TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD
Form 20-F
April 15, 2010

Table of Contents

SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549
FORM 20-F

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

OR

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

For the fiscal year ended December 31, 2009

OR

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

For the transition period from _____ to _____

OR

o **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-14700

(Exact Name of Registrant as Specified in Its Charter)

Taiwan Semiconductor Manufacturing Company Limited	Republic of China
(Translation of Registrant s Name Into English)	(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, 2009, 25,902,706,622 Common Shares, par value NT$10 each were outstanding.

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

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

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 þ No o

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

Large accelerated filer þ Accelerated filer o Non-accelerated filer o Smaller Reporting Company o
(Do not check if a smaller reporting company)

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

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

* 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

TABLE OF CONTENTS
Taiwan Semiconductor Manufacturing Company Limited

Table of Contents

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This annual report includes statements that are, or may be deemed to be, forward-looking statements within the meaning of U.S. securities laws. The terms anticipates, expects, may, will, should and other similar expressions identify forward-looking statements. These statements appear in a number of places throughout this annual report and include statements regarding our intentions, beliefs or current expectations concerning, among other things, our results of operations, financial condition, liquidity, prospects, growth, strategies and the industries in which we operate.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance and our actual results of operations, financial condition and liquidity, and the development of the industries in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this annual report. Important factors that could cause those differences include, but are not limited to:

the volatility of the semiconductor and microelectronics industry;

overcapacity in the semiconductor industry;

the increased competition from other companies and our ability to retain and increase our market share;

our ability to develop new technologies successfully and remain a technological leader;

our ability to maintain control over expansion and facility modifications;

our ability to generate growth and profitability;

our ability to hire and retain qualified personnel;

our ability to acquire required equipment and supplies necessary to meet business needs;

our reliance on certain major customers;

the political stability of our local region; and

general local and global economic conditions.

Forward-looking statements include, but are not limited to, statements regarding our strategy and future plans, future business condition and financial results, our capital expenditure plans, our capacity management plans, expectations as to the commercial production using 40-nanometer and more advanced technologies, technological upgrades, investment in research and development, future market demand, future regulatory or other developments in our industry as well as our plans to expand into various new businesses. Please see Item 3. Key Information Risk Factors for a further discussion of certain factors that may cause actual results to differ materially from those indicated by our forward-looking statements.

Table of Contents

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, cash flow data and other financial data for the years ended December 31, 2007, 2008 and 2009, and the selected balance sheet data as of December 31, 2008 and 2009, 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 thereto. The selected income statement data, cash flow data and other financial data for the years ended December 31, 2005 and 2006 and the selected balance sheet data as of December 31, 2005, 2006 and 2007, 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 accounting principles generally accepted (GAAP or R.O.C. GAAP) in the Republic of China (R.O.C. or Taiwan), which differ in some material respects from accounting principles generally accepted in the United States of America (U.S. GAAP) as further explained under note 30 to our consolidated financial statements included herein.

	Year ended and as of December 31,					
	2005	2006	2007	2008	2009	2009
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
Income Statement Data:						
R.O.C. GAAP						
Net sales	266,565	317,407	322,630	333,158	295,742	9,256
Cost of sales[9]	(148,362)	(161,597)	(180,280)	(191,408)	(166,413)	(5,208)
Gross profit	118,203	155,810	142,350	141,750	129,329	4,048
Operating expenses[9]	(27,234)	(28,545)	(30,628)	(37,315)	(37,367)	(1,170)
Income from operations	90,969	127,265	111,722	104,435	91,962	2,878
Non-operating income and gains[1] [8]	9,399	9,839	11,934	10,822	5,654	177
Non-operating expenses and losses[1] [8]	(6,105)	(3,742)	(2,014)	(3,785)	(2,153)	(67)
Income before income tax and minority interest	94,263	133,362	121,642	111,472	95,463	2,988
Income tax expense	(630)	(7,774)	(11,710)	(10,949)	(5,997)	(188)
Income before cumulative effect of changes in accounting principles	93,633	125,588	109,932	100,523	89,466	2,800
Cumulative effect of changes in accounting principles		1,607				

Income before minority interest	93,633	127,195	109,932	100,523	89,466	2,800
Minority interest in loss (income) of subsidiaries	(58)	(185)	(755)	(590)	(248)	(8)
Net income attributable to shareholders of the parent	93,575	127,010	109,177	99,933	89,218	2,792
Basic earnings per share[(2)]	3.47	4.70	4.04	3.84	3.45	0.11
Diluted earnings per share[(2)]	3.46	4.69	4.04	3.81	3.44	0.11
Basic earnings per ADS equivalent[(2)]	17.33	23.49	20.21	19.19	17.27	0.54

Table of Contents

	Year ended and as of December 31,					
	2005	2006	2007	2008	2009	2009
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
Diluted earnings per ADS equivalent[2]	17.32	23.47	20.20	19.05	17.21	0.54
Basic weighted average shares outstanding[2]	27,005	27,031	27,005	26,039	25,836	25,836
Diluted weighted average shares outstanding[2]	27,016	27,054	27,026	26,236	25,914	25,914
U.S. GAAP						
Net sales	267,028	317,979	323,221	334,340	296,109	9,268
Cost of sales[3]	(161,808)	(179,175)	(202,046)	(203,734)	(167,122)	(5,231)
Operating expenses[3]	(32,764)	(37,050)	(44,775)	(44,424)	(37,627)	(1,178)
Income from operations	72,456	101,754	76,400	86,182	91,360	2,859
Income before income tax and minority interest	75,983	106,647	85,973	91,884	94,253	2,950
Income tax expense	(483)	(10,954)	(14,012)	(10,062)	(4,960)	(155)
Cumulative effect of changes in accounting principles		38				
Net income	75,418	95,711	71,658	81,473	89,102	2,789
Income attributable to common shareholders	75,418	95,711	71,658	81,473	89,102	2,789
Basic earnings per share[4]	2.94	3.68	2.71	3.15	3.45	0.11
Diluted earnings per share[4]	2.94	3.67	2.71	3.13	3.44	0.11
Basic earnings per ADS equivalent[4]	14.68	18.40	13.57	15.77	17.24	0.54
Diluted earnings per ADS equivalent[4]	14.68	18.38	13.56	15.65	17.19	0.54
Basic weighted average shares outstanding[4]	25,685	26,011	26,409	25,826	25,836	25,836
Diluted weighted average shares outstanding[4]	25,695	26,034	26,430	26,023	25,914	25,914
Balance Sheet Data:						
R.O.C. GAAP						
Working capital[1]	177,179	213,457	201,116	195,812	180,671	5,655
Long-term investments[1]	42,383	53,895	36,461	39,982	37,845	1,185
Properties	244,823	254,094	260,252	243,645	273,675	8,566
Goodwill	6,011	5,985	5,988	6,044	5,931	186
Total assets	519,510	587,485	570,865	558,917	594,696	18,613
Long term bank borrowing	663	654	1,722	1,420	579	18
Long-term bonds payable	19,500	12,500	12,500	4,500	4,500	141
Guaranty deposit-in and other liabilities[5]	17,986	18,333	17,251	15,817	11,436	358
Total liabilities	73,271	78,347	80,179	78,544	95,648	2,994
Capital stock	247,300	258,297	264,271	256,254	259,027	8,107
Cash dividend on common shares	46,504	61,825	77,489	76,881	76,876	2,406

Table of Contents

	Year ended and as of December 31,					
	2005 NT$	2006 NT$	2007 NT$	2008 NT$	2009 NT$	2009 US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
Shareholders equity attributable to shareholders of the parent	445,631	507,981	487,092	476,377	495,083	15,495
Minority interest in subsidiaries	608	1,157	3,594	3,996	3,965	124
U.S. GAAP						
Goodwill	46,993	46,940	46,926	47,028	46,825	1,466
Total assets	558,919	626,108	610,843	599,484	635,275	19,883
Total liabilities	80,962	92,549	94,021	84,424	99,278	3,107
Capital Stock	247,300	258,297	264,271	256,254	259,027	8,107
Shareholders equity attributable to common shareholders of the parent	477,297	532,403	513,228	511,089	532,043	16,652
Minority interest in subsidiaries	660	1,156	3,594	3,971	3,954	124

	Year ended and as of December 31,					
	2005 NT$	2006 NT$	2007 NT$	2008 NT$	2009 NT$	2009 US$
	(in millions, except for percentages, earnings per share and per ADS, and operating data)					
Other Financial Data:						
R.O.C. GAAP						
Gross margin	44%	49%	44%	42%	44%	44%
Operating margin	34%	40%	35%	31%	31%	31%
Net margin	35%	40%	34%	30%	30%	30%
Capital expenditures	79,879	78,737	84,001	59,223	87,785	2,748
Depreciation and amortization	75,649	73,715	80,005	81,512	80,815	2,529
Cash provided by operating activities[(1)]	157,225	204,997	183,766	221,494	159,966	5,007
Cash used in investing activities[(1)]	(77,652)	(119,724)	(70,689)	(8,042)	(96,468)	(3,019)
Cash used in financing activities	(57,969)	(63,783)	(135,410)	(115,393)	(85,471)	(2,675)
Net cash inflow (outflow)	22,181	21,353	(22,851)	99,628	(23,338)	(730)
Operating Data:						
	5,622	7,215	8,005	8,467	7,737	7,737

Wafer (200mm equivalent) shipment[6]						
Billing Utilization Rate[7]	94%	102%	93%	88%	75%	75%

(1) As a result of the adoption of the R.O.C. Statements of Financial Accounting Standards No. 34, Financial Instruments: Recognition and Measurement (R.O.C. SFAS No. 34), and R.O.C. Statements of Financial Accounting Standards No. 36, Financial Instruments: Disclosure and Presentation (R.O.C. SFAS No. 36), the balance in 2005 was reclassified to be consistent with the classification used in our consolidated financial statements for 2006 included herein. Amounts in 2005 reflect the reclassification of NT$2,331 million gains from non-operating expenses and losses to non-operating income and gains, NT$46 million from long-term investments to current investments in

marketable financial instruments, and NT$212 million from cash used in investing activities to cash provided by operating activities.

(2) Retroactively adjusted for stock dividends until 2008 and profit sharing to employees in stock until 2007.

(3) Amounts in 2006, 2007, 2008 and 2009 include share-based compensation expenses as a result of the adoption of U.S. GAAP guidance related to share-based payment (revised 2004), effective January 1, 2006. See note 30.h. to our consolidated financial statements for additional details about this new accounting standard. Amounts in 2005 reflected the reclassification of NT$159 million from net non-operating income/expenses to operating expenses.

(4) Retroactively adjusted for all

subsequent stock dividends.

(5) Consists of other long term payables, obligations under capital leases and total other liabilities.

(6) In thousands.

Table of Contents

(7) Billing Utilization Rate is equal to annual wafer shipment divided by annual capacity. Capacity for the years 2007, 2008 and 2009 includes wafers committed by Vanguard.

(8) The specified 2005, 2006 and 2007 amounts for gains/losses on settlement and disposal of financial assets at fair value through profit or loss were reclassified into valuation gains/losses on financial instruments for comparison purposes. Such reclassification resulted in a change of non-operating income and gains from NT$9,705 million to NT$9,839 million and a change in non-operating expenses and losses from NT$3,608 million to NT$3,742 million for the year ended December 31, 2006.

(9)

As a result of the adoption of Interpretation 2007-052, Accounting for Bonuses to Employees, Directors and Supervisors, the Company records profit sharing to employees and bonus to directors and supervisors as an expense rather than as an appropriation of earnings starting in 2008. Please refer to note 4 to the consolidated financial statements for more details.

Exchange Rates

We publish our financial statements in New Taiwan dollars, the lawful currency of the R.O.C. In this annual report, $, US$ and U.S. dollars mean United States dollars, the lawful currency of the United States, and NT$ and 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, 2009, which was NT$31.95 to US$1.00 on that date. On April 9, 2010, the noon buying rate was NT$31.53 to US$1.00.

The following table sets forth, for the periods 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			
	Average[(1)]	**High**	**Low**	**Period-End**
2004	33.37	34.16	31.74	31.74
2005	32.16	33.77	30.65	32.80
2006	32.51	33.31	31.28	32.59
2007	32.82	33.41	32.26	32.43
2008	31.51	33.55	29.99	32.76
2009	32.96	35.21	31.95	31.95
October 2009	32.29	32.61	32.04	32.61
November 2009	32.32	32.58	32.12	32.20
December 2009	32.25	32.38	31.95	31.95
January 2010	31.87	32.04	31.65	31.94
February 2010	32.06	32.14	31.98	32.12
March 2010	31.83	32.04	31.70	31.73

April 2010 (through April 9, 2010)	31.65	31.74	31.53	31.53

(1) Annual averages calculated from month-end rates and monthly averages calculated from daily closing rates.

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.

Capitalization and Indebtedness

Not applicable.

Reasons for the Offer and Use of Proceeds

Not applicable.

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, and that such factors may adversely affect our business and financial status and therefore the value of your investment:

Table of Contents

Risks Relating to Our Business

Any global systemic economic and financial crisis could negatively affect our business, results of operations, and financial condition.

The 2008-2009 systemic economic and financial crisis that had affected global business, banking and financial sectors had also affected the semiconductor market. The 2008 turmoil in global markets resulted in sharp declines in electronic products sales from which we generate our income through our goods and services. There were and could be in the future a number of knock-on effects from such turmoil on our business, including significant decreases in orders from our customers; insolvency of key suppliers resulting in product delays; inability of customers to obtain credit to finance purchases of our products and/or customer insolvencies; and counterparty failures negatively impacting our treasury operations. Any systemic economic or financial crisis could cause revenues for the semiconductor industry as a whole to decline dramatically, which industry is subject to unexpected change in response to fluctuating global market conditions. Any global economic crisis could materially and adversely affect our results of operations.

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

The semiconductor market and microelectronics industries have historically been cyclical and subject to significant and often rapid increases and decreases in product demand. Our semiconductor foundry business is affected by market conditions in such 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 periods of downturns and overcapacity. Any systemic economic or financial crisis, such as the one that occurred in 2008-2009, could create significant volatility and uncertainty within the semiconductor and microelectronics industries which may disrupt traditional notions of cyclicality within such industries. As such, the nature, extent and scope of such periods of downturns and overcapacity may vary drastically in accordance with the degree of volatility of market demand. Because we are, and will continue to be, dependent on the requirements of semiconductor and microelectronics companies for our services, periods of downturns and overcapacity in the general semiconductor and microelectronics industries lead to reduced demand for overall semiconductor foundry services, including our services. If we cannot take appropriate actions such as reducing our costs to sufficiently offset declines in demand, our revenues, margin and earnings will suffer during periods of downturns and overcapacity.

Decreases in demand and average selling prices for products that contain semiconductors 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 services in communication devices, personal computers and consumer electronics products. Any decrease in the demand for the products may decrease the demand for overall global semiconductor foundry services, including our services and may adversely affect our revenues. In addition, the historical and current trend of declining average selling prices (or ASP) of end use applications places downward pressure on the prices of the components that go into such applications. If the ASP of end use applications continue decreasing, the pricing pressure on components produced by us may lead to a reduction of our revenues, margin 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. Some of these companies may have access to more advanced technologies and greater financial and other resources than us, (such as the possibility of receiving direct or indirect government bailout/economic stimulus funds or other incentives that may be unavailable to us). Our competition may, from time to time, also decide to undertake aggressive pricing initiatives in one or more technology nodes. Competitive activities may decrease our customer base, or our ASP, or both.

Table of Contents

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

The semiconductor industry and its technologies are constantly changing. We compete by developing process technologies using increasingly advanced nodes and on manufacturing products with more functions. We also compete by developing new derivative technologies. If we do not anticipate these changes in technologies and rapidly develop new and innovative technologies, or our competitors unforeseeably gain sudden access to additional technologies, we may not be able to provide foundry services on competitive terms. Although we have concentrated on maintaining a competitive edge in research and development, if we fail to achieve advances in technologies or processes, or to obtain access to advanced technologies or processes developed by others, we may become less competitive.

If we are unable to manage our capacity and the streamlining of our production facilities effectively, our competitiveness may be weakened.

We perform periodic long term market demand forecasts to estimate market and general economic conditions for our products and services. Based upon these estimates, we manage our overall capacity which may increase or decrease in accordance with market demand. Because market conditions may vary significantly and unexpectedly, our market demand forecast may change significantly at any time. Further, since some of our facilities shut down during periods of decreased demand, we may not be able to ramp up in a timely manner during periods of increased demand. During periods of continued decline in demand, our operating facilities may not be able to absorb and complete in a timely manner outstanding orders re-directed from shuttered facilities. Based on demand forecasts, we have been adding capacity to our 300mm wafer fabs in the Hsinchu Science Park and Tainan Science Park, respectively. Total monthly capacity for 300mm wafer fabs was increased from 130,700 wafers in December 31, 2007 to 154,300 wafers in December 31, 2008 and to 171,400 wafers in December 31, 2009. Expansion and modification of our production facilities will, among other factors, increase our costs. For example, we will need to purchase additional equipment, train personnel to operate the new equipment or hire additional personnel. If we do not increase our net sales accordingly, in order to offset these higher costs, our financial performance may be adversely affected. See Item 4. Information on the Company Capacity Management and Technology Upgrade Plans for further discussion.

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.

Capital requirements are difficult to plan in the highly dynamic, cyclical and rapidly changing semiconductor industry. From time to time, we will continue to need significant capital to fund our operations and manage our capacity in accordance with market demand. Although we currently have adequate financial resources and excellent relations with financial institutions, our continued ability to obtain sufficient external financing is subject to a variety of uncertainties, including:

our future financial condition, results of operations and cash flow;

general market conditions for financing activities;

market conditions for financing activities of semiconductor companies; and

social, economic, financial, political and other conditions in Taiwan and elsewhere.

Sufficient external financing may not be available to us on a timely basis, on reasonable market terms, or at all. As a result, we may be forced to curtail our expansion and modification plans or delay the deployment of new or expanded services until we obtain such financing.

We may not be able to implement our planned growth, development or maintain our leading position if we are unable to recruit and retain qualified executives, managers and skilled technical and service personnel or suffer production disruptions caused by labor disputes.

We depend on the continued services and contributions of our executive officers and skilled technical and other personnel. Our business could suffer if we lose, for whatever reasons, the services and contributions of some of these personnel and we cannot adequately replace them, or if we suffer disruptions to our production operations arising from labor or industrial disputes. We may be required to increase or reduce the number of employees in connection

with any business expansion or contraction, in accordance with market demand for our products and services. Since there is intense competition for the recruitment of these personnel, we cannot ensure that we will be able to fulfill our personnel requirements, or rehire such reduced personnel on comparable terms in a timely manner during an economic upturn.

Table of Contents

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

Our operations and ongoing expansion plans depend on our ability to obtain an appropriate amount of equipment and related services from a limited number of suppliers in a market that is characterized by limited supply and long delivery cycles. During such times, supplier-specific or industry-wide lead times for delivery can be as long as six months or more. To better manage our supply chain, we have implemented various business models and risk management contingencies with suppliers to shorten the procurement lead time. We also provide our projected demand for various items to many of our equipment suppliers to help them plan their production in advance. We have purchased used tools and continue to seek opportunities in acquiring relevant used tools. If we are unable to obtain equipment in a timely manner to fulfill our customers orders, or at a reasonable cost, our financial condition and results of operations could be negatively impacted.

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, chemicals, and photoresist, on a timely basis. Shortages in the supply of some materials experienced by specific vendors or by the semiconductor industry generally have in the past resulted in occasional industry-wide price adjustments and delivery delays. Also, since we procure some of our raw materials from sole-source suppliers, there is a risk that our need for such raw materials may not be met when needed. Our revenue and earnings could decline if we are unable to obtain adequate supplies of the necessary raw materials in a timely manner or if there are significant increases in the costs of raw materials that we cannot pass on to our customers.

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 R.O.C., or an entity designated by the Ministry of Economic Affairs, has an option to purchase up to 35% of certain of our capacity, if our outstanding commitments to our customers are not prejudiced. Although the Ministry of Economic Affairs has never exercised this option, if this option is exercised to any significant degree during tight market conditions, we may not be able to provide services to all of our other customers unless we are able to increase our capacity accordingly or outsource such increased demand and in a timely manner.

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

Our ability to compete successfully and to achieve future growth will depend in part on the continued strength of our intellectual property portfolio. While we actively enforce and protect our intellectual property rights, there can be no assurance that our efforts will be adequate to prevent the misappropriation or improper use of our proprietary technologies, trade secrets, software or know-how. Also, we cannot assure you that, as our business or business models expand into new areas, or otherwise, we will be able to develop independently the technologies, trade secrets, software or know-how necessary to conduct our business or that we can do so without unknowingly infringing the intellectual property rights of others. As a result, we may have to rely increasingly on licensed technologies from others. To the extent that we rely on licenses from others, there can be no assurance that we will be able to obtain any or all of the necessary licenses in the future on terms we consider reasonable or at all. The lack of necessary licenses could expose us to claims for damages and/or injunctions from third parties, as well as claims for indemnification by our customers in instances where we have contractually agreed to indemnify our customers against damages resulting from infringement claims.

Table of Contents

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. Recently, there has been a notable increase in the number of claims or lawsuits initiated by certain litigious, non-practicing entities that may often aim to extort large settlements, often quickly, by threatening to disrupt the legitimate business operations of profitable enterprises, especially high-profile ones. Such lawsuits or claims may increase our cost of doing business and may potentially be extremely disruptive if the plaintiffs would succeed in blocking the trade of our products and services. If we fail to obtain or maintain certain government, technologies or intellectual property licenses and, if litigation relating to alleged intellectual property matters occurs, it could prevent us from manufacturing or selling 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.

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 and many of our suppliers use highly combustible and toxic materials in manufacturing processes and are therefore subject to the risk of loss arising from explosion, fire, or environmental excursions which cannot be completely eliminated. Although we maintain many overlapping risk prevention and protection systems, as well as comprehensive fire and casualty insurance, including insurance for loss of property and loss of profit resulting from business interruption, our risk management and 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, fire, or environmental excursions, it could reduce our manufacturing capacity and may cause us to lose important customers, thereby having a potentially material adverse impact on our financial performance.

Any impairment charges may have a material adverse effect on our net income.

Under R.O.C. GAAP and U.S. GAAP, we are required to evaluate our long-lived assets and intangible assets for impairment whenever triggering events or changes in circumstances indicate that the asset may be impaired and carrying value may not be recoverable. If certain criteria are met, we are required to record an impairment charge. We are also required under R.O.C. GAAP and U.S. GAAP to evaluate goodwill for impairment at least on an annual basis or more frequently whenever triggering events or changes in circumstances indicate that goodwill may be impaired and carrying value may not be recoverable.

We currently are not able to estimate the extent or timing of any impairment charge for future years. Any impairment charge required may have a material adverse effect on our net income.

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 the estimates we made in determining an impairment charge.

The loss of or significant curtailment of purchases by any of our largest customers could adversely affect our results of operations.

While we generate revenue from hundreds of customers worldwide, our ten largest customers accounted for approximately 53% of our net sales in both 2008 and 2009 and our largest customer accounted for approximately 14% and 10% of our net sales in 2008 and 2009, respectively. The loss of, or significant curtailment of purchases by, one or more of our top customers, including curtailments due to increased competitive pressures, a change in the design, or manufacturing sourcing policies or practices of these customers, or the timing of customer or distributor inventory adjustments, may adversely affect our results of operations and financial condition.

Any failure to achieve and maintain effective internal controls could have a material adverse effect on our business and results of operations.

Effective internal controls are necessary for us to provide reasonable assurance with respect to our financial reports and to effectively prevent fraud. If we cannot provide reasonable assurance with respect to our financial

reports and effectively prevent fraud, our reputation and results of operations could be harmed.

Table of Contents

We are required to comply with various R.O.C. and U.S. laws and regulations on internal controls. For example, pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, beginning with the Annual Report on Form 20-F for the fiscal year ended December 31, 2006, we are required to furnish a report by management on our internal control over financial reporting, including management s assessment of the effectiveness of our internal control over financial reporting. Moreover, R.O.C. law requires us to establish internal control systems that would reasonably ensure the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations. We are also required under R.O.C. law to file an internal control declaration within four months of the end of each fiscal year.

Internal controls may not prevent or detect misstatements because of their inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. Therefore, even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. In addition, projections of any evaluation of effectiveness of internal controls to future periods are subject to the risk that the internal controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. If we fail to maintain the adequacy of our internal controls, including any failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business and operating results could be harmed, we could fail to meet our reporting obligations, and there could be a material adverse effect on the market price of our common shares and ADSs.

Our global manufacturing, design and sales activities subject us to risks associated with legal, political, economic or other conditions or developments in various jurisdictions, including in particular the Republic of China (R.O.C. or Taiwan), which could negatively affect our business and financial status and therefore the market value of your investment.

Our principal executive officers and our principal production facilities are located in the R.O.C., and a substantial majority of our net revenues are derived from our operations in the R.O.C. In addition, we have operations worldwide and a significant percentage of our revenue comes from sales to locations outside the R.O.C. Operating in the R.O.C. and overseas exposes us to changes in policies and laws, as well as the general political and economic conditions, security risks, health conditions and possible disruptions in transportation networks, in the various countries in which we operate, which could result in an adverse effect on our business operations in such countries and our results of operations as well as the market price and the liquidity of our ADSs and common shares.

For example, even though the R.O.C. and the People s Republic of China (PRC) have co-existed for the past 60 years and significant economic and cultural relations have been established during that time, the financial markets have viewed certain past developments in relations between the two sides as occasions to depress general market prices of the securities of Taiwanese companies, including our own. In addition, the R.O.C. government has not lifted some trade and investment restrictions imposed on Taiwanese companies on the amount and types of certain investments that can be made in Mainland China.

Our results of operations could be materially adversely affected by natural disasters or interruptions in the supply of utilities (such as water or electricity) in the locations in which we, our customers or suppliers operate.

We have manufacturing and other operations in locations subject to natural disasters such as severe weather, flooding and earthquakes as well as interruptions or shortages in the supply of utilities (such as water and electricity) that could disrupt operations. The frequency and severity of natural disasters have increased recently due to abnormal environmental and climate related changes. In addition, our suppliers and customers also have operations in such locations. For example, 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, which is susceptible to earthquakes, flooding, typhoons, and droughts from time to time. In addition, we have sometimes suffered power outages caused by our major electricity supplier, the Taiwan Power Company, or other power consumers on the same power grid, which have caused interruptions in our production schedule. A natural disaster or interruptions in the supply of utilities that results in a prolonged disruption to our operations, or the operations of our customers or suppliers, may adversely affect our results of operations and financial condition.

Table of Contents

Our failure to comply with applicable environmental and climate related laws and regulations as well as international accords could harm our business and results of operations.

The manufacturing, assembling and testing of our products require the use of chemicals and materials that are subject to environmental, climate related, health and safety laws and regulations issued worldwide. Although we may be eligible for various exemptions and/or extensions of time for compliance, our failure to comply with any of these applicable laws or regulations could result in:

- significant penalties and legal liabilities such as the denial of import permits;
- temporary or permanent suspension of production of the affected products;
- alteration of our manufacturing, fabrication and assembly and test processes; and
- restrictions on our operations or sales.

Existing and future environmental and climate related laws and regulations (as well as applicable international accords) could also require us (among other things) to do the following: (a) purchase, use or install expensive pollution control, reduction or remediation equipment; (b) implement climate change mitigation programs and abatement or reduction of greenhouse gas emissions program, or carbon credit trading program; (c) modify our product designs and manufacturing process or incur other significant expenses associated with such laws and regulations (such as obtaining substitute raw materials or chemicals that may cost more or be less available for our operations). It is still unclear whether such required actions would affect the reliability or efficiency of our products and services.

Any of the above contingencies resulting from the actual and potential impact of local or international laws and regulations as well as international accords on environmental or climate change could harm our business and results of operations by increasing our expenses or requiring us to alter our manufacturing and assembly and test processes. Please see our compliance record with Taiwan and international environmental and climate related laws and regulations in Item 4. Information on the Company Environmental Regulation .

Climate change, other environmental concerns and green initiatives also presents other commercial challenges, economic risks and physical risks that could harm our results of operations or affect the manner in which we conduct our business.

Increasing climate change and environmental concerns could affect the results of our operations if any of our customers would request us to exceed any standard(s) set for environmentally compliant products and services. For example, we have been working with our suppliers, customers, and several industry consortia to develop and provide EU RoHS (European Union Restriction of Hazardous Substances) compliant products. Even though we are entitled to rely on various exemptions under RoHS, one of our major customers has formally requested us to provide products that exceed the legal standard set by RoHS without using any of the exemptions still permitted under RoHS. If we are unable to offer such products or offer products that are compliant, but are not as reliable due to the lack of reasonably available alternative technologies or materials, we may lose market share to our competitors.

Further, energy costs in general could increase significantly due to climate change regulations. Therefore, our energy costs may increase significantly if utility or power companies pass on their costs, fully or partially, such as those associated with carbon taxes, emission cap and carbon credit trading programs. Please see details of our business continuity management of climate change in Item 4. Information on the Company Environmental Regulation .

Fluctuations in exchange rates could result in foreign exchange losses.

Over one-half of our capital expenditures and manufacturing costs are denominated in currencies other than NT dollars, primarily in U.S. dollars, Japanese yen and Euros. More than 90% of our sales are denominated in U.S. dollars and currencies other than NT dollars. Therefore, any significant fluctuation to our disadvantage in such exchange rates would have an adverse effect on our financial condition. For example, during the period from March 1, 2009 to May 27, 2009, the U.S. dollar depreciated 6.51% against the NT dollar, which had a negative impact on our results of operations. In addition, fluctuations in the exchange rate between the U.S. dollar and the NT dollar may 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. Please see Item 11. Quantitative and Qualitative Disclosures About Market Risk for a further discussion on the possible impact of other market factors on our results of operations.

Table of Contents

Fluctuations in inflationary and deflationary market expectations could negatively affect demand for our products and services, which may harm our financial results.

The world economy is becoming more vulnerable to sudden unexpected fluctuations in inflationary and deflationary market expectations and conditions. Structural changes that may result from the 2008-2009 global financial crisis may further exacerbate the severity of such fluctuations. Both high inflation and deflation adversely affect an economy, at both the macro and micro levels, by reducing economic efficiency, disrupting saving and investment decisions and reducing the efficiency of the market prices as a mechanism to allocate resources. Such fluctuations are likely to negatively affect the business operations of our customers who may be forced to plan their purchases of our goods and services within an uncertain macro and micro economy. Therefore, the demand for our products and services could unexpectedly fluctuate severely in accordance with market and consumer expectations of inflation or deflation. Please see Item 5. Operating and Financial Review and Prospects Inflation & Deflation for further discussion.

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.

ADS holders will not generally be able to exercise the voting rights attaching to the deposited securities on an individual basis. According to the R.O.C. 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. Election of directors 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 United States Securities Act of 1933, as amended, (the Securities Act), with respect to all holders of ADSs, or are registered under the provisions of the Securities Act. 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, 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 the Republic of China (Taiwan) 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 R.O.C. and Item 10. Additional Information Exchange Controls in the R.O.C. . 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.

Table of Contents

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 our common shares or ADSs. For example, the National Development Fund of Taiwan, R.O.C. which owned 6.4% of TSMC s outstanding shares as of February 28, 2010, has sold our shares in the form of ADSs in several transactions during the period between 1997 and 2005.

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.

The market value of our shares may fluctuate due to the volatility of, and government intervention in, the R.O.C. securities market.

Because the Taiwan Stock Exchange experiences from time to time substantial fluctuations in the prices and volumes of sales of listed securities, there are currently limits on the range of daily price movements on the Taiwan Stock Exchange. 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 R.O.C. 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 R.O.C. 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

Our History and Structure

We believe we are currently the world s largest dedicated foundry in the semiconductor industry. We were founded in 1987 as a joint venture among the R.O.C. government, Philips and other private investors and were incorporated in the R.O.C. 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.

To help develop our long-term growth in non-foundry related business areas, a New Businesses organization was established on May 6, 2009, and for the purpose of facilitating more effectively our manufacturing efficiency and customer partnership, an Operations organization and a Business Development organization were established on October 27, 2009.

Our Principal Office

Our principal executive office is located at No. 8, Li-Hsin Road 6, Hsinchu Science Park, Hsinchu, 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.

Business Overview of the Company

As a foundry, we manufacture semiconductors using our advanced or mainstream manufacturing 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, embedded memory, BiCMOS mixed-signal and other semiconductors. We estimate that our revenue market segment share among dedicated foundries worldwide was 48% in 2009. We also offer design, mask making, probing, testing and assembly services.

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

We count among our customers many of the world s leading semiconductor companies, ranging from fabless semiconductor and systems companies such as Advanced Micro Devices, Inc., Altera Corporation, Broadcom Corporation, Marvell Semiconductor Inc., MediaTek Inc., nVidia Corporation and Qualcomm Incorporated, to integrated device manufacturers such as LSI Corporation, STMicroelectronics and Texas Instruments Inc. Fabless

semiconductor and system companies accounted for approximately 80%, and integrated device manufacturers accounted for approximately 20% of our net sales in 2009.

Table of Contents

Our Facilities

After combining the operations at two of our 200mm fabs in 2001 and the decommissioning of one of our 150mm wafer fabs (Fab 1) in March 2002 and one of our 200mm fabs (Fab 7) in 2006, we currently operate one 150mm wafer fab, six 200mm wafer fabs and two 300mm wafer fabs. Our corporate headquarters and five of our fabs are located in the Hsinchu Science Park, two fabs are located in the Tainan Science Park, one fab is located in the United States, and one fab is located in Shanghai. Our corporate headquarters and our five fabs in Hsinchu occupy approximately 425,000 square meters of land. We lease all of this land from the Hsinchu Science Park Administration in Hsinchu under agreements that will be up for renewal between May 2013 and December 2029. We have leased from the Southern Taiwan Science Park Development Office 416,900 square meters of land for our fabs in the Tainan Science Park under agreements that will be up for renewal between July 2017 and November 2029. 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. TSMC China owns 420,000 square meters of land in Shanghai, where Fab 10 and related offices are located. Other than certain equipment under leases located at testing areas, we own all of the buildings and equipment for our fabs. We are expanding our 300mm fabrication capacity and research and development through Fab 12 in the Hsinchu Science Park and Fab 14 in the Tainan Science Park. Total monthly capacity for 300mm wafer fabs was increased from 130,700 wafers in December 31, 2007 to 154,300 wafers in December 31, 2008 and 171,400 wafers in December 31, 2009. We will continuously evaluate our capacity in light of prevailing market conditions.

Manufacturing Capacity and Technology

We manufacture semiconductors on silicon wafers based on proprietary circuitry 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 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 0.13 micron and below, and are one of the leaders in the semiconductor manufacturing industry generally. We are the first semiconductor foundry with proven low-k interconnect technology in commercial production from the 0.13 micron node down to 40-nanometer node. Following our commercial production based on 65-nanometer Nexsys® process technology in 2006, we also unveiled 55-nanometer Nexsys® process technology in 2007. Our 65-nanometer and 55-nanometer Nexsys® technologies are the third-generation proprietary processes that employ low-k dielectrics. In 2008, we also qualified our 45 and 40 nanometer process technologies with ultra low-k dielectrics and advanced immersion lithography. We have begun certain small-scale production of 40-nanometer products in 2009, and we expect to commence its high volume production in 2010.

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:

		Current most advanced technology for volume	Monthly capacity[3][4]				
Fab[1]	**Year of commencement**	**production[2]**	**2005**	**2006**	**2007**	**2008**	**2009**
2	1990	0.45	47,584	50,506	51,685	51,609	53,649
3[5]	1995	0.15	83,300	89,900	90,500	92,400	95,377
5	1997	0.15	42,500	51,500	55,800	54,200	48,600
6	2000	0.11	73,000	83,400	94,000	95,100	96,800
7[7]	1995	0.35	13,400				
8	1998	0.15	76,500	83,500	89,400	91,600	85,750
10	2004	0.18	15,600	32,000	31,000	43,000	45,500
11	1998	0.15	33,500	35,500	35,500	35,500	36,565
12	2001	0.040	106,875	131,175	160,755	167,910	199,283

14	2004	0.055	46,125	79,650	133,279	179,258	186,443
SSMC[6]	2000	0.15	16,700	17,700	20,700	24,600	22,010
Total			555,084	654,831	762,619	835,177	869,977

Table of Contents

(1) Fab 2 produces 150mm wafers. Fabs 3, 5, 6, 8, 10, Fab 11 (WaferTech) and SSMC produce 200mm wafers. Fab 12 and Fab 14 produce 300mm wafers. Fabs 2, 3, 5, 8 and 12 are located in Hsinchu Science Park. Fab 6 and Fab 14 are located in the Tainan Science Park. WaferTech is located in the United States, SSMC is located in Singapore and Fab 10 is located in Shanghai.

(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)

Under an agreement with Vanguard, TSMC is required to use its best commercial efforts to maintain utilization of a fixed amount of reserved capacity and will not increase or decrease the stipulated quantity by more than 5,000 wafers per month. Please see Item 7. Major Shareholders and Related Party Transactions Related Party Transactions Vanguard International Semiconductor Corporation for a discussion of certain of the Vanguard contract terms. The amounts to be used at Vanguard are not included in our monthly capacity figures.

(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 that we had the option to utilize as of December 31, 2005, December 31, 2006, December 31, 2007, December 31, 2008 and December 31, 2009. This fab commenced production in September 2000.

(7) Fab 7 was decommissioned in June 2006 as we integrated its manufacturing facility as a part of Fab 12 s operation.

As of December 31, 2009, our monthly capacity (in 200mm equivalent wafers) was 869,977 wafers, compared to 835,177 wafers at the end of 2008. This increase was primarily due to the expansion of our 40/65-nanometer advanced technologies. Our semiconductor manufacturing facilities require substantial investment to construct and are largely fixed-cost assets once they are in operation. Because we own most of our manufacturing capacity, a significant portion of our operating costs is fixed. In general, these costs do not decline when customer demand or our capacity utilization rates drop, and thus declines in customer demand, among other factors, may significantly decrease our margins. Conversely, as product demand rises and factory utilization increases, the fixed costs are spread over increased output, which can improve our margins.

Capacity Management and Technology Upgrade Plans

We perform periodic long term market demand forecasts to estimate market and general economic conditions for our products and services. Based upon these estimates, we manage our overall capacity which may increase or decrease in accordance with market demand. Because market conditions may vary significantly and unexpectedly, our market demand forecast may change significantly at any time. Further, some of our facilities shut down during periods of decreased demand may not be able to ramp up in a timely manner during periods of increased demand. During periods of continued decline in demand, our operating facilities may not be able to absorb and complete in a timely manner outstanding orders re-directed from other shuttered facilities. Based on current demand forecasts, we intend to maintain our strategy of expanding manufacturing capacity and improving manufacturing process technologies to meet both the fabrication and the technological needs of our customers. Based upon estimates of market demand, we currently expect to continue adding capacity to our 300mm wafer fabs.

Our capital expenditures in 2007, 2008 and 2009 were NT$84,001 million, NT$59,223 million and NT$87,785 million (US$2,671 million)[(1)], respectively. Our capital expenditures in 2010 are expected to be approximately US$4,800 million, which may fluctuate depending on market conditions. In 2010, we anticipate our

capital expenditures to focus primarily on the following:

- adding capacity to our 300mm wafer fabs;
- development of process technologies in 28nm, 20nm nodes and below and other research and development projects;
- Fab 12 and Fab 14 facilities;
- backend capacity; and
- new technologies development for mask operations.

These investment plans are still preliminary and may change per market conditions.

(1) Translated from weighted average exchange rate of NT$32.868 to US$1.00.

Table of Contents

Markets and Customers

The primary customers of our foundry services are fabless semiconductor companies/systems companies and integrated device manufacturers. The following table presents the breakdown of net sales by type of customers during the last three years:

	Year ended December 31,					
	2007		2008		2009	
Customer Type	Net Sales	Percentage	Net Sales	Percentage	Net Sales	Percentage
	(in millions, except percentages)					
Fabless semiconductor companies/systems companies	NT$215,662	66.8%	NT$236,542	71.0%	NT$235,516	79.6%
Integrated device manufacturers	106,968	33.2%	96,616	29.0%	60,226	20.4%
Total	NT$322,630	100.0%	NT$333,158	100.0%	NT$295,742	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 approach, the following table presents a regional geographic breakdown of our net sales during the last three years:

	Year ended December 31,					
	2007		2008		2009	
Region	Net Sales	Percentage	Net Sales	Percentage	Net Sales	Percentage
	(in millions, except percentages)					
North America	NT$247,832	76.8%	NT$246,537	74.0%	NT$206,132	69.7%
Asia	45,128	14.0%	52,472	15.7%	58,261	19.7%
Europe	29,670	9.2%	34,149	10.3%	31,349	10.6%
Total	NT$322,630	100.0%	NT$333,158	100.0%	NT$295,742	100.0%

A significant portion of our net sales are attributable to a relatively small number of customers. In 2008 and 2009, our ten largest customers accounted for approximately 53% of our net sales and our largest customer accounted for approximately 14% and 10% of our net sales, respectively.

Over the years, we have attempted to strategically manage our exposure to commodity memory semiconductor manufacturing services. This policy has successfully shielded us from significant adverse effects resulting from the previous precipitous price drops in the commodity memory semiconductor market.

We provide worldwide customer support. Our office in Hsinchu and wholly-owned subsidiaries in the United States, Japan, Mainland China, the Netherlands, South Korea and India are dedicated to serving our customers worldwide. Foundry services, which are both technologically and logistically intensive, involve frequent and in-depth interaction with customers. We believe that the most effective means of providing foundry services is by developing direct and close relationships with our customers. Our customer service managers work closely with the sales force to offer integrated services to customers.

Commitments by Customers. 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 regarding their expected manufacturing requirements in advance of the placement of purchase orders.

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 an advance cash deposit for an option on a specified capacity at our fabs. Deposits are generally refunded as shipments are made. As of December 31, 2009, our customers had on deposit an aggregate of approximately US$30 million to reserve future capacity.

Table of Contents

The Semiconductor Fabrication Process

In general, the semiconductor manufacturing process begins with a thin silicon wafer on which an array of semiconductor devices is fabricated. The wafer is then tested, cut into dice, and assembled into packages that are then individually retested. Our focus is on wafer fabrication although we also provide all other services either directly or through outsourcing arrangements.

Our Foundry Services

Range of Services. Because of our ability to provide a full array of services, we are able to accommodate customers with a variety of needs at every stage of the overall foundry process. 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, for example.

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. 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 static random access memory (SRAM), flash memory, mixed-signal/ radio frequency (RF) semiconductors, which combine analog and digital circuitry in a single semiconductor, micro-electro-mechanical-system (MEMS), which combines micrometer featured mechanical parts, 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 We Manufacture. We manufacture different types of semiconductors with different specific functions by changing the number 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 our fabs. We believe that the keys to maintaining high production quality and utilization rates are our effective management and control of the manufacturing process technologies which comes from our extensive experience as the longest existing dedicated foundry and our dedication to quality control and process improvements.

The following is a general, non-exhaustive description of the key types of semiconductors that we currently manufacture. Depending on future market conditions, we may provide other services or manufacture other types of products that may differ significantly from the following:

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, digital signal processors (DSP), graphic chips and chip sets.

Mixed-Signal/RF Semiconductors. Analog/digital semiconductors combine analog and digital devices on a single semiconductor to process both analog and digital data. We make mixed-signal/RF semiconductors using both the CMOS and BiCMOS processes. We currently offer CMOS mixed-signal process down to the 40-nanometer Nexsys® technology for manufacturing mixed-signal/RF semiconductors. The primary uses of mixed-signal/RF 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/RF market.

Memory Semiconductors. Memory semiconductors, which are used in electronic systems to store data and program instructions, are generally classified as either volatile memories (which lose their data content when power supplies are switched off) or nonvolatile memories (which retain their data content without the need for a constant power supply). We currently offer CMOS process for the manufacture of SRAM, embedded DRAM as volatile memories, and for the manufacture of flash memory and embedded flash as nonvolatile memories.

CMOS Image Sensor Semiconductors. Image sensors are primarily used in camera phones. We are currently the leading foundry for the production of CMOS image sensors, characterized by technology features including low dark current, high sensitivity, small pixel size and high dynamic range achieved through integration with mixed mode processes.

Table of Contents

High Voltage Semiconductors. We currently offer a range of high-voltage processes including high voltage CMOS (HVCMOS), bipolar-CMOS-DMOS (BCD) and ultra-high voltage technology (UHV), ranging from 5V to 700V, which are suitable for various panel-size display driver and power IC applications.

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

	Year ended December 31,					
	2007		2008		2009	
Semiconductor Type	Net Sales	Percentage	Net Sales	Percentage	Net Sales	Percentage
	(in millions, except percentages)					
CMOS						
Logic	NT$234,354	72.6%	NT$243,884	73.2%	NT$211,721	71.6%
Memory	5,156	1.6%	1,839	0.6%	1,109	0.4%
Mixed-Signal[1]	80,247	24.9%	84,648	25.4%	79,865	27.0%
BiCMOS[2]	2,517	0.8%	2,460	0.7%	3,019	1.0%
Others	356	0.1%	327	0.1%	28	0.0%
Total	NT$322,630	100.0%	NT$333,158	100.0%	NT$295,742	100.0%

(1) Mixed-signal semiconductors made with the CMOS process.

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

Design and Technology Platforms.

Modern IC designers need sophisticated design infrastructure to optimize productivity and cycle time. Such infrastructures include design flow for electronic design automation (EDA), silicon proven building blocks such as libraries and IPs, simulation and verification design kits such as process design kit (PDK) and tech files. All of these infrastructures are built on top of the technology foundation, and each technology needs its own design infrastructure to be usable for designers. This is the concept of our technology platforms.

For years, TSMC and its alliance partners spent considerable effort, time and resources to build our technology platforms. We unveiled our Open Innovation Platform® (OIP) initiative in 2008 to further enhance our technologies platforms. The following OIP deliverables were rolled out in 2009:

Mixed Signal/Radio Frequency Reference Design Kit (MS/RF RDK) . This deliverable reduces design cycle time and encourage IP reuse.

iRCX, an interoperable EDA data format, for TSMC 65nm and 40nm technologies . This deliverable enables EDA tools that support the iRCX format to receive accurate interconnect modeling data from TSMC developed iRCX files.

Interoperable design rule check (iDRC) and interoperable layout-versus-schematic (iLVS) for TSMC 40nm process technology . These deliverables help simplify data delivery, and ensure data integrity and interpretation.

Interoperable process design kit (iPDK) . This deliverable eliminates duplicative PDK development work and significantly reduces PDK development and related costs.

Reference Flow 10.0. This deliverable continues the tradition of driving advances in design methodology and addresses new design challenges of 28nm process technology, including On-Chip Variation (OCV) optimization that helps increase yields.

Our technology platforms provide a solid foundation for design enablement. To further lower the design barrier for customer to design on our technologies, we offer extensive design support services to customers through our own design support team as well as our alliance partners. Such design support services includes:

Tech File and PDK . Customers heavily leverage tech files and PDK provided by us. We are also increasing resources to support rising demand for PDK in mainstream technologies.

Table of Contents

Library and IP . These reusable building blocks are essential for many design projects. In 2009, nearly half of new tape-outs to us adopted one or more libraries or IPs from us or our IP partners. To support such high demand, we also expanded its library and IP portfolio. The total number of library or IP in the portfolio increased to 2,221 in 2009 from about 1,600 in 2008.

Design Methodology and Flow . We released the first foundry-specific Integrated Sign-Off Flow (ISF), targeting initially the 65nm process node, in April 2009. With validated libraries and IP, qualified EDA tools, a full set of proper technology files, and automated installation scripts, ISF significantly shortens design cycle and helps improve tape-out quality.

Multi-project Wafers Program (CyberShuttle). To help our customers reduce costs, we offer a dedicated multi-project wafer processing service that allows us to provide multiple customers with circuits produced with the same mask. This program reduces mask costs by a very significant factor, resulting in accelerated time-to-market for our customers. We have extended this program to all of our customers and library and intellectual property (IP) partners using our broad selection of process technologies, ranging from the latest 40-, 45-, 55- and 65-nanometer processes to 0.18-, 0.25- and 0.35- micron. This extension offers a routinely scheduled multi-project wafer run to customers on a shared-cost basis for prototyping and verification.

We developed our multi-project wafer program in response to the current system-on-chip development methodologies, which often require the independent development, prototyping and validation of several IPs before they can be integrated onto a single device. By sharing mask costs among 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 devotion to customer service has been an indispensable factor in attracting new customers, helping to ensure the satisfaction of existing customers, and building a mutually beneficial partnership with our customers. The key elements are our:

customer-oriented culture through multi-level interaction with customers;

ability to deliver wafers of consistent quality, competitive ramp-up speed and efficient yield improvement;

responsiveness to customer s issues and requirements, such as engineering change orders and special wafer handling;

flexibility in manufacturing processes, supported by our competitive technical capability and efficient production planning;

dedication to help reduce customer costs through collaboration and services, such as our multi-project wafer program, which combines multiple designs on a single mask set for increased cost-saving;

availability of eFoundry®, the online service which provides in real-time necessary information in design, engineering, and logistics throughout customers product life cycle; and

provision of Virtual Fab®, designed to provide transparent information and seamless services to our customers such as the availability of key information, management of on-time delivery and flexibility in scheduling and capacity.

Table of Contents

Research and Development

The semiconductor industry is characterized by rapid changes in technology, frequently resulting in the introduction of new technologies to meet customers demands and in the obsolescence of recently introduced technology and products. We believe that, in order to stay technologically ahead of our 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$17,946 million, NT$21,481 million and NT$21,593 million (US$676 million) in 2007, 2008 and 2009, respectively, on research and development, which represented 5.5%, 6.5% and 7.3% of our net sales for these periods. We plan to continue to invest significant amounts on research and development in 2010, 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 technologies, such as 90-nanometer, 80-nanometer, 65-nanometer, 55-nanometer, 45-nanometer and 40-nanometer Nexsys® technology for volume production, prior to the implementation of those advanced process technologies by many integrated device manufacturers and our competitors. In addition, we expect to advance our process technologies further down to 28/20-nanometer and below in the coming years to maintain our technology leadership. We will also continue to invest in research and development for our mainstream technologies offerings to provide function-rich process capabilities to our customers.

Our research and development efforts 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 new Logic, system-on-chip (SOC), derivatives and package/system-in-package (SIP) technologies. Fab related research and development activities mostly focus on upgrading the manufacturing process 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, equipment vendors and R&D consortia.

We also continuously create in-house inventions and know-how. Since our inception, every year we apply for and are issued a substantial number of United States and other patents, most of which are semiconductor-related.

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 technologies. Advances in process technologies 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, we own all of the equipment used at our fabs.

In implementing our capacity management 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.

Raw Materials

Our manufacturing processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious metals. Raw materials costs constituted 11.1% of our net sales in 2008 and 10.9% of our net sales in 2009. 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 quarterly and quantity allocations are adjusted for subsequent periods based on the evaluation.

Table of Contents

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 SUMCO Corporation of Japan, MEMC Electronic Materials, Inc. of the United States and Siltronic AG of Germany. Together they supplied approximately 91.9% and 93.6% of our total wafer needs in 2008 and 2009, respectively. We have in the past obtained, and believe we will continue to be able to obtain, a sufficient supply of 150mm, 200mm and 300mm wafers. The price of silicon wafers decreased during 2008 and 2009. However, the recent market recovery has increased demand, so a tight supply is expected for 2010. As a result, we could be facing price increase pressure for silicon wafers in 2010.

In order to secure a reliable and flexible supply of high quality wafers, we entered into long-term agreements and intend to develop strategic relationships with major wafer vendors to cover our anticipated wafer needs for the next three to five years. Also, we have a special cross-function taskforce comprised of individuals from our fab operations, materials management, risk management and quality system management divisions to improve our supply chain risk management. This taskforce works with our primary suppliers to develop their business continuity plans, qualify their dual-plant materials, prepare safety inventories, improve the quality of their products and manage the supply chain risk of their suppliers.

Competition

We compete internationally and domestically with dedicated foundry service providers, as well as with integrated device manufacturers that devote a significant portion of their manufacturing capacity to foundry operations. We compete primarily on the basis of process technologies, quality and service. The level of competition differs according to the process technologies involved. For example, in more mature technologies, the competition tends to be more intense. Some companies compete with us in selected geographic regions or application end markets. In recent years, substantial investments have been made by others to establish new dedicated foundry companies worldwide.

Environmental Regulation

The semiconductor production process generates gaseous chemical wastes, liquid wastes, wastewater 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 wastes and wastewater 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 R.O.C. Environmental Protection Administration, U.S. Environmental Protection Agency or State Environmental Protection Administration of mainland China, and local environmental protection authorities, including the Science Park Administration, the Washington State Department of Ecology or the Shanghai Environmental Protection Bureau.

We have adopted pollution control measures that are expected to result in the effective maintenance of environmental protection standards consistent with the practice of the semiconductor industry in Taiwan, the U.S. and mainland China. 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. Our waste reduction steps also comply with Taiwan regulatory requirements.

We received ISO14001 certification in August 1996 and QC 080000 IECQ HSPM, a certification for having a hazardous substance process management system that meets the European environmental regulation RoHS (Restriction of Hazardous Substance) Directive, in July 2006. We have continued to implement improvement programs in connection with these certifications. For example, all of our manufacturing sites in Taiwan were ISO14001 certified in 2005 and QC 080000 certified in 2007. Fab 10, our manufacturing site in mainland China, also received ISO 14001 certification in 2005 and QC 080000 certification in 2007. In addition, WaferTech obtained ISO 14001 certification in 2001 and QC 080000 certification in 2006. In 2008, we received the Excellence in Voluntary Greenhouse Gases Emission Reduction Award from the Ministry of Economic Affairs, Executive Yuan, R.O.C., The Annual Enterprises Environmental Protection Award from the Environmental Protection Administration, Executive Yuan, R.O.C.; and in 2009, we received Low Carbon Enterprise Award , Excellence in Environmental Protection from the Science Park Administration, the Golden Award for Leadership in Energy and Environmental Design of New Construction (LEED-NC) from the U.S. Green Building Council and Diamond Class Ecology, Energy Saving, Waste Reduction, and Health (EEWH) Certification from Architecture and Building Research Institute, Ministry of the

Interior. WaferTech has also been a member of the U.S. Environmental Protection Agency s Performance Track Program since 2004.

In 2001, we have expressed our voluntary commitment to reducing perfluorinated compounds (PFCs) emissions to 10% below the average emission value of 1997 and 1999 by 2010, based on the standard set forth in a Memorandum of Understanding by the Taiwan Semiconductor Industrial Association. In our effort to achieve such commitment, the evaluation and implementation of projects including process optimization, chemical replacement and abatement systems have been commenced by us.

Table of Contents

Electricity and Water

We use electricity supplied by Taiwan Power Company in our manufacturing process. Businesses in the Hsinchu Science Park and Tainan Science Park, such as ours, enjoy preferential electricity supply. We have sometimes suffered power outages caused by our electricity supplier, the Taiwan Power Company, which lead to interruptions in our production schedule. The semiconductor manufacturing processes also use extensive amounts of fresh water. Due to the growth of the semiconductor manufacturers in the Hsinchu Science Park and Tainan Science Park, and the droughts that Taiwan experiences from time to time, there is concern regarding future availability of sufficient fresh water and the potential impact insufficient water supplies may have on our semiconductor production.

Risk Management

We employ an enterprise risk management system to integrate the prevention and control of TSMC and our subsidiaries risks. We have also prepared emergency plans to respond to natural disaster and other disruptive events that could disrupt the operation of our business. These emergency plans are developed to prevent or minimize loss of personnel and damage to our facilities, equipment and machinery caused by natural disaster and other disruptive events. We also 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 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 all our fabs. Equipment and inventories in transit are also insured. No assurance can be given, however, that insurance will fully cover any losses and our emergency response plans will be effective in preventing or minimizing losses in the future.

Please see detailed risk factors related to the impact of climate change regulations and international accords, and business trends on our operations in Item 3. Key Information Risk Factors Risks Relating to Our Business .

Our Subsidiaries and Affiliates

Vanguard International Semiconductor Corporation (VIS). In 1994, we, the R.O.C. Ministry of Economic Affairs and other investors established Vanguard, then an integrated dynamic random access memory (DRAM) manufacturer. Vanguard commenced volume commercial production in 1995 and listed its shares on the GreTai Securities Market in March 1998. In 2004, Vanguard completely terminated its DRAM production and became a pure foundry company. As of February 28, 2010, we owned approximately 37.4% of the equity interest in Vanguard. Please see Item 7. Major Shareholders and Related Party Transactions for a further discussion.

WaferTech in the United States. In 1996, we entered into a joint venture called WaferTech (of which the manufacturing entity is Fab 11) with several U.S.-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 increased the percentage of our ownership interest in WaferTech to 68%. By the end of the first quarter of 2001, we had increased the percentage of our ownership interest in WaferTech to approximately 99% by purchasing all of the remaining interest of all of the other joint venture partners. As of March 25, 2010, we owned 100% of the equity interest in WaferTech.

Systems on Silicon Manufacturing Company Pte. Ltd. (SSMC). In March 1999, we entered into an agreement with Philips and EDB Investment Pte. Ltd. to found a joint venture, SSMC, to build a fab in Singapore. The SSMC fab commenced production in December 2000. As of February 28, 2010, we owned approximately 38.8% of the equity interest in SSMC. Please see Item 7 Major Shareholders and Related Party Transactions for a further discussion.

Global Unichip Corporation (GUC). In January 2003, we acquired a 52.0% equity interest in GUC, a System-on-Chip (SoC) design service company that provides large scale SOC implementation services. GUC has been listed on Taiwan Stock Exchange since November 3, 2006. As of February 28, 2010, we owned approximately 35.3% of the equity interest in GUC.

Table of Contents

Operations in Mainland China. In August 2003, we established TSMC China (of which the manufacturing entity is Fab 10), a wholly-owned subsidiary primarily engaged in the manufacturing and selling of integrated circuits. We have achieved commercial production with 0.35 micron, 0.25 micron and 0.18 micron process technologies in Fab 10, our 200mm wafer fab in Shanghai, where we commenced production in late 2004. As of February 28, 2010, we owned 100% of the equity interest in TSMC China.

VisEra Technologies Company, Ltd. (VisEra). In October 2003, we and OmniVision Technologies Inc., entered into a shareholders agreement to form VisEra Technologies Company, Ltd., a joint venture in Taiwan, for the purpose of providing back-end manufacturing service. As of February 28, 2010, we owned approximately 43.5% of the equity interest in VisEra Technologies Company Ltd. Please see Item 7. Major Shareholders and Related Party Transactions for a further discussion.

Xintec, Inc. (Xintec). In January 2007, we acquired a 51.2% equity interest in Xintec, a supplier of wafer level packaging service, to support our complementary metal oxide silicon (CMOS) image sensor manufacturing business. As of February 28, 2010, we owned approximately 48.9% combined equity interest in Xintec.

Mcube Inc. (Mcube).