TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD
Form 20-F
May 28, 2004
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As filed with the Securities and Exchange Commission on May 28, 2004

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 20-F

¨ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2003

OR

¨ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission file number 1-14700

(Exact Name of Registrant as Specified in Its Charter)

Taiwan Semiconductor Manufacturing Company Limited
(Translation of Registrant s Name Into English)

Republic of China
(Jurisdiction of Incorporation or Organization)

No. 8, Li-Hsin Road 6

Hsinchu Science Park

Hsinchu, Taiwan

Republic of China

(Address of Principal Executive Offices)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Shares, par value NT$10.00 each	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 common stock as of the close of the period covered by the annual report.

As of December 31, 2003, 20,266,618,984 Common Shares, par value NT$10 each were outstanding.

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 x No ¨

Indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ¨ Item 18 x

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

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Taiwan Semiconductor Manufacturing Company Limited

TSMC and tsmc are our registered trademarks and NEXSYS, 1T RAM, and Virtual fab are trademarks used by us.

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

Except for historical matters, the matters discussed in this Annual Report on Form 20-F are forward-looking statements that are subject to significant risks and uncertainties. Forward-looking statements include, but are not limited to, statements under the following headings: (i) Item 3. Key Information Risk Factors , about expansion plans, dedicated foundry revenues, the foundry segment, certain intellectual property rights and water supplies in the Hsinchu Science Park and Southern Taiwan Science Park; (ii) Item 3. Key Information Risk Factors , about our expectation as to the commencement of production at Fab 14 (Phase 1); (iii) Item 4. Information on the Company Industry Background , about the expected growth rate of the semiconductor industry and the dedicated foundry segment; (iv) Item 4. Information on the Company Our History and Structure , about expansion plans in mainland China and our expectation as to the commencement of production at Fab 10; (v) Item 4. Information on the Company Our Facilities , about our capacity expansion plans; (vi) Item 4. Information on the Company Manufacturing Capacity and Technology , about commercial production using 90-nanometer technology; (vii) Item 4. Information on the Company Capacity Expansion and Technology Upgrade Plans , about capacity expansion, capital expenditures, technological upgrades and commitments by customers for future capacity; (viii) Item 4. Information on the Company Markets and Customers , about our customer base; (ix) Item 4. Information on the Company Research and Development , about our plans to continue to invest significant amounts on research and development and the qualification of 90 nanometer process technology and the development of 65-nanometer process technology; (x) Item 4. Information on the Company Competition , about competition from semiconductor manufacturers; (xi) Item 4. Information on the Company Electricity and Water , about the Hsinchu Science Park and Southern Taiwan Science Park water supply; (xii) Item 5. Operating and Financial Reviews and Prospects Results of Operations Operating Expenses , about annual research and development expenditures; (xiii) Item 5. Operating and Financial Reviews and Prospects Income Tax Benefit (Expense) about additional valuation allowances for tax credits generated in 2003; (xiv) Item 5. Operating and Financial Reviews and Prospects Liquidity and Capital Resources about our depreciation and amortization expenses, capital expenditures and financing project expansion; (xv) Item 5. Operating and Financial Reviews and Prospects Taxation , about the tax exemption period for Fab 12 (Phase I); and (xvi) Item 5. Operating and Financial Reviews and Prospects US GAAP Reconciliation , about payment of employee bonuses with common shares. Please see Item 3. Key Information Risk Factors for a discussion of certain factors that may cause actual results to differ materially from those indicated by our forward-looking statements.

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GLOSSARY OF TECHNICAL TERMS

ASIC	Application Specific Integrated Circuit. A custom-designed integrated circuit that performs specific functions that would otherwise require a number of off-the-shelf integrated circuits to perform. The use of an ASIC in place of a standard integrated circuit reduces product size and cost and also improves reliability.
BiCMOS	Integrated circuit fabrication technology that produces both bipolar transistors and CMOS transistors and combines them on one chip.
Cell	A primary unit that normally repeats many times in an integrated circuit. For example, a cell represents a bit in a memory integrated circuit.
CIS	CMOS Image Sensor. A photodiode censoring circuit made by CMOS used in applications like digital camera, surveillance and securing systems. The direct competition is Charge-Coupled Devices (CCD) technology. CIS provides the advantage of lower cost, lower power consumption and integration with CMOS logic or mixed-signal processes.
CMOS	Complementary Metal Oxide Silicon. Currently the most common integrated circuit fabrication process technology, CMOS 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 surface to form solid crystalline materials.
Die	A piece of a semiconductor wafer containing the circuitry of a single chip.
DRAM	Dynamic Random Access Memory. A type of volatile memory product that is used in electronic systems to store data and program instructions. It is the most common type of RAM and must be refreshed with electricity thousands of times per second or else it will fade away.
DSP	Digital Signal Processor. A type of integrated circuit that processes and manipulates digital information after it has been converted from an analog source.
EPROM	Erasable Programmable Read-Only Memory. A form of PROM that can be erasable using ultraviolet light, so that it can be reprogrammed.
Fabless semiconductor company	A class of semiconductor company that designs, tests, markets and sells semiconductors, but subcontracts wafer manufacturing to silicon wafer manufacturers.

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Flash memory	A type of non-volatile memory, similar to an electrically EPROM in that it is erasable and reprogrammable. The difference is that it can be erased and reprogrammed in the electronic system into which the flash memory chip has been incorporated.
Integrated circuit	A combination of two or more transistors on a base material, usually silicon. All semiconductor chips, including memory chips and logic chips, are very complicated integrated circuits with up to millions of transistors.
Logic device	A device that contains digital integrated circuits that process, rather than store, information.
Mask	A piece of glass on which an integrated circuit s circuitry design is laid out. Integrated circuits may require up to 20 different layers of design, each with its own mask. In the integrated circuit production process, a light shines through the mask leaving an image of the design on the wafer. Also known as a reticle.
Memory	A group of integrated circuits that are used to store data or programs, such as ROM, Flash RAM, DRAM and SRAM.
Micron	1/25,000 of an inch. Circuitry on an integrated circuit typically follows lines that are less than one micron wide.
MOS	A device which consists of three layers (metal, oxide and semiconductors) and operates as a transistor.
Nonvolatile memory	Memory products which retain their data content without the need for constant power supply.
Reticle	See Mask herein.
RISC	Reduced Instruction Set Computing. A type of processor architecture that processes programs more quickly than conventional micro processors because it uses a smaller, faster, less complex set of instructions.
Scanner	A machine used in the photolithography process in making wafers. A scanner, like a conventional stepper, aligns a small portion of the wafer with the mask upon which the circuitry design is laid out and exposes that portion of the wafer to a laser beam, transferring the circuit design on to the wafer. The machine then steps to the next area, repeating the process until the entire wafer has been completed. Exposing only a small area of a wafer at a time allows the laser to focus more intensely, which improves the resolution of the circuitry design. A scanner also combines this stepper technology with a photoscanning method that permits the exposure of a larger segment of the wafer than a stepper.

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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. A stepper aligns a small portion of the wafer with the mask upon which the circuitry design is laid out and then exposes that portion of the wafer to a laser beam, transferring the circuit design on to the wafer. The machine then steps to the next area, repeating the process until the entire wafer has been completed. Exposing only a small area of a wafer at a time allows the laser to focus more intensely, which improves the resolution of the circuitry design.
Transistor	An individual circuit that can amplify or switch electric current. This is the building block of all integrated circuits.
Volatile memory	Memory products which lose their data content when the power supply is switched off.
Wafer	A thin, round, flat piece of silicon that is the base of most integrated circuits.

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PART I

Item 1. Identity of Directors, Senior Management and Advisors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

Selected Financial and Operating Data

The selected income statement data and cash flow data for the years ended December 31, 2001, 2002 and 2003, and the selected balance sheet data as of December 31, 2002 and 2003, set forth below, are derived from our audited consolidated financial statements included herein, and should be read in conjunction with, and are qualified in their entirety by reference to, these consolidated financial statements, including the notes to these consolidated financial statements. The selected income statement data and cash flow data for the years ended December 31, 1999 and 2000 and the selected balance sheet data as of December 31, 1999, 2000 and 2001, set forth below, are derived from our audited consolidated financial statements not included herein. The consolidated financial statements have been prepared and presented in accordance with the Republic of China (ROC or Taiwan) GAAP, which differ in some material respects from US GAAP. Please see note 28 to our consolidated financial statements for a description of the principal differences between ROC GAAP and US GAAP for the periods covered by these financial statements.

	Year ended and as of December 31,					
	1999	2000	2001	2002	2003	2003
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
Income Statement Data:						
ROC GAAP						
Net sales	76,305	166,198	125,885	162,301	202,997	5,972
Cost of sales[(1)]	(45,212)	(87,610)	(92,228)	(109,988)	(128,113)	(3,769)
Gross profit[(1)]	31,093	78,588	33,657	52,313	74,884	2,203
Operating expenses[(1)]	(8,823)	(17,293)	(20,879)	(20,724)	(23,583)	(694)
Income from operations	22,270	61,295	12,778	31,589	51,301	1,509

Non-operating income	1,619	6,120	6,476	2,350	5,669	167
Non-operating expenses	(3,261)	(3,513)	(8,467)	(6,717)	(5,791)	(170)
Income before income tax	20,628	63,902	10,787	27,222	51,179	1,506
Income tax (expense) benefit	2,383	1,167	3,740	(5,637)	(3,923)	(116)
Net income before minority interest	23,011	65,069	14,527	21,585	47,256	1,390
Minority interest in loss (income) of subsidiary	516	37	(44)	25	3	
Net income	23,527	65,106	14,483	21,610	47,259	1,390
Basic earnings per share[(2)]	1.38	3.29	0.69	1.05	2.33	0.07
Diluted earnings per share[(2)]	1.38	3.29	0.69	1.05	2.33	0.07
Basic earnings per ADS equivalent	6.88	16.47	3.46	5.23	11.64	0.34
Diluted earnings per ADS equivalent	6.88	16.47	3.46	5.23	11.63	0.34
Basic average shares outstanding[(2)]	17,100	19,766	20,267	20,221	20,223	20,223
Diluted average shares outstanding[(2)]	17,100	19,766	20,267	20,221	20,232	20,232

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	Year ended and as of December 31,					
	1999	2000	2001	2002	2003	2003
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
US GAAP						
Net sales	76,305	166,860	127,242	162,990	203,600	5,990
Cost of sales	(52,163)	(105,359)	(107,194)	(115,374)	(133,493)	(3,928)
Operating expenses	(12,310)	(44,472)	(41,712)	(20,764)	(25,744)	(757)
Income (loss) from operations	11,832	17,029	(21,664)	26,852	44,363	1,305
Income (loss) before income tax	10,986	20,537	(25,672)	20,210	42,441	1,249
Income tax (expense) benefit	2,383	1,166	3,741	(5,638)	(3,881)	(114)
Net income (loss)	13,884	21,740	(21,975)	14,534	38,661	1,137
Cumulative preferred dividends			(455)	(455)	(184)	(5)
Income (loss) attributable to common shareholders	13,884	21,740	(22,430)	14,079	38,477	1,132
Basic earnings per share[3]	0.82	1.15	(1.14)	0.70	1.91	0.06
Diluted earnings per share[3]	0.82	1.15	(1.14)	0.70	1.91	0.06
Basic earnings per ADS equivalent	4.10	5.77	(5.68)	3.52	9.55	0.28
Diluted earnings per ADS equivalent	4.10	5.77	(5.68)	3.52	9.54	0.28
Basic average shares outstanding[3]	16,928	18,841	19,744	20,027	20,153	20,153
Diluted average shares outstanding[3]	16,928	18,841	19,744	20,027	20,162	20,162
Balance Sheet Data:						
ROC GAAP						
Working capital	33,267	44,920	37,472	62,705	135,394	3,983
Long-term equity investments	16,165	10,664	11,599	10,635	10,748	316
Properties	150,060	244,748	251,288	246,498	211,854	6,233
Goodwill		11,531	11,438	10,159	8,721	257
Total assets	235,436	370,886	366,518	390,542	407,401	11,986
Long-term bank borrowing[4]	22,744	23,339	22,399	11,051	8,800	259
Long-term bonds payable	20,000	29,000	24,000	35,000	30,000	883
Guaranty deposit-in and other liabilities[5]	6,207	9,046	9,479	8,710	8,149	240
Total liabilities	75,341	108,810	89,208	94,594	78,098	2,298
Minority interest equity	7,524	322	120	95	89	2
Capital Stock	85,209	129,894	181,326	199,229	202,666	5,963
Cash Dividend on common shares	0	0	0	0	0	0
Shareholders equity	152,571	261,754	277,190	295,853	329,214	9,686
US GAAP						
Goodwill		58,348	47,464	47,476	47,287	1,391
Total assets	236,859	407,830	393,990	420,528	439,853	12,941
Total liabilities	84,882	114,884	91,419	96,747	81,977	2,412
Mandatory redeemable preferred stock		13,000	13,000	13,000		
Shareholders equity	151,977	279,946	289,450	310,623	357,173	10,508
Other Financial Data:						
ROC GAAP						
Gross margin	41%	47%	27%	32%	37%	37%
Operating margin	29%	37%	10%	19%	25%	25%
Net margin	31%	39%	12%	13%	23%	23%
Capital expenditures	51,459	103,762	70,201	55,236	37,871	1,114
Depreciation and amortization	25,198	41,446	55,323	65,001	69,161	2,035
Cash provided by operating activities	40,253	94,786	75,818	98,507	116,037	3,414
Cash used in investing activities	(60,952)	(120,949)	(77,232)	(62,190)	(53,406)	(1,571)
Cash provided by (used in) financing activities	39,518	35,366	897	(6,346)	(27,370)	(805)
Net cash flow	18,646	9,323	(1,284)	30,234	35,199	1,036

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	Year ended and as of December 31,					
	1999	2000	2001	2002	2003	2003
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
Operating Data:						
Wafers sold[6]	1,826	3,408	2,159	2,675	3,700	3,700
Average utilization rate[7]	97%	106%	51%	73%	89%	89%

(1) Amounts in 1999 and 2000 reflect the reclassification of NT$1,025 million in 1999 and NT$2,072 million in 2000 from cost of sales to research and development.
(2) Retroactively adjusted for all subsequent stock dividends and employee stock bonuses.
(3) Retroactively adjusted for all subsequent stock dividends.
(4) Excludes bonds payable.
(5) Consists of other long term payables and total other liabilities.
(6) In thousands.
(7) Commencing in 2003, utilization rates exclude engineering wafers and all capacity and production at Vanguard.

Exchange Rates

We publish our financial statements in New Taiwan dollars, the lawful currency of the ROC. In this annual report, $, US$ and U.S. dollars mean United States dollars, and NT$ and NT dollars mean New Taiwan dollars. This annual report contains translations of certain NT dollar amounts into U.S. dollars at specified rates solely for the convenience of the reader. Unless otherwise noted, all translations from NT dollars to U.S. dollars and from U.S. dollars to NT dollars were made at the noon buying rate in The City of New York for cable transfers in NT dollars per U.S. dollar as certified for customs purposes by the Federal Reserve Bank of New York as of December 31, 2003, which was NT$33.99 to US$1.00 on that date. On May 17, 2004, the noon buying rate was NT$33.66 to US$1.00.

Fluctuations in the exchange rate between NT dollars and U.S. dollars will affect the U.S. dollar equivalent of the NT dollar price of our common shares on the Taiwan Stock Exchange and, as a result, will likely affect the market price of our American Depositary Shares (ADSs). These fluctuations will also affect the U.S. dollar conversion by the depositary of any cash dividends paid in NT dollars on, and the NT dollar proceeds received by the depositary from any sale of common shares represented by ADSs, in each case according to the terms of the deposit agreement.

The following table sets forth, for the fiscal years indicated, information concerning the number of NT dollars for which one U.S. dollar could be exchanged based on the noon buying rate for cable transfers in NT dollars as certified for customs purposes by the Federal Reserve Bank of New York.

	NT dollars per U.S. dollar Noon buying rate			
	Average[1]	High	Low	Period-End
1999	NT$ 32.28	NT$ 33.40	NT$ 31.39	NT$ 31.39
2000	31.40	33.20	30.48	33.17

2001	33.82	35.13	32.23	35.00
2002	34.53	35.16	32.85	34.70
2003	34.41	34.98	33.72	33.99
November 2003	34.04	34.20	33.95	34.20
December 2003	34.06	34.15	33.99	33.99
January 2004	33.67	33.98	33.33	33.39
February 2004	33.21	33.36	33.10	33.28
March 2004	33.25	33.42	33.00	33.00
April 2004	32.97	33.27	32.73	33.27
May 2004 (through May 17, 2004)	33.42	33.70	33.14	33.66

(1) Annual averages calculated from month-end rates.

Sources: Federal Reserve Statistical Release H.10(512), 1998-2003, Board of Governors of the Federal Reserve System.

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No representation is made that the NT dollar or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or NT dollars, as the case may be, at any particular rate or at all.

Risk Factors

We wish to caution readers that the following important factors, and those important factors described in other reports submitted to, or filed with, the Securities and Exchange Commission, among other factors, could affect our actual results and could cause our actual results to differ materially from those expressed in any forward-looking statements made by us or on our behalf:

Risks Relating to Our Business

Since we are dependent on the highly cyclical semiconductor and microelectronics industries, which have experienced significant and sometimes prolonged downturns, our revenues, earnings and margins may fluctuate significantly.

Our semiconductor foundry business is affected by market conditions in the highly cyclical semiconductor and microelectronics industries. Most of our customers operate in these industries. Variations in order levels from our customers result in volatility in our revenues and earnings. From time to time, the semiconductor and microelectronics industries have experienced significant, and sometimes prolonged, downturns. Because our business is, and will continue to be, dependent on the requirements of semiconductor and microelectronics companies for our services, downturns in the semiconductor and microelectronics industries lead to reduced demand for our services. For example, starting in the first quarter of 2001, the semiconductor and microelectronics industries experienced significant downturns due to a number of factors including a slowdown in the global economy, oversupply in the microelectronics industry, overcapacity in the semiconductor industry and a worldwide inventory adjustment. Due to the significant downturns in the two industries, most, if not all, of the integrated device manufacturers that had previously begun purchasing wafer fabrication services from foundry companies reduced purchases from foundry companies. If we cannot take appropriate actions such as reducing our costs to sufficiently offset declines in demand, our revenues and earnings will suffer during downturns. As a result of the 2001 downturn in the semiconductor and microelectronics industries, our net sales and net income for 2001 were 24.3% and 77.8%, respectively, less than the corresponding amounts in 2000. Although the semiconductor and microelectronics industries have recovered from the 2001 downturn and our net sales and net income for 2003 significantly increased from the corresponding amounts in 2001, we cannot give any assurances that the recovery will continue and if so, for how long.

Overcapacity in the semiconductor industry may reduce our revenues, earnings and margins.

The prices that we can charge our customers for our services are significantly related to the overall worldwide supply of integrated circuits and semiconductor products. The overall supply of semiconductor products is based in part on the capacity of other companies, which is outside of our control. Historically, companies in the semiconductor industry have expanded aggressively during periods of increased demand such as was the case in 2000, and seems to be occurring again in 2004. As a result, periods of overcapacity in the semiconductor industry have frequently followed periods of increased demand. In a period of overcapacity, if we are unable to offset the adverse effects of overcapacity through, among other things, our technology and product mix, we may have to lower the prices we charge our customers for our services and/or we may have to operate at significantly less than full capacity. Such actions could reduce our margin and weaken our financial condition and results of operations. Due to the decreased annualized demand for semiconductors in 2001 and 2002, our average capacity utilization rate decreased to 51% during 2001 and 73% during 2002 as compared with 106% during 2000. Our average capacity utilization rate was 89% during 2003 (excluding engineering wafers and all capacity and production at Vanguard).

Decreases in demand and average selling price for end-use applications of semiconductor products may adversely affect demand for our products and may result in a decrease in our revenues and earnings.

A vast majority of our sales revenue is derived from customers who use our products in personal computers, communications devices and consumer electronics. Any significant decrease in the demand for end-use applications of our products may decrease the demand for our products and may result in a decrease in our revenues and earnings. In addition, the historical and continuing trend of declining average selling prices of end use

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applications places pressure on the prices of the components that go into these end-use applications. If the average selling prices of end use applications continue to decrease, the pricing pressure on components produced by us may lead to a reduction of our revenue. If all these events occur at the same time, it could have an adverse effect on our revenues and earnings.

If we are unable to compete effectively in the highly competitive foundry segment of the semiconductor industry, we may lose customers and our profit margin and earnings may decrease.

The markets for our foundry services are highly competitive both in Taiwan and internationally. We compete with other dedicated foundry service providers, as well as integrated device manufacturers. A number of dedicated foundry service providers have been expanding their capacity and, as a result, we are facing increased competition from them. Moreover, some integrated device manufacturers from time to time allocate a portion of their capacity to contract production of integrated circuits for others, which brings them in direct competition with us. Some of these companies may have access to more advanced technologies and greater financial and other resources than we have. As a result, these companies may be able to compete more aggressively than we are able to. Increases in competition may decrease our average selling prices, erode our profit margin and weaken our earnings.

If we are unable to remain a technological leader in the semiconductor industry, we may become less competitive and less profitable.

The semiconductor industry and the technologies used are constantly changing. If we do not anticipate these changes in technologies and rapidly develop new and innovative technologies, we may not be able to provide advanced foundry services on competitive terms. If we are unable to maintain the ability to provide advanced foundry services on competitive terms, some of our customers may buy products from our competitors instead of us. As a result, we expect that we will need to offer, on an ongoing basis, increasingly advanced and cost-effective foundry technologies and processes prior to these technologies and processes being offered by our competitors in order to continue to satisfy the increasing requirements of some of our customers. For example, if we are unable to timely offer competitive commercial production of 90 nanometer devices with all copper interconnects, we may lose to competitors providing advanced technologies certain customers requiring such technologies. In addition, advances in technology typically lead to declining average selling prices for older technologies or processes. As a result, if we cannot reduce the costs associated with using older technologies, the profitability of a given product may decrease over time. If we fail to achieve advances in technology or processes or to obtain access to advanced technologies or processes developed by others, we may become less competitive and less profitable.

If we are unable to manage our expansion and modification of our production facilities effectively, our growth prospects may be limited and our future profitability may be affected.

We have recently been ramping up production at Fab 6 in the Southern Taiwan Science Park and our first 300 mm wafer fab, Fab 12 (Phase I), in the Hsinchu Science Park. We have completed the exterior construction of Fab 14 (Phase I), another 300mm fab, in the Southern Taiwan Science Park. We plan to commence production at Fab 14 (Phase I) in the fourth quarter 2004.

Although we have studied the potential effects of vibration from the high speed railway currently planned to pass through the Southern Taiwan Science Park and believe that the vibrations will not affect our yield rate for production in the Southern Taiwan Science Park, we can give no assurances that our yield will not be negatively affected after the high-speed railway has commenced operation.

Expansion and modification of our production facilities will increase our costs. We will need to purchase additional equipment, train personnel to operate the new equipment or hire additional personnel. We will need to increase our net sales accordingly in order to offset these higher costs. If our customers do not correspondingly increase their purchase of our products and services, our financial performance will be adversely affected.

We may not be able to implement our planned growth or development if we are unable to accurately forecast and sufficiently meet our future capital requirements.

Our capital requirements are difficult to plan in the highly cyclical and rapidly changing semiconductor industry. We will continue to need capital to fund the expansion and modification of our facilities. Future

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acquisitions or mergers or other activities may also cause us to require additional funds. Our ability to obtain external financing in the future is subject to a variety of uncertainties, including:

- our future financial condition, results of operations and cash flows;
- general market conditions for financing activities by semiconductor companies; and
- economic, political and other conditions in Taiwan and elsewhere.

Therefore, sufficient external financing may not be available to us on a timely basis, on acceptable terms or at all. As a result, we may be forced to curtail our expansion and modification plans or delay the deployment of our services, thereby possibly becoming less competitive, which could result in a loss of customers and limit the growth of our business.

Our business could suffer if we are unable to retain and recruit qualified personnel.

We depend on the continued services of our executive officers and skilled technical and other personnel. Our business could suffer if we lose the services of some of these personnel and we cannot adequately replace them. We will be required to increase the number of employees due to our expansion. We seek to recruit highly qualified personnel and there is intense competition for the services of these personnel in the semiconductor industry. We expect competition for personnel to increase significantly in the future as new fabless semiconductor companies as well as new semiconductor manufacturing facilities are established. We may need to review employee compensation competitiveness with the purpose of retaining our existing officers and employees and attracting and retaining additional personnel that we expect to require.

We may be unable to obtain in a timely manner and at a reasonable cost the equipment necessary for us to remain competitive and we may become less profitable.

The semiconductor manufacturing business is capital intensive and requires investment in expensive equipment manufactured by a limited number of suppliers. The market for equipment used in semiconductor foundries is characterized, from time to time, by intense demand, limited supply and long delivery cycles. Our operations and expansion plans depend on our ability to obtain a significant amount of equipment from a limited number of suppliers. During times of significant demand for this type of equipment, lead times for delivery can be as long as four to ten months or more. Shortages of equipment could result in an increase in their prices and longer delivery times. In addition, the expansion and modification of fabs by us and other semiconductor companies may put additional pressure on the supply of equipment. If we are unable to obtain equipment in a timely manner and at a reasonable cost, we may be unable to fulfill our customers orders, which could negatively impact our financial condition and results of operations and cause our profit to decrease.

Our revenue and profitability may decline if we are unable to obtain adequate supplies of raw materials in a timely manner and at reasonable prices.

Our production operations require that we obtain adequate supplies of raw materials, such as silicon wafers, gases and chemicals, and photoresistors, on a timely basis. Shortages in the supply of some materials experienced by the semiconductor industry have in the past resulted in occasional price adjustments and delivery delays. We may not, at certain times, be able to obtain adequate supplies of raw materials in a timely manner and at reasonable prices. Our revenue and earnings could decline if we are unable to obtain adequate supplies of high quality raw materials in a timely manner or if there are significant increases in the costs of raw materials that we could not pass on to our customers.

The loss of our coverage under certain Philips cross-license arrangements may require us to incur additional expenses to acquire alternative intellectual property rights.

We are the beneficiary of several patent cross-licensing arrangements between Koninklijke Philips Electronics N.V., or Philips, and other microelectronics companies. Under the TSMC-Philips Technology Cooperation Agreement, or TCA, Philips maintains certain license coverage for our benefit. Several of these license

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agreements are presently being renegotiated by Philips. Certain license rights under several agreements may terminate in the event that Philips equity ownership in us falls below certain percentages, or otherwise. Philips announced that it intends to gradually and orderly reduce its equity interest in us in the long term. See The value of your investment may be reduced by possible future sales of common shares or ADSs by us or our shareholders and Item 7. Major Shareholders and Related Party Transactions Major Shareholders for a further discussion of Philips equity ownership. If Philips is not able to renew the licenses under these agreements, or if our remaining license rights are terminated as a result of the reduction of Philips equity ownership in us to below certain percentages or otherwise, we may not be able to obtain similar licenses without significant expenses. If we are unable to receive any necessary licenses, we may need to consider other alternatives including the possible design around of certain of our processes.

Any inability to obtain, preserve and defend our intellectual property rights could harm our competitive position.

Our ability to compete successfully and to achieve future growth will depend, in part, on our ability to protect our proprietary technologies and to secure on commercially reasonable terms certain technologies that we do not own. Litigation may also be necessary to enforce our patents or other intellectual property rights.

We cannot ensure that we will be able to develop independently, or secure from any third party, all of the technologies required for upgrading our production capabilities. Our failure to successfully obtain such technologies may seriously harm our competitive position.

Our ability to compete successfully also depends on our ability to operate without infringing the intellectual property rights of others. We have no means of knowing what patent applications have been filed in Taiwan, the United States or other jurisdictions until they are published or granted. Because of the complexity of the technologies used and the multitude of patents, copyrights and other overlapping intellectual property rights, it is often difficult for semiconductor companies to determine infringement. Therefore, the semiconductor industry is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. We have received, from time-to-time, communications from third parties asserting that our technologies, manufacturing processes, the design of the integrated circuits made by us or the use by our customers of semiconductors made by us may infringe their patents or other intellectual property rights. And, because of the nature of the industry, we may continue to receive such communications in the future. In some instances, these disputes have resulted in litigation. In the event any third party were to assert infringement claims against us or our customers, we may have to consider alternatives including, but not limited to:

- Negotiating cross-license agreements using the strength of our patent portfolio to offset any financial costs;
- seeking to acquire licenses to the allegedly infringed patents, which may not be available on commercially reasonable terms, if at all;
- discontinuing using certain process technologies, which could cause us to stop manufacturing certain semiconductors if we were unable to design around the allegedly infringed patents; or
- fighting the matter in court and paying substantial monetary judgments in the event we were to lose.

Any one or several of these developments could place substantial financial and administrative burdens on us and hinder our business. If we fail to obtain certain licenses and if litigation relating to alleged patent infringement or other intellectual property matters occur, it could prevent us from manufacturing particular products or applying particular technologies, which could reduce our opportunities to generate revenues. See Item 8. Financial Information Legal Proceedings for a further discussion.

If the Ministry of Economic Affairs uses a substantial portion of our production capacity, we will not be able to service our other customers.

According to our agreement with the Industrial Technology Research Institute of Taiwan, or ITRI, the Ministry of Economic Affairs of the ROC, or an entity designated by the Ministry of Economic Affairs, has an

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option to purchase up to 35% of our capacity. If the Ministry of Economic Affairs, or an entity designated by the Ministry of Economic Affairs, exercises its option to any significant degree, we may not be able to provide services to all of our other customers unless we are able to increase our capacity accordingly and in a timely manner. Although the Ministry of Economic Affairs has never exercised its option, any significant exercise of this option could damage our relationship with our other customers when demand for our services is strong and may encourage them to purchase more products from our competitors in the future.

We are subject to the risk of loss due to explosion and fire because some of the materials we use in our manufacturing processes are highly combustible.

We use highly combustible materials such as silane and hydrogen in our manufacturing processes and are therefore subject to the risk of loss arising from explosion and fire. The risk of explosion and fire associated with these materials cannot be completely eliminated. Semiconductor companies sometimes experience explosion and fire damage. Although we maintain comprehensive fire insurance up to policy limits, including 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. If any of our fabs were to be damaged or cease operations as a result of an explosion and fire, it would reduce our manufacturing capacity, reduce our revenues and profits and may cause us to lose important customers.

Any impairment charges required under US GAAP may have a material adverse effect on our net income on a US GAAP reconciled basis.

Under US GAAP, we are required to evaluate our equipment and other long-lived assets for impairment whenever there is an indication of impairment. If certain criteria are met, we are required to record an impairment charge. We can give no assurance that impairment charges will not be required in periods subsequent to December 31, 2003. Please see note 28.c. to our consolidated financial statements for a discussion of the criteria which, if met, may require impairment charges.

As a result of a standard under US GAAP that became effective on January 1, 2002, we are no longer permitted to amortize the remaining goodwill. Goodwill amortization expenses amounted to NT$12,051 million under US GAAP for the year ended December 31, 2001. Starting from January 2002, all goodwill must be periodically tested for impairment. As of December 31, 2003, we had NT$47,287 million recorded as goodwill under US GAAP and we found no impairment as of that date. We currently are not able to estimate the extent and timing of any goodwill impairment charge for future years. Any goodwill impairment charge required under US GAAP may have a material adverse effect on our net income for subsequent periods on a US GAAP reconciled basis.

The determination of an impairment charge at any given time is based significantly on our expected results of operations over a number of years subsequent to that time. As a result, an impairment charge is more likely to occur during a period when our operating results are otherwise already depressed. See Item 5. Operating and Financial Review and Prospects Critical Accounting Policies for a discussion of our estimates made for determining an impairment charge.

Any significant decrease in sales to one or more of our major customers may decrease our net sales and net income.

The degree to which our sales are concentrated among a limited number of customers is a function of the foundry outsourcing activities of the respective customers in a given fiscal year. Certain of our customers deal with us on the basis as their sole foundry service provider. As we have over half of the market share of the dedicated foundry segment business, our sales concentration is often a reflection of the business activities of

a cross section of the semiconductor industry that depends on foundry services for wafer outsourcing. Our top ten customers have changed from time to time. In 2002 and 2003, our ten largest customers accounted for approximately 57% and 54% of our net sales, respectively. The decreased sales contribution by our top ten customers in 2003 reflected the fact that we have been successfully expanding our customer base and experiencing higher foundry outsourcing business activities of a broader customer base. Although our top ten customers still accounted for 50% of our net sales in the first quarter of 2004, we believe that our customer base has become more diversified given the changing composition of the top ten customers and a relatively more balanced sales contribution by various customers on

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broader applications. While we believe our customer base is strong and diversified, the fact that a relatively limited number of customers constitute a significant portion of our revenue may remain as a business characteristic inherent to our extensive presence in the dedicated foundry segment of the semiconductor market. Our largest customer in 2002 and 2003, NVIDIA Corporation, accounted for approximately 20% of our net sales in 2002 and 15% of our net sales in 2003. There is no assurance that there will not be any loss or cancellation of business from NVIDIA, or from any of our other major customers, in the future. Loss or cancellation of business from our most significant customers, should there be any, could significantly reduce our net sales and net income.

Risks Relating to the ROC

Relations between the Republic of China and the People s Republic of China (PRC) could negatively affect our business and the market value of your investment.

Our principal executive offices and our principal production facilities are located in Taiwan and a substantial majority of our net revenues are derived from our operations in Taiwan. Taiwan has a unique international political status. The PRC does not recognize the sovereignty of the ROC. Although significant economic and cultural relations have been established during recent years between Taiwan and mainland China, relations have often been strained. The government of the PRC has indicated that it may use military force to gain control over Taiwan in some circumstances, such as a declaration of independence by Taiwan, or foreign power interference in Taiwanese affairs. Past developments in relations between the ROC and the PRC have on occasion depressed the market prices of the securities of Taiwanese companies, including our own. Relations between the ROC and the PRC and other factors affecting military, political or economic conditions in Taiwan could have a material adverse effect on our results of operations, as well as the market price and the liquidity of our ADSs and common shares.

Any political and economical destabilization of the ROC could negatively affect our stock price, our business and results of operations.

In the Taiwan presidential elections held on March 20, 2004, the pro-independence Democratic Progressive Party won by a very narrow margin. The losing Nationalist-People s First Alliance has challenged the validity of the election results and a recount was conducted from May 10, 2004 to May 18, 2004, but the Taiwan High Court has not yet released the results of the recount. Since the election, the market prices of the securities of Taiwanese and Taiwan related companies, including our own, have been adversely affected, with the Taiwan Stock Exchange index falling by 456 points, or 6.7%, on the first day of trading following the presidential elections. There is no assurance that the uncertainty caused by the challenge to the presidential elections and the outcome of the recount will not result in further political or economic destabilization. Any further political or economic destabilization of the ROC could negatively affect our stock price, our business and results of operations.

Our production may be interrupted if we do not have access to sufficient amounts of fresh water or a sufficient supply of electricity.

The semiconductor manufacturing process uses extensive amounts of fresh water. Due to the growth in semiconductor manufacturing capacity in Hsinchu Science Park and Southern Taiwan Science Park, the requirements for fresh water in these industrial parks has grown substantially. In 1997, the ROC government commenced the construction of a fresh water reservoir near Hsinchu Science Park that is expected to satisfy the expected fresh water demands of the Hsinchu region and the Hsinchu Science Park through the year 2021. The construction of the reservoir is expected to be completed in June 2005. In addition, Taiwan experiences droughts from time to time. In 2002 and 2003, Taiwan experienced serious droughts. In order to improve the situation, the water resources agency announced in 2003 that irrigation water should be used for industry usage in northern Taiwan. Previous droughts have not, however, impacted the water supplies to the Southern Taiwan Science Park. We have also implemented a program to reduce fresh water consumption in Hsinchu Science Park and Southern Taiwan Science Park, primarily involving the installation of water recycling at our fabs, which allow us to recycle between 45% to 85% of the water used during the fabrication

process. Although the situation has improved and we have not been adversely affected as a result of previous droughts, there is no assurance that the measures taken to alleviate water shortages will be sufficient to meet our semiconductor production needs and, until additional water resources are made available on a committed basis, the Hsinchu Science Park and the Southern Taiwan Science Park may encounter insufficient water supplies. If there is insufficient water to satisfy our requirements, we may need to

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reduce our semiconductor production. In addition, we have sometimes suffered power outages caused by our major electricity supplier, the Taiwan Power Company, which lead to interruptions in our production schedule. For example, on April 10, 2004, a power outage caused by a circuit trip of Taiwan Power Company affected our fabs in Hsinchu Science Park. Two of our fabs, Fab 8 and Fab 12, were out of power for about one hour causing, according to our estimates, approximately a 0.6 day loss of wafer movement. As a result, material power outages could disrupt the normal operation of our business and have an adverse effect on our financial condition and results of operations.

We are vulnerable to natural disasters which could severely disrupt the normal operation of our business and adversely affect our earnings.

Taiwan is susceptible to earthquakes. On September 21, 1999, Taiwan experienced a severe earthquake that caused significant property damage and loss of life, particularly in the central part of Taiwan. This earthquake caused damage to production facilities and adversely affected the operations of many companies in the semiconductor and other industries. We experienced damages to our machinery and equipment as a result of this severe earthquake. There were also interruptions to our production schedule, primarily as a result of power outages caused by the severe earthquake. Most of our production facilities, as well as many of our suppliers and customers and upstream providers of complementary semiconductor manufacturing services, are located in Taiwan. If our customers are affected by an earthquake or other natural disasters such as typhoons, it could result in a decline in the demand for our services. If our suppliers services are affected, our production schedule could be interrupted or delayed. Although we maintain comprehensive natural perils insurance up to policy limits, including 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. As a result, a major earthquake or natural disaster in Taiwan could severely disrupt the normal operation of our business and have a material adverse effect on our financial condition and results of operations.

Fluctuations in exchange rates could result in foreign exchange losses.

Over half of our capital expenditures and manufacturing costs are denominated in currencies other than NT dollars, primarily U.S. dollars, Japanese yen and Euros. A larger portion of our sales are denominated in U.S. dollars and currencies other than NT dollars. Therefore, we are particularly affected by fluctuations in the exchange rate between the U.S. dollar and the NT dollar. Any significant fluctuation to our disadvantage in such exchange rate may have an adverse effect on our financial condition. In addition, fluctuations in the exchange rate between the U.S. dollar and the NT dollar will affect the U.S. dollar value of our common shares and the market price of the ADSs and of any cash dividends paid in NT dollars on our common shares represented by ADSs.

Any future outbreak of new or unusual diseases may materially and adversely affect our business and results of operations.

An outbreak of a contagious disease such as severe acute respiratory syndrome, or SARS, for which there is no known cure or vaccine, may potentially result in a quarantine of infected employees and related persons, which may affect our operations at one or more of our facilities. Taiwan, together with mainland China, Hong Kong, Singapore and certain other areas experienced in early 2003 an outbreak of SARS. The outbreak of SARS reached its peak in Taiwan in May 2003 and was contained by the health authorities without significantly impacting our operations. We cannot predict at this time the impact any future outbreak of any contagious disease could have on our business and results of operations.

Risks Relating to ownership of ADSs

Your voting rights as a holder of ADSs will be limited.

Holders of American Depositary Receipts (ADRs) evidencing ADSs may exercise voting rights with respect to the common shares represented by these ADSs only in accordance with the provisions of our ADS deposit agreement. The deposit agreement provides that, upon receipt of notice of any meeting of holders of our common shares, the depositary bank will, as soon as practicable thereafter, mail to the holders (i) the notice of the meeting sent by us, (ii) voting instruction forms and (iii) a statement as to the manner in which instructions may be given by the holders.

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ADS holders will not generally be able to exercise the voting rights attaching to the deposited securities on an individual basis. According to the ROC Company Law, the voting rights attaching to the deposited securities must be exercised as to all matters subject to a vote of shareholders collectively in the same manner, except in the case of an election of directors and supervisors. The election of directors and supervisors is by means of cumulative voting. See Item 10. Additional Information Voting of Deposited Securities for a more detailed discussion of the manner in which a holder of ADSs can exercise its voting rights.

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

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. Under our ADS deposit agreement, the depositary bank will not distribute rights to holders of ADSs unless the distribution and sale of rights and the securities to which these rights relate are either exempt from registration under the Securities Act of 1933 with respect to all holders of ADSs, or are registered under the provisions of the Securities Act of 1933. Although we may be eligible to take advantage of certain exemptions for rights offerings by certain foreign companies, we can give no assurance that we can establish an exemption from registration under the Securities Act of 1933, and we are under no obligation to file a registration statement with respect to any such rights or underlying securities or to endeavor to have such a registration statement declared effective. In addition, if the depositary bank is unable to obtain the requisite approval from the Central Bank of China for the conversion of the subscription payments into NT dollars or if the depositary determines that it is unlikely to obtain this approval, we may decide with the depositary bank not to make the rights available to holders of ADSs. See Item 10. Additional Information Foreign Investment in the ROC and Item 10. Additional Information Exchange Controls in the ROC . Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

If the depositary bank is unable to sell rights that are not exercised or not distributed or if the sale is not lawful or reasonably practicable, it will allow the rights to lapse, in which case you will receive no value for these rights.

The value of your investment may be reduced by possible future sales of common shares or ADSs by us or our shareholders.

One or more of our existing shareholders may from time to time dispose of significant numbers of common shares or ADSs. One of our two largest shareholders, Philips, sold an aggregate of 100,000,000 ADSs in November 2003. Since October 1997, Philips has sold a total of 124,000,000 ADSs (without adjustment for subsequent dividend distributions) in two transactions. In October 2003, Philips announced its intention to gradually and orderly reduce its equity interest in us. Therefore, further sales by Philips of our common shares or ADSs may occur in the coming years. Moreover, the Development Fund has sold a total of 187,532,800 ADSs (without adjustments for subsequent stock dividends) in several transactions since 1997. The Development Fund, which currently owns 7.42% of our outstanding common shares, announced in February 2004 its intention to sell up to approximately 640 million of our common shares in 2004.

In addition, we have in place a conversion sale program that allows some of our shareholders to sell their common shares in ADS form to a specified financial intermediary during a 30-day period not more than once every three months. Since the establishment of the program in 1999, a total of 42,076,000 ADSs (without adjustments for subsequent stock dividends) were sold in several transactions under the program. We cannot predict the effect, if any, that future sales of ADSs or common shares, or the availability of ADSs or common shares for future sale, will have on the market price of ADSs or common shares prevailing from time to time. Sales of substantial amounts of ADSs or common shares in the public market, or the perception that such sales may occur, could depress the prevailing market price of our ADSs or common shares and could reduce the premium, if any, that the price per ADS on the New York Stock Exchange represents over the corresponding aggregate price of the underlying five common shares on the Taiwan Stock Exchange.

The market value of your investment may fluctuate due to the volatility of, and government intervention in, the ROC securities market.

The Taiwan Stock Exchange has experienced substantial fluctuations in the prices and volumes of sales of listed securities and there are currently limits on the range of daily price movements on the Taiwan Stock Exchange.

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On March 13, 2000, the Taiwan Stock Exchange Index experienced a 617-point drop, which represented the single largest decrease in the history of the Taiwan Stock Exchange Index. Although the Taiwan Stock Exchange Index has experienced increases in the past, from January 1, 2000 to December 31, 2000, the Taiwan Stock Exchange Index dropped from 8,448.8 to 4,739.0, or 43.9%. On May 17, 2004, the Taiwan Stock Exchange Index closed at 5,482.96.

In response to past declines and volatility in the securities markets in Taiwan, and in line with similar activities by other countries in Asia, the government of the ROC formed the Stabilization Fund, which has purchased and may from time to time purchase shares of Taiwan companies to support these markets. In addition, other funds associated with the ROC government have in the past purchased, and may from time to time purchase, shares of Taiwan companies on the Taiwan Stock Exchange or other markets. In the future, market activity by government entities, or the perception that such activity is taking place, may take place or has ceased, may cause fluctuations in the market prices of our ADSs and common shares.

Item 4. Information on the Company

Industry Background

Semiconductors are critical components in an increasingly wide variety of applications. The semiconductor industry s growth has generally been driven by its ability to create advanced and innovative technology that can be used in many areas of the world economy. Advanced semiconductors provide opportunities for semiconductor companies because they generally provide more application possibilities and are expected to command higher prices than less-advanced technologies at any given time. We believe that integrated device manufacturers and foundries that develop the leading-edge technologies early on will have a competitive edge. However, the new technologies entail significant costs to develop and produce. Advanced semiconductors are increasingly challenging to design, require increasingly sophisticated engineering and manufacturing expertise and can be produced only in fabs with the most advanced technologies and equipment. According to IC Insights, the cost of the most advanced fab has grown from approximately US$1.0 billion for a 200mm wafer fab in 1995 to approximately US$2.4 billion for a 300mm fab in 2002. Due to these and other challenges the semiconductor industry has grown more specialized over the past decade, which has led to the emergence of so called fabless design companies that do not maintain any internal manufacturing capacity and of independent dedicated foundries that focus on fabrication services. Prior to the mid 1990s, integrated device manufacturers dominated the semiconductor industry, which performed all steps in the semiconductor manufacturing process from design, mask making, wafer fabrication, assembly and final testing. Today, independent dedicated foundries provide fabrication services to fabless design companies, system companies and integrated device manufacturers. Utilizing foundry services allows these companies to reduce manufacturing costs, efficiently allocate capital, research and development and management resources, and to more readily gain access to manufacturing process technologies and production capacity they do not possess. The high costs associated with the development of new technologies may result in the future in a higher proportion of advanced semiconductors being produced by dedicated foundries. We believe, therefore, that the dedicated foundry segment of the semiconductor industry will grow at a somewhat higher rate than the semiconductor industry as a whole, which we believe may grow at an annual average rate of approximately 8% to 10% over the next ten years.

Overview of the Company

We are the world s largest dedicated semiconductor foundry. As a foundry, we manufacture semiconductors using our advanced production processes for our customers based on their own or third parties proprietary integrated circuit designs. We offer a comprehensive range of leading edge wafer fabrication processes, including processes to manufacture CMOS logic, mixed-signal, radio frequency and embedded memory and BiCMOS mixed-signal and other semiconductors. IC Insights estimates that our revenue market share among dedicated foundries worldwide was 56% in 2002 and 53% in 2003. We also offer design, mask making, probing, testing and assembly services.

We believe that we are the technology leader among the dedicated foundries in terms of net sales of advanced semiconductors with a resolution of 0.18 micron and below, and that we are among the technology leaders in the semiconductor industry generally. Please see Manufacturing Capacity and Technology for a further discussion of our technology. We also believe that we are a leader in manufacturing process management

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capabilities among dedicated foundries. We believe our leading position in advanced technology and manufacturing process management capabilities has contributed to our substantial revenue market share among dedicated foundries.

We believe that our large capacity, particularly for advanced technologies, is a major competitive advantage. Please see Manufacturing Capacity and Technology and Capacity Expansion and Technology Upgrade Plan for a further discussion of our capacity.

We count among our customers many of the world s leading semiconductor companies, ranging from fabless integrated circuit design houses such as Altera Corporation, Broadcom Corporation, NVIDIA Corporation and VIA Technology, Inc., to integrated device manufacturing companies such as Analog Devices, Inc., Motorola Inc. and Philips, and systems companies. Fabless integrated circuit design houses and integrated device manufacturers accounted for approximately 71% and 28%, respectively, of our net sales in 2002 and 2003.

Our History and Structure

We were founded in 1987 as a joint venture among the ROC government, Philips and other private investors and were incorporated in the ROC on February 21, 1987. Our common shares have been listed on the Taiwan Stock Exchange since September 5, 1994 and our ADSs have been listed on the New York Stock Exchange since October 8, 1997.

Vanguard International Semiconductor Corporation. In 1994, we, the ROC Ministry of Economic Affairs and other investors established Vanguard, then an integrated DRAM manufacturer. Vanguard commenced volume commercial production in 1995 and listed its shares on the GreTai Securities Market (formerly known as ROC Over-the-Counter Securities Exchange) in March 1999. As of March 31, 2004, we held a 28.11% interest in Vanguard. Please see Item 7. Major Shareholders and Related Party Transaction Related Party Transactions Vanguard International Semiconductor Corporation for a discussion about the contract terms we entered into with Vanguard.

WaferTech in the United States. In 1996, we entered into a joint venture called WaferTech with several US-based investors to construct and operate a US$1.2 billion foundry in the United States. Initial trial production at WaferTech commenced in July 1998 and commercial production commenced in October 1998. In December 1998, we purchased a part of the interest from the joint venture partners and thereby increased our percentage interest in WaferTech to 68%. By the end of the first quarter of 2001, we had increased our percentage ownership of WaferTech to approximately 99% by purchasing all of the remaining interest of all the joint venture partners. As of March 31, 2004, we owned an approximately 100% equity interest in WaferTech, and the monthly capacity at WaferTech was 30,000 wafers.

Systems on Silicon in Singapore. In March 1999, we entered into an agreement with Philips and EDB Investment Pte. Ltd. to found a joint venture, Systems on Silicon, to build a fab in Singapore. As of March 31, 2004, we owned 32%, Philips owned 48% and EDB Investment Pte. Ltd. owned 20% of Systems on Silicon. The fab commenced production in December 2000. After the ramping up of the production capability at Systems on Silicon to its full capacity, we, together with Philips, have the right to purchase up to 100% of its annual capacity. We and Philips are required to purchase, in the aggregate, at least 70% of Systems on Silicon s full capacity but TSMC alone is not required to purchase more than 28% of the annual installed capacity.

TSMC-Acer. To rapidly increase our capacity in response to strong demand for our services in 1999, in August 1999, we acquired 32% of the outstanding equity securities of Acer Semiconductor Manufacturing Inc., a specialized DRAM manufacturer in Taiwan. Upon our acquisition of this 32% interest, the name of this company was changed to TSMC-Acer Semiconductor Manufacturing Corporation. TSMC-Acer is located in

the Hsinchu Science Park and has one 200mm fab. On June 30, 2000, we acquired by merger the remainder of TSMC-Acer that we did not already own. The merger was accounted for as a purchase. Accordingly, the results of operations for TSMC-Acer have been included in our consolidated financial statements from the date of merger.

Worldwide Semiconductor. To rapidly increase our capacity in response to strong demand for our services in early 2000, in June 2000, we acquired Worldwide Semiconductor, the third-largest dedicated foundry in Taiwan established in May 1996. The merger was accounted for as a pooling-of-interest. Accordingly, our consolidated

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financial statements have been restated to include the results of operation of Worldwide Semiconductor for all periods presented.

Operations in Mainland China. In the fourth quarter of 2001, we established a representative office in Shanghai and began conducting preliminary studies with respect to business opportunities in mainland China in compliance with applicable ROC rules and regulations. The ROC government currently restricts certain types of investments by Taiwanese companies in mainland China. In April 2002, the ROC government announced a partial lifting of the ban on investment by Taiwan semiconductor manufacturing companies in 200mm wafer fabs in mainland China. In September 2002, we submitted an application to the Investment Commission of the Ministry of Economic Affairs of the ROC, or the Investment Commission, for approval to expend US$898 million (including US$371 million as a direct equity investment in TSMC Shanghai) to establish TSMC Shanghai and to construct a 200mm wafer fab. In February 2003, we received preliminary, Phase I , approval for this project. In August 2003, we established TSMC Shanghai, a wholly-owned subsidiary primarily engaged in the manufacturing and selling of integrated circuits. In October 2003, we made a capital investment of NT$1,903 million in TSMC Shanghai. We applied for further, Phase II , approval (relating to the relocation of manufacturing equipment from Taiwan to mainland China) with the ROC Ministry of Economic Affairs in March 2004, and received the Phase II approval on May 11, 2004. The Phase II approval letter also specifies that we may remit up to US$371 million to TSMC Shanghai over the next three years as a direct equity investment in TSMC Shanghai. We currently expect to commence small volume production by the end of 2004 in the 200mm wafer fab in the Songjiang Science Park.

The following table sets forth, as of March 31, 2004, our ownership interest in, and country of incorporation of, our manufacturing subsidiary.

Name of the Subsidiary	State or Jurisdiction of Incorporation	Our Ownership Interest
WaferTech, LLC	Delaware, USA	99.996%

Our principal executive office is currently located at No. 8, Li-Hsin Road 6, Hsinchu Science Park, Taiwan, Republic of China. Our telephone number at that office is (886-3) 563-6688. Our web site is www.tsmc.com. Information contained on our website does not constitute part of this annual report.

Our Facilities

After the combining of operations at two of our 200mm fabs in 2001 and the decommissioning of one of our 150mm wafer fabs (Fab 1) in March 2002, we currently operate one 150mm wafer fab, six 200mm wafer fabs and one 300 mm wafer fab. Our corporate headquarters and six of our fabs are located in the Hsinchu Science Park, one fab is in the Southern Taiwan Science Park and one fab is in the United States. Our corporate headquarters and our six fabs in Hsinchu occupy approximately 275,078 square meters of land. We lease all of this land from the Science-Based Industrial Park Administration in Hsinchu under agreements that will be up for renewal between March 2008 and December 2020. We have arrangements to lease from the Southern Taiwan Science Park Development Office 395,000 square meters of land for our fabs in the Southern Taiwan Science Park. WaferTech owns 1,052,181 square meters of land in the State of Washington in the United States, where the WaferTech fab and related offices are located.

Other than certain equipment under leases located at testing areas and our Fab 7 facility, we own all of the buildings and equipment for our fabs. We have completed the exterior construction of another 300mm fab, Fab 14 (Phase I), in the Southern Taiwan Science Park. We plan to commence production of Fab 14 (Phase I) in the fourth quarter of 2004. We are currently planning to expand our 300mm fabrication capacity through Fab 12 (Phase II) in the Hsinchu Science Park and Fab 14 (Phase II) in the Southern Taiwan Science Park. Fab 12 (Phase II) is expected to, subject to market conditions, commence production in 2005. We do not have firm plans for the timing of completion of construction of, or commencement of production at Fab 14 (Phase II). We will evaluate our plans in this regard on an ongoing basis in light of prevailing market

conditions.

Manufacturing Capacity and Technology

We manufacture semiconductors on silicon wafers based on proprietary designs provided by our customers or third party designers. Two key factors that characterize a foundry s manufacturing capabilities are output capacity and fabrication process technologies. Since our establishment, we have possessed the largest capacity

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among the world s dedicated foundries. We also believe that we are the technology leader among the dedicated foundries in terms of our net sales of advanced semiconductors with a resolution of 0.18 micron and below, and are one of the leaders in the semiconductor industry generally. For example, we announced the semiconductor industry s first fully functional SRAM chip using 90-nanometer CMOS process technology in March 2002, one year ahead of the International Technology Roadmap for Semiconductors, or ITRS. In April 2002, we unveiled NEXSYS, the foundry segment s next-generation technology for system-on-chip semiconductor design and manufacturing. In December 2002, we demonstrated the semiconductor industry s first 25-nanometer transistor. This newly designed fin shaped field effect transistor (FinFET) is the first 25-nanometer CMOS transistor to break through critical power barriers, meeting ITRS targets for high-performance operation at this advanced note. We commenced significant commercial production using 0.13 micron process technology in 2002 and expect to commence commercial production using 90-nanometer in 2004. In February 2004, we announced that our industry-leading low-k technology has entered commercial production and that we are the first semiconductor foundry with proven low-k technology in commercial production, in both the 0.13 micron process technology and the 90-nanometer NEXYS technology. The 90-nanometer NEXYS technology is the first process technology based entirely on low-k dielectrics.

The following table lists our fabs and those of our affiliates, together with the year of commencement of commercial production, technology and capacity during the last five years:

Fab[1]	Year of commencement	Current most advanced technology for volume production[2]	Monthly capacity[3]				
			1999	2000	2001	2002	2003
1[4]	1987		11,910	11,011	11,378		
2	1990	0.45	44,382	43,539	45,225	43,540	42,977
3[5]	1995	0.18	72,000	83,700	82,700	71,000	71,600
5	1997	0.15	28,000	39,500	40,000	34,920	37,800
6	2000	0.13		32,000	41,000	48,700	63,500
7[6]	1995	0.35	10,000	44,000	46,500	22,500	11,800
8[7]	1998	0.15	17,000	48,000	54,700	52,600	63,500
12 (Phase I)	2001	0.13			3,375	11,475	31,797
WaferTech	1998	0.15	20,300	28,000	28,000	30,000	30,000
Vanguard[8]	1994	0.25	9,000	22,000	23,000	28,000	40,200
Systems on Silicon[9]	2000	0.18		400	5,166	8,000	9,600
Total			212,592	352,150	381,044	350,735	402,774

(1) Fab 2 produces 150mm wafers. Fabs 3, 5, 6, 7, 8, WaferTech, Vanguard and Systems on Silicon produce 200mm wafers. Fab 12 (Phase I) produces 300 mm wafers. Fabs 2, 3, 5, 7, 8, 12 (Phase I) and Vanguard are located in Hsinchu Science Park. Fab 6 is located in the Southern Taiwan Science Park. WaferTech is located in the United States and Systems on Silicon is located in Singapore.

(2) In microns, as of year-end.

(3) Estimated capacity in 200mm equivalent wafers as of year-end for the total technology range available for production. Actual capacity during each year will be lower as new production capacity is phased in during the course of the year.

(4) We decommissioned Fab 1, a 150mm fab located at ITRI, on March 31, 2002, because of our decision not to renew our land lease agreement with ITRI since it was an outdated fab.

(5) Fab 4, which commenced operation in 1999 with initial technology of 0.5 micron, was consolidated into Fab 3 during the fourth quarter of 2001.

(6) Represents that portion of the total capacity from TSMC-Acer that we utilized for foundry production prior to the completion of our merger with TSMC-Acer on June 30, 2000 and the total capacity from TSMC-Acer subsequent to the completion of the merger.

(7) Represents the total capacity from Worldwide Semiconductor since 1999, reflecting the restated operating data as a result of pooling-of-interest accounting for the merger with Worldwide Semiconductor on June 30, 2000.

(8) Represents that portion of the total capacity from Vanguard that we had the option to utilize as of December 31, 2000 and December 31, 2001. As of December 31, 2002, the 28,000 monthly capacity represents the 25,000 monthly capacity that we had the contractual option to utilize plus the 3,000 additional capacity that Vanguard made available to us. As of December 31, 2003, the 40,200 monthly capacity represents the 25,000 monthly capacity that we had the contractual option to utilize plus the 15,200 additional capacity that Vanguard made available to us.

(9) Represents that portion of the total capacity that we had the option to utilize as of December 31, 2000, December 31, 2001, December 31, 2002 and December 31, 2003. This fab commenced production in September 2000.

As of December 31, 2003, our monthly capacity was 402,774 wafers, compared to 350,735 wafers at the end of 2002. This increase was primarily due to the expansion of our 0.18, 0.15 micron and 0.13 micron advanced technologies.

Capacity Utilization Rates. One of the key factors 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 can

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have a significant positive effect on output and profitability. The average utilization rates in 1999, 2000 and 2001 were 97%, 106% and 51%, respectively. The utilization rates for 2000 do not take into account the utilization rates for TSMC-Acer prior to the completion of our merger with TSMC-Acer on June 30, 2000, and the utilization rates prior to 2000 do not take into account the utilization rate for Worldwide Semiconductor and TSMC-Acer. The average utilization rate for each quarter of 2003 was 69%, 88%, 98% and 101%, respectively and 89% for the entire year, compared to a utilization rate of 73% in 2002. Starting from the first quarter of 2003, the capacity utilization rate calculation excludes engineering wafers and Vanguard figures. Other factors affecting utilization rates are the percentage yield of commercially useful wafers during the fabrication process, the complexity of the wafer produced and the actual product mix.

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 maintenance, and expected product mix. Except for regularly scheduled maintenance shutdown, all of our fabs currently operate 24 hours per day, seven days per week. Employees work shifts of 12 hours each day on a two days on, two days off basis, except during periods of annual maintenance.

Mini-Environments. Our fabs are organized into bays grouped by function. The general production environment consists of class 1000 or class 100 clean rooms . A class 100 clean room means a room containing less than 100 particles of contaminants, the size of which is not less than 0.3 micron, per cubic foot. Within the clean rooms, we use the mini-environment approach pioneered by us in which the manufacturing steps are performed in a class 1 (in the case of Fab 3, class 0.1) clean mini-environment. We believe that the mini-environment approach has several advantages. The use of mini-environments results in reductions of building structure costs, mechanical and electrical system requirements and operating costs, allows flexibility in equipment layout, set-up and reconfiguration and facilitates the ramping-up process during capacity expansion.

Capacity Expansion and Technology Upgrade Plans

We intend to maintain our strategy of expanding manufacturing capacity and improving manufacturing process technology to meet both the fabrication and the technological needs of our customers. Based upon preliminary estimates, we expect our monthly capacity to be approximately 474,770 wafers at the end of 2004. The change in our expected capacity in 2004 is primarily due to increased capacity as a result of continued ramping up of Fab 6, Fab 12 (Phase I) and the planned commencement of production at Fab 14 (Phase I) in the fourth quarter of 2004, and capacity increases at Fab 2, Fab 3, Fab 5 and Fab 8 and Systems on Silicon. The capacity increase plan is based on our long term market demand forecast conducted periodically. Our expected capacity by year-end 2004 includes a monthly capacity of approximately 38,400 wafers at Systems on Silicon and Vanguard.

The following table sets forth the range of our circuitry resolution capability and manufacturing capacity, broken down by fabs, as of year-end 2003 and planned resolution capability and capacity during 2004:

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	2003		2004	
Fab[1]	Most advanced technology for volume production[2]	Monthly capacity[3]	Most advanced technology for volume production[2]	Monthly capacity[3]
2	0.45	42,977	0.45	47,590
3[4]	0.18	71,600	0.18	83,310
5	0.15	37,800	0.15	42,520
6	0.13	63,500	0.13	73,000
7	0.35	11,800	0.35	13,400
8	0.15	63,500	0.15	76,500
10[5]			0.35	500
12 (Phase I)	0.13	31,797	0.09	60,300
14 (Phase I)[6]			0.13	6,750
WaferTech	0.15	30,000	0.15	32,500
Vanguard[7]	0.25	40,200	0.25	25,000
Systems on Silicon[8]	0.18	9,600	0.18	13,400
Total		402,774		474,770

(1) Fab 2 produces 150mm wafers. Fabs 3, 5, 6, 7, 8, WaferTech, Vanguard and Systems on Silicon produce 200mm wafers. Fab 12 (Phase I) produces 300mm wafers.
(2) In microns, as of year-end.
(3) Estimated capacity range in 200mm equivalent wafers as of year-end for the total technology range available for production. Actual capacity during each year will be lower as new production capacity is phased in during the course of the year.
(4) Fab 4 was consolidated into Fab 3 during the fourth quarter of 2001.
(5) Fab 10 is the 200mm fab located in the Songjiang Science Park near Shanghai. We currently expect to commence small volume production at this fab by the end of 2004.
(6) We plan to commence production at Fab 14 (Phase I) in the fourth quarter of 2004.
(7) As of December 31, 2003, represents the 25,000 monthly capacity that we had the contractual option to utilize plus the 15,200 additional capacity that Vanguard made available to us. On December 31, 2004, 25,000 monthly capacity represents the monthly capacity that we have the contractual option to utilize. We are currently in negotiations with Vanguard to amend the capacity arrangement. As a result, such monthly capacity may change.
(8) Represents the portion of the total expected capacity that we have the option to utilize.

Our capital expenditures in 2001, 2002 and 2003 were NT$70,201 million, NT$55,236 million and NT$37,871 million (US$1,114 million) on a consolidated basis, respectively. We currently expect our capital expenditures to be approximately US$2,000 million in 2004. During 2004 we anticipate capital expenditures will focus primarily on the following:

ramping up Fab 12 (Phase I), Fab 14 (Phase I), Fab 6, and Fab 10;

construction of Fab 12 (Phase II);

upgrading the technology at Fab 3, Fab 5, Fab 8, and WaferTech; and

research and development projects.

Our unconsolidated, affiliated companies spent NT$6,003 million (US$177 million) for capital expenditures in 2003 and are expected to spend approximately NT$13,000 million (US$382 million) for capital expenditures during 2004.

These investment plans are still preliminary and our expected capital expenditures may increase based upon market conditions.

Commitments by Customers. Several of our customers have entered into arrangements with us to ensure that they have access to specified capacity at our fabs. These arrangements are primarily in the form of deposit agreements. In a deposit agreement, the customer makes in advance a cash deposit for an option on a specified capacity at our fabs. Option deposits are generally credited to wafer purchase prices as shipments are made. As of December 31, 2003, our customers had on deposit an aggregate of approximately US$23 million to reserve future capacity, which reserved capacity for the years 2004 through 2005.

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Markets and Customers

The primary customers of our foundry services are fabless design houses, integrated device manufacturers and systems companies. The following table presents the breakdown of net sales (including revenues associated with application-specific integrated circuits, ASIC, and mask making services) by types of customers during the last three years:

	Year ended December 31,					
	2001		2002		2003	
Customer Type	Net Sales	Percentage	Net Sales	Percentage	Net Sales	Percentage
	(in millions, except percentages)					
Fabless integrated circuit design houses	NT$ 83,260	66.2%	NT$ 114,991	70.9%	NT$ 144,940	71.4%
Integrated device manufacturers	42,071	33.4	45,866	28.2	57,245	28.2
Systems Companies	554	0.4	1,444	0.9	812	0.4
Total	NT$ 125,885	100.0%	NT$ 162,301	100.0%	NT$ 202,997	100.0%

We categorize our net sales based on the country in which the customer is headquartered, which may be different from the net sales for the countries to which we actually sell or ship our products. Under this methodology, the following table presents a geographic breakdown of our net sales during the last three years:

	Year ended December 31,					
	2001		2002		2003	
Region	Net Sales	Percentage	Net Sales	Percentage	Net Sales	Percentage
	(in millions, except percentages)					
North America	NT$ 84,846	67.4%	NT$ 125,523	77.3%	NT$ 154,075	75.9%
Asia	33,548	26.6	30,448	18.8	39,381	19.4
Europe	7,491	6.0	6,330	3.9	9,541	4.7
Total	NT$ 125,885	100.0%	NT$ 162,301	100.0%	NT$ 202,997	100.0%

A significant portion of our net sales are attributable to a relatively small number of our customers. Our top ten customers have changed from time to time. In 2002 and 2003, our ten largest customers accounted for approximately 57% and 54% of our net sales, respectively. Please see Item 3. Key Information Risk Factors Risks Relating to Our Business Any significant decrease in sales to one or more of our major customers may decrease our net sales and net income . Most of our customers operate in cyclical businesses and order levels have varied in the past, and may vary in the future.

Over the years, we have attempted to strategically manage our exposure to the memory semiconductor market by limiting the proportion of memory semiconductor manufacturing services to a designated percentage of total sales revenue. This policy has successfully shielded us from

significant adverse effects resulting from the previous precipitous price drops in the memory semiconductor market.

We have five marketing and customer support offices. The office in Hsinchu serves Asian (excluding Japanese and Chinese) customers. Wholly-owned subsidiaries in the United States, Japan, Shanghai and the Netherlands serve North American, Japanese, mainland Chinese and European customers, respectively. Foundry service sales are technologically intensive and involve frequent and intensive contacts with customers. We believe that the most effective means of marketing our foundry services is by developing direct relationships with our customers. We do not use agents or distributors. Our customer service managers work closely with the sales force by providing integrated services and detailed technical advice and specifications to customers.

The Semiconductor Fabrication Process

The semiconductor fabrication process can be categorized into a series of general stages. The following are the main stages involved in semiconductor production:

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Circuit Design: The layout of the circuit components and interconnections is generally produced at computer-aided design terminals. A complex circuit may be designed in as many as thirty layers of patterns or more.

Mask Making: Each layer of the pattern of the circuit is duplicated on a photographic negative, known as a mask, by an electron beam generator. A mask is also referred to as a reticle.

Wafer Fabrication: This is the process by which raw silicon wafers are modified to form junctions, transistors or interconnects. In this process, the raw wafers are oxidized to form silicon dioxide, which is used as an insulator between the conductors and as an insulating layer for a controlling gate. Through the introduction of various impurities, the characteristics of conduction in the silicon are eventually changed to form a junction or transistor. During the wafer fabrication process, conductor, semiconductor or resistor materials are applied to the wafer in multiple layers in different patterns specified in the masks.

Wafer Probing: After a visual inspection, individual semiconductors, called dies , on a wafer are tested, or probed , electrically. Dies that fail this test are marked to be discarded.

Assembly: Each wafer is cut into individual dies and defective dies are discarded. Good dies are connected to a conductive lead frame or organic substrate-based package and the bonded semiconductors, if lead frame based, are then encapsulated using a plastic molding compound or a ceramic casing.

Testing: Packaged semiconductors are fully tested by the use of specialized testing equipment.

Our Foundry Services

Range of Services. We are primarily engaged in wafer fabrication for foundry customers. We also offer design, mask making, wafer probing and testing services and, on a subcontracted basis, assembly services. Because of our ability to provide a full array of services in addition to wafer fabrication, we are able to accommodate customers with a variety of input and output needs. Almost all 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. A growing number of customers in recent years have also begun to use our design services. 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 or mask making services.

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The following diagram illustrates the services we provide, either directly or through outsourcing, to our customers:

Fabrication Processes. We manufacture semiconductors using the complementary metal oxide silicon, CMOS and BiCMOS processes. The CMOS process is currently the dominant semiconductor manufacturing process. In the past, a competing manufacturing process called the bipolar process was also prevalent. The BiCMOS process combines the high speed of the bipolar circuitry and the low power consumption and high density of the CMOS circuitry. We use the CMOS process to manufacture logic semiconductors, memory semiconductors including SRAM, flash memory, mixed-signal semiconductors, which combine analog and digital circuitry in a single semiconductor, and embedded memory semiconductors, which combine logic and memory in a single semiconductor. The BiCMOS process is used to make high-end mixed-signal and other types of semiconductors.

Types of Semiconductors Manufactured by Us. Different types of semiconductors with different specific functions are manufactured using the CMOS and BiCMOS processes by changing the number of and the combinations of conducting, insulating and semiconducting layers and by defining different patterns in which such layers are applied on the wafer. At any given point in time, there are over a hundred different products in various stages of fabrication at a full service foundry like ours. We believe that the keys to maintaining high production quality and utilization rates are our effective management and control of the manufacturing process technology that come from our extensive experience as the longest existing dedicated foundry and our dedication to quality control and process improvements.

The following is a general description of the key types of semiconductors that we manufacture:

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, graphic chips and chip sets.

Mixed-Signal Semiconductors: Analog/digital semiconductors combine analog and digital devices on a single semiconductor to process both analog signals and digital data. We make mixed-signal semiconductors using both the CMOS and BiCMOS processes. We offer 0.13 micron CMOS process and 0.35 micron BiCMOS and silicon germanium process for manufacturing mixed-signal semiconductors. The primary uses of mixed-signal

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semiconductors are in hard disk drives, wireless communications equipment and network communications equipment, with those made with the BiCMOS process occupying the higher end of the mixed-signal market.

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 nonvolatile 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 nonvolatile memory include electrically EPROM and flash memory. We currently offer CMOS process for the manufacture of SRAM and embedded 1T RAM in resolutions down to 0.13 micron in both high speed and low power designs, and for the manufacture of flash memory and embedded flash in resolutions down to 0.18 micron.

CMOS Image Sensor Semiconductors: Image sensors are primarily used in cameras, surveillance and security systems, and increasingly in vehicles. We are currently the leading foundry for the production of CMOS image sensors, characterized by technology features including low dark current, high sensitivity, smaller pixel size and high dynamic range achieved through integration with mixed mode processes.

High Voltage Semiconductors: We offer a range of high-voltage processes, ranging from 5V to 100V, which are suitable for various panel-size display driver and power IC applications. Applicable voltage range covers up to 18V with double-diffused-drain MOS structures and extends up to 100V with lateral-diffused MOS structures.

The table below presents a breakdown of our net sales during the last three years by each semiconductor type:

	Year ended December 31,					
	2001		2002		2003	
Semiconductor Type	Net Sales	Percentage	Net Sales	Percentage	Net Sales	Percentage
	(in millions, except percentages)					
CMOS						
Logic	NT$ 96,334	76.5%	NT$ 129,630	79.9%	NT$ 157,526	77.6%
Memory	14,821	11.8	4,593	2.8	3,045	1.5
Mixed-Signal[1]	12,953	10.3	26,244	16.2	40,599	20.0
BiCMOS[2]	658	0.5	325	0.2	406	0.2
Others	1,119	0.9	1,509	0.9	1,421	0.7
Total	NT$ 125,885	100.0%	$ 162,301	100.0%	NT$ 202,997	100.0%

(1) Mixed-signal semiconductors made with the CMOS process.
(2) Mixed-signal and other semiconductors made with the BiCMOS process.

Design Services. We offer design services that range from providing our customers with access to the fundamental technology files that facilitate a customer s own semiconductor design to direct design services in which we design a semiconductor based on a customer s requirements.

To facilitate our customers semiconductor designs, in addition to technology files, we offer libraries and other necessary intellectual property to expedite the design of semiconductors, such as standard cells, inputs/outputs, selected memory blocks. We have a dedicated team of engineers who work with our research and development department to develop, or acquire from third parties, selected key libraries and other necessary intellectual property early on in the development of new process technologies so that our customers can quickly design sophisticated semiconductors that utilize the new process technologies. We also have entered into, and will continue to enter into, arrangements with other providers of libraries and other necessary intellectual property to allow our customers access to a broad portfolio.

Certain design services that we offer are also more important for semiconductors of a resolution of 0.13 micron or below because at these resolutions the interconnects significantly impact a semiconductor s performance. We are also able to provide reference design flows generated from our research and development for use in our customers semiconductor designs. For these design services we frequently work together with the major vendors of electronic design automation software products.

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Multiproject Wafers Program. To help our customers reduce costs, we offer a dedicated multiproject wafer processing service that allows us to provide multiple customers with wafers produced with the same mask. This program eliminates costly and time-consuming repetitive mask and wafer runs and reduces mask development costs by a very significant factor, resulting in accelerated time-to-market for our customers. In the fourth quarter of 2000, we extended this program to all customers and library and IP partners using our 0.13 micron process technology. This extension offers a routinely scheduled multiproject wafer run to customers on a shared-cost basis for prototyping and verification.

We developed our multiproject wafer program in response to the current system-on-chip development methodologies, which often require the independent development, prototyping and validation of several cores before they can be integrated onto a single device. By sharing resources with our customers to the extent permissible, the system-on-chip supplier can enjoy reduced prototyping costs and greater confidence that the design will be successful.

Customer Service

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 firmly established customer-oriented culture, which emphasizes close interaction with our customers on a multifaceted basis, from senior management, marketing and customer service staff to product and line engineers in the fabs and research and development staff, achieved in part through direct data links, which facilitate real time engineering and logistic information flow;

- our ability to deliver ordered wafers of consistent quality, on time and in the desired quantities;

- responsiveness to customer s requirements in terms of lead time and product cycle;

- flexibility in manufacturing processes, order size requirements and design changes, attributable in part to our technical capability and ability to plan and manage effectively many production runs;

- our ability to reduce customer costs through the sharing, to the extent permissible, of ever increasing silicon verification costs through our multi-project wafer processing service, which combines multiple designs on a single mask set;

- our Virtual fab, which is a customer service program designed to make our manufacturing services as transparent and easy to deal with for our customers as their own in-house fabs, with well coordinated resource management. The Virtual fab features real-time on-line information exchange during manufacturing and logistical support, which is subcontracted out to third parties before the products are shipped to our customers, for the processes of handling, assembly and final testing. The Virtual fab provides customers with the benefits of in-house fabs, including confidentiality of proprietary information, quality of service and products, on-time delivery and flexibility in scheduling and capacity; and

Manufacturing Quality and Reliability

We believe that our quality and reliability policy and practice has ensured a high standard of manufacturing quality and reliability. We have been informed by our customers that wafers produced by us consistently met or exceeded the quality and reliability requirements in the field.

Our policy is to implement quality and reliability measures in all stages of wafer manufacturing, starting from the early development phase. Quality starts from material meeting specifications, in-line process controls and testing at various stages in the manufacturing flow. Final electrical testing, and visual and mechanical inspection are performed before shipment to customers. Quality assurance measures in production extend in both process and product reliability monitors, on top of failure analysis and tracking to serve as a proper early detection in production. Wafer level tests are enhanced for cost-effective services.

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Fab 12 (Phase I), a 300mm wafer fab, set a new foundry record for certification in risk, environment and safety management, as the first 300mm semiconductor fab in the world to achieve the AAA Damage Prevention and Fire Safety Certificate on February 8, 2002, and by achieving the ISO 14001 certificate and the OHSAS 18001 certificate in June 2002. All our other fabs were certified to the ISO 9001, QS-9000 and ISO 14001 standards. TSMC achieved the initial certification to the ISO 9001 in 1993.

Further demonstrating our leadership in quality management in the IC foundry segment of the semiconductor industry, we set a new record as the first semiconductor manufacturer worldwide to receive the ISO/TS (Technical Specification) 16949:2002 certificate in September 2002, just five months after the standard was established.

Backlog

Because of the fast-changing technology and functionality in semiconductor design, foundry customers generally do not place purchase orders far in advance to manufacture a particular type of product. However, we engage in discussions with customers commencing in advance of the placement of purchase orders regarding customers expected manufacturing requirements. Certain of our customers have options on capacity at our fabs for the next few years. See Capacity Expansion and Technology Upgrade Plans Commitments by Customers for a discussion of the options on capacity held by some of our customers.

Research and Development

The semiconductor industry is characterized by rapid changes in technology, frequently resulting in the obsolescence of recently introduced products. We believe that, in order to stay technologically ahead of our foundry competitors and maintain our market position in the foundry segment of the semiconductor industry, we need to maintain our position as a technology leader not only in the foundry segment but in the semiconductor industry in general. We spent NT$10,294 million, NT$11,725 million and NT$12,713 million (US$374 million) in 2001, 2002 and 2003, respectively, on research and development, which represented 8.2%, 7.2% and 6.3%, respectively, of our net sales for these periods. We plan to continue to invest significant amounts on research and development in 2004 with the goal of maintaining a leading position in the development of advanced process technologies. Our research and development efforts have recently allowed us to provide our customers access to certain advanced process technology, such as 0.13 micron process technology for volume production and 90 nanometer technology for early engineering prototypes, prior to the implementation of those advanced process technologies by most integrated device manufacturers and our competitors. The recent CIS process development enhances the market strength of our 200mm wafer fabs.

Our research and development are divided into centralized research and development activities and research and development activities undertaken by each of our fabs. Our centralized research and development activities are principally directed toward developing most advanced and new generation manufacturing technologies. The research and development activities undertaken in each fab focus on upgrading the manufacturing process technologies. The research and development team also seeks to develop versatile process technologies that can be applied to the manufacture of different types of products. The primary target of our research and development efforts in the next few years is expected to be the qualification of 90 nanometer process technology for use with 300 mm wafers, the further development of process technology for embedded memory and other functions for semiconductors that combine various logic, input/output and embedded memory functions on a single semiconductor with 90-nanometer process technology, and the development of 65-nanometer process technology, including the development of extra low-k value dielectric material for use on semiconductors with 65-nanometer technologies.

We use internally developed process technologies and process technologies licensed from our customers and third parties. In continuing to advance our process technologies, we intend to rely primarily on our internal engineering capability and know-how and our research and

development efforts, including collaboration with our customers and equipment vendors.

We also have created in-house inventions and know-how. We were issued a substantial number of United States patents in 2001, 2002 and 2003, most of which are semiconductor-related.

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Equipment

The quality and technology of the equipment used in the semiconductor manufacturing process are important in that they effectively define the limits of our process technology. Advances in process technology cannot be brought about without commensurate advances in equipment technology. The principal pieces of equipment used by us to manufacture semiconductors are scanners, steppers, cleaners and track equipment, inspection equipment, etchers, furnaces, wet stations, strippers, implanters, sputterers, CVD equipment, testers and probers. Other than certain equipment under leases located at testing areas and our Fab 7 facility, we own all of the equipment used at our fabs.

In implementing our capacity expansion and technology advancement plans, we expect to make significant purchases of equipment required for semiconductor manufacturing. Some of the equipment is available from a limited number of vendors and/or is manufactured in relatively limited quantities, and certain equipment has only recently been developed. We believe that our relationships with our equipment suppliers are good and that we have enjoyed the advantages of being a major purchaser of semiconductor fabrication equipment. We work closely with manufacturers to provide equipment customized to our needs for certain advanced technologies. We have entered into supply agreements with equipment manufacturers covering some of our required equipment.

Raw Materials

Our manufacturing processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious and other metals. Raw materials costs constituted 14.9% of our net sales in 2002 and 11.8% of our net sales in 2003. The three largest components of raw material costs wafers, gas and chemicals accounted for 37.0%, 11.5% and 21.5%, respectively, of our raw material costs in 2002 and 40.0%, 12.3% and 19.6%, respectively, of our raw material costs in 2003. Most of our raw materials generally are available from several suppliers. Our raw material procurement policy is to select only those vendors who have demonstrated quality control and reliability on 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 monthly or quarterly and quantity allocations are adjusted for subsequent periods based on the evaluation. Although we believe that supplies of raw materials used by us currently are adequate, shortages could occur in various critical materials due to interruption of supply or increased industry demand.

The most important raw material used in our production is silicon wafers, which is the basic raw material from which integrated circuits are made. The principal suppliers for our wafers are Shin-Etsu Handotai and Sumitomo Mitsubishi Silicon Corporation of Japan, Wacker Siltronic of Germany, Taisil Electronic Material of Taiwan and MEMC Electronic Materials of the United States. Together they supplied approximately 82% and 81% of our total wafer needs in 2002 and 2003, respectively. We have in the past obtained, and believe we will continue to be able to obtain, a sufficient supply of 150mm, 200mm and 300 mm wafers. After a moderate increase of wafer prices in 2000, the price of wafers decreased slightly during 2002 and 2003. We currently do not expect difficulties to obtain sufficient raw material at reasonable prices in 2004. In order to secure a reliable and flexible supply of high quality wafers, we entered into long-term master agreements with our major wafer suppliers to acquire wafers on a purchase order basis in 2000. We are currently in the process of renewing those agreements.

For a discussion of our fabrication plants, see Manufacturing Capacity and Technology .

Competition

We compete internationally and domestically with dedicated foundry service providers, as well as with integrated semiconductor companies that engage a portion of their manufacturing capacity to foundry operations. We seek to compete primarily on the basis of process technology, quality and service, rather than price. The level of competition differs according to the process technology involved. In more mature technologies, the competition tends to be more intense. Some companies compete with us in limited geographic regions or application end markets. In recent years, substantial investments have been made to establish new dedicated foundry companies in mainland China and elsewhere.

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Our competitors and potential competitors include companies that may have substantially greater financial and other resources than us. However, we believe that we currently enjoy competitive advantages in such areas as technology, manufacturing quality, customer service and capacity. We aim to maintain or enhance these competitive advantages in order to stay ahead of the competition. However, we cannot assure you that we will be able to maintain or enhance these competitive advantages in the future.

Environmental Regulation

The semiconductor production process generates gaseous chemical wastes, liquid waste, waste water and other industrial wastes in various stages of the manufacturing process. We have installed various types of pollution control equipment for the treatment of gaseous chemical waste and liquid waste and equipment for the recycling of treated water in our fabs. Our operations at our fabs are subject to regulation and periodic monitoring by the ROC Environmental Protection Administration or US Environmental Protection Agency, and local environmental protection authorities, including the Science-Based Industrial Park Administration or the Washington State Department of Ecology.

We believe that we have adopted pollution control measures for the effective maintenance of environmental protection standards consistent with the practice of the semiconductor industry in Taiwan and the US. We conduct an annual environmental audit to ensure that we are in compliance in all material respects with, and we believe that we are in compliance in all material respects with, applicable environmental laws and regulations. Furthermore, we, in many cases, have implemented waste reduction steps ahead of regulatory requirements. We received ISO14001 certification in August 1996 and continue to implement improvement programs in connection with this certification. In January 2000, we received OHSAS18001 certification for our occupational health safety management system. All our manufacturing sites were ISO14001 and OHSAS18001 certified in 2002. In 2003, we received the Annual Environmental Protection Award for Enterprises from the ROC EPA and the National Industrial Waste Minimization and Recycle Outstanding Performance Award from the Ministry of Economic Affairs and the Water Conservation Excellence Award from the Water Resource Agency.

Electricity and Water

We use substantial amounts of electricity supplied by Taiwan Power Company in our manufacturing process. Businesses in the Hsinchu Science Park and Southern Taiwan Science Park, such as us, enjoy preferential electricity supply. We have sometimes suffered power outages caused by our major electricity supplier, the Taiwan Power Company, which lead to interruptions in our production schedule. For example, on April 10, 2004, a power outage caused by a circuit trip of Taiwan Power Company affected our fabs in Hsinchu Science Park. Two of our fabs, Fab 8 and Fab 12, were out of power for about one hour causing, according to our estimates, approximately a 0.6 day loss of wafer movement.

The semiconductor manufacturing process uses extensive amounts of fresh water. Due to the growth of the semiconductor manufacturers in the Hsinchu Science Park and Southern Taiwan Science Park, and the droughts that Taiwan experiences from time to time, there has been concern as to the future availability of sufficient fresh water and the potential impact insufficient water supplies may have on our semiconductor production. We currently have sufficient water supplies for our production. The recently completed pipeline that connects reservoirs in Tainan with the river in Kaoshiung should provide additional water supplies to the Southern Taiwan Science Park.

For a further discussion of our access to fresh water, see Item 3. Key Information Risk Factors Risks Relating to the ROC Our production may be interrupted if we do not have access to sufficient amounts of fresh water or a sufficient supply of electricity .

Risk Management

We have a separate risk management department that develops comprehensive plans for the prevention of, and the response to, emergencies and disasters. The department focuses on loss prevention, emergency response, crisis management and business recovery. Our risk management department played an important role in minimizing the effect of the 1999 earthquakes on our business. 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 fire, typhoon, earthquake and some other risks generally up to the respective policy limits for their

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replacement values and lost profits due to business interruption. In addition, we have insurance policies covering losses in respect of the construction and erection of Fab 10, Fab 12 and Fab 14. Equipment and inventories in transit are also insured.

Item 5. Operating and Financial Reviews and Prospects

Overview

We manufacture a variety of semiconductors based on designs provided by our customers. We also provide various design services. Our business model is now commonly called a dedicated semiconductor foundry . The foundry segment of the semiconductor industry as a whole experienced rapid growth over the last 17 years since our inception. As the leader of the foundry segment of the semiconductor industry, we also have seen our net sales and net income increase from NT$39,400 million and NT$19,436 million in 1996 to NT$202,997 million and NT$47,259 million in 2003, respectively, despite two major industry downturns over that same period. From the middle of 1996 until the middle of 1998, worldwide semiconductor production capacity grew faster than worldwide demand for semiconductor products. Principally as a result of the increasing disparity between the growth rate of demand and the growth rate of supply, margins were squeezed and our net income declined from NT$19,436 million in 1996 to NT$17,974 million in 1997 and to NT$14,389 million in 1998. This occurred despite increases in our net sales from NT$39,400 million in 1996 to NT$43,927 million in 1997 and to NT$50,524 million in 1998. Starting in late 1998, there was an increase in demand that led to increases in both our net sales and net income for 1999 and 2000. In 2001, the semiconductor industry experienced a significant downturn due to a slowdown in the global economy, overcapacity in the semiconductor industry and a worldwide semiconductor inventory adjustment that led to decreases in our net sales and net income from NT$166,198 million and NT$65,106 million in 2000 to NT$125,885 million and NT$14,483 million in 2001. In 2002, the semiconductor industry reported little revenue growth as growth in volume was significantly offset by an erosion in average selling prices. Our net sales and net income increased from NT$125,885 million and NT$14,483 million in 2001 to NT$162,301 million and NT$21,610 million in 2002. The recovery of the semiconductor industry combined with a more favorable product mix resulted in an increase of our net sales and net income from NT$162,301 million and NT$21,610 million in 2002 to NT$202,997 million and NT$47,259 million in 2003.

The principal source of our revenue is wafer fabrication, which accounted for approximately 92% of our net sales in 2003. The rest of our net sales is derived from design, mask making, probing, testing and assembly services. Factors that significantly impact our revenue include the worldwide demand for semiconductor products, the worldwide semiconductor production capacity as well as our production capacity, capacity utilization, technology migration and pricing discussed below.

Production Capacity and Capacity Utilization. One of the key factors influencing our profit margin is our capacity utilization. Because a high percentage of our cost of sales is of a fixed nature, operations at or near full capacity can have a significant positive effect on output and profitability. We have expanded our aggregate capacity from approximately 212,592 wafers per month as of year-end 1999 to approximately 402,774 wafers per month as of year-end 2003, and we expect to further expand our capacity to approximately 474,770 wafers per month by year-end 2004. Our annual sales volume grew from 1,826,000 wafers in 1999 to approximately 3,700,000 wafers in 2003. Due to increased demand, our average utilization rate for each quarter of 2003 was 69%, 88%, 98% and 101%, respectively, and 89% for the entire year, compared to 73% for 2002. Starting from the first quarter of 2003, the capacity utilization rate calculation excludes engineering wafers and Vanguard figures.

Technology Migration. Since our establishment, we have regularly developed and made available to our customers manufacturing capabilities for wafers with increasingly higher circuit resolutions. Wafers designed with higher circuit resolutions can either yield a greater number of dies per wafer or allow these dies to be able to integrate more functionality and run faster in application. As a consequence, higher circuit resolution wafers generally sell for a higher price than those with lower resolutions. In addition, we began in November 2001 offering our customers production of 300 mm wafers which can produce a greater number of dies than 200mm wafers. Advanced technology wafers have accounted for

an increasingly larger portion of our sales since their introduction as the demand for advanced technology wafers has increased. Because of their higher selling price, advanced technology wafers account for a larger pro rata portion of our sales revenue as compared to their pro rata share of unit sales volume. The higher selling prices of semiconductors with higher circuit resolutions usually offset the higher production costs associated with these semiconductors once an appropriate economy of scale is reached.

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Although mainly dictated by supply and demand, prices for wafers of a given level of technology typically decline over the technology s life cycle. Therefore, we must continue to offer additional services and to develop and successfully implement increasingly sophisticated technological capabilities to maintain our competitive strength.

The table below presents a percentage breakdown of wafers sales by circuit resolution during the last three years:

	Year ended December 31,		
	2001	2002	2003
Resolution	Percentage of total wafer Sales revenue[1]	Percentage of total wafer Sales revenue[1]	Percentage of total wafer Sales revenue[1]
0.13 micron	0%	4%	17%
0.15 micron	10	26	20
0.18 micron	22	22	26
0.25 micron	33	25	20
0.35 micron	21	13	9
>0.5 micron	14	10	8
Total	100%	100%	100%

(1) Percentages represent revenues of wafer sales by technology as a percentage of total revenues of wafer sales, which exclude revenues not associated with wafer sales, such as revenues from testing and masks.

Pricing. We usually establish pricing levels for a specific period with our customers, subject to adjustment during the course of that period to take into account market developments and other factors. We believe that our large capacity, flexible manufacturing capabilities, focus on customer service and ability to deliver high yields in a predictable and timely manner have contributed to our ability to obtain premium pricing for our wafer production in recent years. Our historical pricing policy is to pass through to our customers a portion of cost savings realized as our production processes migrate to more advanced technologies and our manufacturing operations achieve higher yields and greater economies of scale.

Critical Accounting Policies

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. The following discussion should be read in conjunction with the consolidated financial statements and related notes, which are included in this report.

Revenue recognition. We recognize revenue when evidence of an arrangement exists, the shipment is made, price is fixed or determinable, and the collectibility is reasonably assured. Revenues from the design and manufacturing of photo masks, which are used as manufacturing tools in the fabrication process, are recognized when the photo masks are qualified by our customers. We record a provision for estimated future returns and other allowances in the same period the related revenue is recorded. Provision for estimated sales returns and other allowances are generally made at a specific percentage based on historical experience, our management s judgment, and any known factors that would significantly affect

the allowance. However, because of the inherent nature of estimates, actual returns and allowances could be significantly different from our estimates. If the actual returns are greater than our estimated amount, we could be required to record additional provisions, which would have a negative impact on our recorded revenue and gross margin.

As of December 31, 2001, 2002 and 2003, the allowance we set aside for pricing discounts and sales returns was NT$2,582 million, NT$2,373 million and NT$2,136 million, respectively, representing 2.0%, 1.4% and 1.0% of our revenue as of those dates. For the years ended December 31, 2001 and 2002, we did not have to record any additional provisions subsequent to the year end because actual returns and pricing discounts were lower than the estimated amounts. For the year ended December 31, 2003, we also did not have to record any additional provisions as of February 29, 2004.

Allowances for doubtful accounts. We record a provision for doubtful accounts based on our evaluation of the collectibility of our accounts receivable. In circumstances where we are aware of a specific customer s inability

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to meet its financial obligations to us, we record a specific allowance against amounts due to reduce the net recognized receivable to the amount we reasonably believe will be collected. For all other accounts receivable due from customers, we categorize accounts receivables and make provisions based on a percentage of each category. We determine these percentages by examining our historical collection experience and current trends in the credit quality of our customers as well as our internal credit policies. If the financial condition of our customers, or economic conditions in general, were to deteriorate, additional allowances may be required in the future and such additional allowances would increase our operating expenses and therefore reduce our operating income and net income.

As of December 31, 2001, 2002 and 2003, the allowance we set aside for doubtful receivables was NT$1,101 million, NT$933 million and NT$1,020 million, respectively, representing 5.5%, 4.8% and 3.6% of our gross accounts receivables as of those dates. For the years ended December 31, 2001 and 2002, we did not have to record any additional allowances subsequent to the year end because the actual uncollectible amounts were lower than the estimated amounts. For the year ended December 31, 2003, we also did not have to record any additional allowances as of February 29, 2004.

Inventory valuation. Inventories are stated at the lower of cost or market value. Market value represents the net realizable value for finished goods and work-in-progress goods, and replacement costs for raw materials, supplies and spare parts. Due to rapid technology changes, we also evaluate our ending inventory and reduce the carrying value of inventory for estimated obsolescence and unmarketable inventory by an amount that is the difference between the cost of the inventory and the estimated market value lower than cost of the inventory. The estimated market value of the inventory is mainly determined based on assumptions of future demand and market conditions, generally for the next 180 days or less. If actual demand and market conditions are less favorable than those projected by management, additional write-downs may be required. If actual demand and market conditions are more favorable than anticipated, inventory previously written down may be sold, resulting in lower cost of sales and higher income from operations than expected in that period.

As of December 31, 2001, 2002 and 2003, we recorded inventory valuation allowances in the aggregate amount of NT$1,192 million, NT$1,736 million and NT$1,364 million, respectively. Our inventory valuation allowances were primarily for estimated scraps and defects. For the years ended December 31, 2001 and 2002, we did not have to record any additional allowances subsequent to the year end because actual write-offs were lower than the estimated amounts. For the year ended December 31, 2003 we also did not have to record any additional allowances as of February 29, 2004.

Valuation allowance for deferred tax assets. When we have net operating loss carryforwards, investment tax credits or temporary differences in the amount of tax recorded for tax purposes and accounting purposes, we may be able to reduce the amount of tax that we would otherwise be required to pay in future periods. We recognize all existing future tax benefits arising from these tax attributes as deferred tax assets and then establish a valuation allowance equal to the extent, if any, that it is more likely than not that deferred tax assets will not be realized. We record a benefit or expense under the income tax benefit or expense line of our income statement when there is a net change in our total deferred tax assets and liabilities in a period. The ultimate realization of the deferred tax assets depends upon the generation of future taxable income during the periods in which the net operating losses and temporary differences become deductible or the investment tax credits may be utilized. Specifically, our valuation allowances are impacted by our expected future revenue growth and profitability, tax holidays, and the amount of tax credits that can be utilized within the statutory period. In determining the amount of valuation allowance for deferred tax assets as of December 31, 2003, we considered past performance, the general outlook of the semiconductor industry, future taxable income and prudent and feasible tax planning strategies.

Because the determination of the amount of valuation allowance is based, in part, on our forecast of future profitability, it is inherently uncertain and subjective. Changes in market conditions and our assumptions may cause the actual future profitability to differ materially from our current expectation, which may require us to increase or decrease the amount of valuation allowance that we have recorded. Because our expectation for future profitability is generally less during periods of reduced income, we will be more likely to provide significant valuation allowances in respect of deferred tax assets during those periods of already reduced income.

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As of December 31, 2001, 2002 and 2003, the ending balance for valuation allowances under ROC GAAP were NT$9,219 million, NT$12,974 million and NT$15,957 million, respectively, representing 33.1%, 49.6% and 62.7% of gross deferred tax assets as of those dates.

Valuation of goodwill, intangible assets and other long-lived assets. Under U.S. GAAP, we assess the impairment of long-lived assets, intangible assets and goodwill annually, or more frequently whenever events or changes in circumstances indicate that the asset may be impaired and carrying value may not be recoverable. Our long-lived assets subject to this evaluation include property, plant and equipment and amortizable intangible assets. Factors we consider important which could trigger an impairment review include, but are not limited to, the following:

- significant under performance relative to expected historical or projected future operating results;
- significant changes in the manner of our use of the acquired assets or the strategy for our overall business;
- significant negative industry or economic trends;
- significant decline in our stock price for a sustained period; and
- significant decline in our market capitalization relative to net book value.

When we determine that the carrying value of goodwill, intangible assets and other long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment based on a projected future cash flow method for long-lived assets or a projected discounted cash flow method for goodwill and indefinite-lived intangible assets using a discount rate determined by our management to be commensurate with the risk inherent in our current business model. If the long-lived assets determined to be impaired are to be held and used, we recognize an impairment loss through a charge to our operating results to the extent the present value of anticipated net cash flows attributable to the assets are less than their carrying value. We also perform periodic review to identify the assets that are no longer used and are not expected to be used in future periods. An impairment charge is recorded to the extent, if any, that the carrying amount of the idle assets exceeds their fair value,

The process of evaluating the potential impairment of long-lived assets requires significant judgment. We are required to review for impairment groups of assets related to the lowest level of identifiable independent cash flows. Due to our asset usage model and the interchangeable nature of our semiconductor manufacturing capacity, we must make subjective judgments in determining the independent cash flows that can be related to specific asset groupings. In addition, because we must make subjective judgments regarding the remaining useful lives of assets and the expected future revenue and expenses associated with the assets, changes in these estimates based on changed economic conditions or business strategies could result in material impairment charges in future periods. Our projection for future cash flow is generally less during periods of reduced earnings. As a result, an impairment charge is more likely to occur during a period when our operating results are already otherwise depressed.

Application of the goodwill impairment test is also highly subjective and requires significant judgment, including the identification of reporting units, assigning assets and liabilities to reporting units, assigning goodwill to reporting units, and determining the fair value of each reporting unit. Significant judgments required to estimate the fair value of reporting units include estimating future cash flows, determining appropriate discount rates and other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit.

Net long-lived assets and goodwill amounted to NT$220,575 million (US$6,489 million) under ROC GAAP and NT$252,726 million (US$7,435 million) under US GAAP as of December 31, 2003.

Accounting for investments in private and publicly-traded securities. We hold equity interests in companies, some of which are publicly traded and have highly volatile share prices. We review all of our investments for impairment quarterly and record an impairment charge when we believe an investment has

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experienced an other-than-temporary decline in value. Determining whether an other-than-temporary decline in value of the investment has been sustained is highly subjective. Such evaluation is dependent on the specific facts and circumstances. Factors we consider include, but are not limited to the following: the market value of the security in relation to its cost basis, the financial condition of the investee, and the intent and ability to retain the investment for a sufficient period of time to allow for recovery in the market value of the investment. Impairment reviews in respect of private equity investments also require significant judgments. Factors indicative of an other-than-temporary decline in value include recurring operating losses, credit defaults and subsequent rounds of financings at an amount below the cost basis of the investment.

The equity markets around the world, particularly technology stocks, have experienced broad declines over the past several years. As a result, we have experienced significant declines in the value of certain privately held investments and we recorded impairment loss of NT$796 million and NT$653 million (US$19 million) in 2002 and 2003, respectively. While we have recognized all declines that are currently believed to be other-than-temporary, adverse changes in market conditions or poor operating results of underlying investments could result in further losses in future periods.

Results of Operations

The following table sets forth, for the periods indicated, some financial data from our consolidated statements of income, expressed in each case as a percentage of net sales:

	Year ended December 31,		
	2001	2002	2003
Net sales	100.0%	100.0%	100.0%
Cost of sales	(73.3)	(67.8)	(63.1)
Gross profit	26.7	32.2	36.9
Operating expenses			
General and administrative	(6.4)	(4.1)	(4.0)
Marketing	(2.0)	(1.4)	(1.3)
Research and development	(8.2)	(7.2)	(6.3)
Total operating expenses	(16.6)	(12.7)	(11.6)
Income from operations	10.1	19.5	25.3
Non-operating income	5.1	1.4	2.8
Non-operating expenses	(6.7)	(4.1)	(2.9)
Income before income tax	8.5	16.8	25.2
Income tax (expense) benefit	3.0	(3.5)	(1.9)
Net income before minority interest income	11.5	13.3	23.3
Minority interest income	0.0	0.0	0.0
Net income	11.5%	13.3%	23.3%

Year to Year Comparisons

Net Sales and Gross Margin

	For the Year Ended December 31					
	2001	2002	% Change from 2001	2003		% Change from 2002
	NT$	NT$		NT$	US$	
	(in millions)			(in millions)		
Net sales	125,885	162,301	28.9%	202,997	5,972	25.1%
Cost of sales	(92,228)	(109,988)	19.3%	(128,113)	(3,769)	16.5%
Gross profit	33,657	52,313	55.4%	74,884	2,203	43.1%
Gross margin percentage	26.7%	32.2%		36.9%		

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Our net sales for 2003 increased 25.1% from 2002, following an increase of 28.9% in 2002 from 2001. The back-to-back significant increase in our net sales for 2003 and 2002 was largely attributable to an increase in customer demand, which resulted in a 38.3% increase in wafers sold in 2003, from 2,675 thousand wafers in 2002 to 3,700 thousand wafers in 2003, and a 23.9% increase in wafers sold in 2002, from 2,159 thousand in 2001 to 2,675 thousand in 2002. The increase in sales volume was partially offset by a 7% and a 1% decrease in the average selling price of our wafers in US dollar terms for 2003 and 2002, respectively. The decrease in the average selling price of our wafers in US dollar terms was primarily the result of a decline in pure pricing, partially offset by a more favorable product mix as we saw a shift in product mix toward higher priced products using the more advanced technology. Our sales for 2003 were also negatively impacted by a stronger NT dollar against US dollar as the majority of our sales are denominated in US dollars. On the other hand, our sales for 2002 were positively impacted by a weaker NT dollar against the US dollar.

Our gross margin fluctuates, depending on the level of utilization of manufacturing capacity, wafer shipments and product mix, among other factors. Our gross margin improved to 36.9% of net sales in 2003 from 32.2% of net sales in 2002, following the gross margin improvement from 26.7% in 2001 to 32.2% in 2002. The improved margin was primarily driven by higher capacity utilization, as we saw our capacity utilization increase from 51% in 2001 to 73% in 2002 and to 89% in 2003. Higher wafer shipment and the improvement in overall product mix during 2003 and 2002 also offset the unfavorable impact on gross margin of pure price declines and higher fixed manufacturing costs, and to a lesser extent increased material and labor costs typically required during early stages for the manufacturing of advanced semiconductors. Depreciation and amortization expenses related to cost of sales increased from NT$59,566 million in 2002 to NT$63,374 million (US$ 1,864 million) in 2003, and from NT$50,282 million in 2001 to NT$59,566 million in 2002, reflecting our continued capital investment in order to ramp up Fab 12 (Phase I) and expand capacity at Fab 6 and Fab 8 in 2002 and 2003. We anticipate that our depreciation and amortization expenses related to cost of sales for 2004 will be slightly higher than 2003 as a result of increased depreciation for Fab 12 (Phase I), Fab 6 and Fab 14 (Phase I).

Operating Expenses

	For the Year Ended December 31					
	2001	2002	% Change from 2001	2003		% Change from 2002
	NT$	NT$		NT$	US$	
	(in millions)			(in millions)		
Research and development	10,294	11,725	13.9%	12,713	374	8.4%
General and administrative	8,130	6,768	(16.8)%	8,200	241	21.2%
Marketing	2,455	2,231	(9.1)%	2,670	79	19.7%
Total operating expenses	20,879	20,724	(0.7)%	23,583	694	13.8%
Percentage of net sales	16.6%	12.8%		11.6%		
Income from operations	12,778	31,589	147.2%	51,301	1,509	62.4%
Operating Margin	10.2%	19.5%		25.3%		

Operating expense increased NT$2,859 million in 2003, or 13.8%, from 2002, after a decrease in operating expenses of NT$155 million in 2002, or 0.7%, from 2001.

Research and Development Expenses

We remain committed to being the leader in developing advanced process technology. We believe that continued strategic investments in process technology are essential for us to remain competitive in the markets we serve. Research and development expenditures increased NT$988 million in 2003, or 8.4%, from 2002. This increase was primarily due to our continued development activities in 0.11 micron, 90 nanometer and 65 nanometer technologies and in 300 mm wafer manufacturing processes. We anticipate that our annual research and development expenditures will remain at a similar absolute level in 2004 as in 2003.

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Research and development expenditures increased NT$1,431 million in 2002, or 13.9%, from 2001, largely as a result of increased expenditures related to the yield improvements of our 0.13 micron technology and the development of 90 nanometer production technologies.

Marketing, General and Administrative Expenses

Marketing, general and administrative expenses increased NT$1,871 million in 2003, or 20.8%, from 2002. This increase primarily resulted from an increase in expenses associated with patent applications, higher sales and marketing expenses associated with increased business activities, and an increase in expenses for information technology infrastructure in connection with the expansion of Fab 6 and Fab 12 (Phase I).

Marketing, general and administrative expenses decreased NT$1,586 million in 2002, or 15.0%, from 2001. The decrease was primarily due to the decrease in start up expenditures associated with the opening of Fab 12 during 2001, partially offset by increased infrastructure spending.

For the second year in a row, our operating margin continues to improve, from 10.2% in 2001, to 19.5% in 2002, and to 25.3% in 2003.

Non-Operating Income and Expenses

	For the Year Ended December 31					
	2001	2002	% Change from 2001	2003		% Change from 2002
	NT$	NT$		NT$	US$	
	(in millions)			(in millions)		
Non-operating income	6,476	2,350	(63.7)%	5,669	167	141.3%
Non-operating expenses	(8,467)	(6,717)	(20.7)%	(5,791)	(170)	(13.8)%
Net non-operating income (expenses)	(1,991)	(4,367)	119.3%	(122)	(3)	(97.2)%

Non-operating income increased NT$3,319 million in 2003, or 141.3%, from 2002. The increase primarily resulted from a NT$3,538 million increase in the net gain realized on sales of investments largely as a result of the sale of 2.6 million shares of Marvell Technology Group, Ltd. (NASDAQ: MRVL).

Non-operating income decreased NT$4,126 million in 2002, or 63.7%, from 2001. This decrease principally resulted from a NT$1,725 million decrease in the net gain on sales of investments, a NT$861 million decrease in one-time insurance compensation received in 2001, a NT$774 million decrease in royalty income largely as a result of the decrease in royalty income from National Semiconductor (see note 25.g. to our consolidated financial statements), and a NT$392 million decrease in interest income.

Non-operating expenses decreased NT$926 million in 2003, or 13.8%, from 2002. The decrease principally resulted from a NT$1,683 million decrease in investment loss recognized by equity method as a result of better operating performance from our non-consolidating affiliates, and a NT$726 million decrease in interest expense, reflecting our reduced borrowings. This was partially offset by a NT$1,262 million increase in write-off of certain fixed and idle assets and related expenses and a NT$635 million increase in foreign exchange loss, as we incurred more costs associated with foreign exchange hedging.

Non-operating expenses decreased NT$1,750 million in 2002, or 20.7%, from 2001, largely attributable to a NT$1,982 million decrease in investment loss recognized by equity method, a NT$575 million decrease in foreign exchange loss, and a NT$527 million decrease in interest expenses, reflecting lower interest rates, offset in part by a NT$796 million increase in impairment loss on long-term investments and a NT$420 million increase in costs associated with foreign exchange hedging.

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Income Tax Benefit (Expense)

	For the Year Ended December 31					
	2001	2002	% Change from 2001	2003		% Change from 2002
	NT$	NT$		NT$	US$	
	(in millions)			(in millions)		
Income tax benefit (expense)	3,741	(5,637)	(1)%	(3,923)	(115)	(30.4)%
Net income	14,483	21,610	49.2%	47,259	1,390	118.7%
Net margin	11.5%	13.3%		23.3%		

(1) Not meaningful.

Our 2003 income tax expense decreased NT$1,714 million or 30.4% from 2002. The decrease was primarily due to an increase in tax credits, which was partially offset by an increase in our taxes payable in respect of the 10% tax on unappropriated earnings. The increase in tax credits was largely attributable to a 2003 tax law change. In February 2003, the ROC tax authority removed certain restrictions on how companies may utilize their tax credits carried over from prior years. As a result, the amount of tax credits utilized in 2003 and the amount of tax credits that may be utilized in future years has increased. We anticipate that the tax expense for 2004 will decrease from the 2003 level due to an increase in tax credits as a result of significant increase in planned capital expenditures in 2004 and a larger portion of our profits will be derived from fabs which enjoy preferential tax treatment. See Taxation below for a discussion of the preferential tax treatment.

In 2002 we had an income tax expense of NT$5,637 million, compared to an income tax benefit of NT$3,741 million in 2001. The change was primarily due to a decrease in tax credits as a result of reduced purchases of equipment, an increase in income tax expense at the statutory rate due to an increase in our pre-tax income, and an increase in our valuation allowance with respect to our deferred tax assets.

Liquidity and Capital Resources

Our financial condition is strong, with cash, cash equivalents and short-term investments of NT$116,600 million (US$3,430 million) as of December 31, 2003, up from NT$67,960 million as of December 31, 2002. Our short-term investments consist of government bonds, money market funds, government bonds acquired under repurchase agreements, bond funds and listed stocks. Cash and cash equivalents increased NT$35,199 million (US$1,036 million) in 2003 as compared to an increase of NT$30,234 million in 2002.

2001	2002	% Change from 2001	2003	% Change from 2002

	NT$	NT$		NT$	US$	
	(in millions)			(in millions)		
Net cash provided by operating activities	75,818	98,507	29.9%	116,037	3,414	17.8%
Net cash used in investing activities	(77,232)	(62,190)	(19.5)%	(53,406)	(1,571)	(14.1)%
Net cash provided by (used in) financing activities	897	(6,346)	(1)	(27,370)	(805)	(331.3)%
Net increase/(decrease) in cash	(1,284)	30,234	(1)	35,199	1,036	16.4%

(1) Not meaningful.

Operating Activities

In 2003, we generated NT$116,037 million (US$3,414 million) from operating activities, as compared to NT$98,507 million in 2002 and NT$75,818 million in 2001. The increases in 2003 compared to 2002 and in 2002

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compared to 2001 were primarily the result of net income of NT$47,259 million (US$1,390 million) 2003 and of NT$21,610 million in 2002, after adjusting for non-cash depreciation and amortization expenses of NT$69,161 million (US$2,035 million) in 2003 and NT$65,001 million in 2002.

In 2003, non-cash depreciation and amortization expenses were NT$69,161 million (US$2,035 million), compared to NT$65,001 million in 2002 and NT$55,323 million in 2001. The increase in non-cash depreciation and amortization expenses in 2003 compared to 2002 was primarily due to increased depreciation associated with ramping up Fab 12 (Phase I) and the capacity increases at Fab 6. Depreciation and amortization expenses were higher in 2002 than in 2001 primarily due to increased depreciation associated with ramping up Fab 12 (Phase I) and the capacity increases at Fab 6 and Fab 8. We expect depreciation and amortization expenses to increase slightly in 2004 as we continue to ramp up capacity at Fab 12 (Phase I) and Fab 14 (Phase I) and expand capacity at Fab 6.

Investing Activities

Net cash used in investing activities amounted to NT$53,406 million (US$1,571 million) in 2003, down from NT$62,190 million in 2002 and NT$77,232 million in 2001. The primary cash usage for investing activities for 2001, 2002 and 2003 was for capital equipment purchases, which totaled NT$70,201 million, NT$55,236 million and NT$37,871 million (US$1,114 million), respectively. Capital equipment purchases in 2002 and 2003 related primarily to the ramping up Fab 12 (Phase I) and capacity increases at Fab 6 and 8. Capital equipment purchases in 2001 related primarily to the commencement of production at Fab 12 (Phase I), the ramping up at Fab 6 and capacity increase at Fab 8. The decrease in capital equipment purchases in 2003 as compared to 2002 was largely the result of our focus of managing capacity in accordance with the strength of actual and sustainable demand so as to meet our return objectives for shareholders.

We currently expect capital expenditures to be about US$2,000 million for 2004, a significant increase from 2003 levels. See Item 4. Information on the Company Capacity Expansion and Technology Upgrade Plans for a discussion of our capacity expansion and capital expenditures. In addition, we purchased a total of NT$13,026 million (US$383 million) in short-term investments in 2003 as part of our efforts to diversify our cash investments.

Financing Activities

We used NT$27,370 million (US$805 million) in net cash for financing activities in 2003 as compared to NT$6,346 million used for financing activities in 2002 and NT$897 million provided by financing activities in 2001. We used NT$13,000 million (US$382 million) for the redemption of our preferred stock in May 2003. The preferred stock was issued on November 29, 2000 and was scheduled to be redeemed within 30 months from their issuance. In addition, we reduced our borrowings by repaying NT$8,916 million (US$262 million) in long-term bank loans and NT$4,000 million (US$118 million) in corporate bonds. The net cash used in financing activities in 2002 primarily reflects net payments made on short-term bank loans of NT$5,539 million and on long-term bank borrowings of NT$4,397 million, a decrease in guarantee deposits and other liabilities of NT$5,818 million, partially offset by the net proceeds from the issuance of long-term bonds of NT$10,000 million. The net cash provided by financing activities in 2001 primarily reflects net proceeds from short-term bank loans of NT$2,435 million, partially offset by net payments on long-term borrowings of NT$940 million and NT$584 million for bonuses to directors and supervisors.

As of December 31, 2003, we had aggregate short-term debt of NT$408 million (US$12 million), current portion of long-term debt of NT$5,000 million (US$147 million) and aggregate long-term debt of NT$38,800 million (US$1,142 million). NT$408 million (US$12 million) of the short-term debt and NT$8,800 million (US$259 million) of the long-term debt were denominated in U.S. dollars. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we utilize derivative financial instruments, mainly

currency forward contracts, to hedge our currency exposure. See Item 11. Quantitative and Qualitative Disclosure About Market Risk for a discussion of the hedging instruments we use. All of the short-term and long-term bank loans had floating interest rates based on the London interbank offer rate, or LIBOR. NT$35,000 million of the long-term bonds (including current portion) had fixed interest rates ranging from 2.60% to 5.95%. As of December 31, 2003, we had an aggregate of NT$21,965 million (US$646 million) in unused short-term credit lines and NT$8,192 million (US$241 million) in unused long-term credit lines.

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Our loan agreements, credit facilities and guaranty agreements for the obligations of our consolidated subsidiaries contain covenants which, if violated, could result in our obligations under these agreements becoming due prior to the originally scheduled maturity dates. These covenants include financial covenants that require us to maintain at least:

- an earnings before interest, taxes, depreciation and amortization to gross interest expense ratio of 5:1; and
- a total net worth to total indebtedness ratio of 1:1.5.

As of March 31, 2004, we were in compliance with our financial covenants. Other covenants could be triggered by a material adverse change in our business or management personnel that would impair our ability to perform our obligations under the agreements.

Cash Requirements

The following table sets forth the maturity of our long-term debt (bank loans and bonds) and short-term debt (bank loans and current portion of long term debt) outstanding as of December 31, 2003:

	Long-term debt	Short-term debt
	(in millions)	
During 2004	NT$ 5,000	NT$ 408
During 2005	NT$ 17,262	
During 2006	2,039	
During 2007	7,000	
During 2008 and thereafter	12,500	

The following table sets forth information on our material contractual obligated payments for the periods indicated as of December 31, 2003:

	Payments Due by Period				
Contractual Obligations	Total	Less than 1 Year	1-3 Years	4-5 Years	More than 5 Years
	(in millions)				
Long-Term Debt[1]	NT$ 43,800	5,000	NT$ 19,300	7,000	12,500
Capital Lease Obligations[2]	727				727
Operating Leases[3]	3,505	349	700	658	1,798
Other Payments[4]	4,893	1,592	1,738	748	815
Capital Puchase or other Purchase Obligations[5]	55,498	48,700			6,798

Total Contractual Cash Obligations[6]	108,423	55,641	21,738	8,406	22,638

(1) Excludes interest payments.
(2) Capital lease obligations represent our commitment for leases of property. The obligations are included in the consolidated balance sheets as other liability. See note 25.1. to our consolidated financial statements for additional details.
(3) Operating lease obligations are described in note 24 to our consolidated financial statements.
(4) Includes royalty and license payments, but excludes payments that vary based upon our net sales of certain products and our sales volume of certain other products.
(5) Represents commitments for construction or purchase of equipment, raw material and other property or services. These commitments are not recorded on our balance sheet as of December 31, 2003, as we have not received related goods or taken title of the property.
(6) Minimum pension funding requirement is not included since such amounts have not been determined. We made pension contributions of approximately NT$181 million in 2003 and we estimate that we will contribute approximately NT$187 million to the pension fund in 2004. See note 16 to our consolidated financial statements for additional details regarding our pension plan.

During 2003, we entered into derivative financial instruments transactions to manage exposures related to foreign-currency denominated receivables or payables, and interest rate fluctuations. As of December 31, 2003, our cash requirements in 2004 for outstanding forward exchange contracts was approximately US$1,821 million, with our expected cash receipts of approximately NT$61,230 million, EUR8 million and JPY748 million. See Item 11. Quantitative and Qualitative Disclosures about Market Risk for more information regarding our derivative financial instruments transactions. See also note 2 to the consolidated financial statements for our accounting policy of

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derivative financial instruments and note 26 to the consolidated financial statements for additional details regarding our derivative financial instruments transactions.

We do not generally provide letters of credit to, or guarantees for, or engage in any repurchase financing transactions with, any entity other than our consolidated subsidiaries.

We require significant amounts of capital to build, expand, upgrade and maintain our production facilities and equipment. We made capital expenditures of NT$70,201 million, NT$55,236 million, NT$37,871 million (US$1,114 million) in 2001, 2002 and 2003, respectively. We currently expect that our plans for ramping up production at Fab 12 (Phase I), Fab 14 (Phase I), Fab 6 and Fab 10, constructing Fab 12 (Phase II), upgrading the technology at Fab 3, Fab 5, Fab 8 and WaferTech and research and development projects will require capital expenditures of approximately US$2,000 million for 2004.

We expect to fund our expansion projects and other cash requirements primarily with internally generated funds. In the future, we may consider debt and equity financing, depending on market conditions, our financial performance and other relevant factors. In particular, an extended industry downturn could adversely affect our profitability and internal generation of cash, and thereby increase our reliance on external sources of funds. We believe that our working capital, cash flow from operations and unused lines of short-term and long-term credit will provide sufficient resources to meet our planned capital requirements.

On March 23, 2004, our board of directors approved a share buyback plan for the potential purchase of up to 300,000,000 common shares. Please see Item 9. The Offer and Listing for more information.

US GAAP Reconciliation

Our consolidated financial statements are prepared in accordance with ROC GAAP, which differs in certain material respects from US GAAP. The following table sets forth a comparison of our net income (loss) and shareholders equity in accordance with ROC GAAP and US GAAP for the periods indicated:

	Year ended and as of December 31,			
	2001 NT$	2002 NT$	2003 NT$	US$
	(in millions)			
Net income (loss) in accordance with:				
ROC GAAP	14,483	21,610	47,259	1,390
US GAAP	(21,975)	14,534	38,661	1,137
Shareholders equity in accordance with:				
ROC GAAP	277,190	295,853	329,214	9,686
US GAAP	289,450	310,623	357,173	10,508

Notes 28 and 29 to the consolidated financial statements provide a description of the principal differences between ROC GAAP and US GAAP as they relate to us, and a reconciliation to US GAAP of certain items, including net income and shareholders equity. Differences between ROC GAAP and US GAAP that have a material effect on our net income as reported under ROC GAAP include compensation expense pertaining to stock bonuses to employees, directors and supervisors, marketable securities, impairment charges for long-lived assets, and amortization of goodwill.

We paid employee bonuses in respect of 2001 and 2002 in the form of common shares and expect to pay all or a portion of employee bonuses in future periods in the form of common shares. On May 11, 2004, our shareholders approved the distribution of an aggregate bonus to our employees of NT$3,408 million, or 8% of our 2003 distributable net income, to be paid in 2004, 20% of which will be paid in cash and 80% will be paid in the form of common shares. The number of common shares distributed as part of employee bonuses is obtained by dividing the total nominal NT dollar amount of the bonus to be paid in the form of common shares by the par value of the common shares, or NT$10 per share, rather than their market value, which has generally been substantially higher than par value. Under ROC GAAP, the distribution of employee bonus shares is treated as an allocation from retained earnings, and we are not required to, and do not, charge the value of the employee bonus shares against income. Under US GAAP, however, we are required to charge the market value of the employee bonus shares to employee compensation expense in the period to which they relate, correspondingly reducing our net income and

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income per share calculated in accordance with US GAAP. However, since the amount and the form of the payment of the compensation is subject to shareholder approval and only determinable at the annual shareholders meeting, which is generally held after the issuance of our financial statements, under US GAAP the compensation expense is initially accrued at the nominal NT dollar amount of the aggregate bonus in the period to which it relates as if it were to be paid entirely in cash. The difference between the amount initially accrued and the market value of the common shares and cash issued as payment of all or any part of the bonus is recorded as employee compensation expense in the period in which shareholder approval is obtained, which normally occurs during the second fiscal quarter of the subsequent year. Net income and income per share amounts calculated in accordance with ROC GAAP and US GAAP differ accordingly. In addition, because the adjustment for market price for the purpose of US GAAP reconciliation is made in the second quarter of each fiscal year and the entire amount of the adjustment is charged to the results for such quarter, the adjustment has a disproportionate impact on the results for the second quarter under US GAAP.

Under ROC GAAP, investments in marketable equity securities are stated at the lower of aggregate cost or market value, with the market value determined using the average-closing price of the listed stocks during the last month of the period. Investments in debt securities are carried at cost. An allowance is recognized for any decline in the market value of investments with readily ascertainable fair market value with the corresponding amount recorded as an unrealized loss presented as a separate item in shareholders equity. The carrying values of such investments whose fair market values are not readily ascertainable are reduced to reflect an other-than-temporary decline in their values, with the related impairment loss charged to income. Under US GAAP, debt and equity securities that have readily determinable fair market values are classified as either trading, available-for-sale or held-to-maturity securities. Trading securities are reported at fair value, with unrealized gains and losses included in earnings. Available-for-sale securities are also reported at fair value, with unrealized gains and losses reported in a separate component of shareholders equity. Debt securities are reported at amortized cost. Additionally, under US GAAP, fair market value of listed stocks is determined using the closing price of the listed stock on the last trading day for the period.

For purposes of US GAAP, we are required to periodically evaluate the recoverability of the carrying amount of our long-lived assets. Whenever events or changes in circumstances indicate that the carrying amounts of those assets may not be recoverable, we are required to compare undiscounted net cash flows estimated to be generated by those assets to the carrying value of those assets. To the extent that cash flows are less than the carrying value of the assets, we are required to record impairment losses for the difference between the carrying value and the fair value of the assets. Prior to 2002, under ROC GAAP, we were not required to record impairment losses of assets that can still be used in the business and were required to evaluate the impairment losses of idle assets which are purchased for use in the business but subsequently determined to have no use. Please see note 28.c. to the consolidated financial statements for a more detailed discussion of the impairment of long-lived assets and US SFAS No. 144.

Under ROC GAAP, goodwill is amortized over ten years. Under US GAAP, prior to January 1, 2002, goodwill was amortized over five or ten years. Effective January 1, 2002, the Company adopted US SFAS No. 142, Goodwill and Other Intangible Assets. In accordance with US SFAS No. 142, goodwill and indefinite-lived intangible assets are no longer amortized, and instead are assessed for impairment on at least an annual basis. In addition, in connection with the Company s acquisition of TSMC-Acer, the goodwill from the 1999 acquisition of the initial 32% interest in TSMC-Acer was recognized for ROC GAAP purposes since the goodwill was from an acquisition paid in cash. However, goodwill from the 2000 acquisition of the remaining 68% interest in TSMC-Acer was not recognized under ROC GAAP. Rather it was netted against capital surplus since the goodwill was from a business combination in the form of a share exchange. Under US GAAP, all goodwill from the TSMC-Acer acquisitions was recognized.

Taxation

We enjoy preferential tax treatment in certain respects under the Hsinchu and Southern Taiwan Science Park regulations. We are entitled to a four-year tax holiday for income generated from construction and capacity expansions of production facilities. The exemption period may begin at any time within four years following the completion of the construction or expansion. The aggregate tax benefits of such exemption in 2001, 2002 and 2003 were NT$1,089 million, NT$2,527 million and NT$5,256 million, respectively. We commenced the exemption

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period for Fab 6 in 2001, part of Fab 8 in 2002 and part of Fab 2, and Fab 3, 4, 5 and 6 in 2003, and expect to commence the exemption period for Fab 12 (Phase I) in 2004.

Pursuant to the ROC Statute for Upgrading Industries, we are entitled to credit 5% to 20% of investments, depending on the type and origin of the assets, in most of our production and production-related equipment against tax payable in any year within five years of the acquisition date of the assets. The Statute for Upgrading Industries also grants us the right to credit up to 20% of our investments in emerging, important and strategic industries (as defined in that statute) against tax payable within five years after the expiration of the first three years of investment, during which period we are required to hold such investments.

According to the tax credit rules promulgated under the Statute for Upgrading Industries, we are entitled to a tax credit of 20% for the purchase of equipment manufactured in Taiwan and 10% for the purchase of equipment manufactured outside of Taiwan. Because the ROC became a member of the World Trade Organization on January 1, 2002, the Ministry of Economic Affairs amended the tax credit rules in April 2002 to adopt a 13% rate of tax credit to be applied to the purchase of equipment regardless of where it was manufactured.

Off-Balance Sheet Arrangements

There are no significant off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Inflation

Our most significant export market is North America and we do not believe that inflation in the ROC or North America has recently had a material impact on our results of operations.

Research and Development

The semiconductor industry is characterized by rapid changes in technology. We believe that, in order to stay technologically ahead of our foundry competitors and maintain our market position in the foundry segment of the semiconductor industry, we need to maintain our position as a technology leader not only in the foundry segment of the semiconductor industry but in the semiconductor industry in general. We spent NT$10,294 million, NT$11,725 million and NT$12,713 million (US$374 million) in 2001, 2002 and 2003, respectively, on research and development, which represented 8.2%, 7.2% and 6.3%, respectively, of our net sales for these periods. We plan to continue to invest significant amounts on research and development in 2004 with the goal of maintaining a leading position in the development of advanced process technologies. See Item 4. Information on the Company Research and Development for more details relating to our research.

Recent Accounting Pronouncements

Please see note 29.a. to the consolidated financial statements for a discussion of recent accounting pronouncements. We do not expect those recent accounting pronouncements to have a material effect on our consolidated financial statements.

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Item 6. Directors, Senior Management and Employees

Directors, Supervisors and Executive Officers

MANAGEMENT

Members of our board of directors are elected by our shareholders. Our board of directors is composed of nine directors. The chairman of the board of directors is elected by the directors. The chairman of the board of directors presides at all meetings of the board of directors, and also has the authority to act as our representative. The term of office for directors is three years.

We also have three supervisors. In accordance with the ROC Company Law, supervisors are elected by our shareholders and cannot concurrently serve as our directors, executive officers or other staff members. The term of office for supervisors is three years. The supervisors duties and powers include, but are not limited to, investigation of our financial condition, inspection of corporate records, verification of statements by the board of directors, giving reports at shareholders meetings, representation of us in negotiations with our directors and giving notification, when appropriate, to the board of directors to cease acting in contravention of applicable laws or regulations, or our articles of incorporation or a resolution of a meeting of shareholders.

Pursuant to the ROC Company Law, a person may serve as our director or supervisor in his personal capacity or as the representative of another legal entity. A director or supervisor who serves as the representative of a legal entity may be removed or replaced at any time at the discretion of that legal entity, and the replacement director or supervisor may serve the remainder of the term of office of the replaced director or supervisor. Of our nine directors, two are representatives of Philips and one is a representative of the Development Fund. Of our three supervisors, one is a representative of Philips and one is a representative of the Development Fund.

The following table sets forth the name of each director, supervisor and executive officer, their positions, the year in which their term expires and the number of years they have been with us as of March 31, 2004. The business address for each of our directors, supervisors and executive officers is No. 8, Li Hsin Road 6, Hsinchu Science Park, Hsinchu, Taiwan, Republic of China.

Name	Position with our company	Term Expires	Years with our company
Morris Chang	Chairman and Chief Executive Officer	2006	17
J.C. Lobbezoo	Director (Representative of Philips)	2006	10
Scott McGregor[1]	Director (Representative of Philips)	2006	1
F.C. Tseng	Director and Deputy Chief Executive Officer	2006	17
Stan Shih	Director	2006	4
Chintay Shih	Director (Representative of the Development Fund)	2006	7
Lester Carl Thurow	Director	2006	2
Sir Peter Leahy Bonfield	Director	2006	2
Rick Tsai	Director, President and Chief Operating Officer	2006	14
Robbert Brakel	Supervisor (Representative of Philips)	2006	3
Susan Chang[2]	Supervisor (Representative of the Development Fund)	2006	1

Michael E. Porter	Supervisor	2006	2
Quincy Lin	Senior Vice President of Corporate Development and Chief Information Officer		14
Shang-Yi Chiang	Senior Vice President of Research and Development		7
Kenneth Kin	Senior Vice President of Worldwide Marketing and Sales		3
Lora Ho[(3)]	Vice President, Chief Financial Officer and Spokesperson		5
J. B. Chen	Vice President of Material Management and Risk Management		17
Ping Yang	Vice President of Research and Development		6
C.C. Wei	Vice President of Operations I		6

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Name	Position with our company	Term Expires	Years with our company
Mark Liu	Vice President of Operations II		10
Genda Hu	Vice President of Corporate Marketing		4
Chenming Hu	Chief Technology Officer		3
M.C. Tzeng	Vice President of Operations, Deputy of Operations I		17
Richard Thurston	Vice President and General Counsel		2
Chiam Wu	Vice President of Worldwide Customer Service		2
P.H. Chang	Vice President of Corporate Human Resources		4

(1) Effective September 1, 2003 Mr. Scott McGregor replaced Mr. Jaap van Oost.
(2) Effective April 1, 2003, Ms. Susan Chang replaced Mr. George C. Shiu.
(3) Effective September 8, 2003, Ms. Lora Ho replaced Mr. Harvey Chang and became our Vice President, Chief Financial Officer and Spokesperson.

Morris Chang has been the Chairman of our board of directors since our establishment. From 1985 to 1994, he was President and then Chairman of the board of directors of ITRI. Prior to that, Mr. Chang was President and Chief Operating Officer of General Instrument Corporation; Corporate Group and Senior Vice-President for Texas Instruments. He holds a bachelor s degree and a master s degree in mechanical engineering from the Massachusetts Institute of Technology and a Ph.D. in electrical engineering from Stanford University and has been active in the semiconductor industry for over 49 years.

J.C. Lobbezoo is a director. He is also the Executive Vice President and Chief Financial Officer of Philips Semiconductors and the Chairman of the board of directors of Systems on Silicon. He took up this appointment in 1994 after four years as Chief Financial Officer with Philips Domestic Appliances. He joined Philips in 1970 and has worked in finance and control positions in Nigeria, South Africa and Scandinavia as well as The Netherlands. A Dutch national, Mr. Lobbezoo has a master degree in Business Economics from Erasmus University, Rotterdam, The Netherlands. He is a member of the Dutch Institute of Chartered Accountants (NIVRA). Furthermore he represents Philips as a member of the board of FEI Company, Portland, USA.

Scott McGregor is a director. Mr. Scott McGregor is the President and Chief Executive Officer of Philips Semiconductors. Before taking up his position as Chief Executive Officer of Philips Semiconductors, Mr. McGregor was Executive Vice President, Communications Businesses of Philips Semiconductors. He joined Philips Semiconductors to take charge of the Emerging Business Unit in February 1998. Mr. McGregor holds a BA in psychology and an MS in computer science/computer engineering from Stanford University.

F.C. Tseng is a director. He has been Deputy Chief Executive Officer since August 2001. He formerly served as the President of Vanguard from 1996 to 1998 and our President from May 1998 to August 2001. Prior to his presidency at Vanguard, Mr. Tseng served as our Senior Vice President of operations. Mr. Tseng holds a Ph.D. in electrical engineering from National Cheng-Kung University and has been active in the semiconductor industry for over 33 years.

Stan Shih is an independent director. He also has served as the Chairman and Chief Executive Officer of the Acer Group since 1976. Mr. Shih holds a bachelor s degree, a master s degree and a Honorary EE Ph.D degree in electronical engineering from National Chiao Tung University.

Chintay Shih is a director. He is also a Managing Director and Special Advisor of ITRI and a director of each of Vanguard and the Industrial Technology Investment Corporation. Mr. Shih holds a Ph.D. in electrical engineering from Princeton University.

Lester Carl Thurow is an independent director. Prof. Thurow is the Jerome and Dorothy Lemelson Professor of Management and Economics at the Massachusetts Institute of Technology s Sloan School of Management. He is also a director of Analog Devices, Inc. and E*TRADE Financial Corporation. Professor Thurow served as dean of the Sloan School of Management from 1987 to 1993. Professor Thurow holds a Ph.D. in economics from Harvard University and an M.A. in philosophy, politics and economics from Oxford University where he was a Rhodes Scholar.

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Sir Peter Leahy Bonfield is an independent director. Sir Peter Bonfield was the Chief Executive Officer of British Telecommunications from January 2, 1996 to January 31, 2002. He currently is the senior non-executive director of AstraZeneca Group Plc. and director of L. M. Ericsson and Mentor Graphics Corporation Inc. He is also the Vice President of the British Quality Foundation and member of the Citigroup International Advisory Board. He holds a bachelors degree in engineering from Longhborough University of Technology.

Rick Tsai is a director. He has been President and Chief Operating Officer since August 2001. He was Executive Vice President of Worldwide Marketing and Sales from September 2000 to August 2001. Prior to that, he served as our Executive Vice President of Operations. He also served as the President of Vanguard from 1999 to 2000. He joined us in 1989 as Deputy Director of our Fab 2 operations. He holds a Ph.D. in material science from Cornell University and has been active in the semiconductor industry for over 22 years.

Robbert Brakel is a supervisor. He is a director and Chief Financial Officer at Philips Taiwan, Ltd. and Vice President and Financial Controller of Philips Semiconductors in Asia, based in Taipei. He has served previously as Financial Controller of Philips Mainstream TV business in Singapore and the Domestic Appliances business in The Netherlands. Mr. Brakel holds a doctoral degree in business economics from the Free University of Amsterdam and is a chartered controller.

Susan Chang is a supervisor and replaced Mr. George C. Shiu on April 1, 2003. Ms. Chang is the Administrative Deputy Minister of the Ministry of Finance, ROC. Prior to that, Ms. Chang served as Director General of Department of National Treasury, Ministry of Finance, ROC, and as Deputy of the General Bureau of Monetary Affairs, Ministry of Finance, ROC. Ms. Chang holds a master s degree of Economics, National Taiwan University.

Michael E. Porter is an independent supervisor. Mr. Porter is also a director of Inforte Corporation, Parametric Technology Corporate as well as Thermo-Electron Corporation. Mr. Porter is Bishop William Lawrence University Professor at Harvard Business School. Professor Porter is a leading expert on competitiveness strategy and has served as an advisor to both international companies and sovereign states. Professor Porter holds a Ph.D. in business economics from Harvard University, an MBA from Harvard Business School and a bachelors degree in mechanical engineering from Princeton University.

Quincy Lin has been Senior Vice President of Corporate Development since May 1997 and Chief Information Officer since August 2001. He joined us in 1989 as Director of Strategic Planning and Development after having worked for Bell Laboratories of AT&T. He was Senior Director of Corporate Services at our company from 1992 to 1994 and Vice President of Corporate Marketing and Sales from 1994 to 1997. He holds a Ph.D. in business administration from the University of Kentucky and has been active in the semiconductor industry for over 21 years.

Shang-Yi Chiang has been Senior Vice President of Research and Development since November 2000. He joined us as Vice President of Research and Development in July, 1997. Prior to that, he worked at Hewlett Packard. Dr. Chiang holds a Ph.D. in electrical engineering from Stanford University and has been active in the semiconductor industry for over 27 years.

Kenneth Kin joined us as Senior Vice President of Worldwide Marketing and Sales in August 2001. Prior to that, he was the Vice President of IBM Corporation since 1996. He holds a Ph.D. in nuclear engineering and applied physics from Columbia University.

Lora Ho has been Vice President, Chief Financial Officer and Spokesperson since September 8, 2003, when she replaced Mr. Harvey Chang. Prior to joining us in 1999 as controller, she served as Vice President Finance and Chief Financial Officer at Acer Semiconductor Manufacturing

Inc. since 1990. Ms. Ho received an EMBA from National Taiwan University in 2003 and a B.A. degree from National Chengchi University in 1978.

J.B. Chen joined us in 1987 and has been Vice President of Material Management and Risk Management since August 2001. He holds a master s degree in physics from National Tsing Hua University and has been active in the semiconductor industry for over 22 years.

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Ping Yang has been Vice President of Research and Development since August 2001. Prior to that, Dr. Yang was assigned to our U.S. subsidiary, TSMC North America, in 2000. He joined us in 1997 as Vice President and has been through various functions of Corporate Marketing and Design Services. He holds a Ph.D. in electrical engineering from University of Illinois, Champaign-Urbana.

C.C. Wei has been Vice President for Operations I since January 2002. Prior to that, he was Vice President of South Sites Operations from April 2000 and Vice President of North Sites Operations from February 1998 to April 2000. Prior to that, he was Senior Vice President at Chartered Semiconductor Manufacturing Ltd. in Singapore starting in 1993. He holds a Ph.D. in electrical engineering from Yale University.

Mark Liu has been Vice President of Operations II since January 2002. Prior to that, he was the Vice President of our Fab 8 and Fab 12 sites operation from July 2000 and Vice President of South Sites Operations from 1999 to July 2000. He joined us in 1993 and has held the positions as Director of our Fab 3 operation and Senior Director of South Sites Operations. He holds a Ph.D. in electrical engineering and computer science from the University of California, Berkeley, and has been active in the semiconductor industry for over 17 years.

Genda Hu has been Vice President of Corporate Marketing since May 2001. Mr. Hu joined us as Vice President of Research and Development in May 2000. Prior to that, he was General Director of the Electronic Research and Service Organization for ITRI since July 1996. He holds a Ph.D. in electrical engineering from Princeton University and has been active in the semiconductor industry for over 17 years.

Chenming Hu joined us as Chief Technology Officer since August 2001. He has also been the co-founder and co-chairman of Board of Celestry Design Technologies, Inc. since 1995. He was Chancellor s Professor Chair at the College of Engineering, University of California, Berkeley. He holds a Ph.D. in electrical engineering and computer science from University of California, Berkeley.

M.C. Tzeng has been Vice President of Operations I since January 2002. Prior to that, he was the Senior Director of our Fab 2 operations since 1997. He joined us in 1987 and has held various positions in manufacturing functions. He holds a master degree in applied chemistry from Chung Yuan University.

Richard Thurston became Vice President and General Counsel in January 2002. Prior to that, he was a partner with Kelt Capital Partners, LP, in Addison, Texas. Mr. Thurston also was the Asia Pacific regional counsel for Texas Instruments for 12 years. Mr. Thurston holds a Ph.D. in East Asian Studies from the University of Virginia and a J.D. from Rutgers School of Law.

Chiam Wu joined us as Vice President of Worldwide Customer Service in May 2002. Prior to that, she was Group Vice President of Applied Material and Vice Chairperson of Applied Materials Taiwan. She was with Applied Material from 1987 to 2002. Ms. Wu received a B.S. degree in material science and engineering from National Tsing Hua University in 1978, and a M.S. degree in material science and engineering from Oregon State University in 1980.

P.H. Chang had been senior director of Material Management since we acquired Worldwide Semiconductor in July 2000. Prior to that, he was Vice President of Worldwide Semiconductor. He holds a Ph.D in Material Science from Purdue University.

Except for the sibling relationship between Genda Hu, Vice President of Corporate Marketing, and Chenming Hu, Chief Technology Officer, there is no family relationship between any of our directors, supervisors or executive officers and any other director, supervisor or executive officer.

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Share Ownership

The following table sets forth certain information as of March 31, 2004 with respect to our common shares owned by our directors, supervisors and executive officers.

Name of Shareholders	Number of Common Shares Owned	Percentage of Total Outstanding Common Shares	Number of Common Shares Underlying Stock Options[3]
Morris Chang, Chairman and CEO	102,383,351	0.51%	615,000
J.C. Lobbezoo, Director[1]	3,868,123,138	19.09%	
Scott McGregor, Director[1]	3,868,123,138	19.09%	
Chintay Shih, Director[2]	1,504,718,198	7.42%	
Stan Shih, Director	1,181,883	0.01%	
F.C. Tseng, Director and Deputy CEO	33,659,219	0.17%	
Sir Peter Leahy Bonfield, Director			
Lester Carl Thurow, Director			
Rick Tsai, Director, President & COO	20,657,456	0.10%	615,000
Robbert Brakel, Supervisor[1]	3,868,123,138	19.09%	
Susan Chang, Supervisor[2]	1,504,718,198	7.42%	
Michael E. Porter, Supervisor			
Quincy Lin, Senior Vice President & CIO	22,533,767	0.11%	
Shang-Yi Chiang, Senior Vice President	10,379,909	0.05%	
Kenneth Kin, Senior Vice President	1,842,515	0.01%	298,476
Lora Ho, Vice President & CFO & Spokesperson	1,788,520	0.01%	
J.B. Chen, Vice President	5,285,881	0.03%	
Ping Yang, Vice President	4,705,812	0.02%	
C.C. Wei, Vice President	3,588,721	0.02%	206,019
Mark Liu, Vice President	7,913,995	0.04%	615,000
Genda Hu, Vice President	1,378,508	0.01%	
Chenming Hu, CTO	1,667,238	0.01%	
M.C. Tzeng, Vice President	3,575,094	0.02%	
Richard Thurston, Vice President & General Counsel	814,309	0.00%	65,262
Chiam Wu, Vice President	577,000	0.00%	
P.H. Chang, Vice President	470,285	0.00%	

(1) Represents shares held by Koninklijke Philips Electronics N.V. and Philips Electronics Industries (Taiwan) Ltd.
(2) Represents shares held by the Development Fund of the Executive Yuan.
(3) The stock options granted to our officers on March 7, 2003 under the 2002 Stock Option Plan all have an original exercise price of NT$41.6 and all will expire on March 6, 2013 if not previously exercised. The options were granted to certain of our officers as a result of their voluntary selection to exchange part of their profit sharing to stock options.

Compensation

The aggregate compensation paid and benefits in kind granted to our directors, supervisors and executive officers in 2003, which included a cash bonus to the director and supervisors, was NT$327 million. In addition, certain of our executive officers were granted stock options in 2003 as

set forth below under Employees . According to our articles of incorporation, 0.3 percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) is distributed as bonuses to our directors and supervisors and at least one percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) is distributed as a bonus to employees, including executive officers. Bonuses to directors and supervisors are always paid in cash, while bonuses to our executive officers may be granted in cash, stock, or stock options or the combination of all these three. Individual awards are based on each individual s responsibility, contribution and performance. See note 28.h. to our consolidated financial statements.

The following table sets forth remuneration paid to our individual directors and supervisors in 2003.

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Name	Position with our company in 2003	Total Compensation
Morris Chang	Chairman and CEO	NT$ 5,031,264
J.C. Lobbezoo	Director (Representative of Philips)	(1)
Scott McGregor	Director (Representative of Philips)	(1)(2)
F.C. Tseng	Director and Deputy CEO	5,031,262
Stan Shih	Director	120,000(3)(4)
Chintay Shih	Director (Representative of the Development Fund)	120,000(5)
Sir Peter Leahy Bonfield	Director	4,719,451
Lester Carl Thurow	Director	4,719,451
Rick Tsai	Director, President & COO	69,333
Robbert Brakel	Supervisor (Representative of Philips)	(1)
Susan Chang	Supervisor (Representative of the Development Fund)	90,000(5)(7)
Michael E. Porter	Supervisor	189,186(8)(9)

(1) Philips was paid NT$20,159,494 in the aggregate for the services of its representative directors and supervisor.
(2) Effective September 1, 2003, Mr. Scott McGregor replaced Mr. Jaap van Oost.
(3) Mr. Stan Shih was a representative of Chi Cherng Investment Co. Ltd. until June 3, 2003. In accordance with a ruling by the Ministry of Economic Affairs (the MOEA Ruling), compensation to directors and supervisors is paid to the juridical person shareholder instead of their representatives. He has been an independent director since June 3, 2003.
(4) Chi Cherng Investment Co. Ltd., a subsidiary of us, was paid NT$4,911,262 in the aggregate for the services of its representative director.
(5) The Development Fund was paid NT$9,822,524 in the aggregate for the services of its representative director and supervisor.
(6) During 2003, advance payments in the amount of US$200,000 were paid to each of Sir Peter Leahy Bonfield, Prof. Lester Carl Thurow and Prof. Michael E. Porter, respectively, representing part of their board compensation for 2003. The advance payments will be deducted from their total compensation for 2003, which will be distributed in June 2004.
(7) Effective April 1, 2003, Ms. Susan Chang replaced Mr. George C. Shiu.
(8) Prof. Michael E. Porter was a representative of Hsin Ruey Investment Co. Ltd. until June 3, 2003. In accordance with the MOEA Ruling, compensation to directors and supervisors is paid to the juridical person shareholder instead of their representatives. He has been an independent supervisor since June 3, 2003.
(9) Hsin Ruey Investment Co. Ltd., a subsidiary of us, was paid NT$4,911,262 in the aggregate for the services of its representative supervisor.

Board Practices

General

For a discussion of the term of office of the board of directors, see Directors, Supervisors and Executive Officers Management . No benefits are payable to members of the Board or the Executive Officers upon termination of their relationship with us.

Audit Committee

Our board of directors established an Audit Committee on August 6, 2002 to assist in the review and monitoring of our financial and accounting matters, and the integrity of our financial reporting process and controls.

The Audit Committee, by its charter, is appointed by the board of directors and consists of three to five members, one of whom is selected as chairman of the Audit Committee, and must include a minimum of two independent, non-executive directors and one or more independent supervisors. All members of the Audit Committee must have a basic understanding of finance and accounting and at least one member must have accounting or related financial management expertise. Currently, the Audit Committee consists of four members comprised of three

independent directors and one supervisor. The current members of the Audit Committee are Sir Peter Bonfield, Professor Lester Thurow, Mr. Stan Shih, and Mr. Robbert Brakel. Our board of directors has determined that Mr. Robbert Brakel is an audit committee financial expert. See Item 16A Audit Committee Financial Expert . The Audit Committee meets at least four times a year. Our Audit Committee charter grants the Audit Committee the authority to conduct any investigation which it deems appropriate to fulfill its responsibilities. It has direct access to all our books, records, facilities, and personnel, as well as our outside independent auditors. It has the authority to, among other things, appoint, terminate and approve all fees to be paid to our outside independent auditors, subject to the approval of the board of directors, and to oversee the work performed by the

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outside independent auditors. The Audit Committee also has the authority to engage special legal, accounting, or other consultants it deems necessary in the performance of its duties.

The Audit Committee convened four regular meetings and two special meetings in 2003.

Compensation Committee

Our board of directors established a Compensation Committee in June 2003 to assist our board of directors in discharging its responsibilities related to our compensation and benefit policies, plans and programs, and the evaluation and compensation of our executives, directors and supervisors.

The Compensation Committee, by its charter, shall consist of no fewer than three members of the Board. As of March 2004, five members comprised the Compensation Committee: three of whom are independent directors serving as voting members of the Compensation Committee, and two other non-voting directors. The current members of the Compensation Committee are Mr. Stan Shih, Sir Peter Bonfield, Professor Lester Thurow, Mr. Morris Chang and Ms. Jan Lobbezoo.

The Compensation Committee convened two regular meetings in 2003.

Employees

The following table sets out, as of the dates indicated, the number of our full-time employees serving in the capacities indicated.

	As of December 31,		
Function	**2001**	**2002**	**2003**
Managers	1,370	1,542	1,700
Professionals	4,797	5,271	5,945
Assistant Engineers/Clericals	1,238	1,173	1,056
Technicians	7,096	7,790	8,296
Total	14,501	15,776	16,997

The following table sets out, as of the dates indicated, a breakdown of the number of our full-time employees by geographic location:

	As of December 31,

Location of Facility and Office	2001	2002	2003
Hsinchu Science Park, Taiwan	11,563	12,011	12,555
Southern Taiwan Science Park, Taiwan	1,914	2,725	3,303
United States	980	995	1,091
Europe	23	25	21
Japan	21	20	27
Total	14,501	15,776	16,997

Our success depends to a significant extent upon, among other factors, our ability to attract, retain and motivate qualified personnel. We continued to recruit diverse and experienced talents in 2003 to collectively drive the company to future success. Also aiding in this success was our commitment to create a good working environment, offer personal challenges and support career development. As of December 31, 2003, the total employee population was 16,997 with an educational makeup of 2.5% Ph.Ds, 26.3% masters, 16.3% university bachelors, 24.5% college degrees and 30.4% others. Among this employee population, 7,645 were at a managerial and professional level. Continuous learning is the cornerstone of our employee development strategy. In 2003, one key initiative was individual development plans for each employee, customized and tailored to their individual development needs. Employee development is further supported and enforced by a comprehensive and integrated network of resources including on-the-job training, coaching, mentoring, job rotation, on-site courses, e-learning and external learning opportunities.

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Pursuant to our articles of incorporation, our employees participate in our profits by way of a bonus. Employees in the aggregate are entitled to not less than 1% of our net income after the deduction for prior years losses and contributions to legal and special reserves. Our practice in the past has been to determine the amount of the bonus based on our operating results and industry practice in the ROC. In July 2003 we distributed an aggregate bonus to our employees of NT$1,539,012,990, or 7.9% of our 2002 distributable net income, in the form of common shares. On May 11, 2004, our shareholders approved the distribution of an aggregate bonus to our employees of NT$3,408 million, or 8% of our 2003 distributable net income, 20% of which will be distributed in cash, 80% will be distributed in the form of common shares in 2004. The number of common shares issued as profit sharing is calculated by valuing the common shares at their par value, or NT$10, rather than their market value.

In June 2002, we adopted the 2002 Employee Stock Option Plan that authorizes the grant of options exercisable for up to 100 million common shares (approximately 0.5% of total outstanding common shares). These options will vest between two and four years after the date of grant, with 50% of option granted being exercisable two years after the grant, 75% exercisable three years after the grant and 100% exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2002 Employee Stock Option Plan, a total of 48,137,264 options were granted, of which, 2,716,329 options were granted to certain of our officers (as listed below) as a result of their voluntary selection to exchange part of their profit sharing for stock options. The remaining balance of options under the 2002 Employee Stock Option Plan expired on June 25, 2003. As of December 31, 2003, 48,514,956 options were outstanding under the 2002 Employee Stock Option Plan.

In September 2003, we adopted the 2003 Employee Stock Option Plan that authorizes the grant of options exercisable for up to 120 million common shares (approximately 0.6% of total outstanding common shares) in one or more tranches before October 29, 2004, when the 2003 Employee Stock Option Plan expires. These options will vest between two and four years after the date of grant, with 50% of option granted being exercisable two years after the grant, 75% exercisable three years after the grant and 100% exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2003 Employee Stock Option Plan, a total of 842,400 options have been granted and 841,900 options were outstanding under the 2003 Employee Stock Option Plan as of December 31, 2003.

The table below sets forth the name of our officers to whom options were granted on March 7, 2003 and the number of our common shares issuable upon exercise of these options. The stock options granted to our officers under the 2002 Stock Option Plan all have an initial exercise price of NT$41.6 and all will expire on March 6, 2013 if not previously exercised.

Name	Common Shares Issuable under 2002 Stock Option Plan[1]
Morris Chang	615,000
Rick Tsai	615,000
Mark Liu	615,000
Kenneth Kin	298,476
C.C Wei	206,019
Richard Thurston	65,262

(1) Effective September 8, 2003 Harvey Chang resigned and Lora Ho became Vice President, Chief Financial Officer and Spokesperson of the Company. Upon his resignation, the 301,572 options granted to Harvey Chang were cancelled.

Our employees are not covered by any collective bargaining agreements. We consider our relationship with our employees to be good.

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Item 7. Major Shareholders and Related Party Transactions

Major Shareholders

The following table sets forth certain information as of March 31, 2004 with respect to our common shares owned by (1) each person who, according to our records, beneficially owned five percent or more of our common shares and by (2) all directors, supervisors and executive officers as a group.

Names of Shareholders	Number of Common Shares Owned	Percentage of Total Outstanding Common Shares
Philips[1]	3,868,123,138	19.09%
Development Fund[2]	1,504,718,198	7.42%
Capital Research and Management Company[3]	1,314,090,200	6.50%
Capital Group International, Inc.[4]	1,093,881,800	5.40%
Directors, supervisors and executive officers as a group[5]	224,403,463	1.11%

(1) Includes 2,258,806,301 common shares held by Koninklijke Philips Electronics N.V. and 1,609,316,837 common shares held by Philips Electronics Industries (Taiwan) Ltd.

(2) Excludes any common shares that may be owned by other funds controlled by the ROC government.

(3) According to the Schedule 13G of Capital Research and Management Corporation (CRMC) filed with the Securities and Exchange Commission on February 13, 2004, CRMC beneficially owned 1,314,090,200 common shares as of December 31, 2003. According to this Schedule 13G, CRMC is an investment adviser registered under the Investment Advisers Act of 1940. We do not have further information with respect to CRMC s ownership in us subsequent to CRMC Schedule 13G filed on February 13, 2004.

(4) According to the Schedule 13G of Capital Group International, Inc. (CGII) filed with the Securities and Exchange Commission on February 13, 2004, CGII beneficially owned 1,093,881,800 common shares as of December 31, 2003. CGII s beneficial ownership included 71,499,910 ADS representing 357,499,560 common shares. According to this Schedule 13G, CGII is the parent holding company of a group of investment management companies. We do not have further information with respect to CGII s ownership in us subsequent to CGII s Schedule 13G filed on February 13, 2004.

(5) Excludes ownership of Philips and Development Fund.

Of our nine directors, two are representatives of Philips and one is a representative of the Development Fund. Philips and the Development Fund could each be deemed under the U.S. securities laws to be a controlling shareholder of us.

In June 2001, the Development Fund sold 14,000,000 ADSs, representing 70,000,000 common shares, in November 2001, the Development Fund sold 20,000,000 ADSs, representing 100,000,000 common shares, in February 2002, the Development Fund sold an additional 30,207,200 ADSs, representing 151,036,000 common shares, and in July 2003, the Development Fund sold an additional 86,457,200 ADSs, representing 432,286,000 common shares, which further decreased the Development Fund s ownership of our common shares to 7.42%. The Development Fund announced in February 2004 its intention to sell up to approximately 640 million of our common shares in 2004. In November 2000, Philips purchased from us 1,299,925,653 Preferred A shares, par value NT$10 per share, which pay a cumulative annual cash dividend at the rate of 3.5% per annum. As a result, as of November 2000, Philips ownership percentage of our outstanding equity securities, including the Preferred A shares, increased from 22.47% to 30.23%. On May 29, 2003, we redeemed all of our Preferred A shares. In November 2003, Philips sold 100,000,000 ADSs, representing 500,000,000 common shares. As a result of our redemption of all our Preferred A shares on May 29, 2003 and this sale in November 2003, Philips ownership percentage decreased to 19.09%. In October 2003, Philips announced its intention to gradually and orderly reduce its equity interest in us. Therefore, further sales by Philips of our common shares or ADSs may occur in the coming years.

As of March 31, 2004, a total of 20,266,618,984 common shares were outstanding. With certain limited exceptions, holders of common shares that are not ROC persons are required to hold their common shares through a brokerage account in the ROC. As of March 31, 2004, 2,929,327,497 common shares were registered in the name of a nominee of Citibank, N.A., the depositary under our ADS deposit agreement. Citibank, N.A., has advised us that, as of March 31, 2004, 585,865,498 ADSs, representing 2,929,327,497 common shares, were held of record by Cede & Co. and 256 other registered shareholders domiciled in and outside of the United States. We have no further information as to common shares held, or beneficially owned, by U.S. persons. Following share repurchases under our share buyback plan, 20,141,898,984 common shares were outstanding as of May 21, 2004. See Item 9. The Offer and Listing for further details about the share buyback plan.

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Our major shareholders have the same voting rights as our other shareholders. For a description of the voting rights of our shareholders see Item 10. Additional Information Description of Common Shares Voting Rights.

We are not aware of any arrangement that may at a subsequent date result in a change of control of us.

Related Party Transactions

Industrial Technology Research Institute

ITRI is a government-sponsored organization in the ROC engaging in applied research to accelerate industrial technology development and promote industrial growth. ITRI has, and will continue to have, contractual relationships with us. Our principal relationships include the following:

We entered into a technical cooperation agreement with ITRI pursuant to which ITRI granted us the license to use its technology to manufacture silicon MOS wafers and agreed to provide certain associated assets and relevant technical assistance and information to us, in exchange for a license from us for improvements and refinements thereof. The agreement provides that the ROC Ministry of Economic Affairs, or the entity designated by the ROC Ministry of Economic Affairs, has an option to purchase up to 35% of our capacity as agreed in the agreement on favorable terms and conditions. The term of this agreement is for five years beginning January 1, 1987 and is automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice. The agreement was automatically renewed in 1992 and 1997 and on January 1, 2002.

From time to time, we provide foundry services to ITRI. In 2002 and 2003, we had total sales to ITRI of NT$94 million and NT$60 million (US$1.8 million), respectively, representing less than 1% of our net sales in each year.

Koninklijke Phillips Electronics N.V. and its Affiliates

As of March 31, 2004, Philips, together with its subsidiaries, owned 19.09% of our outstanding equity securities. Two of our nine directors and one of our three supervisors are representatives of Philips. Philips is engaged in the business of world-wide manufacturing and processing of integrated circuits and other semiconductor devices. Philips and its affiliates currently have, and will continue to have in the future, contractual and other business relationships with us. Our principal relationships include the following:

On December 31, 1986, we entered into a technology cooperation agreement with Philips pursuant to which Philips had provided us with certain process and technical information for the production of unencapsulated MOS integrated circuits in wafer form. This agreement was modified on May 12, 1997 and extended for ten years. This agreement also provides for certain license coverage for our benefit with respect to certain patent cross licensing arrangements between Philips and other semiconductor companies. Under this technology cooperation agreement, we are obligated to pay to Philips royalties during the term of the agreement and for three years thereafter.

On October 28, 1992, we entered into a letter agreement with Philips under which Philips has an option on up to 30% of the capacity as agreed in the agreement on most favored terms and conditions for similar orders, as long as Philips and its affiliates shareholding in us remains at 24.8% or higher. From time to time, we provide foundry services to Philips and its affiliates. In 2002 and 2003, we had total sales to Philips and its affiliates of NT$2,909 million and NT$3,577 million (US$105 million), representing 1.8% of our total net sales in each of these years.

In March 1999, we entered into an agreement with Philips, and EDB Investment Pte. Ltd. to found a joint venture to build the Systems on Silicon fab in Singapore. We own 32% of the joint venture, Philips owns 48% and the EDB Investment owns 20%. After the ramping up of the production capability at Systems on Silicon, we, together with Philips, have the right to purchase up to 100% of its annual capacity. We and Philips are required, in the aggregate, to purchase up to 70% of Systems on

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Silicon s full capacity, but TSMC alone is not required to purchase more than 28% of the annual installed capacity. See Item 4. Information on the Company Our History and Structure Systems on Silicon in Singapore for a discussion of our agreement with Philips and EDB Investment to build our Systems on Silicon fab and Systems on Silicon Manufacturing Company Pte. Ltd. for a detailed discussion of the contract terms we entered into with Systems on Silicon.

In November 2000, Philips purchased from us 1,299,925,653 Preferred A shares, at the par value of NT$10 per share, which paid a cumulative annual cash dividend at the rate of 3.5% per annum. The Preferred A shares were redeemed on May 29, 2003.

In November 2002, we entered into an Amended and Restated Joint Technology Cooperation Agreement with Philips, Motorola and ST Microelectronics to jointly develop 90-nanometer to 65 nanometer advanced CMOS Logic and e-DRAM technologies. We also agreed to align 0.12 micron CMOS Logic technology to enhance our foundry business opportunities. We will contribute process technologies and share a portion of the costs associated with this joint development project.

Vanguard International Semiconductor Corporation

In 1994, we, the ROC Ministry of Economic Affairs and other investors established Vanguard, then an integrated DRAM manufacturer. Vanguard commenced volume commercial production in 1995 and listed its shares on the GreTai Securities Market in March 1999. In January 2003, we acquired an additional 230,882,230 newly issued shares of Vanguard. As of March 31, 2004, we owned 28.11% of Vanguard.

On February 14, 2000, we entered into a five-year manufacturing agreement with Vanguard in which Vanguard has agreed to manufacture for us integrated circuit devices and wafers required by our customers. During the term of this agreement, Vanguard is obligated to manufacture wafers for us at a fixed amount of reserved capacity. In consideration of the reserved capacity, we paid Vanguard certain amounts in security payments which Vanguard is obligated to return to us based on the amounts of wafers we order. We pay Vanguard at a discount of the actual selling price. We also agreed to grant Vanguard a royalty-free, non-exclusive and non-transferable right to use any of our logic process technologies necessary for the sole purpose of manufacturing the wafers we order, and transfer technical know-how and information in connection with the manufacturing process. In 2002 and 2003, we had total purchases of NT$3,469 million and NT$4,911 million (US$144 million) from Vanguard, representing 3.2% and 3.8% of our total cost of sales, respectively.

Systems on Silicon Manufacturing Company Pte. Ltd.

Systems on Silicon is a joint venture in Singapore that we established with Philips and EDB Investment Pte. Ltd. for the purpose of producing integrated circuits by means of advanced submicron manufacturing processes pursuant to the product design specifications provided primarily by us and by Philips and its affiliates. Systems on Silicon s business is limited to manufacturing wafers for us, our subsidiaries, Philips and Philips subsidiaries. As of March 31, 2004, we owned 32% of Systems on Silicon.

We entered into a technology cooperation agreement with Systems on Silicon on May 12, 1999 in which Systems on Silicon agreed to base at least a major part of its production activities on processes compatible to those in use in our MOS integrated circuits wafer volume production fabs. In return, we have agreed to provide Systems on Silicon with access to and benefit of the technical knowledge and experience relating to the processes in use in our MOS integrated circuits wafer volume production fabs and to assist Systems on Silicon by rendering certain technical services in connection with its production activities. In addition, we granted to Systems on Silicon limited licenses of any pertinent intellectual property rights owned or controlled by us for the purpose of MOS integrated circuit production for the sole use in manufacturing products for us. Systems on Silicon pays to us during, and up to three years after, the term of this agreement a remuneration of a fixed percentage of the net selling price of all products manufactured by Systems on Silicon. In 2002 and 2003, we had total purchases of NT$2,751 million and NT$5,520

million (US$162 million) from Systems on Silicon, representing 2.5% and 4.3% of our total cost of sales, respectively.

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Global UniChip Corp (GUC)

Subsequent to the dissolution of Ya Xin, one of our consolidated entities in 2002, after its merger with Global UniChip Corp (GUC) on January 4, 2003, we owned 47.3% of GUC as of March 31, 2004. In 2003, we had total sales to GUC of NT$549 million (US$16 million), representing less than 1% of our net sales in that year.

Item 8. Financial Information

Consolidated Financial Statements and Other Financial Information

Please see Item 18. Financial Statements . Other than as disclosed elsewhere in this annual report, no significant change has occurred since the date of the annual financial statements.

Legal Proceedings

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, manufacturing processes, the design of the integrated circuits made by us or the use by our customers of semiconductors made by us may infringe upon patents or other intellectual property rights of others. In some instances, these disputes have resulted in litigation by or against us and certain settlement payments by us in some cases. Because we neither design the integrated circuits nor control the end use thereof, we believe that we should not be ultimately liable to third parties for monetary damages, in most cases, on claims based on infringement of patents relating to designs of integrated circuits or the design of end-use products. Irrespective of the validity of these claims, we could incur significant costs in the defense thereof or could suffer adverse effects on our operations. From time to time we initiate legal proceedings to protect our intellectual property rights.

We are not currently involved in any litigation that we believe is material to us.

Dividends and Dividend Policy

The following table sets forth the stock dividends per share paid during each of the years indicated in respect of common shares outstanding on the record date applicable to the payment of those dividends. During the period from 1995 to 2003, we did not pay any cash dividends. As discussed below, we will pay a portion of the dividend in 2004 in cash.

	Stock dividends Per 100 shares	Total shares issued as stock dividends	Outstanding common shares at year end

1999	23.0	1,390,850,473	7,670,881,717
2000	28.0	2,147,846,881	11,689,364,587
2001	40.0	4,675,745,835	16,832,553,051
2002	10.0	1,683,255,306	18,622,886,745
2003	8.0	1,489,830,940	20,266,618,984

Our dividend policy is set forth in our articles of incorporation. Except as otherwise specified in the articles of incorporation, we shall not pay dividends when there is no profit for a particular fiscal year. Our profits may be distributed by way of cash dividend, stock dividend, or a combination of cash and stock. Since we are in a capital-intensive industry, our profit distribution generally has been made by way of stock dividend. The ratio for cash dividend shall not exceed 50% of the total distribution. Our shareholders have approved the declaration of a total cash dividend of NT$12,159,971,390 and a total stock dividend of NT$28,373,266,580 representing 2,837,326,658 common shares, in respect of net income earned in the year ended December 31, 2003. Payment of the stock dividend is subject to the receipt of the approval from the ROC Securities and Futures Commission.

Holders of outstanding common shares on a dividend record date will be entitled to the full dividend declared without regard to any subsequent transfer of the common shares. Payment of dividends in respect of the prior year is made following approval by our shareholders at the annual general meeting of shareholders.

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Except in limited circumstances, under the ROC Company Law, we are not permitted to distribute dividends or make other distributions to shareholders in respect of any year in which we have no current or retained earnings (excluding reserves). The ROC Company Law also requires that 10% of annual net income (less prior years losses and outstanding taxes) be set aside as legal reserves until the accumulated legal reserves equal our paid-in capital. Our articles of incorporation require that at least one percent of annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) be distributed as a bonus to employees and that 0.3 percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) be distributed as a bonus to directors and supervisors.

Holders of ADRs evidencing ADSs are entitled to receive dividends, subject to the terms of the deposit agreement, to the same extent as the holders of common shares. Cash dividends will be paid to the depositary in NT dollars and, after deduction of any applicable ROC taxes and except as otherwise provided in the deposit agreement, will be converted by the depositary into U.S. dollars and paid to holders. Stock dividends will be distributed to the depositary and, except as otherwise provided in the deposit agreement, will be distributed to holders by the depositary in the form of additional ADSs.

For information relating to ROC withholding taxes payable on cash and stock dividends, see Item 10. Additional Information Taxation ROC Taxation Dividends .

Item 9. The Offer and Listing

The principal trading market for our common shares is the Taiwan Stock Exchange. The common shares have been listed on the Taiwan Stock Exchange under the symbol 2330 since September 5, 1994, and the ADSs have been listed on the New York Stock Exchange under the symbol TSM since October 8, 1997. The outstanding ADSs are identified by the CUSIP number 874039100. The table below sets forth, for the periods indicated, the high and low closing prices and the average daily volume of trading activity on the Taiwan Stock Exchange for the common shares and the high and low closing prices and the average daily volume of trading activity on the New York Stock Exchange for the common shares represented by ADSs.

	Taiwan Stock Exchange			New York Stock Exchange[1]		
	Closing price per common share[2]			Closing price per ADS[2]		
	High	Low	Average daily Trading volume (in thousands of shares)	High	Low	Average daily Trading volume (in thousands of ADSs)
	(NT$)	(NT$)		(US$)		
1999	80.32	25.97	85,221	21.14	5.44	2,158
2000	102.87	45.09	51,685	32.24	10.00	2,980
2001	74.92	37.12	49,944	16.06	7.45	5,049
2002	82.07	32.96	54,479	17.47	4.95	6,449
First Quarter	82.07	67.34	53,223	17.47	13.48	6,341
Second Quarter	80.81	60.61	42,738	17.34	11.44	5,977
Third Quarter	66.20	38.06	53,960	12.68	5.88	6,340
Fourth Quarter	49.50	32.96	67,441	8.74	4.95	7,130
2003	71.50	37.22	48,648	12.92	5.93	7,190

First Quarter	46.76	37.22	52,654	7.93	5.93	5,644
Second Quarter	54.63	39.07	56,542	9.87	6.39	7,425
Third Quarter	71.50	54.17	42,616	12.92	9.44	8,212
Fourth Quarter	71.00	59.50	35,978	11.98	9.45	7,885
November	68.70	62.27	33,019	11.64	10.52	8,728
December	67.00	59.50	35,362	11.30	9.45	7,794
2004						
January	68.50	65.50	37,202	11.63	10.68	7,531
February	65.00	61.50	37,990	11.06	10.30	4,786
March	67.00	55.00	70,682	11.27	9.30	8,407
April	63.26	56.84	50,498	11.25	9.53	5,772
May (through May 17, 2004)	58.32	50.91	53,773	9.88	8.98	8,046

(1) Trading in ADSs commenced on October 8, 1997 on the New York Stock Exchange. Each ADS represents the right to receive five common shares.
(2) As adjusted for a 23% stock dividend in June 1999, a 28% stock dividend in July 2000, a 40% stock dividend in July 2001, a 10% stock dividend in July 2002, and a 8% stock dividend in July 2003.

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As of March 31, 2004, TSMC North America, our wholly owned subsidiary, Chi Cherng Investment Co., Ltd. and Hsin Ruey Investment Co., Ltd., two of our indirect wholly-owned subsidiaries, owned 12,954,411, 13,735,471 and 13,761,218 of our common shares, respectively, representing approximately 0.06%, 0.07% and 0.07% of our outstanding common shares, respectively.

At a special meeting held on March 23, 2004, our board of directors approved a share buyback plan to buy back up to 300,000,000 of common shares at prices in the range of NT$38.5 to NT$95.0 per share during the period from March 24, 2004 to May 23, 2004. The table below sets forth certain information about the repurchase of shares under the share buyback plan.

Period	Total number of shares purchased under the plan	Average price paid per share	Maximum number of shares that may yet be purchased under the plan
March (from March 24, 2004)	8,808,000	NT$ 59.23	291,192,000
April	16,786,000	60.88	274,406,000
May (until May 21, 2004)	99,126,000	55.65	
Total	124,720,000	56.61	

A total of 124,720,000 shares were repurchased pursuant to the share buyback plan, which was concluded on May 21, 2004.

Item 10. Additional Information

Description of Common Shares

Set forth below is a description of our common shares, including summaries of the material provisions of our articles of incorporation, the ROC Company Law, the ROC Securities and Exchange Law and the regulations promulgated thereunder.

General

Our authorized share capital is NT$246,000,000,000, divided into 24,600,000,000 common shares of which 500,000,000 common shares are reserved for the issuance for our employee stock option and among which 20,266,618,984 common shares were issued and outstanding and in registered form as of December 31, 2003. Following share repurchases under our share buyback plan, 20,141,898,984 common shares were outstanding as of May 21, 2004. On May 29, 2003 we redeemed all of our 1,300,000,000 Preferred A shares. Under our articles of incorporation, as amended on June 3, 2003, we are not authorized to issue any preferred shares.

The ROC Company Law, the ROC Statute for Establishment and Administration of Science-Based Industrial Parks and the ROC Securities and Exchange Law provide that any change in the issued share capital of a public company, such as us, requires the approval of its board of directors, an amendment to its articles of incorporation (if such change also involves a change in the authorized share capital) and the approval of, or the registration with, the ROC Securities and Futures Commission and the Ministry of Economic Affairs or the Science Park

Administration (as applicable).

There are no provisions under either ROC law or the deposit agreement under which holders of ADSs would be required to forfeit the common shares represented by ADSs.

We are organized under the laws of the ROC.

Dividends and Distributions

A ROC company is generally not permitted to distribute dividends or to make any other distributions to shareholders in respect of any year for which it did not have either earnings or retained earnings (excluding

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reserves). In addition, before distributing a dividend to shareholders following the end of a fiscal year, the company must recover any past losses, pay all outstanding taxes and set aside in a legal reserve, until such time as its legal reserve equals its paid-in capital, 10% of its net income for that fiscal year (less any past losses), and may set aside a special reserve. Our articles of incorporation require that at least one percent of the net distributable income for that fiscal year be distributed as a bonus to employees and that 0.3 percent of the net distributable income for that fiscal year be distributed as remuneration to directors and supervisors. It has been our practice in each of the last three years to pay all of employee bonuses in the form of stock, but we intend in 2004 to pay 20% of the bonus in the form of cash. The number of common shares issued as a bonus is obtained by dividing the cash value of the bonus by the par value of the common shares, i.e., NT$10 per share. Because the market value of our common shares has generally been well in excess of par value, the actual cash value of a stock bonus has also been in excess of the amount the employee would have received if the bonus had been paid exclusively in cash. Subject to compliance with these requirements, a company may pay dividends or make other distributions from its accumulated earnings or reserves as permitted by the ROC Company Law as set forth below.

At the annual general meeting of our shareholders, the board of directors submits to the shareholders for their approval of our financial statements for the preceding fiscal year and any proposal for the distribution of a dividend or the making of any other distribution to shareholders from our earnings or retained earnings (subject to compliance with the requirements described above) at the end of the preceding fiscal year. All common shares outstanding and fully paid as of the relevant record date are entitled to share equally in any dividend or other distribution so approved. Dividends may be distributed in cash, in the form of common shares or a combination thereof, as determined by the shareholders at the meeting.

In addition to permitting dividends to be paid out of earnings or retained earnings, the ROC Company Law permits us to make distributions to our shareholders of additional common shares by capitalizing reserves (including the legal reserve and some other reserves). However, the capitalized portion payable out of our legal reserve is limited to 50% of the total accumulated legal reserve and this capitalization can only be effected when the accumulated legal reserve exceeds 50% of our paid-in capital.

For information as to ROC taxes on dividends and distributions, see Taxation ROC Taxation .

Preemptive Rights and Issues of Additional Common Shares

Under the ROC Company Law, when a public company such as us issues new shares of common stock for cash, 10% to 15% of the issue must be offered to its employees. The remaining new shares must be offered to existing shareholders in a preemptive rights offering, subject to a requirement under the ROC Securities and Exchange Law that at least 10% of these issuances must be offered to the public. This percentage can be increased by a resolution passed at a shareholders meeting, thereby limiting or waiving the preemptive rights of existing shareholders. The preemptive rights provisions do not apply to (i) offerings by shareholders of outstanding shares; and (ii) offerings of new shares through a private placement approved at a shareholders meeting.

Authorized but unissued shares of any class may be issued at such times and, subject to the above mentioned provisions of the ROC Company Law and the ROC Securities and Exchange Law, upon such terms as the board of directors may determine. The shares with respect to which preemptive rights have been waived may be freely offered, subject to compliance with applicable ROC law.

Meetings of Shareholders

General meetings of our shareholders may be ordinary or extraordinary. Ordinary meetings of shareholders are generally held in Hsinchu, Taiwan, within six months after the end of each fiscal year. Extraordinary meetings of shareholders may be convened by resolution of the board of directors whenever it deems necessary, or under certain circumstances, by shareholders or the supervisors. For a public company such as us, notice in writing of general meetings, stating the place, time and purpose thereof, must be sent to each shareholder at least thirty days (in the case of ordinary meetings) and fifteen days (in the case of extraordinary meetings) prior to the date set for each meeting.

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Voting Rights

A holder of common shares has one vote for each common share. Except as otherwise provided by law, a resolution may be adopted by the holders of a simple majority of the total issued and outstanding common shares represented at a shareholders meeting at which a majority of the holders of the total issued and outstanding common shares are present. The election of directors and supervisors at a shareholders meeting is by cumulative voting, except as otherwise prescribed by the articles of incorporation. Ballots for the election of directors are cast separately from those for the election of supervisors. Both are nominated by our board of directors or shareholders on or prior to the shareholders meeting at which ballots for these elections are cast.

The ROC Company Law also provides that in order to approve certain major corporate actions, including any amendment to the articles of incorporation (which is required for, among other actions, any increase in authorized share capital), the dissolution or amalgamation of a company or the transfer of the whole or an important part of its business or its properties or the taking over of the whole of the business or properties of any other company which would have a significant impact on the acquiring company s operations, and the distribution of any stock dividend, a meeting of the shareholders must be convened with a quorum of holders of at least two-thirds of all issued and outstanding shares of common stock at which the holders of at least a majority of the common stock represented at the meeting vote in favor thereof. However, in the case of a publicly held company such as us, such a resolution may be adopted by the holders of at least two-thirds of the shares of common stock represented at a meeting of shareholders at which holders of at least a majority of the issued and outstanding shares of common stock are present.

A shareholder may be represented at a general meeting by proxy. A valid proxy must be delivered to us at least five days prior to the commencement of the general meeting.

Holders of ADSs will not have the right to exercise voting rights with respect to the common shares represented thereby, except as described in Voting of Deposited Securities .

Other Rights of Shareholders

Under the ROC Company Law, dissenting shareholders are entitled to appraisal rights in the event of amalgamation, spin-off or certain other major corporate actions. A dissenting shareholder may request us to redeem all of the shares owned by that shareholder at a fair price to be determined by mutual agreement or a court order if agreement cannot be reached. A shareholder may exercise these appraisal rights by serving written notice on us prior to the related shareholders meeting and/or by raising an objection at the shareholders meeting. In addition to appraisal rights, any shareholder has the right to sue for the annulment of any resolution adopted at a shareholders meeting where the procedures were legally defective within thirty days after the date of such shareholders meeting. One or more shareholders who have held more than three percent of the issued and outstanding shares for over a year may require a supervisor to bring a derivative action against a director for that director s liability to us as a result of that director s unlawful actions or failure to act. In addition, one or more shareholders who have held more than three percent of our issued and outstanding shares for over a year may require the board of directors to convene an extraordinary shareholders meeting by sending a written request to the board of directors.

Register of Shareholders and Record Dates

Our share registrar, Chinatrust Commercial Bank, maintains the register of our shareholders at its office in Taipei, Taiwan, and enters transfers of the common shares in the register upon presentation of, among other documents, the certificates in respect of the common shares transferred. Under the ROC Company Law, the transfer of common shares in registered form is effected by endorsement of the transferor s and transferee s seals on the share certificates and delivery of the related share certificates. In order to assert shareholders rights against us, however, the transferee must have his name and address registered on the register of shareholders. Shareholders are required to file their respective specimen signatures or seals with us. The settlement of trading in the common shares is normally carried out on the book-entry system maintained by the Taiwan Securities Central Depository Co., Ltd.

The ROC Company Law permits us to set a record date and close the register of shareholders for a specified period in order for us to determine the shareholders or pledgees that are entitled to certain rights pertaining to common shares by giving advance public notice. Under the ROC Company Law, our register of shareholders

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should be closed for a period of sixty days, thirty days and five days immediately before each ordinary meeting of shareholders, extraordinary meeting of shareholders and record date, respectively.

Annual Financial Statements

Under the ROC Company Law, ten days before the ordinary meeting of shareholders, our annual financial statements must be available at our principal office in Hsinchu for inspection by the shareholders.

Acquisition of Common Shares by Us

With minor exceptions, we may not acquire our common shares under the ROC Company Law. However, under the ROC Securities and Exchange Law, we may, by a board resolution adopted by majority consent at a meeting with two-thirds of our directors present, purchase our common shares on the Taiwan Stock Exchange or by a tender offer, in accordance with the procedures prescribed by the ROC Securities and Futures Commission, for the following purposes: (i) to transfer shares to our employees; (ii) to satisfy our obligations to provide our common shares upon exercise or conversion of any warrants, convertible bonds or convertible preferred shares; and (iii) if necessary, to maintain our credit and our shareholders equity (such as for the purpose of supporting the trading price of our common shares during market dislocations), provided that the common shares so purchased shall be cancelled thereafter.

We are not allowed to purchase more than ten percent of our total issued and outstanding common shares. In addition, we may not spend more than the aggregate amount of our retained earnings, premium from issuing stock and the realized portion of the capital reserve to purchase our common shares.

We may not pledge or hypothecate any purchased common shares. In addition, we may not exercise any shareholders rights attached to such common shares. In the event that we purchase our common shares on the Taiwan Stock Exchange, our affiliates, directors, supervisors, managers and their respective spouses, minor children and nominees are prohibited from selling any of our common shares during the period in which we purchase our common shares.

In addition, effective from November 14, 2001 under the revised ROC Company Law, our subsidiaries may not acquire our shares. This restriction does not, however, affect any of our shares acquired by our subsidiaries prior to November 14, 2001.

Liquidation Rights

In the event of our liquidation, the assets remaining after payment of all debts, liquidation expenses, taxes and distributions to holders of preferred shares, if any, will be distributed pro rata to our shareholders in accordance with the ROC Company Law.

Transaction Restrictions

The ROC Securities and Exchange Law (i) requires each director, supervisor, manager or shareholder holding more than ten percent of the shares of a public company to report the amount of that person s shareholding to that company and (ii) limits the number of shares that can be sold or transferred on the Taiwan Stock Exchange or on the GreTai Securities Market by that person per day.

Material Contracts

We are not currently, and have not been in the last two years, party to any material contract, other than contracts entered into in the ordinary course of our business. Please see Item 7. Major Shareholders and Related Party Transactions Related Party Transactions for a summary of contracts with certain of our related parties.

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Foreign Investment in the ROC

Historically, foreign investment in the ROC securities market has been restricted. Since 1983, the ROC government has periodically enacted legislation and adopted regulations to permit foreign investment in the ROC securities market.

On September 30, 2003, the Executive Yuan approved an amendment to Regulations Governing Investment in Securities by Overseas Chinese and Foreign National, or the Regulations, which took effect on October 2, 2003. According to the Regulations, the ROC Securities and Futures Commission abolished the mechanism of the so-called qualified foreign institutional investors and general foreign investors as stipulated in the Regulations before the amendment.

Under the Regulations, foreign investors are classified as either onshore foreign investors or offshore foreign investors according to their respective geographical location. Both onshore and offshore foreign investors are allowed to invest in ROC securities after they register with the Taiwan Stock Exchange. The Regulations further classify foreign investors into foreign institutional investors and foreign individual investors. Foreign institutional investors refer to those investors incorporated and registered in accordance with foreign laws outside of the ROC (i.e., offshore foreign institutional investors) or their branches set up and recognized within the ROC (i.e., onshore foreign institutional investors). Offshore foreign institutional investors are required to apply for an approval from the Central Bank of China in addition to the registration with the Taiwan Stock Exchange. Offshore overseas Chinese and foreign individual investors are not required to apply for Central Bank of China approval, but are subject to a maximum investment ceiling that will be separately determined by the ROC Securities and Futures Commission after consultation with the Central Bank of China. On the other hand, foreign institutional investors are not subject to any ceiling for investment in the ROC securities market.

Except for certain specified industries, such as telecommunications, investments in ROC-listed companies by foreign investors are not subject to individual or aggregate foreign ownership limits. Custodians for foreign investors are required to submit to the Central Bank of China and the Taiwan Stock Exchange a monthly report of trading activities and status of assets under custody and other matters. Capital remitted to the ROC under these guidelines may be remitted out of the ROC at any time after the date the capital is remitted to the ROC. Capital gains and income on investments may be remitted out of the ROC at any time.

Foreign investors (other than foreign investors who have registered with the Taiwan Stock Exchange for making investments in the ROC securities market) who wish to make direct investments in the shares of ROC companies are required to submit a foreign investment approval application to the Investment Commission of the ROC Ministry of Economic Affairs or other applicable government authority. The Investment Commission or such other government authority reviews each foreign investment approval application and approves or disapproves each application after consultation with other governmental agencies (such as the Central Bank of China and the ROC Securities and Futures Commission).

Under current ROC law, any non-ROC person possessing a foreign investment approval may repatriate annual net profits, interest and cash dividends attributable to the approved investment. Stock dividends attributable to this investment, investment capital and capital gains attributable to this investment may be repatriated by the non-ROC person possessing a foreign investment approval after approvals of the Investment Commission or other government authorities have been obtained.

In addition to the general restriction against direct investment by non-ROC persons in securities of ROC companies, non-ROC persons (except in certain limited cases) are currently prohibited from investing in certain industries in the ROC pursuant to a negative list , as amended by the Executive Yuan. The prohibition on foreign investment in the prohibited industries specified in the negative list is absolute in the absence of a

specific exemption from the application of the negative list. Pursuant to the negative list, certain other industries are restricted so that non-ROC persons (except in limited cases) may invest in these industries only up to a specified level and with the specific approval of the relevant competent authority that is responsible for enforcing the relevant legislation that the negative list is intended to implement.

Depositary Receipts. In April 1992, the ROC Securities and Futures Commission enacted regulations permitting ROC companies with securities listed on the Taiwan Stock Exchange, with the prior approval of the ROC

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Securities and Futures Commission, to sponsor the issuance and sale to foreign investors of depositary receipts. Depositary receipts represent deposited shares of ROC companies. In December 1994, the Ministry of Finance allowed companies whose shares are traded on the ROC GreTai Securities Market or listed on the Taiwan Stock Exchange, upon approval of the ROC Securities and Futures Commission, to sponsor the issuance and sale of depositary receipts.

In the past, for depositary shares that represented new shares, three months after the issuance of the depositary receipts, a holder of the depositary receipts (other than citizens of the PRC and entities organized under the laws of the PRC) could request the depositary to either cause the underlying shares to be sold in the ROC and to distribute the sale proceeds to the holder or to withdraw from the depositary receipt facility the shares represented by the depositary receipts and transfer the shares to the holder. For depositary shares that represent previously issued and existing shares, a holder of the depositary receipts (other than citizens of the PRC and entities organized under the laws of the PRC) could, immediately after the issuance of the depositary receipts, request the depositary to either cause the underlying shares to be sold in the ROC and to distribute the sale proceeds to the holder or to withdraw from the depositary receipt facility the shares represented by the depositary receipts and transfer the shares to the holder. The Executive Yuan and the ROC Securities and Futures Commission recently amended the relevant regulations such that the three-month withdrawal restriction has been removed. Accordingly, a holder of depositary receipts (other than citizens of the PRC and entities organized under the laws of the PRC) may now withdraw shares after the issuance of the depositary receipts representing new shares to the extent permitted under the deposit agreement (in practice, four to seven business days thereafter).

We, or the foreign depositary bank, may not increase the number of depositary receipts by depositing shares in a depositary receipt facility or issuing additional depositary receipts against these deposits without specific ROC Securities and Futures Commission approval, except in limited circumstances. These circumstances include issuances of additional depositary receipts in connection with:

(1) dividends on or free distributions of shares;

(2) the exercise by holders of existing depositary receipts of their pre-emptive rights in connection with capital increases for cash; or

(3) if permitted under the deposit agreement and custody agreement, the deposit of common shares purchased by any person directly or through a depositary bank on the Taiwan Stock Exchange or the GreTai Securities Market (as applicable) or held by such person for deposit in the depositary receipt facility.

Under current ROC laws and regulations, the term any person referred to in clause (3) above may be interpreted to mean either (a) any foreign national or overseas Chinese investor (excluding any ROC investors) or (b) any foreign or ROC investor.

However, the total number of deposited shares outstanding after an issuance under the circumstances described in clause (3) above may not exceed the number of deposited shares previously approved by the ROC Securities and Futures Commission plus any depositary receipts created under the circumstances described in clauses (1) and (2) above. Issuances of additional depositary receipts under the circumstances described in clause (3) above will be permitted to the extent that previously issued depositary receipts have been canceled and the underlying shares have been withdrawn from the depositary receipt facility

Under current ROC law, a non-ROC holder of ADSs who withdraws the underlying shares must appoint an eligible local agent to:

(1) open a securities trading account with a local securities brokerage firm;

(2) remit funds; and

(3) exercise rights on securities and perform other matters as may be designated by the holder.

Under existing ROC laws and regulations, without this account, holders of ADSs that withdraw and hold the common shares represented by the ADSs would not be able to hold or transfer the common shares, whether on

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the Taiwan Stock Exchange or otherwise. In addition, a withdrawing non-ROC holder must appoint a local bank to act as custodian for handling confirmation and settlement of trades, safekeeping of securities and cash proceeds and reporting of information.

Holders of ADSs who are non-ROC persons withdrawing common shares represented by ADSs are required under current ROC law and regulations to appoint an agent in the ROC for filing tax returns and making tax payments. This agent, a tax guarantor , must meet certain qualifications set by the ROC Ministry of Finance and, upon appointment, becomes a guarantor of the withdrawing holder s ROC tax payment obligations. In addition, under current ROC law, repatriation of profits by a non-ROC withdrawing holder is subject to the submission of evidence of the appointment of a tax guarantor to, and approval thereof by, the tax authority, or submission of tax clearance certificates or submission of evidencing documents issued by such agent (so long as the capital gains from securities transactions are exempt from ROC income tax). As required by the Central Bank of China, if repatriation by a holder is based on a tax clearance certificate, the aggregate amount of the cash dividends or interest on bank deposits converted into foreign currencies to be repatriated by the holder shall not exceed the amount of:

(1) the net payment indicated on the withholding tax voucher issued by the tax authority;

(2) the net investment gains as indicated on the holder s certificate of tax payment; or

(3) the aggregate transfer price as indicated on the income tax return for transfer of tax-deferred dividend shares, whichever is applicable.

Under existing ROC laws and regulations relating to foreign exchange control, a depositary may, without obtaining further approvals from the Central Bank of China or any other governmental authority or agency of the ROC, convert NT dollars into other currencies, including US dollars, in respect of the following: proceeds of the sale of shares represented by depositary receipts, proceeds of the sale of shares received as stock dividends and deposited into the depositary receipt facility and any cash dividends or cash distributions received. In addition, a depositary, also without any of these approvals, may convert inward remittances of payments into NT dollars for purchases of underlying shares for deposit into the depositary receipt facility against the creation of additional depositary receipts. A depositary may be required to obtain foreign exchange approval from the Central Bank of China on a payment-by-payment basis for conversion from NT dollars into other currencies relating to the sale of subscription rights for new shares. Proceeds from the sale of any underlying shares by holders of depositary receipts withdrawn from the depositary receipt facility may be converted into other currencies without obtaining Central Bank of China approval. Proceeds from the sale of the underlying shares withdrawn from the depositary receipt facility may be used for reinvestment in the Taiwan Stock Exchange or the GreTai Securities Market, subject to registering with the Taiwan Stock Exchange and, if applicable, subject to obtaining the approval from the Central Bank of China (if the holder of depositary receipts is a foreign company, that is, a company incorporated in a jurisdiction other than the ROC under the laws of such foreign jurisdiction).

Direct Share Offerings

The ROC government has amended regulations to permit ROC companies listed on the Taiwan Stock Exchange or GreTai Securities Market to issue shares directly (not through depositary receipt facility) overseas.

Overseas Corporate Bonds. Since 1989, the ROC Securities and Futures Commission has approved a series of overseas bonds issued by ROC companies listed on the Taiwan Stock Exchange in offerings outside the ROC. Under current ROC law, these overseas corporate bonds can be:

(1) converted by bondholders, other than citizens of the PRC and entities organized under the laws of the PRC, into shares of ROC companies; or

(2) subject to ROC Securities and Futures Commission approval, converted into depositary receipts issued by the same ROC company or by the issuing company of the exchange shares, in the case of exchangeable bonds.

The relevant regulations also permit public issuing companies to issue corporate debt in offerings outside the ROC. Proceeds from the sale of the shares converted from overseas convertible bonds may be used for

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reinvestment in securities listed on the Taiwan Stock Exchange or traded on the GreTai Securities Market, subject to registering with the Taiwan Stock Exchange and, if applicable, subject to obtaining the approval from the Central Bank of China (if the holder of overseas convertible bonds is a foreign company, that is, a company incorporated in a jurisdiction other than the ROC under the laws of such foreign jurisdiction).

Exchange Controls in the ROC

The Foreign Exchange Control Statute and regulations provide that all foreign exchange transactions must be executed by banks designated to handle such business by the Ministry of Finance and by the Central Bank of China. Current regulations favor trade-related foreign exchange transactions. Consequently, foreign currency earned from exports of merchandise and services may now be retained and used freely by exporters, and all foreign currency needed for the importation of merchandise and services may be purchased freely from the designated foreign exchange banks.

Trade aside, ROC companies and resident individuals may, without foreign exchange approval, remit outside the ROC foreign currency of up to US$50 million (or its equivalent) and US$5 million (or its equivalent), respectively, in each calendar year. In addition, ROC companies and resident individuals may, without foreign exchange approval, remit into the ROC foreign currency of up to US$50 million (or its equivalent) and US$5 million (or its equivalent), respectively, in each calendar year. Furthermore, any remittance of foreign currency into the ROC by a ROC company or resident individual in a year will be offset by the amount remitted out of ROC by such company or individual (as applicable) within its annual quota and will not use up its annual inward remittance quota to the extent of such offset. The above limits apply to remittances involving a conversion of NT dollars to a foreign currency and vice versa. A requirement is also imposed on all enterprises to register medium-and long-term foreign debt with the Central Bank of China.

In addition, foreign persons may, subject to certain requirements, but without foreign exchange approval of the Central Bank of China, remit outside and into the ROC foreign currencies of up to US$100,000 (or its equivalent) for each remittance. The above limit applies to remittances involving a conversion of NT dollars to a foreign currency and vice versa. The above limit does not, however, apply to the conversion of NT dollars into other currencies, including US dollars, in respect of the proceeds of sale of any underlying shares withdrawn from a depositary receipt facility.

Voting of Deposited Securities

Holders may direct the exercise of voting rights with respect to the common shares represented by the ADSs only in accordance with the provisions of the deposit agreement as described below and applicable ROC law. See Item 3. Key Information Risk Factors Risks Relating to Ownership of ADSs Your voting rights as a holder of ADSs will be limited .

Except as described below, the holders will not be able to exercise the voting rights attaching to the common shares represented by the ADSs on an individual basis. According to the ROC Company Law, a shareholder s voting rights attached to shares in an ROC company must, as to all matters subject to a vote of shareholders (other than the election of directors and supervisors), be exercised as to all shares held by such shareholder in the same manner. Accordingly, the voting rights attaching to the common shares represented by ADSs must be exercised as to all matters subject to a vote of shareholders by the depositary bank or its nominee, who represents all holders of ADSs, collectively in the same manner, except in the case of an election of directors and supervisors. Directors and supervisors are elected by cumulative voting unless our articles of incorporation stipulate otherwise.

In the deposit agreement, the holders will appoint the depositary bank as their representative to exercise the voting rights with respect to the common shares represented by the ADSs.

We will provide the depositary bank with copies (including English translations) of notices of meetings of our shareholders and the agenda of these meetings, including an indication of the number of directors or supervisors to be elected if an election of directors or supervisors is to be held at the meeting. The depositary bank has agreed to request and we will, therefore, also provide a list of the candidates who have expressed their intention to run for an election of directors or supervisors. The depositary bank will mail these materials, together with a voting instruction

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form to holders as soon as practicable after the depositary bank receives the materials from us. In order to validly exercise its voting rights, the holder of ADSs must complete, sign and return to the depositary bank the voting instruction form by a date specified by the depositary bank. Additional or different candidates may be nominated at the meeting of the shareholders other than those proposed in the list provided by us and after the depositary bank has mailed the voting instruction form to the holders. If such change were to occur, the depositary bank may calculate the votes according to procedures not inconsistent with the provisions of the deposit agreement, but shall not exercise any discretion regarding the holders voting rights.

Subject to the provisions described in the second succeeding paragraph, which will apply to the election of directors and supervisors done by means of cumulative voting, if persons together holding at least 51% of the ADSs outstanding at the relevant record date instruct the depositary bank to vote in the same manner in respect of one or more resolutions to be proposed at the meeting (other than the election of directors or supervisors), the depositary bank will notify the instructions to the chairman of our board of directors or a person he may designate. The depositary bank will appoint the chairman or his designated person to serve as the voting representative of the depositary bank or its nominee and the holders. The voting representative will attend such meeting and vote all the common shares represented by ADSs to be voted in the manner so instructed by such holders in relation to such resolution or resolutions.

If, for any reason, the depositary bank has not by the date specified by it received instructions from persons together holding at least 51% of all the ADSs outstanding at the relevant record date to vote in the same manner in respect of any resolution specified in the agenda for the meeting (other than the election of directors or supervisors), then the holders will be deemed to have instructed the depositary bank or its nominee to authorize and appoint the voting representative as the representative of the depositary bank and the holders to attend such meeting and vote all the common shares represented by all ADSs as the voting representative deems appropriate with respect to such resolution or resolutions, which may not be in your interests; provided, however, that the depositary bank or its nominee will not give any such authorization and appointment unless it has received an opinion of ROC counsel addressed to the depositary bank and in form and substance satisfactory to the depositary bank, at its sole expense, to the effect that, under ROC law (i) the deposit agreement is valid, binding and enforceable against us and the holders and (ii) the depositary bank will not be deemed to be authorized to exercise any discretion when voting in accordance with the deposit agreement and will not be subject to any potential liability for losses arising from such voting. We and the depositary bank will take such actions, including amendment of the provisions of the deposit agreement relating to voting of common shares, as we deem appropriate to endeavor to provide for the exercise of voting rights attached to the common shares at shareholders meetings in a manner consistent with applicable ROC law.

The depositary bank will notify the voting representative of the instructions for the election of directors and supervisors received from holders and appoint the voting representative as the representative of the depositary bank and the owners to attend such meeting and vote the common shares represented by ADSs as to which the depositary bank has received instructions from holders for the election of directors and supervisors, subject to any restrictions imposed by ROC law and our articles of incorporation. Holders who by the date specified by the depositary bank have not delivered instructions to the depositary bank will be deemed to have instructed the depositary bank to authorize and appoint the voting representative as the representative of the depositary bank or its nominee and the holders to attend such meeting and vote all the common shares represented by ADSs as to which the depositary bank has not received instructions from the holders for the election of directors and supervisors as the voting representative deems appropriate, which may not be in your best interests. Candidates standing for election as representatives of a shareholder may be replaced by such shareholder prior to the meeting of the shareholders, and the votes cast by the holders for such candidates shall be counted as votes for their replacements.

By accepting and continuing to hold ADSs or any interest therein, the holders will be deemed to have agreed to the voting provisions set forth in the deposit agreement, as such provisions may be amended from time to time to comply with applicable ROC law.

There can be no assurance that the holders will receive notice of shareholders meetings sufficiently prior to the date established by the depositary bank for receipt of instructions to enable you to give voting instructions before the cutoff date.

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Taxation

ROC Taxation

The following is a general summary of the principal ROC tax consequences of the ownership and disposition of ADSs representing common shares to a non-resident individual or entity. It applies only to a holder that is:

- an individual who is not an ROC citizen, who owns ADSs and who is not physically present in the ROC for 183 days or more during any calendar year; or
- a corporation or a non-corporate body that is organized under the laws of a jurisdiction other than the ROC for profit-making purposes and has no fixed place of business or other permanent establishment in the ROC.

Holders of ADSs are urged to consult their own tax advisors as to the particular ROC tax consequences of owning the ADSs which may affect them.

***Dividends*.** Dividends declared by us out of our retained earnings and distributed to the holders are subject to ROC withholding tax, currently at the rate of 20%, on the amount of the distribution in the case of cash dividends or on the par value of the common shares in the case of stock dividends. However, a 10% ROC retained earnings tax paid by us on our undistributed after-tax earnings, if any, would provide a credit of up to 10% of the gross amount of any dividends declared out of those earnings that would reduce the 20% ROC tax imposed on those distributions.

It is currently unclear whether dividends paid by us out of our capital reserves are subject to ROC withholding tax because there are two possible interpretations of the relevant tax laws and regulations that lead to different conclusions on whether such dividends will be taxable, and there is currently no authoritative guidance on this issue.

***Capital Gains*.** Under ROC law, capital gains on transactions in the common shares are currently exempt from income tax. In addition, transfers of ADSs are not regarded as a sale of an ROC security and, as a result, any gains on such transactions are not subject to ROC income tax.

Subscription Rights. Distributions of statutory subscription rights for common shares in compliance with ROC law are not subject to any ROC tax. Proceeds derived from sales of statutory subscription rights evidenced by securities are exempted from income tax but are subject to securities transaction tax at the rate of 0.3% of the gross amount received. Proceeds derived from sales of statutory subscription rights that are not evidenced by securities are subject to capital gains tax at the rate of:

- 35% of the gains realized if you are a natural person; or
- 25% of the gains realized if you are an entity that is not a natural person.

Subject to compliance with ROC law, we, at our sole discretion, can determine whether statutory subscription rights shall be evidenced by issuance of securities.

Securities Transaction Tax. A securities transaction tax, at the rate of 0.3% of the sales proceeds, will be withheld upon a sale of common shares in the ROC. Transfers of ADSs are not subject to ROC securities transaction tax. Withdrawal of common shares from the deposit facility is not subject to ROC securities transaction tax.

Estate and Gift Tax. ROC estate tax is payable on any property within the ROC of a deceased who is an individual, and ROC gift tax is payable on any property within the ROC donated by an individual. Estate tax is currently payable at rates ranging from 2% of the first NT$600,000 to 50% of amounts over NT$100,000,000. Gift tax is payable at rates ranging from 4% of the first NT$600,000 to 50% of amounts over NT$45,000,000. Under ROC estate and gift tax laws, common shares issued by ROC companies are deemed located in the ROC regardless of the location of the holder. It is unclear whether a holder of ADSs will be considered to hold common shares for this purpose.

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Tax Treaty. The ROC does not have a double taxation treaty with the United States. On the other hand, the ROC has double taxation treaties with Indonesia, Singapore, South Africa, Australia, Vietnam, New Zealand, Malaysia, Macedonia, Swaziland, Gambia, The Netherlands and the United Kingdom, which may limit the rate of ROC withholding tax on dividends paid with respect to common shares in ROC companies. It is unclear whether the ADS holders will be considered to hold common shares for the purposes of these treaties. Accordingly, if the holders may otherwise be entitled to the benefits of the relevant income tax treaty, the holders should consult their tax advisors concerning their eligibility for the benefits with respect to the ADSs.

United States Federal Income Taxation

This section discusses the material United States federal income tax consequences to U.S. holders (as defined below) of owning and disposing of our common shares or ADSs. It applies to you only if you hold your common shares or ADSs as capital assets for tax purposes. This section does not apply to you if you are a member of a special class of holders subject to special rules, including:

- dealers in securities;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- tax-exempt organizations;
- life insurance companies;
- persons liable for alternative minimum tax;
- persons that actually or constructively own 10% or more of our voting stock;
- persons that hold common shares or ADSs as part of a straddle or a hedging or conversion transaction; or
- U.S. holders, as defined below, whose functional currency is not the U.S. dollar.

This section is based on the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations, published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis. In addition, this section is based in part upon the representations of the depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms. In general, for United States federal income tax purposes, if you hold ADRs evidencing ADSs, you will be treated as the owner of the shares represented by those ADSs. Exchanges of shares for ADRs, and ADRs for shares, generally will not be subject to United States federal income tax.

You are a U.S. holder if you are a beneficial owner of common shares or ADSs and you are:

a citizen or resident of the United States;

a domestic corporation;

an estate whose income is subject to United States federal income tax regardless of its source; or

a trust if a United States court can exercise primary supervision over the trust s administration and one or more United States persons are authorized to control all substantial decisions of the trust.

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We urge you to consult your own tax advisor regarding the United States federal, state and local tax consequences of owning and disposing of common shares or ADSs in your particular circumstances.

Taxation of Dividends

Subject to the passive foreign investment company rules discussed below, if you are a U.S. holder, the gross amount of any dividend we pay in respect of your common shares or ADSs out of our current or accumulated earnings and profits (as determined for United States federal income tax purposes) including the amount of any ROC tax withheld reduced by any credit against such withholding tax on account of the 10% retained earnings tax imposed on us, is subject to United States federal taxation. If you are a noncorporate U.S. holder, dividends paid to you in taxable years beginning after December 31, 2002 and before January 1, 2009 that constitute qualified dividend income will be taxable to you at a maximum tax rate of 15% provided that you hold the common shares or ADSs for more than 60 days during the 120-day period beginning 60 days before the ex-dividend date and meet other holding period requirements. The IRS has announced that it will permit taxpayers to apply a proposed legislative change to the holding period requirement described in the preceding sentence. This legislative technical correction would change the minimum required holding period, retroactive to January 1, 2003, to more than 60 days during the 121-day period beginning 60 days before the ex-dividend date. Dividends we pay with respect to the common shares or ADSs will be qualified dividend income provided that, in the year that you receive the dividend, the common shares or ADSs are readily tradable on an established securities market in the United States. The dividend is taxable to you when you, in the case of common shares, or the Depositary, in the case of ADSs, receives the dividend. The dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations in respect of dividends received from other United States corporations. The amount of the dividend distribution that you must include in your income as a U.S. holder will be the U.S. dollar value of the NT Dollar payments made, determined at the spot NT Dollar/U.S. dollar rate on the date the dividend distribution is includible in your income, regardless of whether the payment is in fact converted into U.S. dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date you include the dividend payment in income to the date you convert the payment into U.S. dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes. Distributions in excess of current and accumulated earnings and profits, as determined for United States federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the common shares or ADSs and thereafter as capital gain.

Subject to generally applicable limitations and restrictions, the ROC taxes withheld from dividend distributions and paid over to the ROC (reduced by any credit against such withholding tax on account of the 10% retained earnings tax) will be eligible for credit against your U.S. federal income tax liabilities. Special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the maximum 15% tax rate. Dividends paid will generally constitute passive income or, in the case of some U.S. financial services providers, financial services income, which is treated separately from other types of income for purposes of computing the foreign tax credit allowable to you.

Pro rata distributions of common shares by us to holders of common shares or ADSs will generally not be subject to U.S. federal income tax. Accordingly, such distributions will generally not give rise to U.S. federal income against which the ROC tax imposed on such distributions may be credited. Any such ROC tax will generally only be creditable against a U.S. holder s U.S. federal income tax liability with respect to general limitation income and not passive income or financial services income, subject to generally applicable conditions and limitations.

In the event that the ex-dividend date on The New York Stock Exchange or other securities exchange or market for a dividend or distribution that gives rise to ROC withholding tax is after the record date for such dividend or distribution (during which period such ADSs may trade with due bills), a purchaser of ADSs during the period from the record date to the ex-dividend date likely would not be entitled to a foreign tax credit for ROC taxes paid in respect of such ADSs even if (i) the purchaser receives the equivalent of such dividend or distribution on the relevant distribution date, and (ii) an amount equivalent to the applicable ROC withholding tax is withheld therefrom or otherwise charged to the account of such purchaser.

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Taxation of Capital Gains

Subject to the passive foreign investment company rules discussed below, if you are a U.S. holder and you sell or otherwise dispose of your common shares or ADSs, you will recognize capital gain or loss for United States federal income tax purposes equal to the difference between the U.S. dollar value of the amount that you realize and your tax basis, determined in U.S. dollars, in your common shares or ADSs. Capital gain of a noncorporate U.S. holder that is recognized on or after May 6, 2003 and before January 1, 2009 is generally taxed a maximum rate of 15% where the property is held more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes.

Passive Foreign Investment Company Rules

We believe that common shares and ADSs should not be treated as stock of a passive foreign investment company, or PFIC, for United States federal income tax purposes, but this conclusion is a factual determination that is made annually and thus may be subject to change.

In general, if you are a U.S. holder, we will be a PFIC with respect to you if for any taxable year in which you held our common shares or ADSs:

- at least 75% of our gross income for the taxable year is passive income; or
- 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.

Passive income generally includes dividends, interest, royalties, rents (other than certain rents and royalties derived in the active conduct of a trade or business), annuities and gains from assets that produce passive income. If a foreign corporation owns directly or indirectly at least 25% by value of the stock of another corporation, the foreign corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation, and as receiving directly its proportionate share of the other corporation s income.

If we are treated as a PFIC, and you are a U.S. holder that does not make a mark-to-market election, as described below, you will be subject to special rules with respect to:

- any gain you realize on the sale or other disposition of your common shares or ADSs; and
- any excess distribution that we make to you (generally, any distributions to you during a single taxable year that are greater than 125% of the average annual distributions received by you in respect of the common shares or ADSs during the three preceding taxable years or, if shorter, your holding period for the common shares or ADSs).

Under these rules:

the gain or excess distribution will be allocated ratably over your holding period for the common shares or ADSs,

the amount allocated to the taxable year in which you realized the gain or excess distribution will be taxed as ordinary income,

the amount allocated to each prior year, with certain exceptions, will be taxed at the highest tax rate in effect for that year, and

the interest charge generally applicable to underpayments of tax will be imposed in respect of the tax attributable to each such year.

Special rules apply for calculating the amount of the foreign tax credit with respect to excess distributions by a PFIC.

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If you own common shares or ADSs in a PFIC that are treated as marketable stock, you may make a mark-to-market election. If you make this election, you will not be subject to the PFIC rules described above. Instead, in general, you will include as ordinary income each year the excess, if any, of the fair market value of your common shares or ADSs at the end of the taxable year over your adjusted basis in your common shares or ADSs. These amounts of ordinary income will not be eligible for the favorable tax rates applicable to qualified dividend income or long-term capital gains. You will also be allowed to take an ordinary loss in respect of the excess, if any, of the adjusted basis of your common shares or ADSs over their fair market value at the end of the taxable year (but only to the extent of the net amount of previously included income as a result of the mark-to-market election). Your basis in the common shares or ADSs will be adjusted to reflect any such income or loss amounts. Your gain, if any, recognized upon the sale of your common shares or ADSs will be taxed as ordinary income.

In addition, notwithstanding any election you make with regard to the common shares or ADSs, dividends that you receive from us will not constitute qualified dividend income to you if we are a PFIC either in the taxable year of the distribution or the preceding taxable year. Dividends that you receive that do not constitute qualified dividend income are not eligible for taxation at the 15% maximum rate applicable to qualified dividend income. Instead, you must include the gross amount of any such dividend paid by us out of our accumulated earnings and profits (as determined for United States federal income tax purposes) in your gross income, and it will be subject to tax at rates applicable to ordinary income as well as the special rules provided with respect to excess distributions, if applicable, as described above.

If you own common shares or ADSs during any year that we are a PFIC, you must file Internal Revenue Service Form 8621.

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 web site 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

Our exposure to financial market risks derives primarily from changes in interest rates and foreign exchange rates. To mitigate these risks, we utilize derivative financial instruments, the application of which, pursuant to our internal guidelines, is for hedging purposes and not for speculative purposes.

Interest Rate Risks: Our exposure to interest rate risks relates primarily to our long-term debts, which are normally assumed to finance our capital expenditures.

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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, 2003.

	2004	2005	2006	2007	2008 and thereafter
			(in millions, except percentages)		
Long-term debt					
US$-denominated debt					
Variable rate		US$ 199	US$ 60		
Average interest rate		1.99%	2.40%		
NT$-denominated debt					
Fixed rate	NT$ 5,000	NT$ 10,500		NT$ 7,000	NT$ 12,500
Average interest rate	5.95%	5.25%		4.37%	2.84%
Interest rate swaps					
Variable to fixed rate	US$ 3				
Average pay fixed rate	5.95%				
Fixed to variable rate		NT$ 3,000			
Average receive fixed rate		5.25%			

Foreign Currency Risk: Substantial portions of our revenues and expenses are denominated in currencies other than the NT dollar. As of December 31, 2003, more than 69% of our accounts payable and payables for purchases of capital goods were denominated in currencies other than the NT dollar, primarily in U.S. dollars, Japanese yen and Euros. More than 93% of our accounts receivable and receivables from related parties were denominated in non-NT dollars, mainly in U.S. dollars. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we utilize derivative financial instruments, mainly currency forward contracts, to hedge our currency exposure. These hedging transactions help to reduce, but do not eliminate, the impact of foreign currency exchange rate movements. Our policy is to account for these contracts on a mark-to-market rate basis and the premiums or discounts are amortized on a straight-line basis over the life of the contract. Please see note 26 of our consolidated financial statements for information on the net assets, liabilities and purchase commitments that have been hedged by these derivative transactions.

The table below presents our outstanding financial derivative transactions as of December 31, 2003. These contracts all have a maturity date of not more than 12 months.

Foreign Currency Forward Exchange Contracts

	(in thousands)
Hedging assets/liabilities	
(Sell US$/buy NT$)	
Contract amount	US$ 1,805,000
Average contractual exchange rate (against NT dollars)	33.9226
(Buy EUR/sell US$)	
Contract amount	EUR7,500
Average contractual exchange rate (against US dollars)	1.2454
(Buy JPY/sell US$)	
Contract amount	JPY748,405
Average contractual exchange rate (against US dollars)	106.915

Other Market Risk. In addition to our interests in Systems on Silicon, Vanguard, GUC and VisEra Technology Company, we have made investments in equity securities issued by a significant number of private companies related to semiconductor and other technology industries through a number of investment funds. As of December 31, 2003, the aggregate carrying value of these investments on our balance sheet was NT$3,493 million (US$102.8 million). As of December 31, 2003, approximately NT$2,790 million (US$81.3 million) of this amount in venture capital investments was made through InveStar Semiconductor Development Fund, Inc. and InveStar Semiconductor Development Fund (II), Inc., our two 97% owned subsidiaries and Emerging Alliance Fund L.P., our 99.5% owned subsidiary. The carrying value of these investments in private companies and in the investment funds are subject to fluctuation based on many factors such as prevailing market conditions. Moreover, because these are investments in unlisted securities, the fair market value may be significantly different from our carrying value.

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Upon any subsequent sale of our investments, we may not be able to realize our carrying value as of December 31, 2003 or any subsequent date. As of December 31, 2003, we also had NT$13,612 million (US$400 million) in short-term investments in government bonds, money market funds, bond funds and listed stocks, which had a market value of NT$14,055 million (US$413 million) as of that date.

See Item 3. Key Information Exchange Rates for a summary of the movement between the NT dollar and the U.S. dollar during recent years.

Item 12. Description of Securities Other than Equity Securities

Not applicable.

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

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

None.

Item 15. Controls and Procedures

An evaluation was carried out under the supervision and with the participation of the Company s management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of December 31, 2003.

During 2003, no change to our internal control over financial reporting occurred that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

Our Board of Directors has determined that Mr. Robbert Brakel is an audit committee financial expert as defined under the applicable rules of the SEC issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002 serving on our audit committee.

Item 16B. Code of Ethics

We have adopted a Code of Business Conduct and Ethics for Officers, which applies to our Chief Executive Officer, Chief Financial Officer, Controller, and any other persons performing similar functions.

We will provide to any person without charge, upon request, a copy of our Code of Business Conduct and Ethics for Officers. Any request should be made per email to our Investor Relations Division at invest@tsmc.com.

Item 16C. Principal Accountant Fees and Services

The table below summarizes the fees that we paid or accrued for services provided by Deloitte & Touche and its affiliated firms and TN Soong & Co. and its affiliated firms (the Deloitte Entities) for the years ended December 31, 2002 and 2003. TN Soong & Co. and Deloitte & Touche (Taiwan) established Deloitte & Touche effective June 1, 2003.

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	2002	2003
	(In thousands)	
Audit Fees	NT$ 34,424	NT$ 37,988
Audit Related Fees	430	
Tax Fees	10,214	5,801
All Other Fees	54,693	933
Total	NT$ 99,761	NT$ 44,722

Audit Fees. This category includes the audit of our annual financial statements, review of quarterly financial statements and services that are normally provided by the independent auditors in connection with statutory and regulatory filings or engagements for those fiscal years. This category also includes advice on audit and accounting matters that arose during, or as a result of, the audit or the review of quarterly financial statements and statutory audits required by non-U.S. jurisdictions, including statutory audits required by the Tax Bureau of the ROC, Customs Bureau of the ROC, and Securities and Futures Commission (ROC Securities and Futures Commission) of the ROC. This category also includes comfort letters, consents and assistance with and review of documents filed with the SEC.

Audit-Related Fees. This category consists of assurance and related services by the Deloitte Entities that are reasonably related to the performance of the audit or review of our financial statements and are not reported above under Audit Fees. The services for the fees disclosed under this category include royalty audits and review of certain regulatory filings with the ROC Securities and Futures Commission.

Tax Fees. This category consists of professional services rendered by the Deloitte Entities for tax compliance and tax advice. The services for the fees disclosed under this category include tax return preparation and technical tax advice.

All Other Fees. This category consists primarily of fees for financial and other information system design and implementation and consultations relating to employee stock option plan.

All non-audit services need to be pre-approved by the Audit Committee on a case-by-case basis. Accordingly, we have not established any pre-approval policies and procedures. All audit and non-audit services performed by Deloitte & Touche after May 6, 2003, the effective date of revised Rule 2-01(c) (7) of Regulation S-X entitled Audit Committee Administration of the Engagement on strengthening requirements regarding auditor independence, were pre-approved by the Audit Committee.

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

Not applicable.

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

Not applicable.

Item 17. Financial Statements

The Company has elected to provide the financial statements and related information specified in Item 18 in lieu of Item 17.

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Item 18. Financial Statements

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Item 19. Exhibits

(a)		See Item 18 for a list of the financial statements filed as part of this annual report.
(b)		Exhibits to this Annual Report:
	*1.1	Articles of Incorporation of Taiwan Semiconductor Manufacturing Company Limited, as amended and restated on June 3, 2003.
	2b.1	The Company hereby agrees to furnish to the Securities and Exchange Commission, upon request, copies of instruments defining the rights of holders of long-term debt of the Company and its subsidiaries.
	**3.1	Rules for Election of Directors and Supervisors, as amended and restated on May 7, 2002.
	**3.2	Rules and Procedures of Shareholders Meetings, as amended and restated on May 7, 2002.
	***4.1	Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Southern Taiwan Science Park (effective August 1, 1997 to July 31, 2017) (in Chinese with English summary)
	***4.2	Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Southern Taiwan Science Park (effective May 1, 1998 to April 30, 2018) (in Chinese with English summary)
	***4.3	Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Southern Taiwan Science Park (effective November 1, 1999 to October 31, 2019) (in Chinese with English summary)
	***4.4	Land Lease with Hsinchu Science Park Administration relating to Fab 7 (effective December 4, 1989 to December 3, 2009) (in Chinese with English summary)
	**4.5	Land Lease with Hsinchu Science Park Administration relating to the Fab 7 (effective July 1, 1995 to June 30, 2015) (in Chinese with English summary)

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**4.6	Land Lease with Hsinchu Science Park Administration relating to Fab. 8 (effective March 15, 1997 to March 14, 2017) (in Chinese with English summary)
***4.7	Land Lease with Hsinchu Science Park Administration relating to Fab 12 (Phase I) (effective December 1, 1999 to November 30, 2019) (in Chinese with English summary)
*+4.8	Technology Cooperation Agreement between Taiwan Semiconductor Manufacturing Company Ltd. and Philips Electronics N.V. as amended and restated on May 12, 1997.
*4.9a	Taiwan Semiconductor Manufacturing Company Limited 2002 Employee Stock Option Plan, as revised by the board of directors on March 4, 2003.
*****4.9aa	Taiwan Semiconductor Manufacturing Company Limited 2003 Employee Stock Option Plan
*4.9b	TSMC North America 2002 Employee Stock Option Plan, as revised on June 5, 2003.
*****4.9bb	TSMC North America 2003 Employee Stock Option Plan
*4.9c	WaferTech, LLC 2002 Employee Stock Option Plan, as revised on June 5, 2003.
*****4.9cc	Wafer Tech, LLC 2003 Employee Stock Option Plan
****+4.10	Shareholders Agreement, dated as of March 15, 1999, by and among EDB Investments Pte. Ltd., Koninklijke Philips Electronics N.V. and Taiwan Semiconductor Manufacturing Company Ltd.
******4.11	Land Lease with Hsinchu Science Park Administration relating to Fabs 2 and 5 and Corporate Headquarters (effective April 1, 1988 to March 31, 2008) (in Chinese with English summary).
******4.12	Land Lease with Hsinchu Science Park Administration relating to Fabs 3 and 4 (effective May 16, 1993 to May 15, 2013) (in Chinese with English summary).
4.13	Land Lease with Hsinchu Science Park Administration relating to Fab 12 (Phase II) (effective May 1, 2001 to December 31, 2020)(English summary)
4.14	Land Lease with Southern Taiwan Science Park Administration relating to fabs located in Southern Taiwan Science Park (effective November 1, 2000 to October 31, 2020)(English summary)
8.1	List of the subsidiaries of TSMC
12.1	Certification of Chief Executive Officer required by Rule 13a-14(a) under the Exchange Act
12.2	Certification of Chief Financial Officer required by Rule 13a-14(a) under the Exchange Act
13.1	Certification of Chief Executive Officer required by Rule 13a-14(b) under the Exchange Act

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13.2	Certification of Chief Financial Officer required by Rule 13a-14(b) under the Exchange Act
99.1	Consent of Deloitte & Touche
*	Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended December 31, 2002, filed by TSMC on June 23, 2003.
**	Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended December 31, 2001, filed by TSMC on May 9, 2002.
***	Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended December 31, 1999, filed by TSMC on June 29, 2000.
****	Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended December 31, 1998, filed by TSMC on April 30, 1999.
*****	Previously filed in TSMC s registration statement on Form S-8, filed by TSMC on October 20, 2003.
******	Previously filed in TSMC s registration statement on Form F-1, filed by TSMC on September 15, 1997.
+	Contains portions for which confidential treatment has been granted.

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SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant certifies that it meets all the requirements for filing on Form 20-F and has duly caused this annual report to be signed on its behalf by the undersigned.

Date: May 28, 2004

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED

By: /s/ Lora Ho

Name: Lora Ho
Title: Vice President and Chief Financial Officer

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INDEPENDENT AUDITORS REPORT

To the Shareholders of

Taiwan Semiconductor Manufacturing Company Limited

We have audited the accompanying consolidated balance sheets of Taiwan Semiconductor Manufacturing Company Limited (a Republic of China corporation) and subsidiaries (the Company) as of December 31, 2002 and 2003, and the related consolidated statements of income, changes in shareholders equity and cash flows for the years ended December 31, 2001, 2002 and 2003, all expressed in New Taiwan dollars. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the Republic of China and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Taiwan Semiconductor Manufacturing Company Limited and subsidiaries as of December 31, 2002 and 2003, and the results of their operations and their cash flows for the years ended December 31, 2001, 2002 and 2003, in conformity with accounting principles generally accepted in the Republic of China.

As disclosed in Note 3 to the financial statements, the Company adopted Republic of China Statement of Financial Accounting Standards No. 30, Accounting for Treasury Stock, on January 1, 2002.

Accounting principles generally accepted in the Republic of China vary in certain significant respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of net income for each of the three years in the period ended December 31, 2003 and the determination of shareholders equity and financial position at December 31, 2002 and 2003 to the extent summarized in Note 28.

As discussed in Note 28 to the consolidated financial statements, the Company changed its method in accounting for goodwill and other intangible assets to conform to U.S. Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets effective January 1, 2002.

Our audits also comprehended the translation of New Taiwan Dollar amounts into U.S. dollar amounts and, in our opinion, such translation has been made in conformity with the basis stated in Note 4. Such U.S. dollar amounts are presented for the convenience of the readers.

Deloitte & Touche

(TN Soong & Co and Deloitte & Touche (Taiwan)

established Deloitte & Touche effective June 1, 2003)

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Taipei, Taiwan

The Republic of China

February 6, 2004 (May 11, 2004 as to Note 25n, May 20, 2004 as to Note 25k and May 21, 2004 as to the second paragraph in Note 21)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In Millions of New Taiwan and U.S. Dollars, Except Shares)

	Notes	December 31		
		2002	2003	
		NT$	NT$	US$ (Note 4)
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	2, 5	67,790.2	102,988.9	3,030.0
Short-term investments	2, 6, 26	170.0	13,611.5	400.5
Receivables net	2, 7	16,285.4	25,348.9	745.8
Receivables from related parties	23	439.7	1,052.2	30.9
Other financial assets	26	1,010.5	1,373.7	40.4
Inventories net	2, 8	11,201.5	12,135.3	357.0
Deferred income tax assets net	2, 17	3,401.7	8,398.2	247.1
Prepaid expenses and other current assets		2,238.2	1,632.9	48.0
Total current assets		102,537.2	166,541.6	4,899.7
LONG-TERM INVESTMENTS	2, 3, 9, 21, 26	10,635.5	10,748.1	316.2
PROPERTY, PLANT AND EQUIPMENT Net	2, 10, 13, 23	246,498.3	211,854.3	6,232.9
GOODWILL	2	10,158.8	8,720.9	256.6
OTHER ASSETS				
Deferred charges net	2, 11	9,873.8	7,992.0	235.1
Deferred income tax assets net	2, 17	9,773.2	1,111.4	32.7
Refundable deposits	23, 25	557.3	199.5	5.8
Idle assets	2	386.3	94.3	2.8
Assets leased to others	2	87.3	84.3	2.5
Miscellaneous		34.7	54.1	1.6
Total other assets		20,712.6	9,535.6	280.5
TOTAL ASSETS		390,542.4	407,400.5	11,985.9
LIABILITIES AND SHAREHOLDERS EQUITY				
CURRENT LIABILITIES				
Short-term bank loans	12	729.8	407.7	12.0
Payables to related parties	23	1,776.2	3,248.3	95.6
Accounts payable		5,138.6	6,438.6	189.4
Payable to contractors and equipment suppliers		14,132.1	7,232.1	212.8

(Continued)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS (Continued)

(In Millions of New Taiwan and U.S. Dollars, Except Shares)

	Notes	December 31		
		2002	2003	
		NT$	NT$	US$ (Note 4)
Accrued expenses and other current liabilities	26	5,947.2	8,820.8	259.5
Current portion of long-term liabilities	13, 14, 15, 26	12,107.9	5,000.0	147.1
Total current liabilities		39,831.8	31,147.5	916.4
LONG-TERM LIABILITIES				
Long-term bank loans	13	11,051.5	8,800.3	258.9
Long-term bonds payable	14, 26	35,000.0	30,000.0	882.6
Other long-term payables	15	4,281.6	3,300.8	97.1
Total long-term liabilities		50,333.1	42,101.1	1,238.6
OTHER LIABILITIES				
Accrued pension cost	2, 16	2,211.6	2,601.5	76.5
Guarantee deposits	25	1,395.1	763.9	22.5
Others		822.2	1,483.2	43.7
Total other liabilities		4,428.9	4,848.6	142.7
COMMITMENTS AND CONTINGENCIES	25			
MINORITY INTEREST IN SUBSIDIARIES	2	95.5	89.0	2.6
SHAREHOLDERS EQUITY	2, 19			
Capital stock $10 par value				
Authorized: 24,600,000 thousand shares				
Issued:				
Common 18,622,887 thousand and 20,266,619 thousand shares in 2002 and 2003, respectively		186,228.9	202,666.2	5,962.5
Preferred 1,300,000 thousand shares		13,000.0		
Capital surplus	2	57,004.8	56,855.9	1,672.7
Retained earnings		40,792.3	71,100.1	2,091.8
Unrealized loss on long-term investments	2	(194.3)	(0.1)	
Cumulative translation adjustments	2	945.0	225.4	6.6
Treasury stock 42,001 thousand and 40,597 thousand shares in 2002 and 2003, respectively	2, 3, 21	(1,923.5)	(1,633.2)	(48.0)
Total shareholders equity		295,853.2	329,214.3	9,685.6

TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	390,542.4	407,400.5	11,985.9

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME

(In Millions of New Taiwan and U.S. Dollars, Except Shares and Earnings Per Share)

		Year Ended December 31			
	Notes	2001	2002	2003	
		NT$	NT$	NT$	US$ (Note 4)
NET SALES	2, 23, 27	125,884.9	162,301.2	202,996.8	5,972.2
COST OF SALES	18, 23	92,228.1	109,988.1	128,113.3	3,769.1
GROSS PROFIT	27	33,656.8	52,313.1	74,883.5	2,203.1
OPERATING EXPENSES	18, 23				
Research and development		10,293.5	11,725.0	12,712.7	374.0
General and administrative		8,130.1	6,767.8	8,200.0	241.2
Marketing		2,455.4	2,231.3	2,670.2	78.5
Total operating expenses		20,879.0	20,724.1	23,582.9	693.8
INCOME FROM OPERATIONS		12,777.8	31,589.0	51,300.6	1,509.3
NON-OPERATING INCOME					
Gain on sales of investments net	2	1,724.5		3,538.1	104.1
Interest	2, 26	1,486.7	1,094.7	888.1	26.1
Gain on sales of property, plant, and equipment	2	52.4	274.0	438.8	12.9
Technical service income	23, 25	55.1	162.1	209.8	6.2
Royalty income	25	1,301.6	527.1		
Insurance compensation net		860.8			
Amortization of premium from option contracts net	2, 26	234.7			
Other		759.8	291.9	594.5	17.5
Total non-operating income		6,475.6	2,349.8	5,669.3	166.8
NON-OPERATING EXPENSES					
Interest	2, 10, 26	3,144.1	2,616.7	1,891.0	55.7
Loss on impairment of property, plant and equipment and idle assets	2	235.6	244.4	1,506.2	44.3
Foreign exchange loss net	2, 26	695.6	120.6	755.1	22.2
Loss on impairment of long-term investments	2		795.7	652.7	19.2
Loss on sales of property, plant and equipment	2		222.0	374.1	11.0
Investment loss recognized by equity method net	2, 9	3,959.0	1,976.8	294.3	8.7
Amortization of premium from option contracts net	2, 26		419.5	153.8	4.5

(Continued)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME (Continued)

(In Millions of New Taiwan and U.S. Dollars, Except Shares and Earnings Per Share)

	Notes	Year Ended December 31			
		2001	2002	2003	
		NT$	NT$	NT$	US$ (Note 4)
Loss on sales of investments net	2		101.2		
Casualty loss net	2		119.5		
Other		432.6	100.3	164.1	4.8
Total non-operating expenses		8,466.9	6,716.7	5,791.3	170.4
INCOME BEFORE INCOME TAX AND MINORITY INTEREST	27	10,786.5	27,222.1	51,178.6	1,505.7
INCOME TAX BENEFIT (EXPENSE)	2, 17	3,740.7	(5,636.6)	(3,922.9)	(115.4)
INCOME BEFORE MINORITY INTEREST		14,527.2	21,585.5	47,255.7	1,390.3
MINORITY INTEREST IN LOSS (INCOME) OF SUBSIDIARIES	2	(44.0)	24.8	3.0	0.1
NET INCOME		14,483.2	21,610.3	47,258.7	1,390.4
BASIC EARNINGS PER SHARE	2, 22				
Before income tax and minority interest		0.51	1.32	2.52	0.07
Net income		0.69	1.05	2.33	0.07
DILUTED EARNINGS PER SHARE	2, 22				
Before income tax and minority interest		0.51	1.32	2.52	0.07
Net income		0.69	1.05	2.33	0.07
BASIC EARNINGS PER EQUIVALENT ADS	2				
Before income tax and minority interest		2.55	6.62	12.61	0.34
Net income		3.46	5.23	11.64	0.34
DILUTED EARNINGS PER EQUIVALENT ADS	2				
Before income tax and minority interest		2.55	6.62	12.60	0.34
Net income		3.46	5.23	11.63	0.34
BASIC WEIGHTED AVERAGE SHARES OUTSTANDING (Thousands)	2, 22	20,266,619	20,220,989	20,223,457	

DILUTED WEIGHTED AVERAGE SHARES OUTSTANDING (Thousands)	2, 22	20,266,619	20,220,989	20,231,739

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY

(In Millions of New Taiwan Dollars Except Shares and Par Value)

	Capital Stock (NT$10 Par Value)							Unrealized Gain (Loss) on			
		Common stock		Preferred stock							
	Authorized shares	Shares	Amount	Shares	Amount	Capital Surplus	Retained Earnings	Long-term Investments	Cumulative Translation Adjustments	Treasury Stock	Total Shareholders Equity
	(Thousands)	(Thousands)	NT$	(Thousands)	NT$	NT$	NT$	NT$	NT$	NT$	NT$
BALANCE, JANUARY 1, 2001	17,800,000	11,689,365	116,893.7	1,300,000	13,000.0	57,089.0	75,121.0	(71.6)	(278.4)		261,753.7
Increase in authorized shares	6,800,000										
Appropriations of prior year s earnings											
Bonus to employees stock		467,443	4,674.4				(4,674.4)				
Cash dividends preferred shares							(41.1)				(41.1)
Stock dividends 40%		4,675,746	46,757.5				(46,757.5)				
Remuneration to directors and supervisors							(584.3)				(584.3)
Net income in 2001							14,483.2				14,483.2
Gain on sales of properties						39.3	(39.3)				
Gain on sales of properties from investees						0.1	(0.1)				
Reversal of unrealized losses on long term investments								71.6			71.6
Translation adjustments									1,507.1		1,507.1
BALANCE, DECEMBER 31, 2001	24,600,000	16,832,554	168,325.6	1,300,000	13,000.0	57,128.4	37,507.5		1,228.7		277,190.2
Appropriations of prior year s earnings											
Bonus to employees stock		107,078	1,070.8				(1,070.8)				
Cash dividends preferred shares							(455.0)				(455.0)
		1,683,255	16,832.5				(16,832.5)				

Stock dividends 10%				
Remuneration to directors and supervisors		(133.8)		(133.8)
Net income in 2002		21,610.3		21,610.3
Transfer of the capital surplus from gain on sales of property, plant and equipment to retained earnings	(166.5)	166.5		
Transfer of the capital surplus from gain on sales of property, plant and equipment of investees to retained earnings	(0.1)	0.1		
Unrealized loss on long term investments			(194.3)	(194.3)
Translation adjustments			(283.7)	(283.7)

(Continued)

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	Capital Stock (NT$10 Par Value)										
		Common stock		Preferred stock				Unrealized Gain (Loss) on Long-term	Cumulative Translation		Total Shareholders
	Authorized shares	Shares	Amount	Shares	Amount	Capital Surplus	Retained Earnings	Investments	Adjustments	Treasury Stock	Equity
	(Thousands)	(Thousands)	NT$	(Thousands)	NT$	NT$	NT$	NT$	NT$	NT$	NT$
Reclassification of parent company stock held by subsidiaries from long term investments to treasury stock										(1,923.5)	(1,923.5)
Capital surplus from gain on sale of treasury stock						43.0					43.0
BALANCE, DECEMBER 31, 2002	24,600,000	18,622,887	186,228.9	1,300,000	13,000.0	57,004.8	40,792.3	(194.3)	945.0	(1,923.5)	295,853.2
Redemption and retirement of preferred stock				(1,300,000)	(13,000.0)						
Appropriations of prior year s earnings											
Bonus to employees stock		153,901	1,539.0				(1,539.0)				
Cash dividends preferred shares							(455.0)				(455.0)
Stock dividends 8%		1,489,831	14,898.3				(14,898.3)				
Remuneration to directors and supervisors							(58.6)				(58.6)
Net income in 2003							47,258.7				47,258.7
Adjustment arising from changes in ownership percentage in investees						(158.9)					(158.9)
Reversal of unrealized loss on long term investments of investees								194.2			194.2
Translation adjustments									(719.6)		(719.6)
Capital surplus from gain on sale of treasury stock						10.0				290.3	300.3
BALANCE, DECEMBER 31, 2003	24,600,000	20,266,619	202,666.2			56,855.9	71,100.1	(0.1)	225.4	(1,633.2)	329,214.3

BALANCE, DECEMBER 31, 2003 (In millions of US$)	5,962.5	1,672.7	2,091.8	6.6	(48.0)	9,685.6

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Millions of New Taiwan and U.S. Dollars)

	December 31			
	2001	2002	2003	
	NT$	NT$	NT$	US$ (Note 4)
CASH FLOWS FROM OPERATING ACTIVITIES				
Net income	14,483.2	21,610.3	47,258.7	1,390.4
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	55,323.0	65,000.8	69,161.3	2,034.8
Deferred income taxes	(3,788.1)	5,421.0	3,665.4	107.8
Investment loss recognized by equity method net	3,959.0	1,976.8	294.3	8.7
Loss on impairment of property, plant and equipment, and idle assets	235.6	244.4	1,506.2	44.3
Loss (gain) on sales of long-term investments net	(105.4)	170.8	(78.7)	(2.3)
Loss on impairment of long-term investments		795.7	652.7	19.2
Gain on sales of property, plant and equipment net	(52.4)	(52.0)	(64.7)	(1.9)
Pension cost accrued	345.3	355.7	389.9	11.5
Allowance for doubtful receivables	153.8	(167.5)	87.4	2.6
Allowance for sales returns and others	123.3	(209.1)	(236.7)	(7.0)
Reversal of provision for losses on short-term investments net	(13.2)			
Minority interest in income (loss) of subsidiaries	44.0	(24.8)	(3.0)	(0.1)
Changes in operating assets and liabilities:				
Decrease (increase) in:				
Receivables	10,326.2	543.4	(8,914.2)	(262.3)
Receivable from related parties	454.0	55.0	(612.5)	(18.0)
Inventories net	2,957.4	(1,373.1)	(933.9)	(27.5)
Other financial assets	288.6	(162.6)	(347.2)	(10.2)
Prepaid expenses and other current assets	(36.8)	(330.8)	605.0	17.8
Increase (decrease) in:				
Payable to related parties	(1,558.0)	727.9	1,472.1	43.3
Accounts payables	(7,109.9)	3,740.7	1,300.0	38.2
Accrued expenses and other current liabilities	(211.9)	184.5	835.0	24.6
Net cash provided by operating activities	75,817.7	98,507.1	116,037.1	3,413.9
CASH FLOWS FROM INVESTING ACTIVITIES				
Decrease (increase) in short-term investments net	117.1	1,184.5	(13,026.0)	(383.2)
Acquisitions of:				
Long-term investments	(5,120.6)	(3,192.4)	(1,412.3)	(41.5)
Property, plant and equipment	(70,201.2)	(55,235.5)	(37,870.9)	(1,114.2)
Proceeds from sales of:				
Long-term investments	559.1	53.1	505.7	14.9
Property, plant and equipment	301.4	495.9	177.3	5.2
Increase in deferred charges	(1,805.2)	(5,724.6)	(2,138.1)	(62.9)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

(In Millions of New Taiwan and U.S. Dollars)

	December 31			
	2001	2002	2003	
	NT$	NT$	NT$	US$ (Note 4)
Decrease (increase) in refundable deposits	195.0	226.8	357.7	10.5
Decrease (increase) in other assets miscellaneous	(9.1)	2.7	4.6	0.1
Decrease in minority interest in subsidiaries	(249.2)		(3.5)	(0.1)
Increase in goodwill	(1,019.2)			
Net cash used in investing activities	(77,231.9)	(62,189.5)	(53,405.5)	(1,571.2)
CASH FLOWS FROM FINANCING ACTIVITIES				
Payments on:				
Short-term bank loans		(5,539.4)	(309.8)	(9.1)
Long-term bank loans	(940.1)	(4,397.3)	(8,915.5)	(262.3)
Long-term bonds			(4,000.0)	(117.7)
Increase (decrease) in guarantee deposits and other liabilities	75.0	(5,817.6)	(631.1)	(18.6)
Issuance costs of financing	(47.7)	(3.0)		
Cash dividends paid on preferred shares	(41.1)	(455.0)	(455.0)	(13.4)
Redemption of preferred stock			(13,000.0)	(382.4)
Remuneration to directors and supervisors	(584.3)	(133.8)	(58.6)	(1.7)
Proceeds from short-term bank loans	2,435.4			
Proceeds from issuance of long-term bonds		10,000.0		
Net cash provided by (used in) financing activities	897.2	(6,346.1)	(27,370.0)	(805.2)
EFFECTS OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(766.9)	262.4	(62.9)	(1.9)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(1,283.9)	30,233.9	35,198.7	1,035.6
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	38,840.2	37,556.3	67,790.2	1,994.4
CASH AND CASH EQUIVALENTS, END OF YEAR	37,556.3	67,790.2	102,988.9	3,030.0
SUPPLEMENTAL INFORMATION				
Interest paid (excluding amounts capitalized)	3,468.1	2,301.8	1,982.6	58.3
Income tax paid	20.8	165.1	219.0	6.4
Noncash investing and financing activities:				
Transfer from long-term investment to short-term investments	69.7	43.6	141.0	4.1
Current portion of long-term liabilities	5,000.0	12,107.9	5,000.0	147.1
Current portion of other long-term payables		1,157.3	1,592.0	46.8
		1,923.5		

Reclassification of parent company stock held by subsidiaries from short/long-term investments to treasury stock

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. GENERAL

Taiwan Semiconductor Manufacturing Company Ltd. (TSMC), a Republic of China (R.O.C) corporation, was incorporated as a venture among the government of the ROC, acting through the Development Fund of the Executive Yuan; Philips Electronics N.V. and certain of its affiliates (Philips); and certain other private investors. In September 1994, its shares were listed on the Taiwan Stock Exchange (TSE). On October 8, 1997, TSMC listed its shares of stock on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs).

TSMC is engaged in the manufacturing, selling, packaging, testing and designing of integrated circuits and other semiconductor devices, and the manufacturing of masks.

TSMC has six direct wholly-owned subsidiaries: TSMC International Investment Ltd. (TSMC International), TSMC North America (TSMC-North America), Taiwan Semiconductor Manufacturing Company Europe B.V (TSMC-Europe), TSMC Japan K. K. (TSMC-Japan), TSMC (Shanghai) Company Limited (TSMC Shanghai, a newly established entity in 2003), and TSMC Partners, Ltd. (TSMC Partners). In addition, TSMC has the following consolidating subsidiaries: a 99.5% owned subsidiary, Emerging Alliance Fund, L.P. (Emerging Alliance) and two 36% owned affiliates Chi Cherng Investment Co., Ltd. (Chi Cherng, which is 36% owned by TSMC and 64% owned by Hsin Ruey Investment Co., Ltd.) and Hsin Ruey Investment Co., Ltd. (Hsin Ruey, which is 36% owned by TSMC and 64% owned by Chi Cherng). TSMC International has two wholly-owned subsidiaries TSMC Development, Inc. (TSMC Development) and TSMC Technology, Inc. (TSMC Technology), and two 97% owned subsidiaries InveStar Semiconductor Development Fund, Inc. (InveStar) and InveStar Semiconductor Development Fund, Inc. (II) LDC (InveStar II). TSMC Development has a 99.996% owned subsidiary, WaferTech, LLC (WaferTech).

The following diagram presents information regarding the relationship and ownership percentages among TSMC and its consolidated subsidiaries as of December 31, 2003:

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

TSMC-North America is engaged in the sales and marketing of integrated circuits and semiconductor devices. TSMC-Europe, TSMC-Japan, TSMC Development and TSMC Technology are engaged mainly in marketing and engineering support activities. TSMC Shanghai is engaged in integrated circuits and other wafer equipment manufacturing and marketing. TSMC Partners, Chi Cherng and Hsin Ruey are engaged in investments. TSMC International is engaged in providing investment in companies involved in design, manufacture, and other related business in semiconductor industries. Emerging Alliance, InveStar and InveStar II are engaged in investing in new start-up technology companies. WaferTech is engaged in the manufacturing, selling, testing and designing of integrated circuits and other semiconductor devices.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements are presented in conformity with the Guidelines for Securities Issuers Financial Reporting and Accounting Principles generally accepted in the R.O.C. Significant accounting policies are summarized as follows:

Consolidation

TSMC consolidates the accounts of all majority (directly and indirectly) owned subsidiaries. All significant intercompany balances and transactions have been eliminated. The consolidated financial statements include, as of and for the years ended December 31, 2003 and 2002, the accounts of TSMC, TSMC-North America, TSMC-Europe, TSMC-Japan, TSMC Shanghai, TSMC Partners, Emerging Alliance, Chi Cherng, Hsin Ruey and TSMC International and its subsidiaries, InveStar, InveStar II, TSMC Development (including WaferTech) and TSMC Technology. Ya Xin Technology, Inc., one of the consolidated entities in 2002, was dissolved after merging with Global UniChip Corp. (GUC) on January 4, 2003. Therefore, Ya Xin is not a consolidated entity in the consolidated financial statements of 2003. The Company s consolidated financial statements of 2002 are not restated due to Ya Xin is not material to the Company. TSMC and the foregoing subsidiaries are hereinafter referred to collectively as the Company .

Minority interests in WaferTech (0.004% in 2003 and 0.006% in 2002), Emerging Alliance (0.5%), InveStar (3%) and InveStar II (3%) are presented separately in the consolidated financial statements.

Classification of Current and Non-Current Assets and Liabilities

Current assets are those expected to be converted to cash, sold or consumed within one year from the balance sheet date. Current liabilities are obligations due on demand within one year from the balance sheet date. Assets and liabilities that are not classified as current are non-current assets and liabilities, respectively.

Cash Equivalents

Government bonds under repurchase agreements acquired with maturities less than three months from date of purchase are classified as cash equivalents.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Short-term Investments

Short-term investments consist of government bonds, money market funds, government bonds acquired under repurchase agreements, bond funds and listed stocks. The investments are carried at the lower of cost or market value. Cash dividends are recorded as investment income in the current period. An allowance for decline in value is provided and is charged to current period earnings when the aggregate carrying value of the investments exceeds the aggregate market value. A reversal of the allowance is recorded for a subsequent recovery of the market value. The cost of investments sold is accounted for using the weighted-average method.

The market values of government bonds are determined using the average of bid and ask prices of the government bonds. The market value of funds is determined using the net asset value of the funds, and the market value of listed stocks is determined using the average-closing price of the listed stocks for the last month of the period.

Allowance for Doubtful Receivables

Allowances for doubtful receivables are provided based on a review of the collectibility of accounts receivables. The Company determines the amount of allowance for doubtful accounts by examining the historical collection experience and current trends in the credit quality of its customers as well as its internal credit policies.

Revenue Recognition and Allowance for Sales Returns and Others

The Company recognizes net sales when the earnings process is complete, as evidenced by an agreement with the customer, transfer of title and acceptance, if applicable, have occurred, as well as the price is fixed or determinable and the collectibility is reasonably assured. An allowance is provided for any sales return and pricing discounts. Allowance for sales returns and pricing discounts is estimated based on historical experience and any known factors that would affect the allowance. Such provisions are deducted from sales in the year the products are sold and the estimated related costs are deducted from cost of sales.

Sales are determined using the fair value taking into account related sales discounts agreed to by the Company and its customers. Sales agreements typically provide that payment is due 30 days from the invoice date for majority of the customers and 30 to 45 days after the end of the month in which the sales occur for some customers. Since the receivables from sales are collectible within one year and such transactions are frequent, the fair value of receivables is equivalent to the nominal amount of cash received.

Inventories

Inventories are stated at the lower of cost or market value. Inventories are recorded at standard cost and adjusted to the approximate weighted-average cost at the end of each period. Market value represents net realizable value for finished goods and work in process. Replacement value represents net realizable value for raw materials, supplies and spare parts. The Company assesses the impact of changing technology on its inventory on-hand and write-off inventories that are considered obsolete. Ending inventories are evaluated for estimated excess quantities and obsolescence based on demand forecast within a specific time horizon, generally 180 days or less. Scrap and slow-moving items are recognized in the allowance for losses.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Long-term Investments

Investments in companies wherein the Company exercises significant influence on the operating and financial policy decisions are accounted for using the equity method of accounting. The Company s proportionate share in the net income or net loss of investee companies is recognized as components of the Investment income/loss recognized by equity method net account. When equity investments are made, the difference, if any, between the cost of investment and the Company s proportionate share of investee s net book value is amortized using the straight-line method over five years and is recorded as a component of the investment income/loss recognized by equity method net account. The Company adopted Statements of Financial Accounting Standards (SFAS) No. 30, Accounting for Treasury Stock on January 1, 2002. SFAS No. 30 requires the parent company to reclassify its capital stock held by its subsidiary from long-term investments to treasury stock.

When the Company subscribes to additional investee shares at a percentage different from its existing equity interest, the resulting carrying amount of the investment in the equity investee differs from the amount of Company s proportionate share in the investee s net equity. The Company records such difference as an adjustment to long-term investments with the corresponding amount charged to capital surplus. In the event an investee uses its capital surplus (excluding any reserve for asset revaluation) to offset its accumulated deficit, the Company records a corresponding entry equivalent to its proportionate share of the investee s adjustment.

Investments in companies wherein the Company does not exercise significant influence are recorded at historical cost. Cash dividends are recognized as income in the year received but are accounted for as reduction in the carrying values of the long-term investments if the dividends are received in the same year that the related investments are acquired. Stock dividends are recorded as an increase in the number of shares held and do not affect investment income or the carrying amount of the investment. An allowance is recognized for any decline in the market value of investments with readily ascertainable fair market value with the corresponding amount recorded as an unrealized loss, a component of shareholders equity. A reversal of the allowance will result from a subsequent recovery of the market value of such investments. The market value of such investment is determined using the average-closing price of the listed stocks for the last month of the period. The carrying values of investments whose fair market values are not readily ascertainable are reduced to reflect an other-than-temporary decline in their values, with the related impairment loss charged to income.

Investments in foreign mutual funds are stated at the lower of aggregate cost or net asset value. An allowance is recognized when the cost of the funds is lower than their net asset values, with the corresponding amount recorded as a reduction to shareholders equity. A reversal of the allowance will result from a subsequent recovery of the net asset value.

Investments in convertible notes are carried at cost.

The costs of investments sold are determined using the weighted-average method.

When investments in publicly-traded stocks are reclassified from long-term to short-term investments, the Company recognizes a loss to the extent, if any, that the market value of such investments is lower than the carrying value.

If an investee company recognizes an unrealized loss on its long-term investment using the

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

lower-of-cost-or-market method, the Company also recognizes a corresponding unrealized loss in proportion to its equity interest in the investee company and records the amount as a component of its shareholders equity.

Gains or losses on sales from the Company to investee companies accounted for using the equity method are deferred in proportion to the Company s ownership percentage in the investee companies until realized through a transaction with a third party. The entire amount of the gains or losses on sales to majority-owned subsidiaries is deferred until such gains or losses are realized through the subsequent sale of the related products to third parties.

Gains or losses on sales by investee companies to the Company are deferred in proportion to the Company s ownership percentages in the investee companies until realized through transactions with third parties.

Property, Plant and Equipment, Assets Leased to Others and Idle Assets

Property, plant and equipment and assets leased to others are stated at cost less accumulated depreciation. When an impairment is determined, the related assets are stated at the lower of fair value or book value. Idle assets are stated at the lower of book value or net realizable value. Significant additions, renewals, betterments, and interest expense incurred during the construction period are capitalized. Maintenance and repairs are expensed in the period incurred. Interest expense incurred for the project during the purchase and construction period is also capitalized.

Depreciation is computed using the straight-line method over the following estimated service lives: land improvements 20 years; buildings 10 to 20 years; machinery and equipment 5 to 10 years; and office equipment 3 to 7 years.

Upon sale or disposal of property, plant and equipment, the related cost and accumulated depreciation are removed from the corresponding accounts, with any gain or loss charged to income in the period of disposal.

Goodwill

Goodwill represents the excess of the consideration paid for acquisitions over the fair market value of identifiable net assets acquired and acquisition costs. Goodwill is amortized using the straight-line method over the estimated life of 10 years.

Deferred Charges

Deferred charges consist of technology license fees, software and system design costs and other charges. The amounts are amortized as follows: Software and system design costs 3 or 5 years, technology license fees the shorter of the estimated life of the technology or the term of the technology transfer contract.

Pension Costs

TSMC records net periodic pension costs on the basis of actuarial calculations. Unrecognized net transition obligation and unrecognized net gains or losses are amortized over 25 years.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Casualty Loss

Casualty losses are recorded when incurred. Any insurance recoveries are recorded up to the amount of the loss when such recoveries are probable. Recoveries in excess of the amount of the loss are recorded when realized.

Income Tax

The Company uses an inter-period tax allocation method for income tax. Deferred income tax assets and liabilities are recognized for the tax effects of temporary differences, unused tax credits, and net operating loss carry forwards. Valuation allowances are provided to the extent, if any, that it is more likely than not that deferred income tax assets will not be realized. A deferred tax asset or liability is classified as current or non-current in accordance with the classification of its related asset or liability. However, if a deferred tax asset or liability does not relate to an asset or liability in the financial statements, it is classified as current or non-current based on the expected length of time before it is realized.

Any tax credits arising from purchases of machinery, equipment and technology, research and development expenditures, personnel training, and investments in important technology-based enterprises are recognized using the current method.

Adjustments to prior years tax liabilities are added to or deducted from the current year s tax provision.

As of January 1, 1998, income taxes on unappropriated earnings (excluding earnings from foreign consolidating subsidiaries) of 10% are expensed in the year of shareholder approval which is usually the year subsequent to the year incurred.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents, receivables, investments and deposits. The Company limits its exposure to credit loss by depositing its cash and cash equivalents with high credit quality financial institution. The Company s sales are primarily denominated in US Dollars. One customer s revenue represented 17%, 20% and 15% of the consolidated revenue for the year ended December 31, 2001, 2002 and 2003, respectively. The Company routinely assesses the financial strength of substantially all customers. The financial condition of the counter-party to investments and deposits is assessed by management on a regular basis.

Foreign-Currency Transactions

The functional currency of the Company is the New Taiwan dollar as it is the currency of the primary economic environment of the Company s operations. Foreign currency transactions are recorded in New Taiwan dollars at the current rate of exchange in effect when the transactions occur. Exchange gains or losses derived from foreign currency transactions or monetary assets and liabilities denominated in a foreign currency are recognized in current operations. At the end of each period, assets and liabilities denominated in foreign currencies are revalued at the prevailing exchange rate with the resulting gains or losses recognized in current operations.

Translation of Foreign Currency Financial Statements

ROC SFAS No. 14, Accounting for Foreign-Currency Transactions, applies to foreign

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

subsidiaries that use the local foreign currency as their functional currency. The financial statements of foreign subsidiaries are translated into New Taiwan dollars at the following exchange rates: Assets and liabilities current rate on balance sheet date; shareholders equity historical rate; income and expenses weighted average rate during the year. The resulting translation adjustment is recorded as a separate component of shareholders equity.

Derivative Financial Instruments

The Company enters into foreign currency forward contracts to manage its currency exposures in cash flow and in foreign currency-denominated assets and liabilities. The differences in the New Taiwan dollar amounts translated using the spot rate and the amounts translated using the contracted forward rates on the contract date are amortized over the terms of the forward contracts using the straight-line method. At the end of each period, the receivables or payables arising from forward contracts are restated using the prevailing spot rate at the balance sheet date with the resulting differences charged to income. In addition, the receivables and payables related to forward contracts are netted with the resulting amount presented as either an asset or a liability. Any resulting gains or losses upon settlement are charged to income in the period of settlement.

The Company enters into interest rate swap transactions to manage its exposures to changes in interest rates on existing liabilities. These transactions are accounted for on an accrual basis, in which the cash settlement receivable or payable is recorded as an adjustment to interest income or expense.

The notional amount of foreign currency option contracts entered into for hedging purposes are not recognized as an asset or liability on the contract dates. The premiums paid or received for the call or put options are amortized and charged to income on a straight-line basis over the term of the related contract. Any resulting gains or losses upon settlement are charged to income in the period of settlement.

Earnings Per Share

Earnings per share is calculated by dividing net income by the average number of shares outstanding in each period, adjusted retroactively to the beginning of the year for stock dividends and stock bonuses issued subsequently. Earnings per equivalent American Depository Share (ADS) is calculated by multiplying earnings per share by five (one ADS represents five common shares).

Reclassification

Certain accounts in the consolidated financial statements as of and for the years ended December 31, 2001 and 2002 have been reclassified to conform to the consolidated financial statements as of and for the year ended December 31, 2003.

3. NEW ACCOUNTING PRONOUNCEMENTS

In accordance with the ROC SFAS No. 30, Accounting for Treasury Stock and other relevant regulations from Securities and Futures Commission (SFC), the Company is required to reclassify its common stock held by subsidiaries from long-term investments to treasury stock. The reclassification is based on the carrying value recorded by the Company s subsidiaries as of January 1, 2002. The adoption of SFAS No. 30 resulted in a decrease in long-term investments and an increase in treasury stock by NT$1,923.5 million as of December 31, 2002, and an increase in consolidated net income for the year ended December 31, 2002 by NT$25.9 million.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. U.S. DOLLAR AMOUNTS

The Company maintains its accounts and expresses its consolidated financial statements in New Taiwan dollars. For convenience only, U.S. dollar amounts presented in the accompanying consolidated financial statements have been translated from New Taiwan dollars at the noon buying rate in The City of New York for cable transfers in New Taiwan dollars as certified for customs purposes by the Federal Reserve Bank of New York as of December 31, 2003, which was NT$33.99 to US$1.00. The convenience translations should not be construed as representations that the New Taiwan dollar amounts have been, could have been, or could in the future be, converted into U.S. dollars at this or any other rate of exchange.

5. CASH AND CASH EQUIVALENTS

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Cash and bank deposits	65,051.3	97,041.5
Government bonds acquired under repurchase agreements	2,738.9	5,947.4
	67,790.2	102,988.9

6. SHORT-TERM INVESTMENTS

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Government bonds		7,692.6
Money market funds		3,068.2
Government bonds acquired under repurchase agreements		1,800.0
Bond funds		1,000.0
Listed stocks	170.0	50.7

	170.0	13,611.5
Market value	2,455.6	14,054.5

7. RECEIVABLES NET

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Notes receivable	60.2	9.9
Accounts receivable	19,530.7	28,495.2
	19,590.9	28,505.1
Less allowance for doubtful receivables	(933.0)	(1,020.4)
Less allowance for sales returns and others	(2,372.5)	(2,135.8)
	(3,305.5)	(3,156.2)
	16,285.4	25,348.9

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The changes in the allowances are summarized as follows:

	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
Allowance for doubtful receivables			
Balance, beginning of year	946.7	1,100.5	933.0
Additions	165.3	228.1	98.4
Deductions	(11.5)	(395.6)	(11.0)
Balance, end of year	1,100.5	933.0	1,020.4
Allowance for sales returns and others			
Balance, beginning of year	2,458.3	2,581.6	2,372.5
Additions	2,130.1	3,756.9	4,251.8
Deductions	(2,006.8)	(3,966.0)	(4,488.5)
Balance, end of year	2,581.6	2,372.5	2,135.8

8. INVENTORIES NET

	December 31	
	2002	2003
	NT$	NT$ (In Millions)
Finished goods	3,837.3	2,892.5
Work in process	7,611.3	9,089.2
Raw materials	518.2	465.7
Supplies and spare parts	971.0	1,052.1
	12,937.8	13,499.5
Less allowance for losses	(1,736.3)	(1,364.2)
	11,201.5	12,135.3

The changes in inventory reserve are summarized as follows:

	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
Balance, beginning of year	567.6	1,191.8	1,736.3
Additions	3,942.1	3,585.4	1,532.3
Write-offs	(3,317.9)	(3,040.9)	(1,904.4)
Balance, end of year	1,191.8	1,736.3	1,364.2

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. LONG-TERM INVESTMENTS

	December 31			
	2002		2003	
	Carrying Value	% of Owner-Ship	Carrying Value	% of Owner-Ship
	NT$		NT$	
	(In Millions)			
Equity method:				
Publicly traded stock				
Vanguard International Semiconductor Corporation (VIS)	2,415.3	25	4,077.2	28
Non-publicly traded stock				
Systems on Silicon Manufacturing Company Pte Ltd. (SSMC)	3,136.1	32	2,759.4	32
GUC			368.4	47
VisEra Technology Company Ltd. (VisEra)			50.2	25
	5,551.4		7,255.2	
Prepayment for subscribed stocks VIS	849.4			
	849.4			
Cost method:				
Common stock				
Publicly traded stock				
RichTek Technology Corp.			26.7	5
Amkor Technology, Inc.	280.7			
Monolithic System Technology, Inc.	104.3	2		
Taiwan Mask Corp.	32.1	2		
Non-publicly traded stock				
United Gas Co., Ltd.	193.6	11	193.6	11
Global Testing Corp.	179.9	10	179.9	10
Shin-Etsu Handotai Co., Ltd.	105.0	7	105.0	7
Global Investment Holding	100.0	6	104.1	6
EoNex Technologies, Inc.	70.3	6	103.6	6
Hong Tung Venture Capital	83.9	10	83.9	10
Procoat Technology, Inc.	67.5	12	65.9	10
W.K. Technology, Fund IV	50.0	2	50.0	2
Advanced Power Electronics Corp.	46.7	6	46.8	5
Conwise Technology Corp. Ltd.	67.0	14	33.3	14

EON Technology, Inc.	33.7	9	32.8	8
TrendChip Technologies Corp.	30.0	5	29.3	5
Auden Technology MFG. Co., Ltd.	38.8	4	28.3	4
Ralink Technologies, Inc.			26.9	5
Goyatek Technology, Inc.	62.1	8	24.7	8

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	December 31			
	2002		2003	
	Carrying Value	% of Owner-Ship	Carrying Value	% of Owner-Ship
	NT$		NT$	
	(In Millions)			
ChipStrate Technology, Inc.	10.5	9	10.5	9
Signia Technologies, Inc.			10.4	6
Programmable Microelectronics (Taiwan) Corp.	59.3	4	8.6	4
eChannel Option Holding, Inc.			8.5	6
Capella Microsystems			5.3	
GeoVision, Inc.	4.6	2	4.5	1
eLCOS Microdisplay Technology, Ltd.			0.9	1
Divio, Inc.	0.1			
RichTek Technology Corp.	47.0	9		
	1,667.1		1,183.5	
Preferred stock				
Non-publicly traded stock				
Sonics, Inc.	229.8	10	224.6	10
Reflectivity, Inc.	146.3	15	142.4	15
Monolithic Power Systems, Inc.	137.1	16	134.1	16
Atheros Communications, Inc.	124.9	3	122.1	
Tropian, Inc.	150.6	5	119.3	5
eLCOS Microdisplay Technology, Ltd.			118.9	
Memsic, Inc.	106.3	23	104.0	23
Quicksilver Technology, Inc.	82.1	4	84.5	4
Pixim, Inc.	87.8	3	80.9	3
Kilopass Technology, Inc.	69.5	18	68.0	19
Fang Tek, Inc.			68.0	44
NanoAmp Solutions, Inc.	64.4	4	62.9	4
NetLogic Microsystems	65.0	1	62.9	1
Alchip Technologies, Ltd.			57.8	
Ikanos Communications, Inc.	52.7	2	55.2	3
SiRF Technology Holdings, Inc.	50.9	1	49.8	1
Oepic, Inc.	43.1	7	44.7	8
Advanced Analogic Technology, Inc.	43.8	2	42.8	2
Integrated Memory Logic, Inc.	62.9	12	41.5	12
Axiom Microdevices Inc.			34.0	5
Optichron Inc.			34.0	6
NuCORE Technology, Inc.			34.0	2
Silicon Data, Inc.	34.8	7	25.5	7
XHP Microsystem, Inc.	26.4	6	25.5	6

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	December 31			
	2002		2003	
	Carrying Value	% of Owner-Ship	Carrying Value	% of Owner-Ship
	NT$		NT$	
	(In Millions)			
Newport Opticom Inc.	63.3	15	22.1	15
Angstron Systems, Inc.	26.1	7	17.0	6
Iridigm Display, Co.	17.6	2	17.0	1
NextIO, Inc.			17.0	3
Zenesis Technologies	17.6	4	17.0	4
IP Unity	56.9	2	16.8	2
Accelerant Networks, Inc.	35.1	1	15.6	1
Match Lab, Inc.	60.8	11	14.9	11
Quake Technology	35.1	1	11.3	1
LightSpeed Semiconductor Corp.	46.5	3	11.2	2
Sensory, Inc.	21.7	5	10.6	5
Oridus, Inc.	15.6	8	10.2	8
Audience, Inc.			8.5	2
LeadTONE Wireless, Inc.	8.3	6	4.5	6
Capella Miscrosystems, Inc.	23.7	12	4.1	3
Incentia Design Systems, Inc.	17.4	2	3.1	2
Mosaic Systems	17.6	6	0.4	6
FormFactor, Inc.	69.5	1		
Ralink Technologies, Inc.	52.1	6		
Litchfield Communications	35.1	6		
Spreadtrum Communications, Inc.	35.1			
HiNT Corp.	34.8	5		
Equator Technologies, Inc.	24.7	2		
Divio, Inc.	17.4	4		
Signia Technologies, Inc.	15.6	12		
eBest!, Inc.	3.4	1		
	2,329.4		2,038.7	
Bonds				
eBest!, Inc.	0.8			
Funds				
Horizon Ventures	195.4		229.7	
Crimson Asia Capital	42.0		40.9	
	237.4		270.6	

	10,635.5	10,748.0

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company does not exercise significant influence on the aforementioned preferred stock investments.

The carrying value of investments accounted for using the equity method and the related investment gains or losses were determined based on the audited financial statements of the investees for the same period as the Company. The investment gains (losses) of the investee companies consisted of the following:

	Year Ended December 31		
	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
SSMC	(1,722.1)	(1,155.0)	(310.8)
VIS	(2,236.9)	(821.8)	50.3
Others			(33.8)
	(3,959.0)	(1,976.8)	(294.3)

The aggregate market value of the publicly traded stocks accounted for using the cost method was NT$500.4 million and NT$511.0 million as of December 31, 2002 and 2003, respectively.

On January 8, 2003, TSMC s investee company, VIS, issued 600,000 thousand shares of common stock at a price of NT$7 per share of which TSMC purchased a total of 230,882 thousand shares. As a result, its ownership in VIS increased from 25% to 28%.

In November 2003, TSMC purchased a 25% ownership in VisEra for US$1.5 million.

TSMC established Ya Xin in November 2002 and subsequently signed a merger agreement with GUC in December 2002. The merger was effective on January 4, 2003 and GUC is the surviving company. As of December 31, 2003, TSMC holds a 47% ownership interest in GUC.

10. PROPERTY, PLANT AND EQUIPMENT NET

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Cost		
Land and land improvements	874.9	855.4
Buildings	76,428.9	79,778.5
Machinery and equipment	343,951.6	372,042.3
Office equipment	6,996.0	7,457.6
	428,251.4	460,133.8
Construction in progress	28,348.1	26,733.6
	456,599.5	486,867.4
Accumulated depreciation		
Land and improvements	127.4	154.1
Buildings	24,140.5	31,665.8
Machinery and equipment	181,998.6	238,392.3
Office equipment	3,834.7	4,800.9
	210,101.2	275,013.1
	246,498.3	211,854.3

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Depreciation expense on property, plant and equipment was NT$52,762.9 million, NT$59,747.0 million and NT$64,382.9 million for the years ended December 31, 2001, 2002 and 2003, respectively.

Interest expense (before deducting capitalized amounts of NT$507.0 million, NT$213.7 million and NT$139.5 million in 2001, 2002 and 2003, respectively) for the years ended December 31, 2001, 2002 and 2003 was NT$3,651.1 million, NT$2,830.4 million and NT$2,030.5 million, respectively. The interest rates used for the purpose of calculating the capitalized amount were 2.54% to 5.283% in 2001, 2.07% to 5.283% in 2002 and 1.77% to 5.283% in 2003.

Information on the status of the expansion or construction plans of TSMC s manufacturing facilities as of December 31, 2003, is as follows:

Construction/ Expansion Plan	Estimated Complete Cost	Accumulated Expenditures	Actual Date of Commencement	Expected Date of Commencement
	NT$	NT$		
	(In Millions)			
Fab 12 phase 1	85,364.8	82,722.1	March 2002	
Fab 14 phase 1	67,047.2	27,189.6		2nd half of 2004 at the earliest

11. DEFERRED CHARGES NET

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Technology license fees	6,519.3	5,084.7
Software and system design costs	3,167.4	2,719.2
Others	187.1	188.1
	9,873.8	7,992.0

Amortization expense on deferred charges was NT$1,465.9 million, NT$4,039.5 million and NT$3,473.1 million for the years ended December 31, 2001, 2002 and 2003, respectively.

As of December 31, 2003, the Company s estimated aggregate amortization expenses for each of the five succeeding fiscal years are as follows:

Year	Amount
	NT$ (In Millions)
2004	2,147.9
2005	1,941.5
2006	1,423.2
2007	508.4
2008	507.3
2009 and thereafter	1,463.7
	7,992.0

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. SHORT-TERM BANK LOANS

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Unsecured loans in US dollars:		
US$21.0 million and US$12.0 million as of December 31, 2002 and 2003, respectively; annual interest at 1.82% and 1.52% in 2002 and 2003, respectively	729.8	407.7

As of December 31, 2003, TSMC provided NT$1,359.1 million (US$40.0 million) guarantee for the benefit of TSMC- North America for the above loan.

Unused credit lines as of December 31, 2003 aggregated approximately US$38.0 million.

13. LONG-TERM BANK LOANS

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Secured loan:		
US$318.0 million and US$199.0 million as of December 31, 2002 and 2003, respectively, repayable by February 2005, repaid US$119.0 million in 2003; annual floating interest at 2.078% and 1.8275% in 2002 and 2003, respectively	11,051.5	6,761.6
Unsecured loan:		
US$60.0 million, repayable by December 2006, annual interest at 1.56%		2,038.7
US$200.0 million, repaid in December 2003, annual interest at 2.0375%	6,950.6	
	18,002.1	8,800.3

As of December 31, 2003, TSMC provided NT$16,989.0 million (US$500.0 million) guarantee for the benefit of TSMC Development and WaferTech for the secured loan above. In addition, all assets of WaferTech with carrying amount of approximately NT$18,876.0 million (US$555.5 million) were pledged for the secured loan. WaferTech is required to be in compliance with certain financial covenants beginning December 31, 2002 under the secured loan agreement above. As of December 31, 2003, WaferTech was in compliance with all such financial covenants. Under the unsecured loan agreement above, the Company is required to be in compliance with certain financial covenants which, if violated, could result in the payment of this obligation becoming due prior to the originally scheduled maturity date. The Company was in compliance with these financial covenants as of December 31, 2003.

Unused credit lines for long-term bank loans as of December 31, 2003 aggregated approximately US$241.0 million.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of December 31, 2003, future minimum principal payments under the Company s long-term bank loan arrangements are as follows:

Year	Amount
	NT$ (In Millions)
2005	6,761.6
2006	2,038.7
	8,800.3

14. BONDS

	December 31	
	2002	2003
	NT$ (In Millions)	NT$ (In Millions)
Domestic unsecured bonds:		
Issued in March 1998 and payable in March 2003 in one lump sum payment, 7.71% annual interest payable semi-annually	4,000.0	
Issued in October 1999 and payable in October 2002 and 2004 in two equal payments, 5.67% and 5.95% annual interest payable annually, respectively	5,000.0	5,000.0
Issued in December 2000 and payable in December 2005 and 2007 in two installments, 5.25% and 5.36% annual interest payable annually, respectively	15,000.0	15,000.0
Issued in January 2002 and payable in January 2007, 2009 and 2012 in three installments, 2.6%, 2.75% and 3% annual interest payable annually, respectively	15,000.0	15,000.0
	39,000.0	35,000.0

As of December 31, 2003, future principal payments for TSMC s bonds are as follows:

Year of Repayment	Amount
	NT$ (In Millions)

2004	5,000.0
2005	10,500.0
2007	7,000.0
2008 and thereafter	12,500.0
	35,000.0

15. OTHER LONG-TERM PAYABLES

TSMC entered into several license arrangements for certain semiconductor-related patents. Future payments under the agreements as of December 31, 2003 are as follows:

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Year	Amount
	NT$ (In Millions)
2004	1,592.0
2005	1,279.1
2006	458.7
2007	475.7
2008	271.8
2009 and thereafter	815.5
	4,892.8

16. PENSION PLAN

TSMC has a defined benefit plan for all regular employees that provide benefits based on length of service and average monthly salary for the six-month period prior to retirement.

TSMC contributes an amount equal to 2% of salaries paid every month to a Pension Fund (the Fund). The Fund is administered by a pension fund monitoring committee (the Committee) and is entrusted to the Central Trust of China in the Committee s name. Under ROC regulation, government authority will then collect the Fund as a Labor Retirement Fund and determine the assets allocation and investment policy.

TSMC uses December 31 measurement date for its pension plan.

The changes in the benefit obligation, and plan assets for the year ended December 31, 2001, 2002 and 2003 are summarized as follows:

	Years Ended December 31		
	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
a. Benefit obligation			
Projected benefit obligation at beginning of year	2,313.9	2,434.1	2,929.2
Service cost	418.0	442.3	502.1

Interest cost	95.9	121.5	109.7
Actuarial loss	(395.5)	(61.5)	424.4
Benefits paid		(5.4)	(3.5)
Others	1.8	(1.8)	(2.0)
Projected benefit obligation at end of year	2,434.1	2,929.2	3,959.9
b. Plan assets			
Balance, beginning of year		834.0	1,014.0
Actual return of plan assets		20.7	15.7
Employer contribution		164.7	181.1
Benefits paid		(5.4)	(3.5)
Balance, end of year		1,014.0	1,207.3

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Other information of TSMC s defined benefit plan was as follows:

	Years Ended December 31		
	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
a. Components of pension cost			
Service cost	418.0	442.3	502.1
Interest cost	95.9	121.5	109.7
Projected return on plan assets	(44.0)	(45.1)	(41.2)
Amortization	8.3	1.7	2.4
Net pension cost	478.2	520.4	573.0

	December 31	
	2002	2003
	NT$	NT$ (In Millions)
b. Reconciliation of the funded status of the plan and accrued pension cost		
Benefit obligation		
Vested benefit obligation	21.3	21.9
Nonvested benefit obligation	1,607.2	2,185.8
Accumulated benefit obligation	1,628.5	2,207.7
Additional benefits based on future salaries	1,300.7	1,752.2
Projected benefit obligation	2,929.2	3,959.9
Fair value of plan assets	(1,014.0)	(1,207.3)
Funded status	1,915.2	2,752.6
Unrecognized net transitional obligation	(149.4)	(141.1)
Unrecognized actuarial gain (loss)	445.8	(10.1)
Accrued pension cost	2,211.6	2,601.4
c. Actuarial assumptions		
Discount rate used in determining present values	3.75%	3.25%

Future salary increase rate	3.00%	3.00%
Expected rate of return on plan assets	3.75%	3.25%

d. TSMC expects to make contributions of NT$186.5 million to its pension fund in 2004.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. INCOME TAXES

a. Income tax benefit (expense) consists of:

	Years Ended December 31		
	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
Current			
Domestic	(26.7)	(17.7)	(136.5)
Foreign	(20.8)	(152.9)	(158.8)
	(47.5)	(170.6)	(295.3)
Deferred			
Domestic	3,840.8	(5,489.5)	(3,639.9)
Foreign	(52.6)	23.5	12.3
	3,788.2	(5,466.0)	(3,627.6)
Income tax benefit (expense)	3,740.7	(5,636.6)	(3,922.9)

b. A reconciliation of income tax expense based on income before income tax and minority interest at the statutory rate and income tax benefit (expense) is as follows:

	Years Ended December 31		
	2001	2002	2003
	NT$	NT$ (In Millions)	NT$
Income tax expense based on income before income tax and minority interest at the statutory rate	(2,699.6)	(6,881.3)	(12,881.5)
Tax-exempt income	1,089.0	2,526.5	5,255.7
Temporary and permanent differences	(986.6)	(519.5)	732.7
Current income tax expense before income tax credits	(2,597.2)	(4,874.3)	(6,893.1)
Additional 10% tax on the unappropriated earnings	(322.3)	(179.4)	(1,273.5)
Income tax credits	2,888.4	4,867.2	7,917.1
Other income tax	(16.3)	(29.1)	(8.0)
Net change in deferred income tax assets (liabilities)			

Net operating loss carryforwards	3,751.1	1,734.0	535.8
Investment tax credits	3,044.1	2,510.2	(917.7)
Temporary differences	(1,918.0)	(5,910.2)	(300.9)
Valuation allowance	(1,089.1)	(3,755.0)	(2,982.5)
Adjustment of prior years taxes			(0.1)
Income tax benefit (expense)	3,740.7	(5,636.6)	(3,922.9)

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

c. Deferred income tax assets (liabilities) consist of the following:

	December 31	
	2002	2003
	NT$	NT$
	(In Millions)	
Current income tax assets		
Investment tax credits	3,320.0	8,322.0
Temporary differences	81.7	385.2
Valuation allowance		(309.0)
	3,401.7	8,398.2
Noncurrent income tax assets		
Net operating loss	7,852.3	8,388.1
Investment tax credits	23,247.6	17,327.9
Temporary differences	800.1	14.6
Valuation allowance	(12,974.1)	(15,647.6)
	18,925.9	10,083.0
Deferred income tax liabilities		
Depreciation	(5,990.3)	(7,040.4)
Temporary differences	(3,162.4)	(1,931.2)
	(9,152.7)	(8,971.6)
Net deferred tax asset	9,773.2	1,111.4

d. Integrated income tax information:

The balances of TSMC s imputation credit account (ICA) as of December 31, 2002 and 2003 were NT$6.7 million and NT$2.8 million, respectively.

The actual and expected creditable ratio for 2002 and 2003 was 0.08% and 0.01%, respectively.

The imputation credit allocated to the shareholders is based on its balance as of the date of dividend distribution. The expected creditable ratio may be adjusted when the distribution of the imputation credits are made.

e. All retained earnings generated period to December 31, 1997 were appropriated as of December 31, 2003.

f. As of December 31, 2003, TSMC s investment tax credits consisted of the following:

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Regulation	Items	Total Creditable Amounts	Remaining Creditable Amounts	Expiry Year
		NT$	NT$ (In Millions)	
Statute for Upgrading Industries	Purchases of machinery and equipment	8,203.5	3,938.3	2004
		3,792.7	3,792.7	2005
		4,823.7	4,823.7	2006
		1,680.4	1,680.4	2007
		18,500.3	14,235.1	
Statute for Upgrading Industries	Research and development expenditures	2,258.8	2,258.8	2004
		3,111.5	3,111.5	2005
		3,322.4	3,322.4	2006
		2,275.6	2,275.6	2007
		10,968.3	10,968.3	
Statute for Upgrading Industries	Personnel training	48.1	48.1	2004
		28.9	28.9	2005
		27.3	27.3	2006
		104.3	104.3	
Statute for Upgrading Industries	Investments in important technology-based enterprise	203.3	203.3	2004
		138.9	138.9	2005
		342.2	342.2	

g. As of December 31, 2003, the net operating loss carryforwards were generated from WaferTech, TSMC Development and TSMC Technology and will expire at various dates from 2018 through 2023.

h. The sales generated from the following expansion and construction of TSMC s manufacturing plants are exempt from income tax:

	Tax-Exemption Period
Construction of Fab 6	2001 to 2004
Construction of Fab 8 modules B	2002 to 2005
Expansion of Fab 2 modules A and B, Fab 3 and Fab 4, Fab 5 and Fab 6	2003 to 2006

i. The tax authorities have examined income tax returns of TSMC through 2000. However, TSMC is contesting the assessment by the tax authority for 1992, 1993, 1997 and 1998. TSMC believes that any additional assessment will not have a material adverse effect on TSMC.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. LABOR COST, DEPRECIATION AND AMORTIZATION EXPENSE

	Years Ended December 31, 2002		
	Classified as Cost of Sales	Classified as Operating Expense	Total
	NT$	NT$ (In Millions)	NT$
Labor cost			
Salary	7,831.0	4,196.0	12,027.0
Labor and health insurance	428.0	220.5	648.5
Pension	349.3	185.4	534.7
Other	291.4	348.7	640.1
Depreciation	57,404.0	2,493.4	59,897.4
Amortization	2,162.0	2,938.7	5,100.7
	68,465.7	10,382.7	78,848.4

	Years Ended December 31, 2003		
	Classified as Cost of Sales	Classified as Operating Expense	Total
	NT$	NT$ (In Millions)	NT$
Labor cost			
Salary	9,014.1	4,647.9	13,662.0
Labor and health insurance	476.7	245.3	722.0
Pension	379.8	193.7	573.5
Other	339.5	304.4	643.9
Depreciation	61,988.1	2,398.8	64,386.9
Amortization	1,385.6	3,367.5	4,753.1
	73,583.8	11,157.6	84,741.4

19. SHAREHOLDERS EQUITY

TSMC has issued 585,898 thousand ADSs which are traded on the NYSE as of December 31, 2003. The total number of common shares represented by all issued ADSs is 2,929,491 thousand shares (one ADS represents five common shares).

Capital surplus can only be used to offset a deficit under the ROC Company Law. However, the components of capital surplus generated from donated capital and the excess of the issue price over the par value of capital stock (including the stock issued for new capital, mergers, and the purchase of treasury stock) can be transferred to capital as stock dividends.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

TSMC s Articles of Incorporation provide that the following shall be appropriated from annual earnings to the extent that the annual earnings exceed any accumulated deficit:

a. 10% legal reserve; until the amount of total legal reserve equals TSMC s total paid-in capital;

b. Special reserve in accordance with relevant laws or regulations;

c. Remunerations to directors and supervisors and bonuses to employees equal to 0.3% and at least 1% of the remainder, respectively. Individuals eligible for the employee bonuses may include employees of affiliated companies as approved by the board of directors or a representative of the board of directors;

d. Dividends to holders of preferred shares at a 3.5% annual rate, based on the period which the preferred shares have been outstanding. Following the redemption of all of its issued and outstanding preferred shares in May 2003, TSMC amended its Articles of Incorporation on June 3, 2003 to remove the provision for issuance of any future dividends to preferred shareholders as of that date;

e. The appropriation of any remaining balance shall be approved by the shareholders.

Dividends may be distributed in shares of common stock or a combination of cash and common stock. Distributions of profits are usually made in the form of a stock dividend. The total of cash dividends paid in any given year may not exceed 50% of total dividends distributed in that year.

Any appropriations of net income are recorded in the financial statement in the year of shareholder approval.

The appropriation for legal reserve is made until the reserve equals the aggregate par value of TSMC s outstanding capital stock. The reserve can only be used to offset an accumulated deficit or be distributed as a stock dividend up to 50% of the reserve balance when the reserve balance has reached 50% of the aggregate par value of the outstanding capital stock of TSMC.

A special reserve equivalent to the debit balance of any account shown in the shareholder s equity section of the balance sheet (except for the recorded cost of treasury stock held by subsidiaries) shall be made from unappropriated retained earnings pursuant to existing regulations promulgated by the ROC SFC. The special reserve is allowed to be appropriated when the debit balance of such account is reversed.

The appropriations of earnings for 2001 and 2002 were approved in the shareholders meeting on May 7, 2002 and June 3, 2003, respectively. The appropriations and dividends per share are as follows:

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Appropriation of Earnings		Dividend Per Share	
	For Fiscal Year 2001	For Fiscal Year 2002	For Fiscal Year 2001	For Fiscal Year 2002
	NT$	NT$	NT$	NT$
	(In Millions)			
Legal reserve	1,448.4	2,161.0		
Special reserve	(349.9)	68.9		
Bonus paid to employees in stock	1,070.8	1,539.0		
Preferred stock dividend in cash	455.0	455.0	0.35	0.35
Common stock dividend in stock	16,832.5	14,898.3	1.00	0.80
Remuneration to directors and supervisors in cash	133.8	58.6		
	19,590.6	19,180.8		

The above appropriation of earnings for 2001 and 2002 is consistent with the resolution of the meetings of board of directors on March 26, 2002 and March 4, 2003, respectively. If the above employee bonus and remuneration to directors and supervisors were paid in cash and charged against income for 2001 and 2002, the basic earnings per share for the years ended December 31, 2001 and 2002 would decrease from NT$0.83 to NT$0.76 and NT$1.14 to NT$1.05, respectively. The shares distributed as a bonus to employees represented 0.64% and 0.83% of TSMC s total outstanding common shares as of December 31, 2001 and 2002, respectively.

As of January 12, 2004, the board of directors had not resolved earnings appropriation for fiscal year 2003.

Under the Integrated Income Tax System that became effective on January 1, 1998, ROC resident shareholders are allowed a tax credit for the income tax paid by TSMC on earnings generated as of January 1, 1998. An ICA is maintained by TSMC for such income tax and the tax credit allocated to each shareholder.

Preferred Stock

TSMC issued 1,300,000 thousand shares of unlisted Series A preferred stock to certain investors on November 29, 2000. All of the preferred stock was redeemed at par value and retired on May 29, 2003. Under TSMC s Articles of Incorporation, as amended on June 3, 2003, TSMC is no longer authorized to issue preferred stock.

The preferred shareholders had the following rights and related terms and conditions prior to redemption:

Preferred shareholders

a. are entitled to receive cumulative cash dividends at an annual rate of 3.5%.

b. are not entitled to receive any common stock dividends (whether declared out of unappropriated earnings or capital surplus).

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

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c. have priority over the holders of common shares to the assets of the Company available for distribution to shareholders upon liquidation or dissolution, however, the preemptive rights to the assets shall not exceed the issue value of the shares.

d. have voting rights similar to that of the holders of common shares.

e. have no right to convert their shares into common shares. The preferred shares are to be redeemed within thirty months from their issuance. The preferred shareholders have the aforementioned rights and the Company s related obligations remain the same until the preferred shares are redeemed by the Company.

20. STOCK-BASED COMPENSATION PLANS

Stock Option Plans

On June 25, 2002 and October 29, 2003, the SFC approved TSMC s Employee Stock Option Plans (the 2002 Plan and the 2003 Plan, respectively). The maximum number of units authorized to be granted under the 2002 Plan and the 2003 Plan was 100,000 thousand and 120,000 thousand, respectively, with each unit representing one common share of stock. The option rights may be granted to qualified employees of TSMC and its subsidiaries, including TSMC-North America and WaferTech. The option rights of both plans are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date. Under the terms of both plans, stock option rights are granted at an exercise price equal to the closing price of TSMC s common shares listed on the TSE on the date of grant. Under the 2002 Plan, there were 51,485 thousand option rights that were never granted, or had been granted but cancelled. These un-granted or cancelled option rights expired as of December 31, 2003.

Information of outstanding stock option rights under the 2002 Plan and the 2003 Plan is as follows:

	2002 Plan		2003 Plan	
	Number of Outstanding Stock Option Rights (In Thousand)	Range of Exercise Price (NT$)	Number of Outstanding Stock Option Rights (In Thousand)	Range of Exercise Price (NT$)
Option rights authorized	100,000		120,000	
Balance, January 1, 2002				
Option granted	19,726	53		

Option cancelled	(357)	53		
Balance, December 31, 2002	19,369	46.86-48.70		
Options granted	32,031	38.23-53.76	843	66.5
Options cancelled	(2,885)	38.23-53.76	(1)	66.5
Balance, December 31, 2003	48,515		842	

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Option Outstanding As of December 31, 2003		
Range of Exercise Prices (NT$)	Number of Outstanding Stock Option Rights (In Thousand)	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price (NT$)
2003 Plan			
66.50	842	9.93	66.55
2002 Plan			
38.23 53.76	48,515	9.09	49.72
Total			
38.23 66.50	49,357	9.11	50.00

In accordance with the plans, the number of outstanding option rights and their exercise prices would be adjusted to reflect the issuance of stock dividends.

In 1996, WaferTech adopted an Executive Incentive Plan, which was amended in 1997. Under the 1997 amendment, the Board of Directors approved the Senior Executive Incentive Plan and the Employee Incentive Plan (the WaferTech Plans) under which officers, key employees and non-employee directors may be granted stock option rights. The WaferTech Plans provide for 15,150 thousand option rights available for grant. For option rights granted to date, the option purchase price was equal to or exceeded the fair market value at the date of grant. WaferTech may grant employees option rights that are exercisable at different times or within different periods. WaferTech has generally granted option rights to employees that are exercisable on a cumulative basis in annual installments of 25% each on the first, second, third and fourth anniversaries of the date of grant. As of December 31, 2003, 672 thousand stock options remain outstanding. The options will expire if not exercised at specified dates ranging from May 2006 and June 2011. No options were granted during the years ended December 31, 2002 and 2003 as a result of the implementation of the Stock Option Buyback Program as described below.

Information with respect to stock option rights activities under the WaferTech Plans is as follows:

	Outstanding Option Rights	
	Number of Option Rights	Exercise Price
	(In Thousands)	US$

Balance, January 1, 2001	6,837	1.23
Options granted		
Options exercised	(2,949)	1.02
Options cancelled	(826)	1.27
Balance, December 31, 2001	3,062	1.43

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Options granted		
Options exercised	(1,260)	1.22
Options cancelled	(216)	1.93
Balance, December 31, 2002	1,586	1.52
Options granted		
Options exercised	(795)	1.34
Options cancelled	(138)	1.78
Balance, December 31, 2003	653	1.69

WaferTech Stock Option Buyback Program

In December 2000, WaferTech implemented a Stock Option Buyback Program (Buyback). The Buyback program provides employees with the right to sell back to WaferTech all vested stock options and outstanding ownership interests granted under the WaferTech Plans. The repurchase price for outstanding ownership interests is US$6. The repurchase price for vested stock options is US$6 less the exercise price of the option. As of December 31, 2003, WaferTech has repurchased 3,253 thousand outstanding ownership interests at a cost of US$19.5 million, and 6,913 thousand vested stock option rights at a cost of US$34.5 million. As of December 31, 2003, 164 thousand stock options are vested and may be sold back to WaferTech, and US$2.7 million was accrued in connection with the Buyback program.

Stock Appreciation Rights

In December 2000, WaferTech and TSMC-North America implemented a stock appreciation rights program (Appreciation). The Appreciation plan is designed to provide employees with a long-term incentive plan that tracks the appreciation of TSMC common stock through Stock Appreciation Rights (SARs). SARs provide each participant the right to receive, upon exercise, an amount in cash from WaferTech and TSMC-North America that is the excess of the market price of TSMC common stock on TSE on the date of exercise over the exercise price. Compensation expense is recorded based on the difference between the grant price and market price at the end of each period. This expense is recognized ratably over the vesting period and adjusted based on changes in TSMC s stock price on TSE. For the year ended December 31, 2001 and 2003, the Company recorded compensation expense of US$9.5 million and US$5.0 million, respectively, in connection with the Appreciation. For the year ended December 31, 2002, the Company recognized a gain of US$6.2 million as a result of the change in the market price of TSMC common stock. During 2002, benefits under the Appreciation plan for TSMC-North America were replaced by the stock option plans aforementioned. Accordingly, TSMC-North America does not intend to provide additional Appreciation plan benefits subsequent to the adoption of the stock option plans.

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. TREASURY STOCK (COMMON STOCK)

Purpose	Beginning Shares	Dividend Distributed	Shares Sold	Ending Shares
		(Shares in Thousands)		
Year ended December 31, 2002				
Reclassification of parent company stock held by subsidiaries from long-term investment	39,270	3,818	1,087	42,001
Year ended December 31, 2003				
Reclassification of parent company stock held by subsidiaries from long-term investment	42,001	3,357	4,761	40,597

Proceeds from the sale of treasury stock for the year ended December 31, 2002 and 2003 were NT$96.5 million and NT$331.9 million, respectively. As of December 31, 2002 and 2003, the book value of the treasury stock was NT$1,923.5 million and NT$1,633.2 million, respectively; the market value was NT$2,048.2 million and NT$2,548.8 million, respectively. TSMC s capital stock held by a subsidiary as an investment is recorded as treasury stock, with the holder having the same rights as other common shareholders.

On March 23, 2004, TSMC s Board of Directors approved a share buyback plan to repurchase TSMC s common shares traded on the TSE from its shareholders for maintaining shareholders equity. The repurchased shares will then be cancelled and deducted from the TSMC s current outstanding common shares. TSMC plans to buy back up to 300,000 thousand shares at the prices of the range from NT$38.5 to NT$95.0 per share and in the period from March 24, 2004 to May 23, 2004. As of May 21, 2004, TSMC repurchased 124,720 thousand shares for a total of NT$7,059.8 million.

22. EARNINGS PER SHARE

Earnings per share (EPS) are computed as follows:

	Amounts (Numerator)			EPS (NT$)	
	Income Before Income Tax and Minority Interest	Consolidated Net Income	Share (Denominator)	Income Before Income Tax and Minority Interest	Consolidated Net Income

	NT$	NT$	(Thousands)		
	(In Millions)				
Year ended December 31, 2001					
Income	10,786.5	14,483.2			
Less preferred stock dividends	(455.0)	(455.0)			
Basic and diluted EPS					
Income available to common shareholders	10,331.5	14,028.2	20,266,619	0.51	0.69

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Amounts (Numerator)			EPS (NT$)	
	Income Before Income Tax and Minority Interest	Consolidated Net Income	Share (Denominator)	Income Before Income Tax and Minority Interest	Consolidated Net Income
	NT$	NT$	(Thousands)		
	(In Millions)				
Year ended December 31, 2002					
Income	27,222.1	21,610.3			
Less preferred stock dividends	(455.0)	(455.0)			
Basic and diluted EPS					
Income available to common shareholders	26,767.1	21,155.3	20,220,989	1.32	1.05
Year ended December 31, 2003					
Income	51,178.6	47,258.7			
Less preferred stock dividends	(184.5)	(184.5)			
Basic EPS					
Income available to common shareholders	50,994.1	47,074.2	20,223,457	2.52	2.33