewidth of less than 0.35 micron;

development and fabrication of semiconductors and special materials for semiconductors; and

fabrication of mixed integrated circuits.

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

Preferential Taxation Policies

Preferential Value-added Tax Policy

Under Article 1 of the Further Development Taxation Notice, from January 1, 2002 to the end of 2010, the sale of integrated circuits (including monocrystalline silicon chips) is subject to a value-added tax levy of 17%. After the value-added tax is levied, the taxpayer was to be entitled to a refund for the portion exceeding 3% of the actual value-added tax burden. The tax refund was required to be used by the enterprise for the research and development of integrated circuits and to increase production.

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Under the Termination Notice, as of April 1, 2005, implementation of Article 1 of the Further Development Taxation Notice was terminated.

Under the Export Notice, as of November 1, 2004, the tax refund rate for exports of electronic integrated circuits and microassemblies is to increase from 13% to 17%.

Preferential Enterprise Income Tax Policies

Under the Integrated Circuit Policies and the Integrated Circuit Notice, ICPEs whose total investment exceeds Rmb 8,000 million (approximately US\$967 million) or whose integrated circuits have a linewidth of less than 0.25 micron are entitled to preferential tax treatment similar to that granted for foreign investment in the energy and communications industries. The Income Tax Law of the People's Republic of China for Enterprises with Foreign Investment and Foreign Enterprises, or the Income Tax Law, and the Implementation Rules for the Income Tax Law provide preferential treatment of, exemption from or reduction of foreign enterprise income tax, or FEIT, for enterprises with foreign investment engaged in the energy and communications industries. After approval by the relevant taxation authorities, each of SMIC Shanghai, SMIC Beijing and SMIC Tianjin will become entitled to a full exemption from FEIT for five years starting with the first year of positive accumulated earnings and a 50% reduction for the following five years.

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

Preferential Time Limit for Depreciation of Equipment Used in Production

Under the Integrated Circuit Notice, upon approval by the State Administration of Taxation of foreign investment enterprises whose total investment exceeds US\$30 million, and upon approval by the relevant local or provincial taxation authorities of foreign investment enterprises whose total investment is less than US\$30.0 million, the time limit for depreciation of equipment used by an ICPE for production purposes may be shortened to not less than three years.

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

Under the Integrated Circuit Policies and the Integrated Circuit Notice, ICPEs whose total investment exceeds Rmb 8,000 million or whose integrated circuits have a linewidth of less than 0.25 micron are exempt from customs duties and import-related value-added tax.

The Raw Materials Taxation Notice further sets forth a detailed list of the raw materials and consumables used for production that are subject to the preferential tax treatment set forth above.

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

Under the Construction Materials Taxation Notice, commencing January 1, 2001, the importation of construction materials, auxiliary equipment and spare parts for the production of integrated circuits, specifically for clean rooms (as listed in the annex to the Construction Materials Taxation Notice), by ICPEs whose total investment exceeds Rmb 8,000 million or whose integrated circuits have a linewidth of less than 0.25 micron is exempt from customs duties and import-related value-added tax.

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

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

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

the *Patent Law of the People's Republic of China*, adopted at the fourth meeting of the Standing Committee of the Sixth National People's Congress on March 12, 1984, effective April 1, 1985

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

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

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

the *Regulations for the Protection of the Layout Design of Integrated Circuits*, or the Layout Design Regulations, adopted March 28, 2001 at the thirty-sixth session of the executive meeting of the State Council, effective October 1, 2001; and

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

Protection of the Layout Design of Integrated Circuits

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

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

Proprietary Rights in Layout Design of Integrated Circuits

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

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

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

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

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

layout design is registered, or whether or not it is put into commercial use, it is not protected after 15 years from the time of its creation.

Registration of a Layout Design

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

Compulsory Licenses for Exploitation of Patents in Respect of Semiconductor Technology

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

Income Tax on Fees for the Use of Proprietary Technology

Under the *Provisional Regulations Concerning the Reduction and Exemption of Income Tax on Fees for the Use of Proprietary Technology*, issued by the Ministry of Finance on January 1, 1983, preferential income tax treatment is granted with respect to fees for the use of proprietary technology concerning certain integrated circuit production technologies. With respect to fees for the use of the proprietary technology (including fees for blueprints and documentation, fees for technical services and fees for personnel training relating to the right of use of the transferred proprietary technology), such as technology for fabricating integrated circuits, income tax may be levied at a reduced rate of 10%. Income tax may be exempted if the relevant technology is deemed to be advanced and the terms for use of the proprietary technology are preferential.

Environmental Regulation

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

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

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

Enforceability Of Civil Liabilities

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

political and economic stability;

an effective judicial system;

a favorable tax system;

the absence of exchange control or currency restrictions; and

the availability of professional and support services.

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

Maples and Calder, our counsel as to Cayman Islands law, Slaughter and May, our counsel as to Hong Kong law, and Jingtian & Gongcheng, our counsel as to Chinese law, have advised us that there is uncertainty as to whether the courts of the Cayman Islands, Hong Kong and China, respectively, would:

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

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

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

Organizational Structure

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

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

<u>Name of company</u>	<u>Place and date of incorporation/establishment</u>	<u>Attributable equity interest held</u>	<u>Principal Activity</u>
Semiconductor Manufacturing International (Shanghai) Corporation	The People's Republic of China (the PRC) December 21, 2000	100%	Manufacturing and trading of semiconductor products
Semiconductor Manufacturing International (Beijing) Corporation	The PRC July 25, 2002	100%	Manufacturing and trading of semiconductor products
Semiconductor Manufacturing International (Tianjin) Corporation	The PRC November 3, 2003	100%	Manufacturing and trading of semiconductor products
SMIC Japan Corporation	Japan October 8, 2002	100%	Provision of marketing related activities
SMIC Europe S.R.L.	Italy July 3, 2003	100%	Provision of marketing related activities
SMIC, Americas	United States of America June 22, 2001	100%	Provision of marketing related activities
Semiconductor Manufacturing International (AT) Corporation	Cayman Islands July 26, 2004	51%	Investment holding
Semiconductor Manufacturing International (Chengdu) Corporation	The PRC August 16, 2004	51%	Manufacturing and trading of semiconductor products
Toppan SMIC Electronics (Shanghai) Co., Ltd.	The PRC November 24, 2004	30%	Manufacturing and trading of semiconductor products
SMIC Consulting Corporation	The PRC September 30, 2003	100%	Inactive

Property and equipment

Equipment

The quality and level of technology of the equipment used in the semiconductor fabrication process are important because they dictate the limits of the process technology that we use. Advances in process technology cannot be achieved without corresponding advances in equipment technology. The principal pieces of equipment used by us to fabricate semiconductors are scanners, cleaners and track equipment, inspection equipment, etchers, furnaces, wet stations, strippers, implanters, sputterers, CVD equipment, testers and probers. We source substantially all of our equipment from vendors located in the United States, Europe and Japan. Our main equipment vendors include Applied Materials Asia-Pacific, Ltd., ASML Holding NV, KLA Tencor Corporation, Lam Research Corporation, Novellus Systems, Inc. and Tokyo Electron Limited.

In implementing our capacity expansion and technology advancement plans, particularly the ramp-up of our Beijing facilities, we expect to make significant purchases of equipment required for semiconductor fabrication. Some of the equipment is available from a limited number of vendors and/or is manufactured in relatively limited quantities, and in some cases has only recently become commercially available. Our ability to obtain certain kinds of equipment from outside of China may be subject to restrictions. See **Risk Factors** **Risks Related to Conducting Operations in China** Limits placed on exports into China could substantially harm our business and operating results. To date, however, we have not experienced any major difficulties or delays in sourcing, purchasing and installing the equipment we need to fabricate wafers for our customers.

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

Property

Our corporate headquarters and our fabs currently in production in Shanghai occupy 367,895 square meters of land, for which we hold valid land use rights certificates. These fabs currently occupy approximately 45% of this total land area. We also hold valid land use rights for the 240,140 square meters of land that comprise our Beijing site, approximately 75% of which will be occupied by Fab 4, Fab 5 and Fab 6C. In 2005, we received land use rights certificates for 215,733 square meters of land in Tianjin, which is occupied by the Tianjin fab. We own all of the buildings and equipment for our fabs, except for certain customer-owned tooling provided to our Shanghai operations for test production on a consignment basis from our customers.

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

Location	Size	Primary Use	Owned ⁽¹⁾ or Leased
	(Land/Building)		(Land/Building)
	(in square meters)		

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Zhangjiang High-Tech Park, Pudong New Area, Shanghai	367,895/164,795	Wafer fabrication	owned/owned
Beijing Economic and Technological Development Area ⁽²⁾	240,140/179,858	Wafer fabrication	owned/owned
Xiqing Economic Development Area, Tianjin	215,733/61,990	Wafer fabrication	owned/owned
Japan	na/55	Marketing activities	na/leased
USA	na/743	Marketing activities	na/leased
Italy	na/280	Marketing activities	na/leased

- (1) With respect to land located in China, ownership refers to holding a valid land use rights certificate. All land within municipal zones in China is owned by the Chinese government. Limited liability companies, joint stock companies, foreign-invested enterprises, privately held companies and individual natural persons must pay fees to be granted rights to use land within municipal zones. Legal use of land is evidenced and sanctioned by land use certificates issued by the local municipal administration of land resources. Land use rights granted for industrial purposes are limited to a term of no more than 50 years.

- (2) With respect to the buildings located in the Beijing Economic and Technological Development Area, we are in the process of constructing the buildings and expect to own the same upon completion of construction and amendment of the relevant land use right and building ownership certificates. The exact size of the buildings located at Beijing Economic and Technological Development Area is to be ascertained upon completion of the construction of the buildings and the issue of the relevant building ownership certificates.

Our right to continued use of the land is subject to our continued compliance with the land use agreement that each of our Chinese subsidiaries has executed. The Chinese government has reserved the right to revoke our land use rights for special eminent domain purposes, in which case the government will compensate us. In addition, if SMIC Shanghai breaches its bank loan agreements, our land use right for the land in Shanghai may be transferred to the lender pursuant to the guaranty agreement. See Item 5 Operating and Financial Review and Prospects Liquidity and Capital Resources.

Chesteron Petty Limited, an independent property valuer, has valued our property interests as of December 31, 2003 at Rmb 2,454.4 million (approximately US\$296.5 million).

Risk Management and Insurance

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

mandatory staff and vendor safety training;

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

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

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

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

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

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

transit are also insured. We believe that our overall insurance coverage is adequate.

Environmental Matters

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

We believe that we have adopted pollution control measures for the effective maintenance of environmental protection standards consistent with the requirements applicable to the semiconductor industry in China. Waste generated from our operations, including acid waste, alkaline waste, flammable waste, toxic waste, oxide waste and self-igniting waste, are collected and sorted for proper disposal. Furthermore, we have in many cases implemented waste reduction steps beyond the scope of current regulatory requirements.

We received ISO 14001 certification for our Fab 1 in August 2002 from the British Standards Institute and continue to implement improvement programs in connection with this certification. Our Fab 2 and Fab 3B achieved ISO 14001 certification in February 2003. The ISO 14001 quality standard is a voluntary standard and part of a comprehensive series of quality standards for environmental management published by the International Standards Organization. The ISO 14001 quality standards cover environmental management principles, systems and supporting techniques.

Item 5. Operating and Financial Review and Prospects

Overview

We were founded in April 2000. In 2000 and 2001, our company was in its development stage and did not have any sales. During this period, we established our management structure, acquired land use rights, constructed, equipped and commenced the ramp-up of production at our 8-inch wafer facilities in Shanghai consisting of Fab 1, Fab 2 and Fab 3B and began our research and development activities. Our Fab 1 and Fab 3B-A began commercial production in January 2002, and Fab 2 and Fab 3B-C began commercial production in January 2003. In January 2004, we acquired an 8-inch fab in Tianjin, China, which we refer to as our Fab 7, from MCEL, a wholly owned subsidiary of Motorola. Our Fab 4, China's first 12-inch fab, commercial production in March of 2005. By December 31, 2004, approximately four years after commencing construction of our Fab 1, we had reached total wafer fabrication capacity of 102,615 8-inch wafer equivalents per month and copper interconnects capacity of 17,802 wafers per month. We believe that this speed of capacity ramp-up represents one of the fastest in the semiconductor industry. Our wafers shipped and sales increased from 82,486 wafers and US\$50.3 million for 2002 to 476,451 wafers and US\$365.8 million for 2003 to 943,463 wafers and US\$974.6 million for 2004.

We manage our business and measure our results of operations based on a single operating segment. We plan to have aggregate monthly wafer fabrication capacity of 134,000 8-inch wafer equivalents and 13,000 copper interconnects by the end of 2005. As we increase our capacity and corresponding wafer production, we benefit from economies of scale. When our capacity utilization is high, these economies of scale enable us to reduce our per wafer production cost and improve our margins. On the other hand, when our capacity utilization rate is low, our unused capacity results in higher per wafer production cost and decreased margins.

Factors that Impact our Results of Operations

Cyclicality of the Semiconductor Industry

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

The semiconductor industry has experienced a period of declining demand since 2001, mainly due to a downturn in the global economy and in the communications sector in particular. At the same time, the semiconductor industry has faced significant overcapacity due to capacity increases that were initiated prior to the downturn, as well as technological advancements in process technology and wafer sizes that have allowed for more chips to be fabricated per wafer. These conditions led to inventory build-up and a reduction in overall average selling prices for foundry services during this period. We believe the semiconductor industry is currently experiencing an increase in demand due to improving global economic conditions and a resulting strengthening in consumer confidence.

Substantial Capital Expenditures

The semiconductor foundry industry is characterized by substantial capital expenditures. This is particularly true for our company as we have recently constructed and equipped fabs and are continuing to construct and equip new fabs. In connection with the construction and ramp-up of our capacity since our inception, we incurred capital expenditures of US\$897 million, US\$492 million and US\$2,000 million in 2002, 2003 and 2004, respectively. We depreciate our manufacturing machinery and equipment on a straight-line basis over an estimated useful life of five years. We recorded depreciation and amortization of US\$84.5 million, US\$233.9 million and US\$457.0 million in 2002, 2003 and 2004, respectively.

The semiconductor industry is also characterized by rapid changes in technology, frequently resulting in obsolescence of process technologies and products. As a result, our research and development efforts are essential to our overall success. We spent approximately US\$37.5 million in 2002, US\$32.1 million in 2003 and US\$78.2 million in 2004 for research and development, which represented 74.4%, 8.8% and 8.0%, respectively, of our sales for 2002, 2003 and 2004. Our research and development costs in 2004 include non-recurring engineering costs associated with the ramp-up of Fab 4 and Fab 7.

We currently expect that our capital expenditures in 2005 will reach approximately US\$1,000 million, which we plan to fund through our operating cash flows and bank loans in order to expand our existing operations in Shanghai, Beijing and Tianjin and complete the construction, equipping and ramp-up of our Fab 4 in Beijing. As of May 26, 2005, SMIC Beijing entered into a US\$600 million loan facility with a syndicate of banks based in the PRC. If necessary, we will also explore other forms of external financing. We plan to use this capital primarily to continue the ramp up of our fabs in Shanghai, Tianjin and Beijing. In addition, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in our business plan, our process technology, market conditions, equipment prices, customer requirements or interest rates. We will monitor the global economy, the semiconductor industry, the demands of our customers, and our cash flow from operations to adjust our capital expenditure plans.

Capacity Expansion

We have expanded, and plan to continue to expand, our capacity through internal growth and acquisitions. An increase in capacity may have a significant effect on our results of operations, both by allowing us to produce and sell more wafers and achieve higher sales, and as a cost component in the form of acquisition costs and depreciation expenses. We have increased our capacity in Shanghai and Tianjin to 95,588 8-inch wafers per month as of December 31, 2004 and plan to continue increasing capacity at our fabs there. We will increase our capacity in Fab 4 and plan to equip Fab 5, another 12-inch wafer fab in Beijing, in 2005. We plan to have aggregate wafer fabrication capacity of 147,000 8-inch wafer equivalents per month by the end of 2005.

As an example of our capacity acquisition strategy, in September 2003, we entered into an agreement to purchase the assets constituting a wafer fab located in Tianjin, China from MCEL, a wholly owned subsidiary of Motorola. This acquisition was completed in January 2004. Under our asset purchase agreement with MCEL, we acquired substantially all of that fab's assets and assumed certain contractual obligations. These assets and obligations were contributed to and assumed by our newly formed wholly owned subsidiary, SMIC Tianjin, on the closing date of the acquisition.

We also will seek to participate in strategic partnerships to expand our capacity. For example, in July 2004, we entered into an agreement with Toppan Printing Co., Ltd., to establish Toppan SMIC Electronics (Shanghai) Co., Ltd. to manufacture color filters and micro lenses for CMOS image sensors. In 2004, we commenced construction of Fab 9, which we will lease to Toppan SMIC Electronics (Shanghai) Co., Ltd. We understand that Toppan SMIC Electronics (Shanghai) Co., Ltd. plans to commence pilot production by the end of 2005.

Pricing

We price our foundry services on either a per wafer or a per die basis, taking into account the complexity of the technology, the prevailing market conditions, the order size, the cycle time, the strength and history of our relationship with the customer and our capacity utilization. Since a majority of our costs and expenses are fixed or semi-fixed, fluctuations in the average selling prices of semiconductor wafers have historically had a substantial impact on our margins. The average selling price of the wafers we shipped increased 33.6% from US\$733 per wafer in 2003 to US\$979 per wafer in 2004, mainly due to our shift to producing more logic and less DRAM wafers, our adoption of more advanced and higher margin process technologies, and because our company became more established in the market. Prices of our different process technologies vary significantly and, in general, the prices of the specific process technologies we provide decrease over time as the technology employed gradually becomes more mature and commoditized. Therefore, it is necessary to continually introduce new higher margin and more technologically advanced services to help counteract this trend of decreasing price levels.

Change in Process Mix and Technology Migration

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

Prices for wafers of a given level of technology generally decline over the relevant process technology life cycle. As a result, we and our competitors are continuously in the process of developing and acquiring advanced process technologies and migrating our customers to use such technologies to maintain or improve our profit margins. This technology migration requires continuous investment in research and development and technology-related acquisitions, and we expect to continue to spend a substantial amount of capital on upgrading our technologies.

Our initial sales after commencing commercial operations in 2002 consisted mainly of DRAM fabricated and sold on a foundry basis, as well as commodity-type DRAM fabricated using technology licensed from Fujitsu Limited and sold by us to distributors. This commodity-type DRAM was fabricated during our start-up phase in order to test and ramp up our facilities and train our personnel. As our business has grown and our fabs have matured, we have produced proportionately less commodity-type DRAM and more logic products and memory products utilizing more advanced technologies, which generally command a higher margin. However, we intend to continue to produce commodity-type DRAM to maintain high utilization of our capacity in the future.

The following table sets forth a percentage breakdown of wafer sales by process technology for the years ended December 31, 2002, 2003 and 2004:

Process Technologies	For the year ended December 31,		For the three months ended				For the year ended
	2002	2003	March 31, 2004	June 30, 2004	September 30, 2004	December 31, 2004	December 31, 2004
	(based on sales in US\$)						
0.13 micron	0.0%	11.8%	10.1%	9.9%	11.9%	13.8%	11.7%
0.15 micron	0.0%	9.9%	15.7%	13.3%	13.2%	14.9%	14.2%
0.18 micron	4.7%	22.0%	44.4%	48.6%	46.2%	33.6%	42.6%
0.25 micron	74.2%	34.5%	8.3%	8.3%	6.4%	6.0%	7.1%
0.35 micron	21.1%	21.8%	21.5%	19.9%	22.3%	31.7%	24.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The following table sets forth a breakdown of our sales by service type for the years ended December 31, 2002, 2003 and 2004:

Service Type	For the year ended December 31					
	2002		2003		2004	
	Sales	Percentage	Sales	Percentage	Sales	Percentage
(in US\$ thousands, except percentages)						
Fabrication of memory wafers ⁽¹⁾	\$ 25,047	49.8%	\$ 139,553	38.2%	\$ 193,950	19.9%
Fabrication of logic wafers ⁽²⁾	20,974	41.7%	209,914	57.3%	730,160	74.9%
Other ⁽³⁾	4,294	8.5%	16,357	4.5%	50,554	5.2%
Total	\$ 50,315	100.0%	\$ 365,824	100.0%	\$ 974,664	100.0%

(1) Memory includes only DRAM devices.

(2) Logic includes all other devices, including memory devices whose manufacturing process is similar to that for a logic device.

(3) Includes mask-making and probing.

Capacity Utilization Rates

Operations at or near full capacity have a significant positive effect on our profitability because a substantial percentage of our cost of sales is of a fixed nature. In 2003 and 2004, approximately 48% and 54%, respectively, of our cost of sales consisted of depreciation expenses, which are fixed costs. If we increase our utilization rates, the number of wafers we fabricate will increase, and therefore our average fixed costs per wafer will decrease. Therefore, our capacity utilization rates have a significant effect on our margins. Our utilization rates have varied from period to period due to capacity ramp-ups and fluctuations in customer orders. Our annual capacity utilization rate was 94% in both 2002 and 2003 and 98% in 2004. Factors affecting utilization rates are the complexity and mix of the wafers produced, overall industry conditions, the level of customer orders and mechanical failures and other operational disruptions, such as those relating to capacity expansions or relocation of equipment.

In addition, we fabricate DRAM wafers for sale to distributors using technology licensed from our technology partners, as well as under foundry arrangements for our customers using licensed technology. Through the fabrication of DRAM wafers, we have been able to quickly ramp up our production facilities, test and stabilize the process technologies and train our personnel. We expect that as we continue to ramp up our fabrication of logic wafers over time, the portion of our capacity utilized for DRAM production will become smaller relative to logic wafer production. This practice also has the added benefit of raising our ability to fabricate higher margin system-on-chip devices that incorporate elements of both memory and logic functions on a single chip.

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

Yield Rates

Yield per wafer is the ratio of the number of functional dies on that wafer to the maximum number of dies that can be produced on that wafer. A significant portion of our services, particularly our memory semiconductor wafer fabrication services, is priced on a per die basis, and our high yields have assisted us in achieving higher margins.

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

Critical Accounting Policies

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

Inventory

Inventories are stated at the lower of cost or market. Market represents the net realizable value for finished goods and work-in-progress, and replacement cost for raw materials. For products manufactured pursuant to customer purchase orders, we are not typically exposed to the risk that the selling price will be lower than the inventory carrying value. We also use available manufacturing capacity to produce commodity-type DRAM that we hold in inventory until sold. We are exposed to the risk that the ultimate selling price of such commodity-type DRAM may be less than the inventory carrying value. We estimate the net realizable value for such finished goods and work-in-progress based primarily upon the latest invoice prices and current market conditions. If the market value of a good drops below its carrying value, we record a write-off to cost of sales for the difference between the carrying cost and the market value. As of December 31, 2003 and December 31, 2004, we carried a lower of cost or market reserve of US\$nil and US\$10.5 million, respectively, to reflect a decline in the estimated market value of the inventory we held on that date. We carry out an inventory review on an item-by-item basis at each quarter-end.

We do not anticipate slow moving inventory exposures. Our inventory consists of inventory built pursuant to firm customer orders and, accordingly, we have limited exposure to slow moving inventory adjustments. In addition, our inventory consists of commodity-type memory wafers for which an active market exists. These wafers are adjusted to lower of cost or market and sold to customers at the market price and, since we do not typically hold this inventory for more than nine months, we have limited exposure to slow moving inventory.

Depreciation and Amortization

We operate in a capital-intensive business. The net book value of our plant and equipment, including land use rights, at December 31, 2004 was US\$3,351.1 million. Depreciation of manufacturing buildings and related improvements is provided on a straight-line basis over the estimated useful life of 25 years and commences from the date the facility is ready for its intended use. Depreciation of our manufacturing machinery and equipment, as well as our facility, machinery and equipment, is provided on a straight-line basis over the estimated useful life of 5 to 10 years, commencing from the date that the equipment is placed into productive use. Amortization of land use rights is over the term of the land use right agreement, which ranges from 50 to 70 years. The estimated useful life and dates that the equipment is placed into productive use reflects our estimate of the periods that we intend to derive future economic benefits from the use of our plant and equipment and land use rights.

Long-lived Assets

We assess the impairment of long-lived assets when events or changes in circumstances indicate that the carrying value of the assets or the asset grouping may not be recoverable. Factors we consider in deciding when to perform an impairment review include significant under-performance of a manufacturing facility relative to expectations, significant underutilization of specific equipment relative to expectations, significant negative industry or economic trends, and significant changes or planned changes in our use of the assets. Recoverability of assets to be held and used is measured by comparing the carrying amount of the asset grouping to its future undiscounted cash flows. If such assets are considered to be impaired, an impairment charge is recognized for the amount that the carrying value of the asset exceeds its fair value. Assets held for sale are reported at the lower of their carrying amount or fair value less related selling costs.

In order to remain technologically competitive in our industry, we have entered into technology transfer and technology license arrangements with third parties in an attempt to advance our process technologies. The payments made for such technology licenses are recorded as an intangible asset and amortized on a straight-line basis over the estimated useful life of the asset. We routinely review the remaining estimated useful lives of these intangible assets. We also evaluate these intangible assets for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable.

We have continued to construct, acquire and expand our manufacturing facilities since our inception and, to date, have not experienced any factors that would indicate potential impairment of our long-lived assets. We will continue to review impairment factors as described above and, as a result, impairment charges may be necessary in the future as circumstances change.

Revenue Recognition

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

Stock-based Compensation Expense

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

We have recorded deferred stock-based compensation representing the difference between the fair value of our ordinary shares for accounting purposes and the option exercise price. Prior to the completion of our global offering, we determined the fair value of our ordinary shares based upon several factors, including a valuation report from an independent appraiser and the price of our then most recent preference share

placement. Following the completion of our global offering, we have determined the fair value of our ordinary shares based on the closing price of our ADSs on the NYSE. We recorded deferred stock-based compensation of US\$31.2 million and US\$37.6 million for stock options granted to employees during the years ended December 31, 2003 and 2004, respectively, and we amortized US\$11.4 million and US\$27.0 million for the years ended December 31, 2003 and 2004, respectively. Had different assumptions or criteria been used to determine the fair value of our ordinary shares, materially different amounts of stock-based compensation could have been reported.

Pro forma information regarding net income (loss) and net income (loss) per share is required in order to show our net income (loss) as if we had accounted for employee stock options under the fair value method. We use the Black-Scholes option pricing model to compute the fair value. The fair value of options and shares issued pursuant to our option plans at the grant date was estimated using this Black-Scholes option pricing model. This model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the expected stock price volatility. We use projected volatility rates, which are based upon historical volatility rates experienced by comparable public companies. Because our employee stock options issued under our 2001 Stock Plan, 2001 Regulation S Stock Plan, 2001 Preference Shares Stock Plan and 2001 Regulation S Preference Shares Stock Plan had characteristics significantly different from those of publicly traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of our stock options.

The effects of applying pro forma disclosures of net income (loss) and net income (loss) per share are not likely to be representative of the pro forma effects on net income and earnings per share in the future years for the following reasons:

the number of future shares to be issued under these plans is not known; and

the assumptions used to determine the fair value can vary significantly.

Inflation

Although there can be no assurance as to the impact in future periods, we believe that, to date, inflation in China has not had a material impact on our results of operations. Inflation in China was approximately negative 0.8%, 1.2%, and 3.9% in 2002, 2003, and 2004, respectively.

Income Tax

As an exempted company incorporated in the Cayman Islands, we are exempt from Cayman Islands taxation. Our Chinese subsidiaries are subject to taxation pursuant to the Income Tax Law of the PRC Concerning Foreign Investment and Foreign Enterprises and various local income tax laws. Under relevant regulations and after approval by the local Tax Bureau, our Shanghai, Beijing and Tianjin subsidiaries will become entitled to a full exemption from foreign enterprise income tax, or FEIT, for five years starting with the first year of positive accumulated earnings, and a 50% reduction for the following five years. Our Shanghai subsidiary had positive accumulated earnings during the year ended December 31, 2004. Our other subsidiaries are subject to their respective jurisdictions' income tax laws, including Japan and the United States. Our income tax obligations to date have been minimal.

We account for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires an asset and liability approach for financial accounting and reporting for income tax purposes. Under the asset and liability method, deferred income taxes are recognized for temporary differences, net operating loss carryforwards and credits by applying enacted statutory tax rates applicable to future years. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Recent Accounting Pronouncements

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Our adoption of the following recently issued accounting pronouncements did not have a material impact on our financial position, cash flows or results of operations. We have reflected all disclosure requirements of these pronouncements in our financial statements.

FASB Interpretation (FIN), No. 46, Consolidation of Variable Interest Entities.

Staff Accounting Bulletin, No. 104, Revenue Recognition (SAB 104), which codifies, revises and rescinds certain sections of SAB 101, Revenue Recognition in Financial Statements.

EITF Issue No. 03-01, The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments.

We have not yet adopted the following recently issued accounting pronouncements because they are not yet applicable in part or in total:

SFAS No. 151, *Inventory Costs* an amendment of ARB No. 43 Chapter 43, which is effective for inventory costs incurred during the fiscal years beginning after June 15, 2005.

SFAS No. 123R (revised 2004), *Share Based Payment*, applicable commencing with our fiscal quarter beginning January 1, 2006.

Our adoption of SFAS No. 123R (revised 2004) may have a material effect on our financial position and results of operations as is disclosed in the section *Risks related to Our Financial Condition and Business*.

Incentives from the Chinese government

The chart below sets forth a brief summary of the material incentives received by our Chinese subsidiaries from the Chinese government. Our Shanghai, Beijing and Tianjin subsidiaries are qualified as integrated circuit production enterprises under the Chinese government's *Several Policies to Encourage the Development of Software and Integrated Circuit Industry*. Under these policies, any company that engages in the semiconductor industry in China and has a total investment size in excess of 8,000 million Renminbi (approximately US\$964 million) and fabricates integrated circuits that have a linewidth of less than 0.25 micron are entitled to the last three benefits listed below. We believe that our Shanghai, Beijing and Tianjin subsidiaries are among only a few companies in China that have qualified for these benefits. For a more detailed discussion of these incentives, see *Item 4 Information on the Company Regulation*.

Incentive	SMIC Shanghai	SMIC Beijing	SMIC Tianjin
Preferential Value-added Tax Policies	- 17% VAT rate	- 17% VAT rate	- 17% VAT rate
	- 17% tax refund rate for exports reduced to 13% as of January 1, 2004	- 17% tax refund rate for exports reduced to 13% as of January 1, 2004	- 17% tax refund rate for exports reduced to 13% as of January 1, 2004
	- 13% tax refund rate for exports increased to 17% as of November 1, 2004	- 13% tax refund rate for exports increased to 17% as of November 1, 2004	- 13% tax refund rate for exports increased to 17% as of November 1, 2004
Preferential Enterprise Income Tax Policies	Five-year full exemption and five-year 50% reduction upon approval from the local tax bureau	Five-year full exemption and five-year 50% reduction upon approval from the local tax bureau	Five-year full exemption and five-year 50% reduction upon approval from the local tax bureau
Preferential Customs Duties and Import-related VAT Policies	Exemption from customs duties and import-related VAT with respect to its imported equipment, spare parts and raw materials	Exemption from customs duties and import-related VAT with respect to its imported equipment, spare parts and raw materials	Exemption from customs duties and import-related VAT with respect to its imported equipment, spare parts and raw materials
Preferential Time Limit for Depreciation of Equipment Used in Production (applicable to foreign investments exceeding	- No less than three years	- No less than three years	- No less than three years
	- According to industry standards, SMIC Shanghai uses	- According to industry standards, SMIC Beijing uses 5-year basis	- According to industry standards, SMIC Tianjin uses

US\$30 million)

5-year basis

5-year basis

Operating Results

Sales

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

In 2004, fabless semiconductor companies accounted for 40.3 %, IDMs accounted for 52.9% and systems and other companies accounted for 6.9%, respectively, of our sales. Although we are not dependent on any single customer, a significant portion of our net sales is attributable to a relatively small number of our customers. In 2002, 2003 and 2004, our five largest customers accounted for approximately 68.8%, 57.0% and 59.1% of our sales, respectively. In 2002, our largest customer, Integrated Silicon Solution, Inc., or ISSI, accounted for approximately 24.9% of our sales. Our second largest customer in 2002, Fujitsu Limited, accounted for approximately 16.0% of our sales. Our two largest customers in 2003, Samsung Electronics and Texas Instruments, accounted for approximately 12.1% and 11.7% of our sales in that year, respectively. Our two largest customers in 2004, Broadcom and Fujitsu accounted for approximately 13.4% and 12.7% of our sales, respectively.

The semiconductor industry generally experiences seasonality in which sales are strongest in the third quarter and weakest in the first quarter. This is driven by the seasonal demand fluctuations for the products that incorporate semiconductors. Our rapid capacity ramp-up has significantly outweighed any effects from this seasonality. Once our initial capacity expansion stabilizes, however, we may be more susceptible to these seasonal changes in demand.

Cost of sales

Our cost of sales consists principally of:

depreciation and amortization;

overhead, including maintenance of production equipment, indirect materials, including chemicals, gases and various types of precious and other metals, utilities and royalties;

direct materials, which consist of raw wafer costs;

labor, including amortization of deferred stock compensation for employees directly involved in manufacturing activities; and

production support, including facilities, utilities, quality control, automated systems and management functions.

As an increasing portion of our equipment has come on line, our depreciation expenses attributable to cost of sales have gradually increased from US\$37.6 million in 2002, to US\$172.7 million in 2003 and to US\$387.5 million in 2004.

Operating expenses

Our operating expenses consist of:

Research and development expenses. Research and development expenses consist primarily of salaries and benefits of research and development personnel, materials costs, depreciation and maintenance on the equipment used in our research and development efforts and contracted technology development costs. Research and development expenses also include costs relating to pilot production activities prior to the commencement of commercial production.

General and administrative expenses. General and administrative expenses consist primarily of salaries and benefits for our administrative, finance and human resource personnel, commercial insurance, fees for professional services, foreign exchange gains and losses from operating activities and costs incurred in connection with developing production capabilities at new fabs, including facility costs and employee costs. Foreign exchange gains and losses relate primarily to period-end translation adjustments due to exchange rate fluctuations that affect payables and receivables directly related to our operations.

Selling and marketing expenses. Selling and marketing expenses consist primarily of salaries and benefits of personnel engaged in sales and marketing activities, costs of customer wafer samples, other marketing incentives and related marketing expenses.

Amortization of deferred stock compensation expenses. Amortization of deferred stock compensation expenses relates to stock compensation for those employees who are not directly involved in manufacturing activities and who receive incentives in the form of options on the shares of our company. Deferred stock compensation expenses are the excess of the deemed fair value of shares over the option exercise price at the time of grant, and are amortized on a straight-line basis generally over the four-year vesting period.

In addition, in 2004, we incurred operating expenses relating to the resolution of the patent and trade secret litigations with TSMC. According to the settlement's terms, TSMC and our company have a cross license to each other's patent portfolio through 2010. As a part of the settlement with TSMC, as described in Item 8 Financial Information Litigation, we have allocated US\$23.2 million of the total settlement amount to our litigation settlement costs in 2004.

Other income (expenses)

Our other income (expenses) consists of:

interest income, which has been primarily derived from cash equivalents and short-term investments and interest on share purchase receivables;

interest expenses, net of capitalized portions and government interest subsidies, which have been primarily attributable to our bank loans and the imputed interest rate on an outstanding interest-free promissory note; and

other income and expense items, such as those relating to the employee living quarters and school; and

foreign exchange gains and losses relating to financing and investing activities, particularly forward contracts.

Comparisons of Results of Operations

Consolidated Financial Data

The summary consolidated financial data presented below as of and for the years ended December 31, 2002, 2003 and 2004 are derived from, and should be read in conjunction with, and are qualified in their entirety by reference to, the audited consolidated financial statements, including the related notes, included elsewhere in this annual report. The selected consolidated financial data as of December 31, 2000 and 2001, and for the period from April 3, 2000 (inception) through December 31, 2000 and for the year ended December 31, 2001 is derived from audited consolidated financial statements not included in this annual report. The summary consolidated financial data presented below has been prepared in accordance with U.S. GAAP.

	For the period from April 3, 2000 (inception) through December 31, 2000	For the year ended December 31,			
		2001	2002	2003	2004
(in US\$ thousands, except for per share, per ADS data, percentages and operating data)					
Statement of Operations Data:					
Sales	\$	\$	\$ 50,315	\$ 365,823	\$ 974,665
Cost of sales ⁽¹⁾			105,238	363,241	721,401
Gross profit (loss)			(54,923)	2,582	253,264
Operating expenses:					
Research and development		9,326	37,459	32,070	78,167
General and administrative	929	16,870	17,782	27,912	46,015
Selling and marketing		751	4,371	9,447	8,130
Litigation settlement					23,153
Amortization of deferred stock compensation		712	1,769	5,900	15,416
Total operating expenses	929	27,659	61,381	75,329	170,881
Income (loss) from operations	(929)	(27,659)	(116,304)	(72,747)	82,383
Other income (expenses):					
Interest income	2,153	18,681	10,980	5,616	10,587
Interest expense			(176)	(1,425)	(13,698)
Foreign currency exchange gain	2	197	247	1,523	8,218
Other, net		187	2,650	888	2,441
Subsidy income		5,942			
Total other income, net	2,155	25,007	13,701	6,602	7,547
Income (loss) before income tax	1,226	(2,652)	(102,603)	(66,145)	89,930
Income tax current					186
Net income (loss)	1,226	(2,652)	(102,603)	(66,145)	89,744
Deemed dividend on preference shares ⁽²⁾				37,117	18,839
Income (loss) attributable to holders of ordinary shares	\$ 1,226	\$ (2,652)	\$ (102,603)	\$ (103,262)	\$ 70,905
Income (loss) per ordinary share, basic	\$ 0.02	\$ (0.03)	\$ (1.27)	\$ (1.14)	\$ 0.01
Income (loss) per ordinary share, diluted	\$ 0.02	\$ (0.03)	\$ (1.27)	\$ (1.14)	\$ 0.00
Ordinary shares used in calculating basic income (loss) per ordinary share ⁽³⁾⁽⁴⁾					
	80,000,000	80,000,000	80,535,800	90,983,200	14,199,163,517
Ordinary shares used in calculating diluted income (loss) per ordinary share ⁽³⁾⁽⁴⁾					
	80,000,000	80,000,000	80,535,800	90,983,200	17,934,393,066
Income (loss) per ADS, basic ⁽⁵⁾					\$ 0.25
Income (loss) per ADS, diluted ⁽⁵⁾					\$ 0.20
ADS used in calculating basic income (loss) per ADS ⁽⁵⁾					
					283,983,290
ADS used in calculating diluted income (loss) per ADS ⁽⁵⁾					
					358,687,861
Other Financial Data:					
Gross margin			(109.2)%	0.7%	26.0%
Operating margin			(231.2)%	(19.9)%	8.5%
Net margin			(203.9)%	(18.1)%	9.2%
Operating Data:					
Wafers shipped (in 8 equivalents)					
Logic ⁽⁶⁾			26,419	188,316	597,533
Total ⁽⁷⁾			82,486	476,451	943,463
Average selling price (in US\$)					
Logic ⁽⁶⁾			\$ 794	\$ 896	\$ 1,066
Total ⁽⁷⁾			\$ 558	\$ 733	\$ 979

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

- (2) Deemed dividend represents the difference between the sale and conversion prices of warrants to purchase convertible preference shares we issued and their respective fair market values.
- (3) Anti-dilutive preference shares, options and warrants were excluded from the weighted average ordinary shares outstanding for the diluted per share calculation. For 2000, 2001, 2002 and 2003, basic income (loss) per share did not differ from diluted loss per share.
- (4) All share information have been adjusted retroactively to reflect the 10-for-1 share split effected upon completion of the Global Offering.
- (5) Fifty ordinary shares equals one ADS.
- (6) Excluding copper interconnects and DRAM wafers.
- (7) Including logic, DRAM, copper interconnects and all other wafers.

Comparisons of the Years Ended December 31, 2002, 2003 and 2004

Year Ended December 31, 2004 Compared to Year Ended December 31, 2003

Sales. Sales increased by 166.4% from US\$365.8 million for 2003 to US\$974.7 million for 2004, primarily as a result of the increase in our manufacturing capacity and our ability to use such capacity to increase sales. The number of wafers we shipped increased by 98.0%, from 476,451 8-inch wafer equivalents to 943,463 8-inch wafer equivalents, between these two periods. The average selling price of the wafers we shipped also increased by 33.5% from US\$733 per wafer to US\$979 per wafer, while the average selling price of the logic wafers we shipped increased by 19.0% from US\$896 per wafer to US\$1,066 per wafer. The percentage of wafers shipped that used 0.18 micron and below process technology also increased from 43.6% to 68.5% between these two periods.

Cost of sales and gross profit (loss). Cost of sales increased by 98.6% from US\$363.2 million for 2003 to US\$721.4 million for 2004. This increase was primarily due to the significant increase in sales volume, depreciation and manufacturing labor expenses. Other factors included an increase in the amount of direct and indirect materials purchased corresponding to the increase in wafers shipped. In addition, deferred stock compensation expenses relating to employees involved in the manufacturing of wafers increased to US\$11.6 million in 2004 from US\$5.5 million in 2003, primarily due to additional stock options granted and restricted share units awarded to new and existing employees involved in this activity. We amortize the deferred stock compensation expense using the straight-line method over the applicable vesting periods, which is typically four years.

We had gross profit of US\$253.3 million for 2004 compared to gross profit of US\$2.6 million in 2003. Gross margins improved to 26.0% in 2004 from 0.7% in 2003. The increase in gross margin was primarily due to an increase in the average selling price per wafer, a shift in production to more logic and less DRAM wafers, migration towards more advanced and higher margin process technology and a lower average cost per wafer resulting from our ability to leverage fixed costs over a greater number of wafers manufactured.

Operating expenses and income (loss) from operations. Our operating expenses increased by 126.8% from US\$75.3 million for 2003 to US\$170.9 million for 2004 due to the increase in research and development expenses, general and administrative expenses, amortization of deferred stock compensation and the litigation settlement.

Our research and development expenses increased by 143.7% from US\$32.1 million for 2003 to US\$78.2 million for 2004. This increase in research and development expenses resulted primarily from non-recurring startup engineering costs associated with the ramp-up of Fab 4 and the commencement of commercial production at Fab 7, 90 nanometer research and development activities and an increase in depreciation and amortization expenses.

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Furthermore, as a part of the settlement with TSMC, as described in Item 8 Financial Information Litigation, we have allocated US\$23.2 million of the total settlement amount to litigation settlement costs in 2004.

General and administrative expenses increased by 64.9% to US\$46.0 million for 2004 from US\$27.9 million for 2003, primarily due to an increase in salaries due to increased personnel of US\$5.2 million and legal fees of US\$8.8 million.

Selling and marketing expenses decreased by 13.9% from US\$9.4 million for 2003 to US\$8.1 million for 2004, which was primarily due to a decrease in engineering material costs relating to sales activities.

In addition, our deferred stock compensation relating to employees involved in research and development, general and administrative and selling and marketing increased from US\$5.9 million to US\$15.4 million between these periods, primarily due to additional stock options granted and restricted share units awarded to new and existing employees involved in these activities. We amortize the deferred stock compensation expense over the applicable vesting periods, which is typically four years.

As a result, our income from operations increased to US\$82.4 million in 2004 from a loss of US\$72.7 million in 2003. Our operating margin was 8.5% and negative 19.9%, respectively, for these two years.

Other income (expenses). Our other income (expenses) increased 14.3% from US\$6.6 million in 2003 to US\$7.5 million in 2004. This increase was primarily attributable to the increase in interest income from US\$5.6 million in 2003 to US\$10.6 million in 2004. This interest income was primarily derived from bank deposits relating to the proceeds received from the global offering. The foreign currency exchange gains increased from US\$1.5 million in 2003 to US\$8.2 million in 2004 relating to financing and investing activities, particularly forward contracts.

Net income (loss). Due to the factors described above, we had net income of US\$89.7 million in 2004 compared to a net loss of US\$66.1 million for 2003.

Deemed dividends on preference shares. In 2004, we recorded aggregate deemed dividends on preference shares of US\$18.8 million, representing the difference between the sale and conversion price of warrants to purchase Series D convertible preference shares issued in the first quarter of 2004 and their respective fair market values. In 2003, we recorded deemed dividends on preference shares of US\$35.2 million, representing the difference between the sale and conversion prices of warrants to purchase Series C convertible preference shares we issued in the third and fourth quarters of 2003 and their respective fair market values. We also recorded deemed dividends on preference shares of US\$1.9 million in 2003, representing the difference between the sale and conversion prices of a warrant to purchase Series D convertible preference shares we issued in the fourth quarter of 2003 and their respective fair market values. All of these warrants expired unexercised upon the completion of our global offering.

Year Ended December 31, 2003 Compared to Year Ended December 31, 2002

Sales. Sales increased by 627.1% from US\$50.3 million for 2002 to US\$365.8 million for 2003, primarily as a result of the increase in our manufacturing capacity and our ability to use such capacity to increase sales. The number of wafers we shipped increased by 477.6%, from 82,486 to 476,451, between these two periods. The average selling price of the wafers we shipped also increased by 31.4% from US\$558 per wafer to US\$733 per wafer, while the average selling price of the logic wafers we shipped increased by 12.8%. The relative percentage of wafers shipped that were 0.18 micron and below also increased from 4.7% to 43.6% between these two periods.

Cost of sales and gross profit (loss). Cost of sales increased by 245.2% from US\$105.2 million for 2002 to US\$363.2 million for 2003. This increase was primarily due to the significant increase in sales, offset to a lesser degree by an increase in economies of scale due to the allocation of fixed costs over a larger number of wafers manufactured. In addition, we had an increase in deferred stock compensation expenses from US\$2.1 million to US\$5.5 million. The increase in the stock compensation expenses resulted from an increase in the fair market value of our ordinary shares and preference shares, as well as an increase in stock options grants due to the addition of

new personnel during 2003. We had a gross loss of US\$54.9 million for 2002 compared to gross profit of US\$2.6 million in 2003. The transition to gross profit was due to lower average cost per wafer, as a result of allocating fixed costs over a larger number of wafers manufactured. This was also attributable in part to the US\$1.8 million in gross profit that we realized from our sales of US\$31.9 million of reserved inventory items during 2003. Reserved inventory items consist of DRAM inventory, the carrying value of which we wrote down in 2002 to a market value that was lower than its cost. Gross margin improved from negative 109.2% for 2002 to 0.7% for 2003. The gross loss would have been approximately 0.2% of sales had the sales of the reserved inventory items not occurred. Accordingly, the sale of the reserved inventory items improved the gross profit margin by approximately 0.5%.

Operating expenses and loss from operations. Our operating expenses increased by 22.7% from US\$61.4 million for 2002 to US\$75.3 million for 2003 due to the increase in general and administrative expenses and selling and marketing expenses, which offset a decrease in research and development expenses. Our research and development expenses decreased by 14.4% from US\$37.5 million for 2002 to US\$32.1 million for 2003. This decrease in research and development expenses resulted primarily from the decrease in pilot production costs incurred in 2002 for Fab 2 and Fab 3B-C as such facilities commenced commercial production at the beginning of 2003, at which point we began to record these expenses as costs of sales. In addition, general and administrative expenses increased by 57.0% from US\$17.8 million for 2002 to US\$27.9 million for 2003, largely due to the US\$3.0 million increase in personnel expenses, the US\$2.8 million increase in property insurance and the US\$1.1 million increase in depreciation and amortization expenses relating to office equipment and enterprise software. Selling and marketing expenses increased by 116.1% from US\$4.4 million for 2002 to US\$9.4 million for 2003. The increase in selling and marketing expenses was mainly due to the US\$2.8 million increase in personnel expenses as a result of an increase in sales and the grants of preference shares to sales and marketing personnel at below market value, as well as the US\$1.9 million increase in customer sample expenditures and related research and development expenses. In addition, our deferred stock compensation expenses increased from US\$1.8 million to US\$5.9 million between these periods. The increase in stock compensation expenses resulted from an increase in the fair market value of our ordinary and preference share and an increase in our headcount. Our stock compensation expenses are expected to continue to increase in 2004 as we experience a full year of amortization of stock compensation for outstanding grants, as well as for future grants at less than fair market value.

As a result, our loss from operations decreased by 37.5% from US\$116.3 million in 2002 to US\$72.7 million in 2003. Our operating margin was negative 231.2% and negative 19.9%, respectively, for these two years.

Other income (expenses). Our other income (expenses) decreased 51.8% from US\$13.7 million in 2002 to US\$6.6 million in 2003. This decrease was primarily attributable to the 48.9% decrease in interest income from US\$11.0 million to US\$5.6 million. This interest income was primarily derived from interest on shareholders' subscription receivables, as well as from interest on bank deposits.

Net loss. Due to the factors described above, our net loss of US\$102.6 million for 2002 decreased by 35.5% to US\$66.1 million in 2003.

Deemed dividends on preference shares. In 2003, we recorded aggregate deemed dividends on preference shares of US\$37.1 million. The deemed dividends were due to the difference between the sale and conversion prices of warrants to purchase Series C convertible preference shares we issued in the third and fourth quarters of 2003 and their respective fair market values.

Liquidity and Capital Resources

The following table sets forth a condensed summary of our audited statements of cash flows for the periods indicated:

	For the year ended		
	December 31,		
	2002	2003	2004
	(in US\$ thousands)		
Net cash provided by (used in) operating activities:			
Net income (loss)	\$ (102,603)	\$ (66,145)	\$ 89,745
Depreciation and amortization	84,537	233,905	456,961
Total	(48,802)	114,270	518,662
Net cash used in investing activities:			
Purchase of property, plant and equipment	(761,704)	(453,097)	(1,838,773)
Total	(751,144)	(454,498)	(1,826,787)
Net cash provided by financing activities:			
Proceeds from long-term debt	391,227	88,734	256,488
Proceeds from issuance of ordinary shares at initial public offering			1,016,859
Proceeds from issuance of Series A convertible preferred stock	15,000		
Proceeds from issuance of Series C convertible preferred stock		530,216	
Proceeds from issuance of Series D convertible preferred stock			30,000
Collection of subscription receivables	357,549	107,010	105,420
Total	712,925	693,497	1,469,764
Net increase (decrease) in cash and cash equivalents	\$ (87,056)	\$ 353,412	\$ 161,896

We incurred capital expenditures of US\$897 million, US\$492 million and US\$2,000 million in 2002, 2003 and 2004, respectively. We have financed our substantial capital expenditure requirements through the proceeds received in our global offering, several rounds of private financing, cash flows from operations, and bank borrowings. From inception through 2004, we had received net proceeds of US\$1,017 million in our global offering, US\$1,606 million in cash through private equity financings and US\$544.5 million through long-term debt financings. Once a fab is in operation at acceptable capacity and yield rates, it can provide significant cash flows. Our cash flows from operations have historically exceeded operating income, reflecting our significant non-cash depreciation expenses. Our operating cash flows may not be sufficient to meet our capital expenditure requirements in 2005. 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.

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.

As of December 31, 2004, we had US\$607.2 million in cash and cash equivalents. These cash and cash equivalents are held in the form of United States dollars, Japanese Yen, European Euros, and Chinese Renminbi. Our net cash used in operating activities in 2004 was US\$518.7 million, which was primarily due to an increase of US\$74.1 million in inventories due to the increase in commercial production, an increase of US\$79.6 million in accounts receivable due to an increase in sales and an increase of US\$49.2 million in accounts payable relating to the purchase of materials and inventories, and the add-back of US\$457.0 million in depreciation and amortization relating to commercial production. Our net cash used in operating activities in 2003 was US\$114.3 million, which was primarily due to the add-backs of US\$233.9

million and US\$11.4 million in depreciation and amortization and amortization of deferred stock compensation as non-cash items, respectively. Our net cash provided by operating activities in 2002 was US\$48.8 million, which was primarily due to the add-backs of US\$84.5 million and US\$3.9 million in depreciation and amortization and amortization of deferred stock compensation as non-cash items, respectively.

Our net cash used in investing activities was US\$1,826.8 million in 2004, US\$454.5 million in 2003, and US\$751.1 million in 2002. This was primarily attributable to purchases of plant and equipment and land use rights for Fab 1, Fab 2, Fab 3, Fab 4 and Fab 7 in these periods of US\$2,00.0 million includes intangible assets, US\$492.0 million, and US\$896.9 million, respectively.

Our net cash provided by financing activities in 2004 was US\$1,469.8 million. This was primarily derived from US\$1,016.9 million in proceeds generated from our global offering, US\$30.0 million in proceeds from the issuance of Series D convertible preference shares, US\$105.4 from the collection of subscription receivables, and US\$256.5 million in the form of long-term debt borrowings. Our net cash provided by financing activities in 2003 was US\$693.5 million. This was primarily derived from US\$530.2 million in proceeds from our issuance of Series C convertible preference shares, US\$107.0 million from the collection of subscription receivables and US\$88.7 million in the form of long-term debt borrowings. Our net cash provided by financing activities in 2002 was US\$712.9 million, which was mainly derived from US\$391.2 million in long-term borrowings and US\$357.5 million from the collection of subscription receivables, as offset by US\$103.0 million for the repayment of short-term loans.

As of December 31, 2004, we had commitments of US\$7.0 million to purchase land use rights for the living quarters at SMIC Beijing, US\$127.0 million for facilities construction obligations for our Beijing, Tianjin and Shanghai fabs and US\$419.0 million to purchase machinery and equipment for our Beijing, Tianjin and Shanghai fabs. 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.

As of December 31, 2004, our outstanding long-term liabilities primarily consisted of US\$736.4 million in secured bank loans, of which US\$192.0 million is classified as the current portion of long-term loans. The long-term loans are repayable in installments commencing in March 2005, with the last payment in March 2009.

In December 2001, Semiconductor Manufacturing International (Shanghai) Corporation (SMIC Shanghai), our wholly foreign-owned enterprise, entered into a long-term loan agreement with a syndicate of Chinese banks for US\$432.0 million. The drawdown period of the facility is 18 months starting from the loan agreement date. As of December 31, 2004, we had drawn down the full amount. The interest rates on the loan ranged from 2.82% to 4.34% in 2004. Interest is due on a semi-annual basis. The principal amount is repayable starting in March 2005 in five semi-annual installments of US\$86.4 million each. The interest expenses incurred in 2002, 2003 and 2004 were US\$6.6 million, US\$12.3 million and US\$14.0 million, respectively, a significant portion of which was capitalized as additions to assets under construction.

As part of the same long-term loan arrangement, SMIC Shanghai has a line of credit in Renminbi equivalent to US\$48.0 million (equivalent to approximately Rmb 397.0 million). As of December 31, 2004, SMIC Shanghai had fully drawn down this line of credit. The principal amount is repayable starting in March 2005 in five semi-annual installments of US\$9.6 million each. The interest rate on the loan was 5.02% in 2004. The interest expenses incurred in 2002, 2003 and 2004 were US\$0.4 million, US\$2.4 million and US\$2.5 million, respectively, a significant portion of which was capitalized as additions to the assets under construction. These long-term loan agreements contained certain financial covenants which were superseded by the financial covenants set forth in SMIC Shanghai's long-term agreements from January 2004 as described below.

In January 2004, SMIC Shanghai entered into two long-term loan agreements with four Chinese banks for US\$256.5 million and Rmb 235.7 million (equivalent to approximately US\$28.5 million), respectively. The drawdown period of these facilities ends on the earliest of (i) twelve months after the date of the first drawdown, (ii) March 28, 2005 and (iii) the date on which the loans have been fully drawn down. As of December 31, 2004, SMIC Shanghai had drawn down the full amount of the U.S. dollar facility while the Renminbi facility has yet to be drawn. The interest rates on the loan ranged from 2.75% to 4.34% in 2004. The principal amount on the U.S. dollar facility is repayable starting in March 2006 in seven semi-annual installments of US\$36.6 million each. The interest expense incurred in 2004 in connection with the U.S. dollar facility was US\$3.9 million.

The financial covenants contained in the two long-term loan agreements entered into in January 2004 supersede the financial covenants contained in the long-term loan agreement entered into in December 2001. Any

of the following would constitute an event of default for SMIC Shanghai beginning in March 2005, when the first payment of the loan from December 2001 is repayable:

$(\text{Total liability} - \text{borrowings from shareholders, including principal and interest}) / \text{Total assets} > 65\%$

$(\text{Current assets} - \text{inventory}) / \text{Current liabilities} < 100\%$

$\text{Total liability} / \text{EBITDA} > 2.98$

$(\text{Funds available for loan repayment in current year} + \text{Funds available for loan repayment in prior year}) / \text{Repayment amount during current year} < 2.5$

Any of the following would constitute an event of default for SMIC Shanghai during the term of the two long-term loan agreements:

Incurrence of any losses in 2005;

Incurrence of losses in 2006 in excess of US\$21.9 million;

Incurrence of cumulative losses in 2007 in excess of US\$62.6 million;

Incurrence of any losses in 2008; or

Incurrence of research and development costs in any given year in excess of 15% of revenue for that year.

These five-year bank loans will be used to expand the capacity of the fabs in Shanghai and are collateralized by the Shanghai fabs and equipment.

On May 26, 2005, SMIC Beijing entered into a five year loan facility in the aggregate principal amount of US\$600 million, with a syndicate of banks based in the PRC. The draw-down period under the facility is one year. The facility is repayable in six semi-annual installments beginning in November 2007. Our company has guaranteed SMIC Beijing's obligations under the facility.

Any of the following would constitute an event of default for SMIC Beijing during the term of the facility:

$[\text{Net profit} + \text{depreciation} + \text{amortization} + \text{financial expenses} - (\text{increase of accounts receivable and advanced payments} + \text{increase of inventory} - \text{increase in accounts payable and advanced receipts})] / \text{financial expenses} < 1$; and

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

(Total liability - borrowings from shareholders, including principal and interest) / Total assets > 60% (when SMIC Beijing's capacity is less than 20,000 twelve-inch wafers per month); and (Total liability - borrowings from shareholders, including principal and interest) / Total assets > 50% (when SMIC Beijing's capacity exceeds 20,000 twelve-inch wafers per month).

This facility will be used to expand the capacity of the fabs in Beijing and is secured by SMIC Beijing's existing fixed assets. As of December 31, 2004, we had an aggregate of US\$253.0 million in bank loans available to us through short-term loan facilities from seven different banks. As of December 31, 2004, we had drawn down US\$91.0 million of this amount. Approximately 27%, 38% and 35% were made available to SMIC Beijing, SMIC Tianjin and our company, respectively.

We accepted promissory notes from employees exercising options to purchase either ordinary shares or Series A convertible preference shares under our 2001 employee stock option plans (the "Stock Option Plans"). As of December 31, 2004, 2003 and 2002, we had notes receivable from employees related to the early exercise of employee stock options in the aggregate amount of US\$0.4 million, US\$36.0 million and US\$37.0 million, respectively. In 2004, we collected US\$35.2 million through the repayment of notes receivable by certain employees and the sale of the notes receivable to a third party bank. The notes are full recourse and are secured by the underlying ordinary shares and preference shares. The notes are due at various dates from 2006 to 2008 and are payable at varying rates from 3.02% to 4.28% per annum.

In August 2002, we entered into a technology transfer agreement with a third party whereby we acquired technology and patent licenses in exchange for 1,666,667 Series B convertible preference shares, a US\$15.0 million non-interest bearing redeemable convertible promissory note and US\$15.0 million in cash. The convertible note was redeemable for US\$15.0 million in cash, convertible into Series B convertible preference shares or convertible into a combination of cash and Series B convertible preference shares. This note was redeemed for cash in January 2004.

On September 23, 2003, we entered into contracts with two technology partners to acquire wafer bumping machinery and equipment and design reference technology in exchange for an aggregate of 2,342,856 Series D convertible preference shares that are convertible into our ordinary shares. These transactions closed in the first and third quarters of 2004.

As of December 31, 2004, we did not have any material contingent liabilities.

Research and Development, Patents and Licenses, etc.

Our research and development activities are principally directed toward the development and implementation of more advanced and lower cost process technology. We spent US\$37.5 million in 2002, US\$32.1 million in 2003, and US\$78.2 million in 2004 on research and development expenses, which represented 74.4%, 8.8%, and 8.0%, respectively, of our sales in those respective years. Our research and development costs in 2004 include non-recurring engineering costs associated with the ramp-up of Fab 4 and Fab 7. We plan to continue to invest significant amounts in research and development in 2005.

See Item 4 Information on the Company Research and Development for more details relating to our research and development activities.

Trend Information

See Item 5 Operating and Financial Review and Prospects Factors that Impact Our Results of Operations for a discussion of the most significant recent trends affecting our operations.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet transactions.

Tabular Disclosure of Contractual Obligations

Set forth in the table below are the aggregate amounts, as of December 31, 2004, of our future cash payment obligations under our existing debt arrangements on a consolidated basis:

	Payments due by period				
	Total	Less than 1 year	1 - 2 years	3 - 5 years	After 5 years
Contractual obligations					

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

(consolidated)

	(in US\$ thousands)				
Short-Term Debt	\$ 91,000	\$ 91,000	\$	\$	\$
Long-Term Debt					
Secured Long-Term Loans	736,448	191,986	265,267	279,195	
Operating Lease Obligations ⁽¹⁾	4,434	711	938	116	2,669
Purchase Obligations ⁽²⁾	553,000	553,000			
Investment Commitments ⁽³⁾	79,200	47,200	32,000		
Other Long-Term Obligations ⁽⁴⁾	175,000	30,000	30,000	90,000	25,000
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Contractual Obligations	\$ 1,559,882	\$ 866,697	\$ 465,480	\$ 200,036	\$ 27,669
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

- (1) Represents our obligations to make lease payments to use the land on which our fabs are located in Shanghai and other office equipment we have leased.
- (2) Represents commitments for construction or purchase of semiconductor equipment, and other property or services.
- (3) Represents commitments to invest in certain joint venture projects.
- (4) Includes the settlement with TSMC for an aggregate of \$175 million payable in installments over six years.

Item 6. Directors, Senior Management and Employees**Directors and Senior Management**

Members of our board of directors are elected by our shareholders. Our board of directors consists of eight directors.

The following table sets forth the names of our directors and executive officers, including our founder, as of May 31, 2005. Our executive officers are appointed by, and serve at the discretion of, our board of directors.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Richard Ru Gin Chang	57	Chairman of the Board, Executive Director, Founder, President and Chief Executive Officer
Lai Xing Cai	62	Non-Executive Director
Ta-Lin Hsu	61	Independent Non-Executive Director
Yen-Pong Jou	44	Independent Non-Executive Director
Tsuyoshi Kawanishi	75	Independent Non-Executive Director
Henry Shaw	51	Independent Non-Executive Director
Lip-Bu Tan	45	Independent Non-Executive Director
Yang Yuan Wang	70	Independent Non-Executive Director
Fang Yao	35	Alternate Director (to Lai Xing Cai)
Morning Wu	48	Acting Chief Financial Officer and Chief Accounting Officer and Qualified Accountant
Marco Mora	46	Chief Operating Officer
Toshiaki Ikoma	63	Chief Technology Officer
Akio Kawabata	59	Vice President, Marketing
Jason Ting Chih Hsien	47	Vice President, Human Resources and General Affairs and Joint Compliance Officer
Anne Wai Yui Chen	43	Company Secretary, Hong Kong Representative and Joint Compliance Officer

* In March 2005, we named Ms. Wu as our Acting Chief Financial Officer, Chief Accounting Officer and Qualified Accountant.

Richard Ru Gin Chang founded our company in April 2000 and is currently the Chairman of our Board, President and Chief Executive Officer of our company. Dr. Chang is also a director of our wholly owned subsidiaries, Semiconductor Manufacturing International (Shanghai) Corporation, Semiconductor Manufacturing International (Beijing) Corporation, Semiconductor Manufacturing International (Tianjin) Corporation and Semiconductor Manufacturing International (AT) Corporation. Dr. Chang has over 26 years of semiconductor experience in foundry operations, wafer fabrication and research and development. From 1998 to 1999, Dr. Chang was President of Worldwide Semiconductor Manufacturing Corp., or WSMC, after joining the company in 1997. Prior to joining WSMC, Dr. Chang worked for 20 years at Texas Instruments Incorporated, where he helped build and manage the technology development and operations of ten semiconductor fabs and integrated circuit operations in the United States, Japan, Singapore, Italy and Taiwan. Dr. Chang received a PhD in Electrical Engineering from Southern Methodist University and a master's degree in Engineering Science from the State University of New York. In December 2003, Dr. Chang was selected by the China Center of Information Development as one of the ten China IT Economic People of 2003 for his role in influencing and contributing to the development of China's information technology industry. In February 2004, Dr. Chang received The Magnolia Silver Award, which is generally recognized as the highest award an individual may receive from the Shanghai Municipal Foreign

Affairs Office. The award recognizes Dr. Chang's contributions to Shanghai's economy, social development and interchange and cooperation with foreign companies.

Lai Xing Cai has been a director of our company since March 2004. Mr. Cai is the Chairman and a member of the board of directors of Shanghai Industrial Holdings Limited and the Chairman and a member of the board of directors of Shanghai Industrial Investment (Holdings) Company Limited. Mr. Cai graduated from Tong Ji University and was a Deputy Secretary of the Shanghai Government responsible for economic planning, finance and research. He was also the Deputy Director of the Shanghai Planning Committee and Pudong Development Office, and was in charge of the city government's research office. In 1988, he was awarded the title of State-Class Economist. Mr. Cai is also a member of the National Committee of The Chinese People's Political Consultative Conference.

Ta-Lin Hsu has been a director of our company since 2001 and is a director of SMIC Beijing. Dr. Hsu is the founder and chairman of H&Q Asia Pacific. Prior to founding H&Q Asia Pacific in 1986, Dr. Hsu was a General Partner at Hambrecht & Quist and held the position of Senior Manager in the Corporate Research Division of IBM. Dr. Hsu has served on the boards of a number of public and private companies, and he currently serves on the Board of Trustees of the Asia Foundation and as a member of the Council of Foreign Relations. Dr. Hsu received his PhD in Electrical Engineering from the University of California at Berkeley and his undergraduate degree in Physics from National Taiwan University. Dr. Hsu is a member of the Advisory Board of the Haas School of Business at the University of California at Berkeley.

Yen-Pong Jou has been a director of our company since 2001. Mr. Jou is the Senior Partner of Jou & Associates. Between 1985 and November 2003, Mr. Jou was General Counsel of a public company. Mr. Jou received a law degree from the FuJen Catholic University School of Law in Taiwan.

Tsuyoshi Kawanishi has been a director of our company since 2001 and is also the Chairman of SMIC Japan Corporation. Mr. Kawanishi has more than 50 years of experience in the electronics industry with Toshiba Corporation, where he served as, among other positions, Senior Executive Vice President and Senior Advisor. Mr. Kawanishi currently serves on the board of directors of Asyst Technologies, Inc., FTD Technology Pte. Ltd. and T.C.S. Japan, and acts as an advisor to Accenture Ltd., Kinetic Holdings Corporation and a number of private companies. Mr. Kawanishi is also the Chairman of the Society of Semiconductor Industry Seniors in Japan and the Chairman of the SIP Consortium of Japan.

Henry Shaw has been a director of our company since 2001. Mr. Shaw is currently the Senior Partner of AsiaVest Partners TCW/YFY Ltd. Prior to joining AsiaVest Partners, Mr. Shaw was a Vice President at Transpac Capital Pte. Ltd. and founded and served as Chief Financial Officer of Mosel Vitelic Inc. Mr. Shaw serves on the board of directors of InterVideo, Inc. Mr. Shaw received a master's degree in Business Administration from National Cheng-Chi University in Taiwan.

Lip-Bu Tan has been a director of our company since 2002 and is a director of SMIC Tianjin. Mr. Tan is the founder and Chairman of Walden International, a venture capital firm. Mr. Tan currently serves on the board of directors of Cadence Design Systems, Inc., Centillum Communications, Inc., Creative Technology Ltd., Flextronics International Ltd., Integrated Silicon Solution, Inc., Leadis Technology, Inc. and SINA Corporation, as well as a number of private companies. Mr. Tan received a master's degree in Nuclear Engineering from the Massachusetts Institute of Technology and a master's degree in Business Administration from the University of San Francisco.

Yang Yuan Wang has been a director of our company since 2001. Professor Wang has more than 40 years of experience related to the semiconductor industry. He is the Chairman of SMIC Shanghai, SMIC Beijing and SMIC Tianjin and is also the Chief Scientist of the Microelectronics Research Institute at Beijing University. He is a fellow of the Chinese Academy of Sciences and The Institute of Electrical and Electronics Engineers.

Fang Yao has been an alternate director of Lai Xing Cai, a director, since July 2004. Mr. Yao is an executive director of Shanghai Industrial Holdings Limited. Mr. Yao also serves as a director and general manager of SIIC Management (Shanghai) Limited, a director of Shanghai S.I. Capital Company Limited, Shanghai Industrial Development Company Limited, Shanghai Hu-Ning Expressway (Shanghai Section) Company Limited, Shanghai Information Investment Inc. and Shanghai Communication Technologies Center, chairman of Shanghai Optical Communications Development Corp., and vice chairman of Bright Dairy and Food Company Limited. He graduated from Chinese University of Hong Kong with a master's degree in Business Administration.

Morning Wu joined our company as Associate Vice President of Finance and Accounting in January 2003 and was appointed as Acting Chief Financial Officer, Chief Accounting Officer and Qualified Accountant of the Company as of March 28, 2005. Ms. Wu has over 25 years experience in the investment and finance field. Prior to joining our company, Ms. Wu held management positions with First Taiwan Securities

Ltd. Her responsibilities at these companies included strategic planning, mergers & acquisitions and designing and monitoring risk management systems. She holds a license for Accounting and Auditor with the Senior Civil Service Examinations of Taiwan. Ms. Wu obtained a bachelor's degree in Accounting from the National Chengchi University, Taiwan and received a master's degree in Accounting from National Taiwan University.

Marco Mora joined our company in 2000 as Vice President of Operations and since November 2003 has been our Chief Operating Officer. Mr. Mora has more than 19 years of experience in the semiconductor industry. Prior to joining our company, Mr. Mora held management positions with STMicroelectronics N.V., Texas Instruments Italia S.p.A, Micron Technology Italia S.p.A and WSMC. Mr. Mora received a master's degree in Physics from the University of Milan.

Toshiaki Ikoma joined our company as Chief Technology Officer in January 2004. Dr. Ikoma has extensive semiconductor experience in both academia and industry. Dr. Ikoma was the President of Texas Instruments Japan, Inc. for five years and, prior to that position, served as a professor of Electronics at the Institute of Industrial Science at the University of Tokyo from 1968 to 1994. Prior to joining our company, he was a professor of Technology Management at the Graduate School of International Corporate Strategy of Hitotsubashi University, Tokyo, beginning in 2002. Dr. Ikoma received a PhD in Electronics from the University of Tokyo.

Akio Kawabata joined our company in 2002 and is currently our Vice President of Marketing. Mr. Kawabata has over 32 years of experience in the semiconductor industry. Prior to joining our company, Mr. Kawabata held various management positions with Toshiba Corporation, including General Manager of Toshiba's International Division, President of Toshiba Electronics Europe GmbH and Managing Director of Toshiba Asia Pacific. Mr. Kawabata received a master's degree in Electrical Engineering from Stanford University.

Jason Ting Chih Hsien joined our company in January 2002 and became our Vice President for Human Resources and General Affairs in January 2004. Dr. Ting also serves as our Joint Compliance Officer. He previously served as our Senior Director of sales and marketing. Prior to joining our company, Dr. Ting served as a Director of Walsin Lihwa Corporation in Taiwan. Dr. Ting received a PhD in Material Science from the University of Illinois.

Anne Wai Yui Chen joined our company in 2001 and is our Hong Kong representative, Corporate Secretary and Joint Compliance Officer. Ms. Chen is admitted as a Solicitor in Hong Kong, England and Wales and Australia and was admitted as an advocate and solicitor in Singapore. She had served as a Deputy Adjudicator of the Small Claims Tribunal in Hong Kong in 1999 and had served as the President from 2000 to 2002 and is currently a Council Member of the Hong Kong Federation of Women Lawyers. Prior to joining the Company in 2001, she had been a practicing solicitor in Hong Kong since 1987.

No shareholder has a contractual right to designate a person to be elected to our board of directors.

There are no family relationships among any of our directors and executive officers, including our founder.

Director and Executive Compensation

The aggregate cash compensation that we paid to all of our executive officers as of December 31, 2004 for services rendered to us and our subsidiaries during 2004 was approximately US\$554,418. Of this amount, we paid our president and chief executive officer US\$190,343 in

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

salary, discretionary bonuses, housing allowances, other allowances and benefits in kind in 2004. We currently do not provide cash compensation to directors that are not employees. Pursuant to an incentive program involving the offering for sale of housing constructed by us to all our directors, employees and certain service providers, we sold one property to our president and chief executive officer at the same price at which other properties of the same type have been sold by us to other employees under the program. We do not provide pension, retirement or similar benefits to our executive officers and directors.

We granted options to purchase an aggregate of 16,600,000 ordinary shares under our 2001 Regulation S Stock Plan, and options to purchase an aggregate of 450,000 preference shares which converted into options to

purchase an aggregate of 4,500,000 ordinary shares upon the completion of the global offering, under our 2001 Regulation S Preference Shares Stock Plan to certain of our directors and executive officers. No options have been granted under our 2001 Stock Plan or 2001 Preference Shares Stock Plan to our directors or executive officers. Both our 2001 Regulation S Stock Plan and 2001 Regulation S Preference Shares Stock Plan are described below in *Share Ownership*. The exercise prices of the options granted to our directors and executive officers to purchase ordinary shares range from US\$0.005 to US\$0.25, and the exercise prices of the options granted to our directors and executive officers to purchase preference shares are equal to US\$1.1111. The expiration dates of the options range from March 2011 to September 2012.

As of December 31, 2004, we have granted options to purchase an aggregate of 4,210,000 ordinary shares under our 2004 Stock Option Plan, and an aggregate of 980,000 restricted share units under our 2004 Equity Incentive Plan to certain of our directors and executive officers as of such date. Both our 2004 Stock Option Plan and the 2004 Equity Incentive Plan are described below. On November 10, 2004, our board of directors issued each independent non-executive and non-executive director an option to purchase 500,000 ordinary shares at a price per ordinary share of USD\$0.22. These options vested on March 19, 2005, subject to the director continuing to serve on our board on that date. These options expire on November 9, 2009. Lai Xing Cai has declined this option. No director exercised any option to purchase ordinary shares in 2004.

The exercise price of the options granted to our executive officers to purchase ordinary shares under the 2004 Stock Option Plan range from US\$0.31 to US\$0.35 per share. The expiration dates of the options range from March 17, 2014 to April 6, 2014. On May 11, 2005, the compensation committee issued to Richard Ru Gin Chang an option to purchase 15,000,000 ordinary shares and an award of 2,000,000 restricted share units. The exercise price per ordinary share underlying the option is US\$0.196. The option and the award of restricted share units will expire on May 11, 2015.

On April 25, 2004, the compensation committee approved a profit-sharing plan for the benefit of our employees, including our executive officers. Under the Company's profit-sharing plan, a participant who is an employee of the Company at the end of a fiscal quarter will be eligible to receive a percentage of the Company's profits for that quarter. In 2004, the Company's executive officers received an aggregate of US\$27,580 as a result of their participation in the Company's profit-sharing plan.

Board Practices

Board of Directors

Our board of directors consists of eight directors. Directors may be elected to hold office until the expiration of their respective terms upon a resolution passed at a duly convened shareholders meeting by holders of a majority of our outstanding shares being entitled to vote in person or by proxy at such meeting. Our board is divided into three classes with no more than one class eligible for re-election at any annual shareholders meeting.

The Class I directors were elected for a term of one year following the completion of the global offering and thereafter will serve terms of three years. The Class II directors were elected for a term of two years following the completion of the global offering and thereafter will serve terms of three years. The Class III directors were elected for a term of three years following the completion of the global offering and thereafter will serve terms of three years. We completed our global offering on March 18, 2004.

The following table sets forth the names and classes of our directors:

Class I

Richard Ru Gin Chang
Henry Shaw

Class II

Ta-Lin Hsu
Yen-Pong Jou
Lip-Bu Tan

Class III

Lai Xing Cai
Tsuyoshi Kawanishi
Yang Yuan Wang

In connection with the acquisition of Fab 7, we granted Motorola the right to designate and have elected one member to our board of directors, which right terminated upon the completion of the global offering. On April 25, 2004, Sean Hunkler, the vice president of Fab Operations for Freescale Semiconductor, Inc. (Freescale), which was an affiliate of Motorola, Inc., joined our board of directors. Mr. Hunkler resigned from our board as of December 2, 2004. Subsequently, our board, in accordance with our articles of association, approved the reduction in the number of board members from nine to eight. None of our directors has any employment or service contract with our company.

The Class I directors were re-elected by our shareholders on May 6, 2005.

Committees of Our Board of Directors

Our board of directors has an audit committee and a compensation committee. The composition and responsibilities of these committees are described below.

Audit Committee. As of December 31, 2004, the members of our audit committee, all of whom were independent non-executive directors, were Yen-Pong Jou, Henry Shaw, Lip-Bu Tan and Yang Yuan Wang. At the meeting of the board of directors on January 25, 2005, Mr. Jou resigned from our audit committee. None of the current members of our audit committee has been an executive officer or employee of the company or any of its subsidiaries. See *Related Party Transactions* for a description of transactions between us and our current audit committee members.

The responsibilities of our audit committee include, among other things:

making recommendations to our board of directors concerning the appointment, reappointment, retention, evaluation, oversight and termination of the work of our independent auditor, including reviewing the experience, qualifications and performance of the senior members of the independent auditor team and pre-approving all non-audit services to be provided by our independent auditor;

approving the remuneration and terms of engagement of our independent auditor;

reviewing reports from our independent auditor regarding its internal quality-control procedures and any material issues raised in the most recent review or investigation of such procedures and regarding all relationships between us and the independent auditor;

pre-approving the hiring of any employee or former employee of our independent auditor who was a member of the audit team during the preceding two years;

reviewing our annual and interim financial statements, earnings releases, critical accounting policies and practices used to prepare financial statements, alternative treatments of financial information, the effectiveness of our disclosure controls and procedures and important trends and developments in financial reporting practices and requirements;

reviewing the planning and staffing of internal audits, the organization, responsibilities, plans, results, budget and staffing of our internal audit team and the quality and effectiveness of our internal controls;

reviewing our risk assessment and management policies;

reviewing any legal matters that may have a material impact and the adequacy and effectiveness of our legal and regulatory compliance procedures;

establishing procedures for the treatment of complaints received by us regarding accounting, internal accounting controls, auditing matters, potential violations of law and questionable accounting or auditing matters; and

obtaining and reviewing reports from management, our internal auditor and our independent auditor regarding compliance with applicable legal and regulatory requirements, including the Foreign Corrupt Practices Act.

We believe that the composition and functioning of our audit committee complies with the applicable requirements of the U.S. Sarbanes-Oxley Act of 2002, the New York Stock Exchange, the U.S. Securities and Exchange Commission and the Hong Kong Stock Exchange. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee. As of December 31, 2004, the members of our compensation committee, all of whom were independent non-executive directors, were Ta-Lin Hsu, Tsuyoshi Kawanishi and Lip-Bu Tan. None of these members of our compensation committee has been an executive officer or employee of our company or any of its subsidiaries. See *Related Party Transactions* for a description of transactions between us and our current compensation committee members.

The responsibilities of our compensation committee include, among other things:

approving and overseeing the total compensation package for our executive officers and any other officer, evaluating the performance of and determining and approving the compensation to be paid to our chief executive officer and reviewing the results of our chief executive officer's evaluation of the performance of our other executive officers;

reviewing and making recommendations to our board of directors with respect to director compensation, including equity-based compensation;

administering and periodically reviewing and making recommendations to our board of directors regarding the long-term incentive compensation or equity plans made available to our directors, employees and consultants;

reviewing and making recommendations to our board of directors regarding executive compensation philosophy, strategy and principles and reviewing new and existing employment, consulting, retirement and severance agreements proposed for our executive officers; and

ensuring appropriate oversight of our human resources policies and reviewing strategies established to fulfill our ethical, legal and human resources responsibilities.

Corporate Governance Practices

Companies listed on the New York Stock Exchange must comply with certain standards regarding corporate governance under Section 303A of the New York Listed Company Manual. However, foreign private issuers such as us, are permitted to follow home country practices in lieu of the provisions of Section 303A, except that such companies are required to comply with the rules relating to the audit committee. In addition, foreign private issuers must disclose any significant ways in which their corporate governance practices differ from NYSE listing standards.

The Companies Law (2004 Revision) For Companies

NYSE Rules

The NYSE listing standards require non-management directors to meet at regularly scheduled executive meetings not attended by management.

The NYSE listing standards require companies to have a nominating/corporate governance committee comprised of independent directors governed by a written charter establishing certain minimum requirements.

Limited By Shares in the Cayman Islands

There is no requirement under Cayman Islands law for us to hold on a regular basis an executive session of the non-management directors. Under our Articles of Association, our board of directors may meet together for the dispatch of business as they think fit.

Under our Articles of Association, our board of directors may establish one or more committees, each consisting of one or more directors. Our board of directors may delegate its powers as our board of directors deems appropriate to this committee. However, we have not established a nominating/corporate governance committee.

Employees

The following table sets forth, as of the dates indicated, the number of our employees serving in the capacities indicated:

Function	As of December 31,		
	2002	2003	2004
Managers	224	338	570
Professionals ⁽¹⁾	817	961	3,109
Technicians	1,837	2,746	3,389
Clerical staff	315	398	572
Total⁽²⁾	3,193	4,443	7,640

(1) Professionals include engineers, lawyers, accountants and other personnel with specialized qualifications, excluding managers.

(2) Includes 99, 38 and 14 temporary and part-time employees in 2002, 2003 and 2004, respectively.

The following table sets forth, as of the dates indicated, a breakdown of the number of our employees by geographic location:

Location of Facility	As of December 31,		
	2002	2003	2004
Shanghai	3,146	4,033	5,481
Beijing	40	341	1,026
Tianjin		49	1,107
United States	5	13	16
Europe		4	5
Japan	2	3	3
Hong Kong			2
Total	3,193	4,443	7,640

Our success depends to a significant extent upon, among other factors, our ability to attract, retain and motivate qualified personnel. As of December 31, 2004, 920 and 133 of our employees held master's degrees and doctorate degrees, respectively. As of the same date, 2,408 of our employees possessed a bachelor's degree. Our engineers received an average of 40 hours of continuing training per person in 2004. We have also entered into agreements with Shanghai University to offer a bachelor's degree program and Shanghai's Fudan University and Jiaotong University to offer graduate degree programs for our technicians. These employees can earn these degrees in either Microelectronics or Solid-state Circuitry. In addition, we employ many qualified personnel that have relocated back to China after receiving valuable industry experience overseas.

As a supplement to their salaries, our employees have the opportunity to earn additional merit-based bonuses on a quarterly basis according to our overall performance, each individual and his or her department. Furthermore, our employees are eligible to participate on a quarterly basis in our profit-sharing plan. Additional benefits include participation in our 2004 global equity incentive compensation program, social welfare

benefits for qualified Chinese employees, a global medical insurance plan for overseas employees and optional housing benefits and educational programs for employees with families.

We provide occupational health and hygiene management for the welfare of our employees. This includes the monitoring of air quality, illumination, radiation, noise and drinking water. Our employees are not covered by any collective bargaining agreements.

Share Ownership

The table below sets forth the ordinary shares beneficially owned by each of our directors and options to purchase ordinary shares as of December 31, 2004:

Name of Director	Current Shareholding	Options to Purchase Ordinary Shares	
		Number of Options	Exercise Price
Richard Ru Gin Chang	73,419,550 ⁽¹⁾⁽²⁾	100,000	US\$ 0.31
Lai Xing Cai	0	0	
Ta-Lin Hsu	15,300,010 ⁽³⁾	500,000	US\$ 0.22
Yen-Pong Jou	0	500,000	US\$ 0.22
Tsuyoshi Kawanishi	0	2,000,000	US\$ 0.05 US\$0.22
Henry Shaw	0	500,000	US\$ 0.22
Lip-Bu Tan	0	500,000	US\$ 0.22
Yang Yuan Wang	0	500,000	US\$ 0.22
Fang Yao	0	0	

¹ Includes the following:

- a. Pursuant to a Charitable Pledge Agreement dated December 1, 2003, Richard Ru Gin Chang and his spouse, Scarlett Chang (collectively, the Donors), have pledged to transfer 10,000,000 ordinary shares as a charitable gift to The Richard and Scarlett Chang Family Foundation, a Delaware nonprofit nonstock corporation organized exclusively for religious, charitable, scientific, literary and education purposes within the meaning of Section 501(c)(3) of the US Internal Revenue Code of 1986, as amended, such transfer to be made in full at or prior to the death of the surviving Donor.
- b. 20,000,000 of the ordinary shares held as a corporate interest are held by Jade Capital Company, LLC, a Delaware limited liability company, of which Richard Ru Gin Chang and his spouse, Scarlett Chang, are the sole members. It is the current intent of the members that all or a portion of the net income of Jade Capital Company, LLC be used for philanthropic purposes, including but not limited to contributions to charitable organizations that are tax-exempt under Section 501(c)(3) of the Internal Revenue Code of 1986, as amended.

² Does not include an option to purchase 15,000,000 ordinary shares if fully exercised, and an award of 2,000,000 restricted share units granted by the compensation committee on May 11, 2005.

³ Ta-Lin Hsu has a controlling interest in AP3 Co-Investment Partners, LDC, which holds 15,300,010 ordinary shares.

The shareholdings set forth above excludes shares beneficially owned by entities affiliated with our directors. Each of our directors disclaims beneficial ownership of the shares beneficially owned by such affiliated entity, except to the extent of such director's pecuniary interest therein as disclosed above.

On July 11, 2002, the compensation committee issued Mr. Kawanishi an option to purchase 500,000 ordinary shares pursuant to the terms of the 2001 Stock Option Plan. This option will expire on July 10, 2012. On January 15, 2004, the board issued him an option to purchase 1,000,000 ordinary shares pursuant to the terms of the 2001 Stock Option Plan. This option will expire on January 14, 2014. The exercise prices of the options are US\$0.05 and US\$0.10, respectively.

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

On November 10, 2004, the Board granted to each independent non-executive director and non-executive director, an option to purchase 500,000 Ordinary Shares at a price per ordinary share of US\$0.22. These options vested on March 19, 2005, subject to the director continuing to serve on the Board on that date. These options expire on November 9, 2009. Lai Xing Cai has declined this option.

On May 11, 2005, the compensation committee issued to Richard Ru Gin Chang an option to purchase 15,000,000 ordinary shares and an award of 2,000,000 restricted share units. The exercise price per ordinary share underlying the option is US\$0.196. The option and the award of restricted share units will expire on May 11, 2015.

The compensation committee has issued each of our executive officers options to purchase ordinary shares pursuant to our 2001 Regulation S Stock Option Plan, 2001 Regulation S Preference Shares Stock Plan and the 2004 Stock Option Plan and restricted share units that represent rights to receive ordinary shares pursuant to our 2004 Equity Incentive Plan. The exercise price of the options range from US\$0.01 to US\$0.11. The options expire between March 28, 2011 and April 7, 2014. The restricted share units expire on July 1, 2014. The majority of the options and restricted share units are subject to a four-year vesting period. Each executive officer owns less than 1% of the total outstanding shares of the company.

2001 Stock Plan and 2001 Regulation S Stock Plan

On March 28, 2001, our board of directors and shareholders adopted our 2001 Stock Plan and our 2001 Regulation S Stock Plan. Under these plans, our directors, employees and consultants are eligible to acquire ordinary shares pursuant to options. At the time of adoption, 250,000,000 post-split ordinary shares were reserved for

issuance under the 2001 Stock Plan and 470,000,000 post-split ordinary shares were reserved for issuance under the 2001 Regulation S Stock Plan. On August 27, 2003, our shareholders approved an increase in the number of authorized shares reserved under the plans of 3,438,900 post-split ordinary shares, increasing the total number of authorized shares reserved under the plans to 723,438,900 post-split ordinary shares. On August 27, 2003, September 22, 2003 and December 4, 2003, our shareholders approved additional increases in the number of shares reserved under our 2001 Regulation S Stock Plan of up to 325,000,000, 21,499,990 and 235,089,480 post-split ordinary shares, respectively, which amounts were to be adjusted from time to time to equal 10% of the post-split ordinary shares issuable upon the conversion of all Series C convertible preference shares and Series D convertible preference shares then outstanding. As of December 31, 2004, there were 998,675,840 post-split ordinary shares authorized for issuance under the plans, 632,664,140 post-split ordinary shares subject to outstanding options under the plans and 193,315,679 post-split ordinary shares outstanding from the exercise of options granted under the plans. We issued an aggregate of 15,004,679 ordinary shares in 2004 under the 2001 Stock Plan and the 2001 Regulation S Stock Plan. These plans terminate on December 4, 2013 but may be terminated earlier by our board of directors.

Stock options granted under the 2001 Stock Plan may be incentive stock options, or ISOs, which are intended to qualify for favorable U.S. federal income tax treatment under the provisions of Section 422 of the U.S. Internal Revenue Code of 1986, as amended, or U.S. Internal Revenue Code, or non-qualified stock options, or NSOs, which do not so qualify. Stock options granted under the 2001 Regulation S Stock Plan are NSOs. The aggregate fair market value of the ordinary shares represented by any given optionee's ISOs that become exercisable in any calendar year may not exceed US\$100,000. Stock options in excess of this limit are treated as NSOs.

The board of directors, the compensation committee and the non-executive option grant committee administer the 2001 Stock Plan and 2001 Regulations S Stock Plan. The compensation committee selected the eligible persons above a certain compensation grade to whom options were granted and determined the grant date, amounts, exercise prices, vesting periods and other relevant terms of the stock options, including whether the options will be ISOs or NSOs. The non-executive option grant committee selected the eligible persons below a certain compensation grade to whom options were granted and determined the grant date, amounts, exercise prices, vesting periods and other relevant terms of stock options within parameters established by the compensation committee and subject to compensation committee ratification. The exercise price of ISOs granted under the 2001 Stock Plan and NSOs granted to residents of California under the 2001 Stock Plan may not be less than 100% and 85%, respectively, of the fair market value of our ordinary shares on the grant date. The exercise price of NSOs not granted to residents of California under either our 2001 Stock Plan or our 2001 Regulation S Stock Plan can be determined by the board of directors, the compensation committee or the non-executive option grant committee in their discretion.

Stock options granted under the 2001 Stock Plan and 2001 Regulation S Stock Plan may be exercised at any time after they vest, and, in certain instances, prior to vesting. Shares purchased when an option is exercised prior to vesting are subject to our right of repurchase to the extent unvested in the event of the termination of service of the optionee. In the event of the termination of service of an optionee, the unvested portion of a stock option is forfeited and the vested portion terminates six months after a termination of service due to the death or permanent disability of the optionee or 30 days after termination of service for any other reason or such longer periods as may be provided for in option agreements with our optionees. Stock options are generally not transferable during the life of the optionee.

In the event of a change of control (as defined in the plans) or a merger of our company, each outstanding stock option may be assumed or an equivalent stock option or right may be substituted by the successor corporation. In the event that no such substitution or assumption occurs, the outstanding stock options will automatically vest and become exercisable for a period of 15 days, after which the stock options will terminate.

We have not issued stock options under the 2001 Stock Plan or the 2001 Regulation S Stock Plan since the completion of the global offering.

2001 Preference Shares Stock Plan and 2001 Regulation S Preference Shares Stock Plan

On April 12, 2001, our board of directors and shareholders adopted our 2001 Preference Shares Stock Plan and our 2001 Regulation S Preference Shares Stock Plan. Under these plans, our directors, employees and consultants were eligible to acquire Series A convertible preference shares prior to the completion of the global offering and ordinary shares upon or following the completion of the global offering, pursuant to options. At the time of adoption, 16,000,000 Series A preference shares and ten times that number of ordinary shares (on a post-split basis) were reserved for issuance under the 2001 Preference Shares Stock Plan, and 20,000,360 Series A convertible preference shares and ten times that number of ordinary shares (on a post-split basis) were reserved for issuance under the 2001 Regulation S Preference Shares Stock Plan. On August 19, 2002, our shareholders approved an increase in the number of shares issuable under the plans of 18,000,180 Series A convertible preference shares, increasing the total number of authorized shares reserved under the plans to 54,000,540 Series A convertible preference shares. On August 27, 2003, our shareholders approved a net decrease in the number of shares issuable under the plans of 343,890 Series A convertible preference shares, decreasing the total number of authorized shares reserved under the plans to 53,656,650 Series A convertible preference shares. Upon the conversion of our preference shares into ordinary shares in connection with the global offering, options granted under the 2001 Preference Shares Stock Plan and the 2001 Regulation S Preference Shares Stock Plan converted into options to purchase ordinary shares. As of December 31, 2004, there were 91,632,960 ordinary shares subject to outstanding options under the plans, and there were 400,340,710 ordinary shares outstanding from the exercise of options granted under the plans. We issued an aggregate of 4,362,010 ordinary shares in 2004 under the 2001 Preference Shares Stock Plan and the 2001 Regulation S Preference Shares Stock Plan. Our board of directors has elected not to grant any further options under these plans.

Stock options granted under the 2001 Preference Shares Stock Plan may be ISOs, which are intended to qualify for favorable U.S. federal income tax treatment under the provisions of the U.S. Internal Revenue Code, or NSOs, which do not so qualify. Stock options granted under the 2001 Regulation S Preference Shares Stock Plan are NSOs. The aggregate fair market value of the shares represented by any given optionee's ISOs that become exercisable in any calendar year may not exceed US\$100,000. Stock options in excess of this limit are treated as NSOs.

The board of directors, the compensation committee and the non-executive option grant committee administer the 2001 Preference Shares Stock Plan and 2001 Regulation S Preference Shares Stock Plan. The compensation committee selected the eligible persons above a certain compensation grade to whom options were granted and determined the grant date, amounts, exercise prices, vesting periods and other relevant terms of the stock options, including whether the options will be ISOs or NSOs. The non-executive option grant committee selected the eligible persons below a certain compensation grade to whom options were granted and determined the grant date, amounts, exercise prices, vesting periods and other relevant terms of stock options within parameters established by the compensation committee and subject to compensation committee ratification. The exercise price of ISOs granted under the 2001 Preference Shares Stock Plan and NSOs granted to residents of California under the 2001 Preference Shares Stock Plan may not be less than 100% and 85%, respectively, of the fair market value of our Series A convertible preference shares on the grant date. The exercise price of NSOs not granted to California residents under either our 2001 Preference Shares Stock Plan or our 2001 Regulation S Preference Shares Stock Plan can be determined by the board of directors, the compensation committee or the non-executive option grant committee in their discretion.

Stock options granted under the 2001 Preference Shares Stock Plan and 2001 Regulation S Preference Shares Stock Plan may be exercised at any time after they vest, and, in certain instances, prior to vesting. Shares purchased when an option is exercised prior to vesting are subject to our right of repurchase to the extent unvested in the event of the termination of service of the optionee. In the event of the termination of service of an optionee, the unvested portion of a stock option is forfeited and the vested portion terminates six months after a termination of service due to the death or permanent disability of the optionee or 30 days after termination of service for any other reason or such longer periods as may be provided for in option agreements with our optionees. Stock options are generally not transferable during the life of the optionee.

In the event of a change of control (as defined in the plans) or a merger of our company, each outstanding stock option may be assumed or an equivalent stock option or right may be substituted by the successor corporation. In the event that no such substitution or assumption occurs, the outstanding stock options will automatically vest and become exercisable for a period of 15 days, after which the stock options will terminate.

2004 Global Equity Incentive Compensation Program

Our board of directors adopted our 2004 Stock Option Plan, our 2004 Employee Stock Purchase Plan and our 2004 Equity Incentive Plan on January 16, 2004. Our shareholders approved our 2004 Stock Option Plan and 2004 Employee Stock Purchase Plan on February 16, 2004 and our 2004 Equity Incentive Plan on March 10, 2004.

The purpose of these plans is to allow our employees, directors and service providers to have the opportunity to share in the growth and profitability of our company following the global offering and to provide a non-cash means of incentivizing and retaining these individuals. An aggregate maximum of 1,317,000,000 ordinary shares were reserved for issuance under the 2004 Stock Option Plan and the 2004 Employee Stock Purchase Plan, to be allocated between the plans at the discretion of our board of directors and compensation committee. In no event may a stock option or a purchase right be granted under the 2004 Stock Option Plan or the 2004 Employee Stock Purchase Plan, respectively, if such grant would result in the total aggregate number of ordinary shares subject to all then outstanding stock options or purchase rights granted by us pursuant to the 2004 Stock Option Plan, the 2004 Employee Stock Purchase Plan or any other of our plans or schemes exceeding 30% of the issued and outstanding ordinary shares in issuance from time to time.

A maximum of 2.5% of the ordinary shares that were issued and outstanding immediately following the closing of the global offering, or 455,409,330 ordinary shares, were reserved for issuance under the 2004 Equity Incentive Plan. The number of ordinary shares or ADSs issued upon the settlement of a stock appreciation right that is granted in connection with a stock option granted under the 2004 Stock Option Plan will reduce the plan limit under the 2004 Equity Incentive Plan.

2004 Stock Option Plan. Under the 2004 Stock Option Plan, employees and service providers are eligible to acquire ordinary shares or ADSs pursuant to stock options. The 2004 Stock Option Plan also provides for grants of stock options to non-employee directors at our board of directors' discretion.

The 2004 Stock Option Plan will terminate on the tenth anniversary of the date of shareholder approval but may be terminated earlier by our board of directors. The 2004 Stock Option Plan provides for the grant of incentive stock options (ISOs) and non-qualified stock options (NSOs). Any awards of director stock options to non-employee directors are NSOs. The aggregate fair market value of the ordinary shares represented by any given optionee's ISOs that become exercisable in any calendar year may not exceed US\$100,000. Stock options in excess of this limit are treated as NSOs.

The compensation committee and the non-executive option grant committee administer the 2004 Stock Option Plan. The compensation committee selects the persons (other than non-employee directors) above a certain compensation grade to whom stock options are granted and determines the grant date, number of underlying ordinary shares or ADSs, exercise prices, vesting periods and other relevant terms of the stock options, including whether the stock options will be ISOs or NSOs, except that ISOs may be granted only to employees and director stock options may be granted only to non-employee directors. The non-executive option grant committee selects the eligible persons below a certain compensation grade to whom options are granted and determines the grant date, amounts, exercise prices, vesting periods and other relevant terms of stock options within parameters established by the compensation committee and subject to compensation committee ratification. The exercise price of a stock option granted under the 2004 Stock Option Plan shall be no less than the higher of (i) the closing price of an ordinary share on the Hong Kong Stock Exchange (or, in the case of an ADS, of an ADS on the New York Stock Exchange) and (ii) the average closing price of an ordinary share on the Hong Kong Stock Exchange (or, in the case of an ADS, of an ADS on the New York Stock Exchange) for the five business days immediately preceding the date of grant. The compensation committee determines the effect of a termination of employment on a stock option awarded under the 2004 Stock Option Plan except that if employment is terminated for cause, as defined in the plan, all unexercised stock options of an optionee are forfeited. Our board of directors exercises all authority and responsibility with respect to any stock options granted to non-employee directors. Stock options are generally not transferable during the life of the optionee.

The compensation committee will specify the effect that a merger or change in control (as defined in the 2004 Stock Option Plan) will have on grants of stock options, which may include the acceleration of vesting of stock options prior to the date of the change of control.

As of December 31, 2004, options to purchase an aggregate of 165,030, 640 ordinary shares in our company had been issued to employees, directors, and other service providers of our company under the 2004 Stock Option Plan. We did not issue any ordinary shares in 2004 under the 2004 Stock Option Plan.

2004 Equity Incentive Plan. Under the 2004 Equity Incentive Plan, our employees, officers and service providers are eligible to acquire equity-based awards other than stock options. The 2004 Equity Incentive Plan will terminate on the tenth anniversary of the date of shareholder approval but may be terminated earlier by our board of directors.

The compensation committee and the non-executive option grant committee administer the 2004 Equity Incentive Plan. The compensation committee selects the persons above a certain compensation grade to whom awards are granted and determines the type of award, grant date, amounts, vesting periods and other relevant terms of the awards. The non-executive option grant committee selects the eligible persons below a certain compensation grade to whom awards are granted and determines the type of award, grant date, amounts, vesting periods and other relevant terms of the awards within parameters established by the compensation committee and subject to compensation committee ratification.

As of December 31, 2004, awards to receive an aggregate of up to 118,190,824 ordinary shares in our company pursuant to grants of restricted share units had been issued to employees and other service providers of our company under the 2004 Equity Incentive Plan. We did not issue any ordinary shares in 2004 under the 2004 Equity Incentive Plan.

Stock Appreciation Rights. Under the 2004 Equity Incentive Plan, the compensation committee and the non-executive option grant committee may grant stock appreciation rights independent of or in connection with a stock option granted under the 2004 Stock Option Plan. Generally, each stock appreciation right will entitle a participant upon settlement to an amount equal to (1) the excess of (A) the market value on the exercise date of one ordinary share or ADS, divided by (B) the exercise price, multiplied by (2) the number of ordinary shares or ADSs covered by the stock appreciation right. Payment will be made in ordinary shares or ADSs or in cash, or partly in ordinary shares or ADSs and partly in cash, all as determined by the compensation committee and the non-executive option grant committee.

Other Equity-Based Awards. Under the 2004 Equity Incentive Plan, the compensation committee and the non-executive option grant committee may grant awards of restricted shares, restricted share units, dividend equivalents, deferred shares and other awards that are valued in whole or in part by reference to, or are otherwise based on the fair market value of, ordinary shares. The other share-based awards are subject to the terms and conditions established by the compensation committee and the non-executive option grant committee. The compensation committee will specify the effect that a merger or change in control will have on grants of stock options, which may include acceleration of vesting of stock options prior to the date of the change of control.

2004 Employee Stock Purchase Plan. The 2004 Employee Stock Purchase Plan is intended to qualify for favorable federal income tax treatment under the provisions of Section 423 of the U.S. Internal Revenue Code. Under the 2004 Employee Stock Purchase Plan, all employees of our participating subsidiaries are eligible (subject to limited exceptions set forth in the U.S. Internal Revenue Code) to elect through payroll deductions to purchase ADSs at a discount. The 2004 Employee Stock Purchase Plan will terminate on the tenth anniversary of the date of shareholder approval but may be terminated earlier by our board of directors. The compensation committee administers the 2004 Employee Stock Purchase Plan. The compensation committee may delegate some or all of its authority (with certain restrictions) under the 2004 Employee Stock Purchase Plan to one or more of its members or one or more of our officers.

The 2004 Employee Stock Purchase Plan will be implemented by a series of offering periods. The compensation committee will determine the starting and ending dates of each offering period, but no offering period can be shorter than 6 months or longer than 27 months.

An eligible employee may elect to participate in the 2004 Employee Stock Purchase Plan for any offering period by filing the enrollment documents with the appropriate human resources group. A participant will elect to have payroll deductions made on each payday during the offering period in a dollar amount specified in the employee's enrollment documents. These deductions will be placed into an account on behalf of a participant.

The compensation committee will determine the maximum amount that any employee may contribute to his or her account under the 2004 Employee Stock Purchase Plan during any calendar year. A participant may not accrue share purchase rights at a rate that exceeds US\$25,000, based on the fair market value of the plan shares or such lower amount as the compensation committee may determine for each calendar year in which the share purchase right is outstanding.

A participant may terminate participation in the 2004 Employee Stock Purchase Plan and withdraw from an offering by submitting a withdrawal notice and receiving all of his or her accumulated payroll deductions from that offering. Upon withdrawal, the participant's right to purchase ADSs for the current offering period will be terminated, and the participant can no longer participate in the current offering.

On the last day of the offering period, a participant's accumulated contributions are used to purchase ADSs at a price equal to the lesser of 85% of the fair market value of such ADSs on the date the offering period commenced or 85% of the fair market value of such ADSs on the date the offering period concluded. The ADSs are then deposited to an account established in the participant's name with a broker designated by us.

If a participant's employment terminates prior to the end of an offering period for any reason (subject to the limited exception set forth below), we will pay to the participant his or her account balance and the participant's right to purchase ADSs under the 2004 Employee Stock Purchase Plan will automatically terminate. If a participant's employment terminates less than three months prior to the end of the offering period for certain non-cause triggers, the participant will continue to participate in the 2004 Employee Stock Purchase Plan for the offering period then in progress, except that the participant's contributions will cease with the contribution made from such participant's final paycheck.

As of December 31, 2004, no ADSs had been issued pursuant to the 2004 Employee Stock Purchase Plan.

Item 7. Major Shareholders

Major Shareholders

The following table sets forth information regarding the beneficial ownership as of December 31, 2004 of our ordinary shares, by each shareholder who is known by us to beneficially own more than 5% of our outstanding shares as of such date.

Name of Shareholder	Number of Shares Owned	Percentage Owned
Shanghai Industrial Holdings Limited ⁽¹⁾	1,814,991,340	9.95%
Motorola, Inc. and Motorola (China) Electronics Limited ⁽²⁾	1,427,915,070 ⁽³⁾	7.8%
Blessington Services Limited ⁽⁴⁾	1,051,493,250	5.8%

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

- (1) All of the shares beneficially owned by Shanghai Industrial Holdings Limited are registered in the name of S.I. Technology Production Holdings Limited, its wholly owned subsidiary. Shanghai Industrial Holdings Limited is a Hong Kong publicly listed company majority-owned by Shanghai Industrial Investment (Holdings) Company Limited, which is wholly beneficially owned and controlled by the Shanghai municipal government. Our current director, Lai Xing Cai, is Chairman of Shanghai Industrial Holdings Limited. It is our understanding that voting and investment control over our shares beneficially owned by Shanghai Industrial Holdings Limited are maintained by the board of directors of Shanghai Industrial Holdings Limited.
- (2) It is our understanding that voting and investment control over our shares beneficially owned by Motorola and MCEL are maintained by the respective boards of directors of Motorola and MCEL, which have the power to delegate such authority. All such delegations are revocable by the Motorola and MCEL boards at any time.
- (3) On or about February 28, 2005, Motorola and MCEL sold an aggregate of 517,489,221 ordinary shares. Upon completion of this transaction, Motorola and MCEL owned an aggregate of 910,425,849 ordinary shares. The Company is unable to confirm the current shareholdings of Motorola and MCEL.
- (4) Consists of 195,594,250 ordinary shares registered in the name of Homer Investment Holdings Ltd., 171,179,800 ordinary shares registered in the name of Asset Success Investments Limited, 171,179,800 ordinary shares registered in the name of Easy Street Investments Limited, 171,179,800 ordinary shares registered in the name of Seaboard Investments Limited, 171,179,800 ordinary

shares registered in the name of Visible Profit Investments Limited and 171,179,800 ordinary shares registered in the name of Whole Gain Investments Limited. Our director, Yen-Pong Jou, is a director of each of these entities, all of which are wholly owned subsidiaries of Blessington Services Limited. Blessington Services Limited is accustomed to act in accordance with the instructions from the directors of its shareholder, Deutsche International Corporation Services Limited, who currently holds 84% of the shareholding in Blessington Services Limited. Under the listing rules of the Hong Kong Stock Exchange, if a person or an entity controls more than 30% of a corporate shareholders voting shares, that corporate shareholder is considered as accustomed to act in accordance with the instructions of such person/entity.

The shareholdings of the shareholders listed above have changed during the past three years. Shanghai Industrial Holdings Limited and Blessington Services Limited were among the investors who purchased an aggregate of 917,439,166 of our Series A convertible preference shares in September 2001. After the consummation of our sale of the Series A convertible preference shares, Shanghai Industrial Holdings Limited and Blessington Services Limited owned approximately 15.7% and 10.7%, respectively, of our then outstanding shares on a fully diluted basis. In January 2002, we entered into an agreement to sell an aggregate of 42,373,000 of our Series A-2 convertible preference shares to an investor. In September 2003, we entered into an agreement to sell an aggregate of up to 180,000,000 of our Series C convertible preference shares to investors, which agreement was amended in December 2003 to provide for the sale of up to 15,714,285 additional Series C convertible preference shares. After the issuance by us of Series C convertible preference shares, Shanghai Industrial Holdings and Blessington Services Limited owned approximately 11.9% and 8.1%, respectively, of our then outstanding shares on a fully diluted basis. In December 2003 and January 2004, we issued an aggregate of 105,199,999 Series D convertible preference shares to Motorola and MCEL. After the issuance by us of Series D convertible preference shares, Shanghai Industrial Holdings and Blessington Services Limited owned approximately 10.4% and 7.1%, respectively, of our then outstanding shares on a fully diluted basis.

Each ordinary share is entitled to one vote on all matters upon which the ordinary shares are entitled to vote, including the election of directors. No shareholder has voting rights that are different from those of other shareholders.

As of December 31, 2004, a total of 21,643,465 ADSs and 18,232,959,139 ordinary shares of our company were outstanding. Of these ordinary shares, 1,082,173,250 were registered in the name of JPMorgan Chase Bank, the depository under the deposit agreement. JPMorgan has advised us that, as of December 31, 2004, these 21,643,465 ADSs, representing 1,082,173,250 ordinary shares, were held of record by seven U.S. persons. We have no further information as to shares held or beneficially owned by U.S. persons. The number of shares outstanding does not include 780,000 ordinary shares we repurchased from some of our employees pursuant to our employee stock option plans, but which for accounting purposes have been reflected in our consolidated statement of shareholders' equity and comprehensive income (loss). Each ADS represents 50 ordinary shares.

We do not believe that we are directly or indirectly owned or controlled by another corporation, by any foreign government or by any other natural or legal person severally or jointly.

Related Party Transactions

Motorola, Inc.

In September 2003, we entered into agreements with Motorola and its wholly owned subsidiary, MCEL, providing for our acquisition of the assets constituting a fab in Tianjin, the assumption of certain obligations, the transfer of certain technology to us from Motorola, our exchange of certain licenses with Motorola, the provision by Motorola of US\$30 million in cash to us and our issuance to Motorola and MCEL of our Series D convertible preference shares and warrants to purchase Series D convertible preference shares in exchange for the foregoing. Upon completion of these transactions, which occurred in January 2004, Motorola, together with MCEL, became the beneficial owner of more than 10% of our ordinary shares outstanding and issuable upon conversion of outstanding preference shares and Motorola became entitled to appoint a director to

our board. Motorola's right to appoint a director to our board terminated upon the completion of our global offering.

In connection with this acquisition, we entered into certain intellectual property agreements with Motorola. Under these agreements, we and Motorola each granted to the other a five-year license to certain specified patents. We also agreed to license from Motorola certain intellectual property relating to certain CMOS process technology.

In connection with the closing of the transactions described above, we also entered into a semiconductor foundry agreement with Motorola to provide wafer fabrication and associated services to Motorola. Under this agreement, Motorola has agreed to use good faith efforts to purchase a minimum number of wafers per month over a fifteen-month period, provided that we meet applicable production and quality standards. In addition to the agreements described above, we, Motorola and MCEL have entered into several ancillary agreements relating to the acquisition. These agreements relate to, among other things, transition services to be provided to us by MCEL to assist in transitioning the Tianjin fab's operations to us and long-term services to be provided between us and MCEL. We and MCEL have also executed a real property transfer agreement providing for the transfer of MCEL's real property rights associated with the Tianjin fab to us. Motorola has also agreed to guarantee the indemnification obligations of MCEL under the asset purchase agreement. See also Item 4 Information on the Company Business Overview Tianjin Operations.

Integrated Silicon Solution, Inc.

From time to time, we provide foundry services to Integrated Silicon Solution, Inc., or ISSI, one of our shareholders. One of our directors, Lip-Bu Tan, is a director of ISSI. In 2002, 2003 and 2004, we had total wafer sales to ISSI of US\$12.5 million, US\$38.3 million and US\$49.7 million, respectively, and accounts receivable from ISSI of US\$6.7 million, US\$1.7 million and US\$13.2 million as of December 31, 2002, 2003 and 2004, respectively. In addition, we have entered into intellectual property and library license agreements with ISSI pursuant to which we license intellectual property to ISSI so that ISSI can develop integrated circuit designs for fabrication by us. We also entered into a memorandum of understanding on May 15, 2003 with ISSI providing that we will jointly develop a process to manufacture products designed by or for ISSI.

Indemnification Agreements

On March 18, 2004, upon completion of the global offering, we entered into identical indemnification agreements with each member of our board of directors and our executive officers, whereby we agreed to (inter alia) indemnify our board of directors and executive officers in respect of liability arising from their capacity as our directors and executive officers. At the annual general meeting of our shareholders held on May 6, 2005, our shareholders approved amendments to the indemnification agreements in order to comply with changes in the listing rules of the Hong Kong Stock Exchange. The revised indemnification agreements will limit the term of the indemnification agreements to three (3) years and our aggregate annual liability to US\$20,000,000; provided that our liability to indemnify a particular director or executive officer shall not exceed the amount payable to a director or officer under the directors' and officer's liability insurance policy.

Pursuant to the revised indemnification agreements, we are obligated to indemnify each director and executive officer, to the fullest extent permitted by law, against all costs, charges, expenses, liabilities, losses and obligations incurred in connection with any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation which might lead to any of the foregoing by reason of or arising out of any event or occurrence relating to the fact that he is or was director or executive officer of our company or any of its subsidiaries, or is or was serving at our request at another corporation or enterprise, or by reason of any activity or inactivity while serving in such capacity. However, we will not be liable to indemnify any such person:

for expenses resulting from matters for which such person is prohibited from being indemnified under our Memorandum and Articles of Association or applicable law;

in respect of any claim initiated or brought voluntarily by such person (other than in limited specified circumstances);

for expenses incurred in relation to any proceedings to enforce the agreement in which material assertions in such proceedings made by such director are finally determined by a court to be not made in good faith or to be frivolous;

in respect of any claim if a court determines that such person acted in a manner that was willfully or grossly negligent; or

for expenses and payment of profits arising from securities transactions carried out by such person in violation of Section 16(b) of the U.S. Securities Exchange Act of 1934, as amended.

The revised indemnification agreements will become effective upon execution and will supersede any previous indemnification agreement between the same parties. The indemnification agreements will continue in effect during the three year term regardless of whether the relevant director or executive officer continues to serve as our director or executive officer or to serve at any other enterprise at our request.

For the year ended December 31, 2004, no payment was made to any director or executive officer under the indemnification agreements.

Registration Rights Agreement

In connection with the global offering, we entered into an amended and restated registration rights agreement which currently remains in effect. Substantially all of our securityholders, other than our employees and certain original investors, are a party to the agreement, except that Richard Ru Gin Chang, our Chairman, President and Chief Executive Officer, is also a party to the agreement.

Monetization Restrictions

Each of Richard Ru Gin Chang and substantially all other parties to the agreement that beneficially own, directly or indirectly and whether individually or as a group with its affiliates, more than 7,500,000 of our ordinary shares immediately prior to the global offering, whom we collectively refer to as our large securityholders, have agreed that their securities would continue to be subject to certain transfer restrictions for a period equal to the shorter of three years from the expiration of the 180-day lock-up period in connection with the global offering and such time when all large securityholders own collectively less than 10% of our ordinary shares on a fully diluted basis. Pursuant to these transfer restrictions, Richard Chang and the large securityholders may not offer, sell, contract to sell, pledge, sell any option or contract to purchase, purchase any option or contract to sell, grant or agree to grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, or file with the U.S. Securities and Exchange Commission a registration statement under the Securities Act relating to any ADSs, ordinary shares or securities convertible into or exchangeable or exercisable for, or that represents the right to receive, ADSs or ordinary shares, or enter into any swap, hedge or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our ADSs or ordinary shares, or publicly disclose that he, she or it will or may enter into any transaction described above, without the prior written consent of the representatives of the underwriters, whether any transaction described above is to be settled by delivery of ADSs, ordinary shares or such other securities, in cash or otherwise, subject to customary exceptions. At any time during this period, large securityholders will only be permitted to transfer their securities or enter into any of the activities described in the preceding paragraph with respect to their securities if:

we give our prior written consent to any such transfer or activity;

the transfer is to affiliates or family members or for estate planning purposes, as long as the transferee agrees to become bound by the provisions in the agreement; or

the transfer amount is within the permitted sales/transfers rule as described below.

We refer to these additional transfer restrictions that only apply to our large securityholders as monetization restrictions. The monetization restrictions only apply to securities held by large securityholders prior to the global offering or to securities issuable to large securityholders

upon conversion or exercise of securities that were issued to large securityholders prior to the global offering. The monetization restrictions do not apply to parties to the agreement that directly or indirectly beneficially own less than or equal to 7,500,000 of our ordinary shares immediately prior to the global offering.

Permitted Sales/Transfers

Commencing on the date of expiration of the 180-day post-global offering lock-up period and every 180 days thereafter until the termination of the amended and restated registration rights agreement by its terms, 15% of the shares of each large securityholder held immediately prior to the completion of the global offering, which we refer to as released shares, will be released from the monetization restrictions described above, and may be sold in an annual, demand or incidental offering, as described below, or without our consent in the open market or in privately negotiated transactions. We refer to any such sales as permitted sales/transfers. The 15% limit for each 180-day period is cumulative, such that if any large securityholder does not sell or transfer the 15% released shares from a previous 180-day period, any unsold or non-transferred released shares will roll over and may be sold or transferred at any time in the future, together with all other accumulated released shares from previous periods.

In addition:

any transferee of released shares will not be subject to the provisions of the amended and restated registration rights agreement with respect to those shares;

no such sales or transfers will be permitted during any post-offering lock-up period, as described below; and

all such sales or transfers must be made in accordance with applicable securities laws.

In addition, we have entered into an agreement with each of Motorola and MCEL, which are large securityholders under the amended and restated registration rights agreement, pursuant to which we have consented to release from the monetization restrictions described above an additional 15% of the shares they each held immediately prior to the completion of the global offering commencing on the date of expiration of the 180-day post-global offering lock-up period and an additional 15% every 180 days thereafter.

Like the 15% limit for each 180-day period applicable to other large securityholders, such 30% limit applicable to Motorola and MCEL is cumulative. In addition, such additional released shares may only be sold or transferred by Motorola or MCEL pursuant to the same terms and conditions applicable to the sale or transfer of their released shares under the amended and restated registration rights agreement. In addition, to the extent that at any time during the term of the amended and restated registration rights agreement we increase the percentage of released shares that may be transferred or sold by any large securityholder who holds more than 1% of our outstanding shares (on a pre-global offering basis) to more than the percentage of released shares that may be transferred or sold by Motorola and MCEL (regardless of whether or not Motorola or MCEL actually sold any released shares), we have consented to increase the percentage of released shares for Motorola and MCEL to match the increased percentage for such large securityholder. We have also agreed with each of Motorola and MCEL that we will not consent to any amendment or waiver of any provision of the amended and restated registration rights agreement that adversely affects either Motorola or MCEL but does not so adversely affect all other parties to the amended and restated registration rights agreement unless such amendment or waiver is approved in writing by Motorola.

Offerings

It is our current plan, subject to market conditions, to raise primary capital in the next few years to further expand our business operations. We have committed to our large securityholders to include a secondary component in our follow-on offerings to permit such securityholders who are subject to the monetization restrictions to sell their securities under the following circumstances:

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Annual Offerings: We will use reasonable commercial efforts to effect an offering once in each calendar year, each of which will include a secondary component for the benefit of large securityholders;

Demand Offerings: If large securityholders request, either individually or in the aggregate, to publicly sell securities having an aggregate offering size of not less than US\$400 million at the time of such request, we will use reasonable commercial efforts to facilitate the public sale of such securities as promptly as practicable, provided that we will not be required to effect more than one such demand offering during any 12-month period and not more than three in the aggregate during the term of the amended and restated registration rights agreement and we will also not be required to effect any such demand offering within 90 days of any previous offering, whether annual, demand or incidental; and

Incidental Offerings: If at any time we plan to issue primary shares in a public offering other than pursuant to an annual offering, our large securityholders may participate pro rata in the secondary component of such offering according to their selling interest, provided that we must also offer all of our other securityholders who are parties to the agreement but who are not large securityholders the opportunity to participate in such offering.

Decisions with respect to any offerings, including any offerings to be made in accordance with and pursuant to the amended and restated registration rights agreement, will be made by our board of directors or a duly appointed committee thereof. The timing and size of any offering, including any secondary component to be included therein, will always be at our sole discretion upon advice from our financial advisors. Each large securityholder (and other securityholders, for primary offerings only) will be able to participate in an offering on a pro rata basis based on its selling interest, provided, however, that we will always have the right to cut back on a pro rata basis all proposed secondary sales by securityholders if our financial advisors so advise based on market conditions, including if we plan to issue primary shares in the offering. However, we are not permitted through these cutbacks to reduce the size of the secondary component of any offering to less than 10% of the total size of the offering. Large securityholders will also not be permitted to sell in any offering more than the number of released shares available for sale as of the time of such offering, as described above under Permitted Sales/Transfers. In addition, we will always have the right to postpone (for up to 180 days in any 12-month period) any offering if, upon the advice of counsel or our financial advisors, it would be disadvantageous for us to proceed in light of pending corporate or other developments, potential acquisitions, or disclosure issues, provided that we will endeavor to remove the disadvantageous condition as promptly as practicable. We have also agreed that in the event of any such offerings, we will indemnify selling securityholders against losses and damages suffered by them arising out of untrue or allegedly untrue statements in any prospectus or other similar document issued in relation to such offerings, unless such statements were provided to us by the selling securityholders.

We will also have sole discretion, upon advice from our financial advisors and based on then-prevailing market conditions and the proposed timing and size of each offering, to determine the manner of effecting the offering, including whether it should be registered with the U.S. Securities and Exchange Commission or effected over the Hong Kong Stock Exchange, whether it should be underwritten or not, and whether it should be effected on a fully marketed basis, or by a block trade, bought deal or otherwise. However, we will not effect any unregistered or non-underwritten offering for our securityholders unless the other securities to be sold in the offering are also sold in the same manner.

Large securityholders, except for Motorola and MCEL, have also agreed, for a period following the completion of any future offering, which period is to be negotiated in good faith between us, the underwriters for such offering and the large securityholders, not to transfer any of their shares not sold in such offering. We refer to each such period as a post-offering lock-up period.

After the expiration of the amended and restated registration rights agreement, large securityholders will be free to sell their securities, subject to any applicable securities laws, and we will not have any more obligations to facilitate offerings on behalf of these securityholders.

Notice of Certain Developments

In addition, the amended and restated registration rights agreement also provides that each large securityholders or group of large securityholders that owns at least 5% of our outstanding ordinary shares that receives a bona fide firm offer, proposal or other indication of interest to acquire more than 5% of our outstanding shares, or to effect a merger, acquisition, purchase of assets or other extraordinary transaction involving us, will agree to notify our board of directors of such potential transaction. Upon the completion of such transaction, the acquiror of such interest will also be subject to the remaining term of the monetization restrictions.

Item 8. Financial Information

Consolidated Statements and Other Financial Information

Please see Item 18. Financial Statements.

See Item 4 Information on the Company Business Overview Customers and Markets regarding the percentage of our sales which are exported from China.

Litigation

As is the case with many companies in the semiconductor industry, we have received from time to time communications from third parties asserting that our technologies, fabrication processes, design of the semiconductors made by us or use by our customers of semiconductors made by us may infringe upon patents or other intellectual property rights of others. Irrespective of the validity of such claims, we could incur significant costs in the defense thereof or could suffer adverse effects on our operations.

In December 2003, we became the subject of a lawsuit in U.S. federal district court brought by TSMC relating to alleged infringement of five U.S. patents and misappropriation of alleged technical and operational trade secrets relating to methods for conducting semiconductor fab operations and manufacturing integrated circuits. After the dismissal without prejudice of the trade secret misappropriation claims by the U.S. federal district court on April 21, 2004, TSMC refiled the same claims in California State Superior Court and claimed alleged infringement of an additional 6 patents in the U.S. federal district court lawsuit. In August 2004, TSMC filed a complaint with the ITC alleging similar trade secret misappropriation claims and asserting 3 new patent infringement claims and simultaneously filed another patent infringement suit in federal district court on the same 3 patents as alleged in the ITC complaint. Prior to the start of the initial lawsuit in the United States, TSMC had instituted a legal proceeding in Taiwan in January 2002 that alleged improper hiring practices and trade secret misappropriation. In the Taiwan proceeding, the Hsinchu District Court in Taiwan issued an ex parte provisional injunction that prohibits our wholly owned subsidiary, Semiconductor Manufacturing International (Shanghai) Corporation, or SMIC Shanghai, from improperly soliciting or hiring certain categories of employees of TSMC or causing such employees to divulge to us, or use, trade secrets of TSMC. According to TSMC's initial complaint filed in the United States, the Taiwan provisional injunction has no territorial effect outside of Taiwan. The provisional injunction may be challenged by us at any time, but we have thus far seen no cause for challenging that ruling, and to date the provisional injunction has not adversely affected our operations.

On January 31, 2005, we entered into a settlement agreement with TSMC that provides for the dismissal of all pending legal actions without prejudice between TSMC and our company in U.S. federal district court, California State Superior Court, the ITC and Taiwan District Court. In the settlement agreement, TSMC covenants not to sue the company for itemized acts of trade secret misappropriation as alleged in the complaints, although the settlement does not grant a license to use any of TSMC's trade secrets. Furthermore, the parties also entered into a patent cross-license agreement under which each party will license the other party's patent portfolio through December 2010. As a part of the settlement, we also agreed to pay TSMC an aggregate amount of US\$175 million, in installments of US\$30 million each year for five years and US\$25 million in the sixth year.

The patent cross-license agreement and settlement agreement are terminable upon a breach of the settlement agreement by SMIC. Any such breach may result in the filing of a lawsuit relating to such breach, recommencement or re-filing of the legal proceedings and acceleration of the outstanding monetary payment obligations under the settlement agreement.

One of our technology partners, Infineon, was involved in litigation with Rambus Inc., which had filed separate actions against Infineon in the U.S. and Germany for alleged patent infringement by Infineon relating to its SDRAM, Double Data Rate SDRAM and GDDR products. In the United States, Rambus had filed suit in the U.S. District Court for the Eastern District of Virginia and the U.S. District Court for the Northern District of California. On March 21, 2005, Infineon and Rambus reached an agreement settling all claims between them and licensing the Rambus patent portfolio to Infineon for use in current and future Infineon products. Rambus has granted to Infineon a worldwide license to existing and future Rambus patents and patent applications for use in Infineon memory products. The two companies have also agreed to the immediate dismissal of all pending litigation and have released each other from all existing legal claims.

In addition to the litigation matters described above, we are occasionally involved in routine litigation matters that are common for our industry, none of which we believe has been or is material.

Dividends and Dividend Policy

Since our inception, we have not declared or paid any cash dividends on our ordinary shares. We intend to retain any earnings for use in our business and do not currently intend to pay cash dividends on our ordinary shares. Dividends, if any, on the outstanding shares will be declared by and subject to the discretion of our board of directors and must be approved at our annual general meeting of shareholders. The timing, amount and form of future dividends, if any, will also depend, among other things, on:

our results of operations and cash flow;

our future prospects;

our capital requirements and surplus;

our financial condition;

general business conditions;

contractual restrictions on the payment of dividends by us to our shareholders or by our subsidiaries to us; and

other factors deemed relevant by our board of directors.

Our ability to pay cash dividends will also depend upon the amount of distributions, if any, received by us from our three wholly owned Chinese operating subsidiaries. Under the applicable requirements of Chinese Company Law, our Chinese subsidiaries may only distribute dividends after they have made allowances for:

recovery of losses, if any;

allocation to the statutory common reserve funds;

allocation to staff and workers' bonus and welfare funds; and

allocation to a discretionary common reserve fund if approved by our shareholders.

More specifically, these operating subsidiaries may only pay dividends after 10% of their net profit has been set aside as statutory common reserves and a discretionary percentage of their net profit has been set aside for the staff and workers' bonus and welfare funds. These operating subsidiaries are not required to set aside any of their net profit as statutory common reserves if such reserves are at least 50% of their respective registered capital. Furthermore, if they record no net income for a year, they generally may not distribute dividends for that year.

Significant Changes

Please see the section entitled "Litigation" above.

Item 9. The Offer and listing

Our ordinary shares are principally traded on the Stock Exchange of Hong Kong under the symbol 981.HK. Our ordinary shares began trading on the Stock Exchange of Hong Kong on March 18, 2004. Our American Depositary Shares, which began trading on the New York Stock Exchange on March 17, 2004, are traded under the symbol SMI.

The table below sets forth the high and low closing prices on the Stock Exchange of Hong Kong and the New York Stock Exchange for the ordinary shares represented by the ADSs since the completion of the global offering.

	Stock Exchange of Hong Kong		New York Stock Exchange ⁽¹⁾	
	Closing price per ordinary share		Closing price per ADS	
	High Price	Low Price	High Price	Low Price
2004				
March 17 – March 31	HK\$ 2.47	HK\$ 2.12	US\$ 15.50	US\$ 13.59
April	HK\$ 2.45	HK\$ 1.88	US\$ 15.60	US\$ 11.69
May	HK\$ 1.96	HK\$ 1.60	US\$ 12.60	US\$ 10.47
June	HK\$ 1.90	HK\$ 1.64	US\$ 12.17	US\$ 10.71
July	HK\$ 1.68	HK\$ 1.49	US\$ 10.84	US\$ 9.42
August	HK\$ 1.66	HK\$ 1.48	US\$ 10.65	US\$ 9.59
September	HK\$ 1.66	HK\$ 1.53	US\$ 10.66	US\$ 9.86
October	HK\$ 1.82	HK\$ 1.59	US\$ 11.31	US\$ 10.14
November	HK\$ 1.91	HK\$ 1.68	US\$ 12.21	US\$ 10.78
December	HK\$ 1.94	HK\$ 1.66	US\$ 12.40	US\$ 10.57
2005				
January	HK\$ 1.69	HK\$ 1.48	US\$ 10.59	US\$ 9.35
February	HK\$ 1.75	HK\$ 1.54	US\$ 11.14	US\$ 9.97
March	HK\$ 1.63	HK\$ 1.50	US\$ 10.45	US\$ 9.49
April	HK\$ 1.60	HK\$ 1.50	US\$ 10.09	US\$ 9.52
May	HK\$ 1.55	HK\$ 1.48	US\$ 9.99	US\$ 9.63
June 1 – June 21	HK\$ 1.71	HK\$ 1.52	US\$ 10.90	US\$ 9.75

⁽¹⁾ Each ADS represents 50 ordinary shares.

Item 10. Additional Information

Memorandum and Articles of Association

The section entitled “Description of Share Capital” in our IPO registration statement is incorporated by reference into this annual report.

At the annual general meeting of our shareholders held on May 6, 2005, our shareholders agreed to amend the Articles of Association to reflect the amendments to Appendix 3 to the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the “Listing Rules”) which came into effect on March 31, 2004 (which Appendix stipulates certain provisions as being required to be included in the articles of association of listed companies in Hong Kong) and certain other matters. These amendments:

remove the requirement for us to deliver a repurchase notice to a shareholder whose shares we are repurchasing, so long as the repurchase is in accordance with applicable law, rules or regulations;

remove the minimum period for any closure of the register of members in connection with any annual general meeting of our shareholders;

reflect the new requirements in Appendix 3 to the Listing Rules which stipulates a minimum period for allowing a shareholder to nominate a person for election as a director of the Company by serving the requisite notices. Such minimum period for lodgment for the said notice shall be a period of not less than seven days and shall commence no earlier than the day after the dispatch of the notice of the meeting appointed for such election and end no later than seven days prior to the date of such meeting;

reflect the restriction on voting by members as required by the new requirements in Appendix 3 to the Listing Rules;

clarify the notice periods for summoning any regular meeting of our board and for any other meeting of our board;

define a quorum of our board to be at least two (2) directors, one of whom shall be an executive director, provided that if at any time there shall be only a sole director in office, then the quorum shall be one;

clarify the rights of a proxy of any of our directors at any meeting of our board;

provide for methods of distribution of certain of our financial information to our shareholders;

reflect the new requirements in Appendix 3 to the Listing Rules which require the interests held by a director's associate(s) to be taken into account when considering the interests of that director. Accordingly, a director is not allowed to vote on any resolution of the board of directors approving any contract or arrangement or any other proposal in which he or any of his associate has a material interest nor shall he be counted in the quorum present at the meeting; and

provide that a notice sent by post to our shareholders will be deemed to be delivered on the day following the day on which such notice was posted.

Material Contracts

Please see the section entitled "Related Party Transactions" above regarding the agreements into which we entered with Motorola and its wholly owned subsidiary, MCEL. Please also see the section entitled "Litigation" above regarding the settlement agreement into which the Company entered with TSMC.

Exchange Controls

We receive a portion of our sales in Renminbi, which is currently not a freely convertible currency. For the year ended December 31, 2003, approximately 2.2% of our sales were denominated in Renminbi, while approximately 1.7% of our sales were denominated in Renminbi for the year ended December 31, 2004. 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.

Taxation

United States Federal Income Taxation

Except where noted, this summary deals only with the ownership and disposition of the ADSs and ordinary shares that are held as capital assets by U.S. Holders. This summary does not represent a detailed description of the U.S. federal income tax consequences applicable to U.S. Holders that are subject to special treatment under the U.S. federal income tax laws, including:

banks;

dealers in securities or currencies;

financial institutions;

real estate investment trusts;

insurance companies;

tax-exempt organizations;

persons holding ADSs or ordinary shares as part of a hedging, integrated or conversion transaction, constructive sale or straddle;

traders in securities that have elected the mark-to-market method of accounting;

persons liable for the alternative minimum tax;

persons who own more than 10% of our voting shares; or

U.S. persons whose functional currency is not the U.S. dollar.

This summary is based in part on representations by the depository and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms. Furthermore, the discussion below is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, and U.S. Treasury regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be replaced, revoked or modified, possibly on a retroactive basis, so as to result in U.S. federal income tax consequences different from those discussed below.

A U.S. Holder that holds ADSs or ordinary shares is urged to consult its own tax advisor concerning the U.S. federal income tax consequences as well as any consequences arising under the laws of any other taxing jurisdiction in light of the particular circumstances of the U.S. Holder.

A U.S. Holder is a beneficial owner of ADSs or ordinary shares that is a U.S. person. A U.S. person is:

a citizen or resident of the United States;

a corporation or other entity taxable as a corporation created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation, regardless of its source; or

a trust if it is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

If a partnership holds ADSs or ordinary shares, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. A U.S. Holder that is a partner of a partnership holding ADSs or ordinary shares is urged to consult its own tax advisors.

ADSs or Ordinary Shares. In general, for U.S. federal income tax purposes, a U.S. Holder of ADSs will be treated as the owner of the underlying ordinary shares that are represented by such ADSs. Deposits and withdrawals of ordinary shares in exchange for ADSs will not be subject to U.S. federal income taxation.

Distributions on ADSs or Ordinary Shares. Subject to the discussion under *Passive Foreign Investment Company Rules* below, the gross amount of the cash distributions on the ADSs or ordinary shares will be taxable to a U.S. Holder as dividends to the extent of our current and accumulated earnings and profits, as determined under U.S. federal income tax principles. Subject to certain limitations, dividends paid to noncorporate U.S. Holders, including individuals, may be eligible for a reduced rate of taxation if we are deemed to be a qualified foreign corporation for U.S. federal income tax purposes. A qualified foreign corporation includes:

a foreign corporation that is eligible for the benefits of a comprehensive income tax treaty with the United States that includes an exchange of information program; and

a foreign corporation if its stock with respect to which a dividend is paid or its ADSs backed by such stock are readily tradable on an established securities market within the United States,

but does not include an otherwise qualified corporation that is a passive foreign investment company. We believe that we will be a qualified foreign corporation for so long as we are not a passive foreign investment company and the ordinary shares or ADSs are considered to be readily tradable on an established securities market within the United States. A U.S. Holder that exchanges its ADSs for ordinary shares may not be eligible for the reduced rate of taxation on dividends if the ordinary shares are not readily tradable on an established securities market within the United States. Our status as a qualified foreign corporation, however, may change.

Dividends will be includable in a U.S. Holder's gross income on the date actually or constructively received by such U.S. Holder, in the case of ordinary shares, or by the depositary, in the case of ADSs. These dividends will not be eligible for the dividends-received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations.

To the extent that the amount of any cash distribution exceeds our current and accumulated earnings and profits, the distribution will first be treated as a tax-free return of capital, causing a reduction in the adjusted basis of the ADSs or ordinary shares (thereby increasing the amount of gain, or decreasing the amount of loss, a U.S. Holder would recognize on a subsequent disposition of the ADSs or ordinary shares), and the balance in excess of adjusted basis will be subject to tax as capital gain.

To the extent we pay dividends on the ADSs or the ordinary shares in Hong Kong dollars, the U.S. dollar value of such dividends should be calculated by reference to the exchange rate prevailing on the date of actual or constructive receipt of the dividend, regardless of whether the Hong Kong dollars are converted into U.S. dollars at that time. If Hong Kong dollars are converted into U.S. dollars on the date of actual or constructive receipt of such dividends, the tax basis of the U.S. holder in such Hong Kong dollars will be equal to their U.S. dollar value on that date and, as a result, the U.S. Holder generally should not be required to recognize any foreign currency exchange gain or loss. Any gain or loss recognized on a subsequent conversion or other disposition of the Hong Kong dollars generally will be treated as U.S. source ordinary income or loss.

It is possible that distributions of ADSs or ordinary shares that are received as part of a pro rata distribution to all of our ordinary shareholders may not be subject to U.S. federal income tax. The basis of the new ADSs or ordinary shares so received will be determined by allocating a U.S. Holder's basis in the old ADSs or ordinary shares between the old ADSs or ordinary shares and the new ADSs or ordinary shares received, based on their relative fair market values on the date of distribution.

Dividends paid on the ADSs or ordinary shares will be income from sources outside of the United States and for tax years beginning before January 1, 2007, generally will constitute passive income or, in the case of certain U.S. Holders, financial services income and for tax years beginning after December 31, 2006, generally will constitute passive category income or, in the case of certain U.S. Holders, general category income for U.S. foreign tax credit limitation purposes.

Sale, Exchange or Other Disposition of ADSs or Ordinary Shares. Subject to the discussion under *Passive Foreign Investment Company Rules* below, upon the sale, exchange or other disposition of ADSs or ordinary shares, a U.S. Holder generally will recognize capital gain or loss equal to the difference between the amount realized upon the sale, exchange or other disposition and the adjusted tax basis of the U.S. Holder in the ADSs or ordinary shares. A U.S. Holder's tax basis in an ADS or an ordinary share will be, in general, the price it paid for that ADS or ordinary share. The capital gain or loss generally will be long-term capital gain or loss if, at the time of sale, exchange or other disposition, the U.S. Holder has held the ADS or ordinary share for more than one year. Net long-term capital gains of noncorporate U.S. Holders, including individuals, are eligible for reduced rates of taxation. The deductibility of capital loss is subject to limitations. Any gain or loss that a U.S. Holder recognizes generally will be treated as gain or loss from sources within the United States for U.S. foreign tax credit limitation purposes.

Passive Foreign Investment Company Rules. We believe that we were not a passive foreign investment company for 2004. Based on the projected composition of our income, the timing of our anticipated capital expenditures and valuation of our assets, we do not expect to be a passive foreign investment company for 2005 and do not expect to become one in the future, although this may change.

In general, we will be deemed to be a passive foreign investment company for any taxable year in which either (i) at least 75% of our gross income is passive income or (ii) at least 50% of the value (determined on the

basis of a quarterly average) of our assets is attributable to assets that produce or are held for the production of passive income. For this purpose, passive income generally includes dividends, interest, royalties, rents (other than rents and royalties derived in the active conduct of a trade or business and not derived from a related person), annuities and gains from assets that produce passive income.

If we are a passive foreign investment company for any taxable year (i) dividends paid by us to U.S. Holders would not be eligible for the reduced rate of taxation applicable to non-corporate U.S. Holders, including individuals (see Distributions on ADSs or Ordinary Shares above) and could also be subject to an interest charge, and (ii) U.S. Holders that hold ADSs or ordinary shares would generally be required to treat any gain on the sale of the ADSs or ordinary shares held by them as ordinary income and pay an interest charge on the value of the deferral of their U.S. federal income tax attributable to such gain.

If a U.S. Holder owns ADSs or ordinary shares during any year that we are a passive foreign investment company, the U.S. Holder must file Internal Revenue Service Form 8621.

A U.S. Holder is urged to consult its own tax advisors concerning the availability of making a mark-to-market election or a qualified electing fund election and the U.S. federal income tax consequences of holding the ADSs or ordinary shares if we are deemed to be a passive foreign investment company in any taxable year.

Information Reporting and Backup Withholding. In general, unless a U.S. Holder belongs to a category of certain exempt recipients (such as corporations), information reporting requirements will apply to distributions on ADSs or ordinary shares made within the United States and to the proceeds of sales of ADSs or ordinary shares that are effected through the U.S. office of a broker or the non-U.S. office of a broker that has certain connections with the United States. Backup withholding may apply to these payments if a U.S. Holder fails to provide a correct taxpayer identification number or certification of exempt status, fails to report in full dividend and interest income or, in certain circumstances, fails to comply with applicable certification requirements.

Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. Holder's U.S. federal income tax, provided the U.S. Holder furnishes the required information to the Internal Revenue Service in a timely manner.

Cayman Islands Taxation

The following summary constitutes the opinion of Maples and Calder as to the material Cayman Islands tax consequences of acquiring, owning and transferring our ADSs and ordinary shares.

The Cayman Islands currently levy no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. You will not be subject to Cayman Islands taxation on payments of dividends or upon the repurchase by us of your ADSs or ordinary shares. In addition, you will not be subject to withholding tax on payments of dividends or distributions, including upon a return of capital, nor will gains derived from the disposal of ADSs or ordinary shares be subject to Cayman Islands income or corporation tax.

No Cayman Islands stamp duty will be payable by you in respect of the issue or transfer of ADSs or ordinary shares. However, an instrument transferring title to an ADS, if brought to or executed in the Cayman Islands, would be subject to Cayman Islands stamp duty. The Cayman

Islands are not party to any double taxation treaties. There are no exchange control regulations or currency restrictions in the Cayman Islands.

We were incorporated under the laws of the Cayman Islands as an exempted company and, as such, obtained an undertaking in April 2000 from the Governor in Council of the Cayman Islands substantially that, for a period of twenty years from the date of such undertaking, no law which is enacted in the Cayman Islands imposing any tax to be levied on profit or income or gains or appreciation shall apply to us and no such tax and no tax in the nature of estate duty or inheritance tax will be payable, either directly or by way of withholding, on our ADSs or ordinary shares.

Documents on Display

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file reports and other information with the Securities and Exchange Commission. These materials, including this annual report and the exhibits thereto, may be inspected and copied at the Commission's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Commission's Public Reference Room by calling the Commission in the United States at 1-800-SEC-0330. The Commission also maintains a website at <http://www.sec.gov> that contains reports, proxy statements and other information regarding registrants that file electronically with the Commission. In addition, material filed by us can be inspected at the offices of the New York Stock Exchange at 20 Broad Street, New York, New York 10005.

Item 11. Quantitative and Qualitative Disclosures About Market Risk

Market risk is the risk of loss related to adverse changes in market prices, including foreign currency exchange rates and interest rates of financial instruments. We are exposed to these risks in the ordinary course of our business. Our exposure to financial risks derives primarily from changes in interest rates and foreign currency exchange rates. To mitigate some of these risks, we utilize spot, forward, and derivative financial instruments. We do not engage in any speculative activities.

Foreign Exchange Rate Fluctuation Risk

Our revenue, expense, and capital purchasing activities are primarily transacted in U.S. dollars. However, since we have operations consisting of manufacturing, sales activities and capital purchasing outside of the U.S., we enter into transactions in other currencies. We are primarily exposed to changes in exchange rate for the Euro, Japanese Yen, and Rmb.

To minimize these risks, we purchase foreign-currency forward exchange contracts with contract terms normally lasting less than six months to protect against the adverse effect that exchange rate fluctuations may have on foreign-currency denominated activities. These forward exchange contracts are principally denominated in Rmb, Japanese Yen or Euros and do not qualify for hedge accounting in accordance with SFAS No. 133. As of December 31, 2004, we had outstanding foreign currency forward exchange contracts with notional amounts of US\$61.0 million. Notional amounts are stated in the U.S. dollar equivalents at spot exchange rates as of the respective dates. As of December 31, 2004, the fair value of foreign currency forward exchange contracts was approximately a loss of US\$0.3 million, which is recorded in accrued expenses and other current liabilities. We had US\$133.0 million of foreign currency exchange contracts outstanding as of December 31, 2003, all of which matured during the first ten months of 2004.

We had US\$43.1 million of foreign currency exchange contracts outstanding as of December 31, 2002, all of which matured during the first nine months of 2003.

We do not enter into foreign currency exchange contracts for speculative purposes. See "Risk Factors - Risks Related to Our Financial Condition and Business - Exchange rate fluctuations could increase our costs, which could adversely affect our operating results and the value of our ADSs and - 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."

	As of December 31, 2004	
	Expected maturity date (in US\$ thousands)	
	2005	Fair Value
Forward Exchange Agreement		
(Receive JPY/Pay US\$)		
Contract Amount	28,111	211.25
Average Contractual Exchange Rate	109.073	103.72
(Receive Euro/Pay US\$)		
Contract Amount	27,313	(117.29)
Average Contractual Exchange Rate	1.2499	1.3628
(Receive US\$/Pay Rmb)		
Contract Amount	5,610	(377.30)
Average Contractual Exchange Rate	6.6326	8.2764
Total Contract Amount	61,034	(283.34)

Interest Rate Risk

Our exposure to interest rate risks relates primarily to our long-term debt obligations, which we generally assume to fund capital expenditures and working capital requirements. The table below presents annual principal amounts due and related weighted average implied forward interest rates by year of maturity for our debt obligations outstanding as of December 31, 2004. Our long-term debt obligations are all subject to variable interest rates. The interest rates on our U.S. dollar-denominated loans are linked to the LIBOR rate, while our Renminbi-denominated loans have interest rates linked to the rates determined by the People's Bank of China. As a result, the interest rates on our loans are subject to fluctuations in the underlying interest rates to which they are linked. We have not entered into any interest rate hedging contracts.

	As of December 31,			
	2005	2006	2007	2008
	(Forecast)			
	(in US\$ thousands, except percentages)			
Redeemable promissory notes				
Average balance				
Average interest rate				
US\$ denominated				
Average balance	515,662	269,602	109,921	36,640
Average interest rate	5.2%	5.6%	5.9%	6.3%
Rmb denominated				
Average balance	28,800	9,593		
Average interest rate	5.3%	5.8%		
Weighted average forward interest rate	5.2%	5.6%	5.9%	6.3%

Item 12. Description of Securities other than equity securities

Not applicable.

PART II

Item 13. Defaults, Dividend Arrearages, and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

On March 17 and 18, 2004, we completed our initial public offering of our ADSs on the New York Stock Exchange and our ordinary shares on the Hong Kong Stock Exchange, respectively. We sold an aggregate of 5,151,515,000 ordinary shares, including 97,878,780 ADSs representing 4,893,939,000 ordinary shares, through our

joint book-runners, Credit Suisse First Boston LLC and Deutsche Bank Securities, Inc. Our selling shareholders sold an aggregate of 42,424,240 ADSs of this aggregate amount. The price per ADS was US\$17.50 and the aggregate amount raised in the global offering was US\$1,799 million, of which we received US\$1,017 million.

The following use of proceeds information relates to our registration statement on Form F-1 (File No. 333- 112720), filed by us in connection with our initial public offering. Our ADSs commenced trading on the New York Stock Exchange on March 17, 2004 and our ordinary shares began trading on the Stock Exchange of Hong Kong on March 18, 2004. Credit Suisse First Boston LLC and Deutsche Bank Securities Inc. acted as U.S. representatives for the U.S. underwriters and Credit Suisse First Boston (Hong Kong) Limited and Deutsche Bank AG, Hong Kong Branch acted as international representatives for the international underwriters.

The amount of expenses incurred by us in connection with the issuance and distribution of the registered securities totaled US\$45.7 million, including US\$36.8 million for underwriting discounts and commissions, and approximately US\$8.9 million for other expenses. The amount of expenses incurred by the selling shareholders, which were underwriting discounts and commissions, in connection with the global offering totaled US\$25.6 million. None of the payments were direct or indirect payments to our directors, officers, general partners of our associates, persons owning 10% or more of any class of our shares, or any of our affiliates.

The net proceeds from the global offering, after deduction of fees and expenses, amounted to US\$1,017 million and were received in the form of Hong Kong dollars or U.S. dollars. As of December 31, 2004, US\$938.5 million had been used to construct and equip our fabs in Beijing, and upgrade and increase our capacity at our fabs in Shanghai and Tianjin. The remaining proceeds from the global offering were held in bank deposit accounts. We expect to use such proceeds for general corporate purposes.

Item 15. Controls and Procedures

Our Chief Executive Officer and our Acting Chief Financial and Accounting Officer have evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934). They have concluded that as of December 31, 2004, our disclosure controls and procedures were adequate and effective to ensure that material information relating to us and our consolidated subsidiaries was made known to them by others within our company and our consolidated subsidiaries.

Item 16A. Audit Committee Financial Expert

Our board has determined that Mr. Henry Shaw and Mr. Lip-Bu Tan are audit committee financial experts as defined under the applicable rules of the SEC issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002. Each of Mr. Shaw and Mr. Tan are independent as such term is defined under Section 303A.02 of the New York Stock Exchange Listed Company Manual.

Item 16B. Code of Ethics

We have adopted a Code of Business Conduct and Ethics which is applicable to all of our employees, including our Chief Executive Officer, Acting Chief Financial and Accounting Officer and any other persons performing similar functions.

Our Code of Business Conduct and Ethics is available, free of charge, to any person who sends a request for a paper copy to us at Semiconductor Manufacturing International Corporation, 18 Zhangjiang Road, Pudong New Area, Shanghai, China 201203, Attention: Investor Relations.

Item 16C. Principal Accountant Fees and Services

The following table sets forth the aggregate audit fees, audit-related fees, tax fees and all other fees we paid or incurred for audit services, audit-related services, tax services and other services rendered by our principal accountants during the fiscal years ended December 31, 2003 and December 31, 2004.

	2003	2004
Audit Fees	US\$ 940,000	US\$ 250,000
Audit-Related Fees	US\$ 1,000,000	US\$ 264,306
Tax Fees	US\$ 55,000	US\$ 115,694
All Other Fees	US\$ 0	US\$ 63,986
Total	US\$ 1,995,000	US\$ 693,986

Audit fees consist of the standard work associated with U.S. GAAP and statutory audits of our annual financial statements.

Audit-related fees include review of our quarterly financial results and regulatory filings, including filings with the Securities and Exchange Commission and Hong Kong Stock Exchange.

Tax services include tax compliance, tax advice and tax planning with respect to the various regulations to which we are subject.

Other fees include consultation service charges relating to our information technology security compliance project.

The audit committee has approved all audit-related services performed by Deloitte Touche Tohmatsu. The audit committee has also approved and will continue to consider, on a case-by-case basis, all non-audit services. Accordingly, the charter of the audit committee does not contain any pre-approval policies and procedures. According to the charter of our audit committee, before our principal accountants are engaged by us to render audit or non-audit services, the engagement, including the nature and scope of the work to be performed and the associated fees, must be approved by our audit committee.

Item 16D. Exemptions from the Listing Standards of the Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table sets for the number of ordinary shares we repurchased from our employees, directors and service providers pursuant to the terms of our 2001 Stock Plan, 2001 Preference Shares Stock Plan, 2001 Regulation S Stock Plan and 2001 Regulation S Preference Shares Stock Plan. Pursuant to the terms of these plans, recipients of stock options to purchase our ordinary shares are entitled to early exercise their options, subject to the Company's right of repurchase. When employees, directors, or service providers who have early exercised their options terminate their employment with the Company, the Company may repurchase the unvested shares subject to the option, at a price which is the lower of the exercise price of the option and the fair market value of our ordinary shares as of the date of repurchase. Other than repurchases pursuant to our employee stock option plans, the Company has not repurchased any of its outstanding capital stock.

<u>Period</u>	<u>Total Number of Shares Repurchased</u>	<u>Average Price Paid per Share</u>
January 2004	337,500	US\$ 0.1111
February 2004	0	
March 2004	210,000	US\$ 0.1111
April 2004	859,750	US\$ 0.1111
May 2004	890,000	US\$ 0.0372
June 2004	1,022,250	US\$ 0.1111
July 2004	842,500	US\$ 0.1111
August 2004	2,793,000	US\$ 0.0886
September 2004	0	
October 2004	1,540,000	US\$ 0.1111
November 2004	365,000	US\$ 0.1111
December 2004	4,275,000	US\$ 0.0056
TOTAL	13,135,000	

PART III

Item 17. Financial Statements

We have elected to provide the financial statements and related information specified in Item 18 in lieu of Item 17.

Item 18. Financial Statements

See pages F-1 to F-57.

Item 19. Exhibits

- Exhibit 1.1 Tenth Amended and Restated Articles of Association, as adopted at the Registrant's annual general meeting of shareholders on May 6, 2005
- Exhibit 4.1 Asset Purchase Agreement dated September 23, 2003 among Semiconductor Manufacturing International Corporation, Motorola, Inc. and Motorola (China) Electronics Limited*
- Exhibit 4.2 Sixth Amended and Restated Registration Rights Agreement dated February 23, 2003 among Semiconductor Manufacturing International Corporation and the shareholders listed therein**
- Exhibit 4.3 Settlement Agreement dated January 31, 2005 by and between Semiconductor Manufacturing International Corporation and Taiwan Semiconductor Manufacturing Corporation, Ltd., including Patent License Agreement
- Exhibit 4.4 English language summary of Chinese language Syndicate Loan Agreement dated May 26, 2005, between Semiconductor Manufacturing International (Beijing) Corporation, Semiconductor Manufacturing International Corporation, as guarantor, and China Development Bank, China Construction Bank, Bank of China, Agricultural Bank of China, China Merchants Bank, HuaXia Bank, China Mingsheng Bank, Bank of Communications, Bank of Beijing, Industrial and Commercial Bank of China (Asia) and CITIC Ka Wah Bank
- Exhibit 4.5 Form of Indemnification Agreement, as adopted at the Registrant's annual general meeting of shareholders on May 6, 2005
- Exhibit 8.1 List of Subsidiaries
- Exhibit 12.1 Certification of CEO under Section 302 of the U.S. Sarbanes-Oxley Act of 2002

Edgar Filing: SEMICONDUCTOR MANUFACTURING INTERNATIONAL CORP - Form 20-F

Exhibit 12.2 Certification of Acting CFO under Section 302 of the U.S. Sarbanes-Oxley Act of 2002

Exhibit 13.1 Certification of CEO and Acting CFO under Section 906 of the U.S. Sarbanes-Oxley Act of 2002

Exhibit 99.1 Consent of Deloitte Touche Tohmatsu

-
- * Previously filed as an exhibit to the Registrant's Form F-1 dated February 11, 2004.
 - ** Previously filed as an exhibit to the Registrant's Form F-1/A dated February 25, 2004.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

SEMICONDUCTOR MANUFACTURING
INTERNATIONAL CORPORATION

Date: June 28, 2005

By: /s/ Richard Ru Gin Chang
Name: Richard Ru Gin Chang

Title: President and Chief Executive Officer

Annex A

GLOSSARY OF TECHNICAL TERMS

ASIC	Application Specific Integrated Circuit. A proprietary integrated circuit designed and manufactured to meet a customer's specific functional requirements.
Cell	A primary unit that normally repeats many times in an integrated circuit. Cells represent individual functional design units or circuits that may be reused as blocks in designs. For example, a memory cell represents a storage unit in a memory array.
CIS	CMOS Image Sensor. CIS can be used in applications such as still and video cameras and embedded cameras in mobile telephones. It is a fast growing imaging sensor technology. The fabrication of CIS is fully compatible with the mainstream CMOS process, which enables system-on-chip capability, low power consumption and low cost of fabrication.
Clean room	Area within a fab in which the wafer fabrication takes place. The classification of a clean room relates to the maximum number of particles of contaminants per cubic foot within that room. For example, a class 100 clean room contains less than 100 particles of contaminants per cubic foot.
CMOS	Complementary Metal Oxide Silicon. A fabrication process that incorporates n-channel and p-channel CMOS transistors within the same silicon substrate. Currently, this is the most commonly used integrated circuit fabrication process technology and is one of the latest fabrication techniques to use metal oxide semiconductor transistors.
CVD	Chemical Vapor Deposition. A process in which gaseous chemicals react on a heated wafer surface to form solid film.
Die	One individual chip cut from a wafer before being packaged.
Dielectric material	A type of non-conducting material used for isolation purposes between conductors, such as metals.
DRAM	Dynamic Random Access Memory. A device that temporarily stores digital information but requires regular refreshing to ensure data is not lost.
DSP	Digital Signal Processor. A type of integrated circuit that processes and manipulates digital information after it has been converted from an analog source.
EEPROM	Electrically Erasable Programmable Read-Only Memory. An integrated circuit that can be electrically erased and electrically programmed with user-defined information.
EPROM	Erasable Programmable Read-Only Memory. A form of PROM that is programmable electrically yet erasable using ultraviolet light.
FCRAM	Fast Cycle Random Access Memory. A proprietary form of RAM developed by Fujitsu Limited.
Fill factor	The percentage of LCOS metal surface area used for light reflection as compared to the total surface area. The higher the fill factor, the more light will be reflected from a given surface area.
Flash memory	A type of non-volatile memory where data is erased in blocks. The name flash is derived from the rapid block erase operation. Flash memory requires only one transistor per memory cell versus two transistors per memory cell for EEPROMs, making flash memory less expensive to produce. Flash memory is the most popular form of non-volatile semiconductor memory currently available.
Gold Bumping	The fabrication process of forming gold bump termination electrodes on a finished wafer.
High voltage semiconductor	High voltage semiconductors are semiconductor devices that can drive relatively high voltage potential to systems that require higher voltage of between five volts to several hundred volts.
IDM	Integrated Device Manufacturer.
Integrated circuit	An electronic circuit where all the elements of the circuit are integrated together on a single semiconductor substrate.

Interconnect	Conductive materials such as aluminum, doped polysilicon or copper that form the wiring circuitry to carry electrical signals to different parts of the chip.
I/O	Inputs/Outputs.
LCOS	Liquid Crystal On Silicon. A type of micro-display technology.
Logic device	A device that contains digital integrated circuits that perform a function rather than store information.
Low leakage	Characteristic of a transistor that has a low amount of current leakage. Low leakage allows for power-saving. Low leakage semiconductors are primarily used in applications such as cellular telephones, calculators and automotive applications.
Mask	A glass plate with a pattern of transparent and opaque areas used to create patterns on wafers. Mask is commonly used to refer to a plate that has a pattern large enough to pattern a whole wafer at one time, as compared to a reticle, where a glass plate can contain the pattern for one or more dies but is not large enough to transfer a wafer-sized pattern all at once.
Mask ROM	A type of non-volatile memory that is programmed during fabrication (mask-defined) and the data can be read but not erased.
Memory	A device that can store information for later retrieval.
Micro-display	A small display that is of such high resolution that it is only practically viewed or projected with lenses or mirrors. A micro-display is typically magnified by optics to enlarge the image viewed by the user. For example, a miniature display smaller than one inch in size may be magnified to provide a 12-inch to 60-inch viewing area.
Micron	A term for micrometer, which is a unit of linear measure that equals one one-millionth (1/1,000,000) of a meter. There are 25.4 microns in one one-thousandth of an inch.
Mixed-signal	The combination of analog and digital circuitry in a single semiconductor.
MOS	Metal Oxide Semiconductor. A type of semiconductor device fabricated with a conducting layer and a semiconducting layer separated by an insulating layer.
NAND Flash	A type of flash memory commonly used for mass storage applications such as MP3 players and digital cameras.
Nanometer	A term for micrometer, which is a unit of linear measure that equals one thousandth (1/1,000) of a micron.
Non-volatile memory	Memory products that maintain their content when the power supply is switched off.
OTP	One-time programmable memory used for program and data storage, usually used in applications that require only a one-time data change.
PROM	Programmable Read-Only Memory. Memory that can be reprogrammed once after manufacturing.
RAM	Random Access Memory. Memory devices where any memory cell in a large memory array may be accessed in any order at random.
RF	Radio Frequency. Radio frequency semiconductors are primarily used in communications devices such as cell phones.
Redistribution Layer	
Manufacturing	The manufacturing process of fabricating additional dielectric and copper interconnect layers to redistribute the pads to new locations on a finished wafer.
Reticle	See Mask above.
ROM	Read-Only Memory. See Mask ROM above.
Scanner	An aligner that scans light through a slit across a mask to produce an image on a wafer.
Semiconductor	An element with an electrical resistivity within the range of an insulator and a conductor. A semiconductor can conduct or block the flow of electric current depending on the direction and magnitude of applied electrical biases.
Solder bumping	The fabrication processes of forming solder bump termination electrodes, which are elevated metal structures, or lead free bump termination electrodes.

SRAM	Static Random Access Memory. A type of volatile memory product that is used in electronic systems to store data and program instructions. Unlike the more common DRAM, it does not need to be refreshed.
Stepper	A machine used in the photolithography process in making wafers. With a stepper, a small portion of the wafer is aligned with the mask upon which the circuitry design is laid out and is then exposed to strong light. The machine then steps to the next area, repeating the process until the entire wafer has been done. Exposing only a small area of a wafer at a time allows the light to be focused more strongly, which gives better resolution of the circuitry design.
System-on-chip	A chip that incorporates functions usually performed by several different devices and therefore generally offers better performance and lower cost.
Systems companies	Companies that design and manufacture complete end market products or systems for sale to the market.
Transistor	An individual circuit that can amplify or switch electric current. This is the building block of all integrated circuits.
Volatile memory	Memory products that lose their content when the power supply is switched off.
Wafer	A thin, round, flat piece of silicon that is the base of most integrated circuits.

- Exhibit 1.1 Tenth Amended and Restated Articles of Association, as adopted at the Registrant's annual general meeting of shareholders on May 6, 2005
- Exhibit 4.1 Asset Purchase Agreement dated September 23, 2003 among Semiconductor Manufacturing International Corporation, Motorola, Inc. and Motorola (China) Electronics Limited*
- Exhibit 4.2 Sixth Amended and Restated Registration Rights Agreement dated February 23, 2003 among Semiconductor Manufacturing International Corporation and the shareholders listed therein**
- Exhibit 4.3 Settlement Agreement dated January 31, 2005 by and between Semiconductor Manufacturing International Corporation and Taiwan Semiconductor Manufacturing Corporation, Ltd., including Patent License Agreement
- Exhibit 4.4 English language summary of Chinese language Syndicate Loan Agreement dated May 26, 2005, between Semiconductor Manufacturing International (Beijing) Corporation, Semiconductor Manufacturing International Corporation, as guarantor, and China Development Bank, China Construction Bank, Bank of China, Agricultural Bank of China, China Merchants Bank, HuaXia Bank, China Mingsheng Bank, Bank of Communications, Bank of Beijing, Industrial and Commercial Bank of China (Asia) and CITIC Ka Wah Bank
- Exhibit 4.5 Form of Indemnification Agreement, as adopted at the Registrant's annual general meeting of shareholders on May 6, 2005
- Exhibit 8.1 List of Subsidiaries
- Exhibit 12.1 Certification of CEO under Section 302 of the U.S. Sarbanes-Oxley Act of 2002
- Exhibit 12.2 Certification of Acting CFO under Section 302 of the U.S. Sarbanes-Oxley Act of 2002
- Exhibit 13.1 Certification of CEO and Acting CFO under Section 906 of the U.S. Sarbanes-Oxley Act of 2002
- Exhibit 99.1 Consent of Deloitte Touche Tohmatsu

* Previously filed as an exhibit to the Registrant's Form F-1 dated February 11, 2004.

** Previously filed as an exhibit to the Registrant's Form F-1/A dated February 25, 2004.