

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD

Form 20-F

April 02, 2013

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## SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

### FORM 20-F

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

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2012

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

OR

☐ 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  
(Translation of Registrant's Name Into English)

Republic of China  
(Jurisdiction of Incorporation or Organization)

No. 8, Li-Hsin Road 6

Hsinchu Science Park

Hsinchu, Taiwan

Republic of China

(Address of Principal Executive Offices)

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

Title of Each Class

Name of Each Exchange  
on Which Registered

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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, 2012, 25,924,435,668 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 ☒ No ☐

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

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

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Yes ü No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes ☐ No ☐

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

Large Accelerated Filer ü Accelerated Filer ☐ Non-Accelerated Filer ☐

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

U.S. GAAP ☐ International Financial Reporting Standards as issued ☐ Other ü

by the International Accounting Standards Board

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ Item 18 ü

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 ☐ No ü

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

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**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 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 electronics 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 20-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 business acquisitions and financing plans. 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, 2010, 2011 and 2012, and the selected balance sheet data as of December 31, 2011 and 2012, 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, 2008 and 2009 and the selected balance sheet data as of December 31, 2008, 2009 and 2010, 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 33 to our consolidated financial statements.

	Year ended and as of December 31					
	2008	2009	2010	2011	2012	2012
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except for percentages,					
	earnings per share and per ADS)					
Income Statement Data:						
R.O.C. GAAP						
Net sales	333,158	295,742	419,538	427,081	506,249	17,427
Cost of sales	(191,408)	(166,413)	(212,484)	(232,938)	(262,629)	(9,041)
Gross profit before affiliates elimination	141,750	129,329	207,054	194,143	243,620	8,386
Unrealized gross profit from affiliates				(74)	(25)	(1)
Gross profit	141,750	129,329	207,054	194,069	243,595	8,385
Operating expenses	(37,315)	(37,367)	(47,879)	(52,512)	(62,538)	(2,152)
Income from operations	104,435	91,962	159,175	141,557	181,057	6,233
Non-operating income and gains	10,822	5,654	13,136	5,359	6,782	233
Non-operating expenses and losses	(3,785)	(2,153)	(2,041)	(1,768)	(6,285)	(216)
Income before income tax	111,472	95,463	170,270	145,148	181,554	6,250
Income tax expense	(10,949)	(5,997)	(7,988)	(10,695)	(15,590)	(537)
Net income	100,523	89,466	162,282	134,453	165,964	5,713
Net income attributable to minority interests	(590)	(248)	(677)	(252)	195	7
Net income attributable to shareholders of the parent	99,933	89,218	161,605	134,201	166,159	5,720
Basic earnings per share <sup>(1)</sup>	3.84	3.45	6.24	5.18	6.41	0.22
Diluted earnings per share <sup>(1)</sup>	3.81	3.44	6.23	5.18	6.41	0.22
Basic earnings per ADS equivalent <sup>(1)</sup>	19.19	17.27	31.19	25.89	32.05	1.10
Diluted earnings per ADS equivalent <sup>(1)</sup>	19.05	17.22	31.17	25.88	32.04	1.10
Basic weighted average shares outstanding <sup>(1)</sup>	26,039	25,836	25,906	25,914	25,921	25,921
Diluted weighted average shares outstanding <sup>(1)</sup>	26,234	25,912	25,920	25,925	25,928	25,928



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<b>U.S. GAAP</b>						
Net sales	334,340	296,109	419,988	427,488	506,745	17,444
Cost of sales	(203,734)	(167,122)	(212,771)	(232,989)	(262,717)	(9,044)
Gross profit before affiliates elimination	130,606	128,987	207,217	194,499	244,028	8,400
Unrealized gross profit from affiliates				(74)	(25)	(1)
Gross profit	130,606	128,987	207,217	194,425	244,003	8,399
Operating expenses	(44,424)	(37,627)	(48,434)	(52,405)	(63,046)	(2,170)
Income from operations	86,182	91,360	158,783	142,020	180,957	6,229
Income before income tax	91,884	94,253	170,088	149,238	181,081	6,233
Income tax expense	(10,062)	(4,960)	(5,768)	(12,135)	(22,426)	(772)

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	Year ended and as of December 31					
	2008	2009	2010	2011	2012	2012
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except for percentages,					
	earnings per share and per ADS)					
Net income	81,822	89,293	164,320	137,103	158,655	5,461
Net income attributable to shareholders of the parent	81,473	89,102	163,639	136,873	158,850	5,468
Basic earnings per share <sup>(1)</sup>	3.15	3.45	6.32	5.28	6.13	0.21
Diluted earnings per share <sup>(1)</sup>	3.13	3.44	6.31	5.28	6.13	0.21
Basic earnings per ADS equivalent <sup>(1)</sup>	15.77	17.24	31.58	26.41	30.64	1.05
Diluted earnings per ADS equivalent <sup>(1)</sup>	15.66	17.19	31.57	26.40	30.63	1.05
Basic weighted average shares outstanding <sup>(1)</sup>	25,826	25,836	25,906	25,914	25,921	25,921
Diluted weighted average shares outstanding <sup>(1)</sup>	26,021	25,912	25,920	25,925	25,928	25,928
Balance Sheet Data:						
R.O.C. GAAP						
Working capital	195,812	180,671	138,328	108,253	109,853	3,782
Long-term investments	39,982	37,845	39,776	34,459	65,786	2,265
Properties	243,645	273,675	388,444	490,375	617,529	21,257
Goodwill	6,044	5,931	5,705	5,694	5,524	190
Total assets	558,917	594,696	718,929	774,265	955,035	32,876
Long-term bank borrowing	1,420	579	302	1,588	1,359	47
Long-term bonds payable	4,500	4,500	4,500	18,000	80,000	2,754
Guarantee deposits and other liabilities <sup>(2)</sup>	15,817	11,436	12,231	5,627	5,486	189
Total liabilities	78,544	95,648	140,224	142,221	229,281	7,893
Capital stock	256,254	259,027	259,101	259,162	259,245	8,924
Cash dividend on common shares	76,881	76,876	77,708	77,730	77,749	2,676
Shareholders equity attributable to shareholders of the parent	476,377	495,083	574,145	629,594	723,198	24,895
Minority interests in subsidiaries	3,996	3,965	4,560	2,450	2,556	88
U.S. GAAP						
Goodwill	47,028	46,825	46,419	46,399	46,093	1,587
Total assets	599,484	635,275	759,266	818,774	999,076	34,392
Total liabilities	84,424	99,278	144,109	147,161	241,660	8,319
Capital Stock	256,254	259,027	259,101	259,162	259,245	8,924
Shareholders equity attributable to common shareholders of the parent	511,089	532,043	610,597	669,163	754,860	25,985
Noncontrolling interests in subsidiaries	3,971	3,954	4,560	2,450	2,556	88
	Year ended and as of December 31					
	2008	2009	2010	2011	2012	2012
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except for percentages and operating data)					
Other Financial Data:						
R.O.C. GAAP						
Gross margin	42%	44%	49%	45%	48%	48%
Operating margin	31%	31%	38%	33%	36%	36%
Net margin	30%	30%	39%	31%	33%	33%
Capital expenditures	59,223	87,785	186,944	213,963	246,137	8,473
Depreciation and amortization	81,512	80,815	87,810	107,682	131,349	4,521
Cash provided by operating activities	221,494	159,966	229,476	247,587	289,064	9,951
Cash used in investing activities	(8,042)	(96,468)	(202,086)	(182,523)	(273,196)	(9,404)
Cash used in financing activities	(115,393)	(85,471)	(48,638)	(67,858)	(13,811)	(475)
Net cash inflow (outflow)	99,628	(23,338)	(23,389)	(4,415)	(61)	(2)
Operating Data:						
Wafer (200mm equivalent) shipment <sup>(3)</sup>	8,467	7,737	11,860	12,549	14,044	14,044
Billing Utilization Rate <sup>(4)</sup>	88%	75%	101%	91%	91%	91%

<sup>(1)</sup> Retroactively adjusted for stock dividends for earning year 2008.

- (2) Consists of other long-term payables, obligations under capital leases and total other liabilities.
- (3) In thousands.
- (4) Billing Utilization Rate is equal to annual wafer shipment divided by annual capacity. Capacity includes wafers committed by Vanguard and SSMC. Please see Item 7. Major Shareholders and Related Party Transactions Related Party Transactions.

**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 NT dollars mean New Taiwan dollars. This annual report contains translations of certain NT dollar amounts into U.S. dollars at specified rates solely for the convenience of the reader. The translations from NT dollars to U.S. dollars and from U.S. dollars to NT dollars for periods through December 31, 2008 were made at the year-end 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. For January 1, 2009 and all later dates and periods, the exchange rate refers to the exchange rate as set forth in the statistical release of the Federal Reserve Board. Unless otherwise noted, all translations for the year 2012 were made at the exchange rate as of December 31, 2012, which was NT\$29.05 to US\$1.00. On March 29, 2013, the exchange rate was NT\$29.81 to US\$1.00.

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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.

	NT dollars per U.S. dollar			
	Average <sup>(1)</sup>	High	Low	Period-End
2008	31.51	33.58	29.99	32.76
2009	32.96	35.21	31.95	31.95
2010	31.39	32.43	29.14	29.14
2011	29.42	30.67	28.50	30.27
2012	29.47	29.91	29.05	29.05
October 2012	29.24	29.31	29.15	29.20
November 2012	29.11	29.26	28.96	29.07
December 2012	29.04	29.10	29.00	29.05
January 2013	29.10	29.54	28.93	29.54
February 2013	29.63	29.73	29.52	29.67
March 2013 (through March 29, 2013)	29.74	29.88	29.63	29.81

<sup>(1)</sup> 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:

**Risks Relating to Our Business**

*Any global systemic political, economic and financial crisis or catastrophic natural disasters (as well as the indirect effects flowing therefrom) could negatively affect our business, results of operations, and financial condition.*

In recent times, several major systemic economic and financial crises and natural disasters negatively affected global business, banking and financial sectors, including the semiconductor industry and markets. These types of crises cause turmoil in global markets that often result in declines in electronic products sales from which we generate our income through our goods and services. In addition, these crises may cause a number of indirect effects such as undermining the ability of our customers to remain competitive vis-à-vis the financial and economic

challenges created by insolvent countries and companies still struggling to survive in the wake of these crises. For example, there could be in the future knock-on effects from these types of crises 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; customer insolvencies; and counterparty failures negatively impacting our treasury operations. Any future systemic political, economic or financial crisis or catastrophic natural disaster (as well as the indirect effects flowing from these crises or disasters) could cause revenues for the semiconductor industry as a whole to decline dramatically, and if the economic conditions or financial condition of our customers were to deteriorate, additional accounting related allowances may be required in the future and such additional allowances could increase our operating expenses and therefore reduce our operating income and net income. Thus, any future global economic crisis or catastrophic natural disaster (and their indirect effects) could materially and adversely affect our results of operations.

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

The electronics industries and semiconductor market 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 electronics and semiconductor 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 electronics and semiconductor industries have experienced significant and sometimes prolonged periods of downturns and overcapacity. Any systemic economic, political, or financial crisis, such as the one that occurred in 2008-2009, could create significant volatility and uncertainty within the electronics and semiconductor industries which may disrupt traditional notions of cyclicity 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 electronics and semiconductor companies for our services, periods of downturns and overcapacity in the general electronics and semiconductor 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. Furthermore, due to the increasingly complex technological nature of our products and services and the ever uncertain global economic environment, we may need to provide higher accounting provisions on potential sales returns and allowances by our customers that may adversely affect the results of our operations.

*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, consumer electronics products and industrial/standard products. Any decrease in the demand for any one of these products may decrease the demand for such other products as well as overall global semiconductor foundry services, including our services and may adversely affect our revenues. Further, because we own most of our manufacturing capacities, 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. 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 continues decreasing, the pricing pressure on components produced by us may lead to a reduction of our revenues, margin and earnings.

*In light of the rise of new foundry service providers worldwide, 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 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. Increases in these competitive activities may decrease our customer base, or our ASP, or both.

Over the past few years, we have seen the rise of certain firms with the capability of providing foundry services. These firms are committed to attract our customers. If we are unable to compete with these new competitors with better technologies and manufacturing capacity and capabilities, we risk losing customers to these new contenders.

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***If we are unable to remain a technological leader in the semiconductor industry or if we are unable to timely respond to fast-changing semiconductor market dynamics, 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. In addition, our customers have significantly decreased the time in which their products or services are launched into the market. If we are unable to meet these shorter product time-to-market, we risk losing these customers. These challenges also place greater demands on our research and development capabilities. If we are unable to innovate new technologies that meet the demands of our customers, our revenues may decline significantly. 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 regular 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 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 certain manufacturing lines or tools in some of our manufacturing facilities may be suspended or shut down temporarily 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, Southern Taiwan Science Park and Central Taiwan Science Park. Total monthly capacity for 300mm wafer fabs was increased from 244,600 wafers as of December 31, 2010 to 290,100 wafers as of December 31, 2011 and to 366,800 wafers as of December 31, 2012. 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 a further discussion.

***We may not be able to implement our planned growth or development if we are unable to obtain sufficient financial resources to 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 and increasingly so for the foreseeable next few years, we will continue to need significant capital to fund our operations and manage our capacity in accordance with market demand. 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 and development or maintain our leading position if we are unable to recruit and retain qualified executives, managers and skilled technical and service personnel.***

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. 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 in a timely manner during an economic upturn.



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***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 from time to time 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 to acquire relevant used tools. Further, the growing complexities especially in next-generation lithographic technologies may delay the timely availability of the equipments and parts needed to exploit time sensitive business opportunities and also increase the market price for such equipment and parts. 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. In the past, shortages in the supply of some materials, whether by specific vendors or by the semiconductor industry generally, have 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 or that back-up supplies may not be readily available. 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 in a timely manner.

***Any inability to obtain, preserve and defend our technologies and intellectual property rights and third-party licenses 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, patents, 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 and patent licenses 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.

We have received, from time-to-time, communications from third parties asserting that our technologies, manufacturing processes, the design of the integrated circuits made by us or the use by our customers of semiconductors made by us may infringe upon their patents or other intellectual property rights. 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 and these non-practicing entities are also becoming more aggressive in their monetary demands and requests for court-issued injunctions. Such lawsuits or claims may increase our cost of doing business and may potentially be extremely disruptive if the plaintiffs 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.



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***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 our manufacturing processes and are therefore subject to the risk of loss arising from explosion, fire, or environmental influences 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 or vendor facilities were to be damaged, or cease operations as a result of an explosion, fire, or environmental influences, it could reduce our manufacturing capacity and may cause us to lose important customers, thereby having a potentially adverse and material 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 investments, long-lived assets and intangible assets for impairment whenever triggering events or changes in circumstances indicate that the asset may be impaired. 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 the carrying value may not be recoverable. For example, we hold certain investments in publicly listed companies, some of which have incurred certain impairment charges as discussed further in our financial statements.

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 how we assess if an impairment charge is required and, if so, how the amount is determined.

***Having one or more large customers that account for a significant percentage of our revenues may render us vulnerable to the loss of or significant curtailment of purchases by one or more large customers that could in turn adversely affect our results of operations.***

Over the years, our customer profile and the nature of our customers' business have changed dramatically. While we generate revenue from hundreds of customers worldwide, our ten largest customers accounted for approximately 54%, 56% and 59% of our net sales in 2010, 2011 and 2012, respectively. Our largest customer accounted for 9%, 14% and 17% of our net sales in 2010, 2011 and 2012, respectively. This customer concentration results in part from the changing dynamics of the electronics industry with the structural shift to mobile devices and applications and software that provide the content for such devices. There are only a limited number of customers who are successfully exploiting this new business model paradigm. Also, in order to respond to the new business model paradigm, we have seen the nature of our customers' business model changes. For example, there is a growing trend toward the rise of system houses that operate in a manner which make their products and services more marketable in a changing consumer market. The loss of, or significant curtailment of purchases by, one or more of our top customers, including curtailments due to increased competitive pressures, industrial consolidation, a change in their designs, or change in their manufacturing sourcing policies or practices of these customers, or the timing of customer or distributor inventory adjustments, or change in our major customers' business models 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 and corruption, our reputation and results of operations could be harmed.

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, 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.



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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, fraud or corruption. 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 R.O.C., 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 PRC have co-existed for the past 63 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. In addition to the above factors, future expansions of our operations in Taiwan will likely be handicapped by the limited availability of commercial-use land, industrial-quantities of natural resources such as water (needed for our foundry processes) and experienced human resources.

***Our operational results could also be materially and 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 our suppliers operate.***

The apparent frequency and severity of natural disasters has increased recently. We have manufacturing and other operations in locations subject to natural disasters, such as severe weather, flooding, earthquakes and tsunamis, as well as interruptions or shortages in the supply of utilities, such as water and electricity, which could disrupt operations. We have operations in earthquake-prone locations and any major natural disaster occurring in any such locations may cause severe disruptions to our business operations and financial performance. In addition, our suppliers and customers also have operations in such locations. For example, most of our production facilities, as well as those of many of our suppliers and customers and upstream providers of complementary semiconductor manufacturing services, are located in Taiwan and Japan, which are susceptible to earthquakes, tsunamis, flooding, typhoons, and droughts from time to time. In addition, we have sometimes suffered power outages in Taiwan caused by difficulties encountered by our electricity supplier, the Taiwan Power Company, or other power consumers on the same power grid, which have resulted in interruptions to our production schedule. While our business continuity management and emergency response plans are intended to prevent or minimize losses in the future, there is no assurance that the measures will fully eliminate the losses or the insurance will fully cover any losses. One or more natural disasters or interruptions to the supply of utilities that results in a prolonged disruption to our operations, or the operations of our customers or suppliers, may adversely affect the results of our operations and financial conditions.

***Our failure to comply with applicable environmental and climate related laws and regulations, as well as international accords to which we are subject, could also harm our business and operational results.***

The manufacturing, assembling and testing of our products require the use of chemicals and materials that are subject to environmental, climate-related, and 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;

the temporary or permanent suspension of production of the affected products;

unfavorable alterations in our manufacturing, fabrication and assembly and test processes; and

restrictions on our operations or sales.

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Existing and future environmental and climate related laws and regulations as well as applicable international accords to which we are subject, 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 programs, or carbon credit trading programs; (c) modify our product designs and manufacturing processes, 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 necessary 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 operational results by increasing our expenses or requiring us to alter our manufacturing and assembly and test processes. For further details, please see our compliance record with Taiwan and international environmental and climate related laws and regulations in Item 4. Information on the Company Environmental Regulations .

***Climate change, other environmental concerns and green initiatives also present other commercial challenges, economic risks and physical risks that could harm our operational results 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 request that we exceed any standard(s) set for environmentally compliant products and services. For example, we have been working on an on-going basis with our suppliers, customers, and several industry consortia to develop and provide products that are compliant with the EU RoHS (European Union Restriction of Hazardous Substances) Directive. Even though we are entitled to rely on various exemptions under RoHS, some of our customers might request that we 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 and other regulations. Therefore, our energy costs may increase significantly if utility or power companies pass on their costs, either fully or partially, such as those associated with carbon taxes, emission caps and carbon credit trading programs. For further details, please see details of our business continuity management of climate change policy in Item 4. Information on the Company Environmental Regulation .

In order to mitigate risks resulting from climate change, we continue to actively carry out energy conservation measures, implement voluntary perfluorinated compounds ( PFCs ) emission reduction projects and conduct greenhouse gas inventories verification every year. Since 2005, we have publicly disclosed climate change information every year through participation in the annual survey conducted by the nonprofit carbon disclosure project, which includes greenhouse gas emission and reduction information for all of our fabs.

***Adverse fluctuations in exchange rates could decrease our operating margin.***

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. In 2012, more than 90% of our sales were 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 September 1, 2010 to December 30, 2010, the U.S. dollar depreciated 8.9% against the NT dollar, which had a negative impact on our results of operations. Specifically, based on our 2012 results, every 1% depreciation of the U.S. dollar against the NT dollar exchange rate may result in approximately 0.4 percentage point decrease in our operating margin. 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.

***Fluctuations in inflationary and deflationary market expectations could negatively affect costs of and 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. For example, certain structural changes that resulted from the global financial crisis in 2008-2009 and EU sovereign debt crises, such as highly accommodative monetary policies by major central banks worldwide, may cause variations in the expectation of inflation or deflation. 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 may negatively affect the costs of our operations and 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 a further discussion.



**Table of Contents*****Amendments to existing tax regulations or new tax legislation in the R.O.C. may have an adverse effect on our net income.***

While we are subject to tax laws and regulations in various jurisdictions in which we operate or conduct business, our principal operations are conducted in the R.O.C. and we are exposed primarily to taxes levied by the government of the R.O.C. In August 2012, the R.O.C. government amended the alternative minimum tax, or AMT, rate for business entities from 10% to 12% effective from January 1, 2013. As a result of this change, and changes in the various tax credit incentives and exemptions available to us, we anticipate our effective tax rate for 2013 will be 14.0%, an increase from 8.7% in 2012, which is anticipated to negatively affect our net income in 2013. See Item 5. Operating and Financial Review and Prospects – Taxation for a further discussion of significant tax regulation changes.

***If certain of our strategic investments fail to achieve their respective forecasted returns or objectives, we may suffer financial losses that may materially lower our profit margin and distributable earnings.***

From time to time, we have made or will make a series of strategic investments that serve two major purposes. Firstly, some of our major strategic investments were (or will be) made to help us open new sources of revenues and innovate alternative business models that target to generate additional shareholders' value going forward in the future. For example, in order to help us grow into next generation business areas, we have invested to develop potential businesses in solid state lighting, solar power and other renewable sources of energy. We believe these investments into these areas will generate new sources of revenues as the transition into consuming cleaner sources of power is generally expected gradually. For further information on these investments, please see Item 3. Key Information – Our Subsidiaries and Affiliates. Secondly, some of our significant strategic investments were (or will be) made to help us grow our existing business by augmenting key technology development. For example, to accelerate the development of next-generation lithographic technology, in August 2012, TSMC joined the ASML Holding N.V. Customer Co-Investment Program (along with other major technology firms). The program's scope includes development of extreme ultraviolet (EUV) lithography technology and 450-millimeter (450mm) lithography tools. Under the agreement with ASML Holding N.V. (ASML), TSMC invested EUR838 million to acquire 5% of ASML's equity and has committed EUR277 million to be spread over five years, to ASML's research and development program. We are exposed to share price fluctuations arising from the investments in ASML, especially when our equity investment is subject to a lock-up period of 2.5 years. In the future, we may make more strategic investments in various forms, whether through stock purchases, assets purchases, licensing of major intellectual property rights, joint investments or research and development projects, outright mergers and acquisitions, private equity transactions or receiving investments from a consortium of large institutional, public or private investors, etc. Any such investment will incur risks, which may result in losses if not carefully managed. Any such loss resulting from such investments may result in significant impairment charges, lower profit margin and ultimately lower distributable earnings.

***Our historical financial statements were prepared in conformity with R.O.C. GAAP and starting from January 1, 2013, under IFRSs; our 2012 consolidated financial statements that will be prepared as a comparative period for our 2013 IFRS financial statements may be materially different from the accompanied 2012 consolidated financial statements under R.O.C. GAAP.***

Starting in 2013, our financial statements will be prepared in accordance with International Financial Reporting Standards, International Accounting Standards, and relevant Interpretations (collectively, IFRSs) as issued by International Accounting Standards Board (IASB) and IFRSs as endorsed for use in R.O.C. Since the transition date to IFRSs was January 1, 2012, our 2012 consolidated financial statements that will be prepared as a comparative period for our 2013 IFRS financial statements may be materially different from the accompanied 2012 consolidated financial statements under R.O.C. GAAP.

**Risks Relating to Ownership of ADSs*****Your voting rights as a holder of ADSs will be limited.***

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

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ADS holders will not generally be able to exercise the voting rights attaching to the deposited securities on an individual basis. According to the provisions of our ADS deposit agreement, 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.

***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, 2013, 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.***

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. These funds have disposed and may from time to time dispose shares of Taiwan companies so purchased at a later time. 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 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.



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### **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](http://www.tsmc.com). Information contained on our website is not incorporated herein by reference and does not constitute part of this annual report.

### **Business Overview of the Company**

As a foundry, we manufacture semiconductors using our manufacturing processes for our customers based on their own or third parties proprietary integrated circuit designs. We offer a comprehensive range of 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 total foundries worldwide was 45% in 2012. We also offer design, mask making, bumping, probing, assembly and testing 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 system companies such as Advanced Micro Devices, Inc., Altera Corporation, Broadcom Corporation, Marvell Semiconductor Inc., MediaTek Inc., NVIDIA Corporation, OmniVision Technologies and Qualcomm Incorporated, to integrated device manufacturers such as LSI Corporation, STMicroelectronics and Texas Instruments Inc. Fabless semiconductor and system companies accounted for approximately 85%, and integrated device manufacturers accounted for approximately 15% of our net sales in 2012.

### **Our Semiconductor Facilities**

We currently operate one 150mm wafer fab, six 200mm wafer fabs and three 300mm wafer fabs. Our corporate headquarters and five of our fabs are located in the Hsinchu Science Park, two fabs are located in the Southern Taiwan Science Park, one fab is located in the Central Taiwan 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 parcels of land of a total of approximately 555,304 square meters. We lease these parcels 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 Central Taiwan Science Park Administration a parcel of land of approximately 184,408 square meters for our Taichung fabs under agreements that will be up for renewal in December 2028. We have leased from the Southern Taiwan Science Park Development Office approximately 764,158 square meters of land for our fabs in the Southern Taiwan Science Park under agreements that will be up for renewal between July 2017 and January 2032. WaferTech owns a parcel of land of approximately 1,052,186 square meters in the State of Washington in the United States, where the WaferTech fab and related offices are located. TSMC China owns the land use rights of 369,087 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, Fab 14 in the Southern Taiwan Science Park and Fab 15 in the Central Taiwan Science Park. Total monthly capacity for 300mm wafer fabs was increased from 244,600 wafers as of December 31, 2010 to 290,100 wafers as of December 31, 2011 and to 366,800 wafers as of December 31, 2012. We will continuously evaluate our capacity in light of prevailing market conditions.

### **Semiconductor 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 65-nanometer 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 28-nanometer node. Following our commercial production based on 65-nanometer process technology in 2006, we also unveiled 55-nanometer process technology in 2007. Our 65-nanometer and 55-nanometer technologies are the third-generation proprietary processes that employ low-k dielectrics. In 2008, we also qualified our 45-nanometer and 40-nanometer process technologies with ultra low-k dielectrics and advanced immersion lithography. In the fourth quarter of 2011, we have begun volume production of 28-nanometer products with first-generation high-k/metal gate transistor. In 2012, we continued 20-nanometer technology development to provide migration path from 28-nanometer for both performance driven products and mobile computing applications.



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

Fab <sup>(1)</sup>	Year of commencement	Current most advanced technology for volume production <sup>(2)</sup>	Monthly capacity <sup>(3)(4)</sup>				
			2008	2009	2010	2011	2012
2	1990	450	51,609	53,649	48,244	48,244	48,412
3	1995	150	92,400	95,377	100,957	102,173	103,023
5	1997	150	54,200	48,600	47,500	42,740	49,849
6	2000	110	95,100	96,800	94,997	96,282	100,440
8	1998	110	91,600	85,750	85,753	85,737	89,587
10	2004	150	43,000	45,500	49,600	77,500	80,300
11	1998	150	35,500	36,565	36,300	36,500	37,500
12	2001	28	167,910	199,283	238,927	265,419	289,747
14	2004	40	179,258	186,443	311,447	387,206	418,862
15	2012	28	-	-	-	-	116,782
SSMC <sup>(5)</sup>	2000	150	24,600	22,010	23,146	21,907	21,907
Total			835,177	869,977	1,036,871	1,163,708	1,356,409

(1) Fab 2 produces 150mm wafers. Fabs 3, 5, 6, 8, 10, Fab 11 (WaferTech) and SSMC produce 200mm wafers. Fab 12, Fab 14, and Fab 15 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 Southern Taiwan Science Park. Fab 15 is located in Central Taiwan Science Park. WaferTech is located in the United States, SSMC is located in Singapore and Fab 10 is located in Shanghai.

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

(3) Estimated capacity in 200mm equivalent wafers as of year-end for the total technology range available for production.

(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. 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) Represents that portion of the total capacity that we had the option to utilize as of December 31, 2008, December 31, 2009, December 31, 2010, December 31, 2011 and December 31, 2012. This fab commenced production in September 2000.

As of December 31, 2012, our monthly capacity (in 200mm equivalent wafers) was 1,356,409 wafers, compared to 1,163,708 wafers at the end of 2011. This increase was primarily due to the expansion of our 28-nanometer advanced technology. 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 regularly perform 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 in accordance with market demand. For example, such planning enables us to match significant customer demands for our services with the corresponding capacity increase needed to fulfill such demands. But since market conditions may vary significantly and unexpectedly, our market demand forecast may change significantly at any time. 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.

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Our capital expenditures in 2010, 2011 and 2012 were NT\$186,944 million, NT\$213,963 million and NT\$246,137 million (US\$8,322 million, translated from a weighted average exchange rate of NT\$29.577 to US\$1.00), respectively. Our capital expenditures in 2013 are expected to be approximately US\$9 billion, which, depending on market conditions, may be adjusted later. Prior to 2012, our capital expenditures were funded by our operating cash flow. Starting 2012, our capital expenditures were partially funded by the issuance of corporate bonds. The capital expenditures for 2013 are also expected to be funded in similar ways as in 2012. In 2013, we anticipate our capital expenditures to focus primarily on the following:

adding production capacity to our 300mm wafer fabs;

developing new process technologies in 20-nanometer, and 16-nanometer nodes;

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expanding buildings/facilities for Fab 12, Fab 14 and Fab 15;

other research and development projects;

capacity expansion for mask and backend operations; and

solar and solid state lighting businesses.

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

**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:

Customer Type	2010		Year ended December 31 2011		2012	
	Net Sales	Percentage	Net Sales (in millions, except percentages)	Percentage	Net Sales	Percentage
Fabless semiconductor companies/systems companies	NT\$331,264	78.9%	NT\$346,615	81.2%	NT\$432,090	85.4%
Integrated device manufacturers	88,054	21.0%	80,431	18.8%	74,007	14.6%
Others	220	0.1%	35	0.0%	152	0.0%
Total	NT\$419,538	100.0%	NT\$427,081	100.0%	NT\$506,249	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 or different from where products are actually ordered. Under this approach, the following table presents a regional geographic breakdown of our net sales during the last three years:

Region	2010		Year ended December 31 2011		2012	
	Net Sales	Percentage	Net Sales (in millions, except percentages)	Percentage	Net Sales	Percentage
North America	NT\$282,498	67.3%	NT\$294,858	69.0%	NT\$345,474	68.2%
Asia Pacific	60,796	14.5%	59,618	14.0%	72,889	14.4%
Europe	44,360	10.6%	39,440	9.2%	46,430	9.2%
China	13,345	3.2%	16,072	3.8%	24,674	4.9%
Japan	18,539	4.4%	17,093	4.0%	16,782	3.3%
Total	NT\$419,538	100.0%	NT\$427,081	100.0%	NT\$506,249	100.0%

We provide worldwide customer support. Our office in Hsinchu and wholly-owned subsidiaries in the United States, Canada, 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 and technical support managers work closely with the sales force to offer integrated services to customers. To facilitate customer interaction and information access on a real-time basis, a suite of web-based applications have also been offered to provide more active interactions with customers in design,



engineering and logistics.

***Purchase Orders 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.

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### **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, 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 thousands of 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 be additive to or 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, application processors, microcontrollers, digital signal processors ( DSP ), graphic chips and chipsets.

**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 28-nanometer 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.

**CMOS Image Sensor Semiconductors.** Image sensors are primarily used in camera phones and tablets. 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.

**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.

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

Semiconductor Type	2010		Year ended December 31 2011		2012	
	Net Sales	Percentage	Net Sales (in millions, except percentages)	Percentage	Net Sales	Percentage
CMOS						
Logic	NT\$300,405	71.6%	NT\$297,775	69.7%	NT\$352,139	69.5%
Mixed-Signal <sup>(1)</sup>	112,715	26.9%	124,469	29.1%	150,905	29.8%
BiCMOS <sup>(2)</sup>	3,548	0.8%	2,769	0.7%	1,924	0.4%
Others <sup>(3)</sup>	2,870	0.7%	2,068	0.5%	1,281	0.3%
Total	NT\$419,538	100.0%	NT\$427,081	100.0%	NT\$506,249	100.0%

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

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

(3) The net sales of memory semiconductors in 2010 and 2011 have been reclassified to Others.

**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, we and our alliance partners have spent considerable effort, time and resources to build our technology platforms. We unveiled an open innovation platform ( OIP ) initiative in 2008 to further enhance our technologies offerings. More OIP deliverables were introduced in 2012. In the design methodology area, we announced the release of 20-nanometer and CoWoS™ Reference Flows, 20-nanometer Custom Design Reference Flow, and the fourth release of the Radio Frequency Reference Design Kit (RF RDK).

**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 amount, resulting in accelerated time-to-market for our customers. We have extended this program to all of our customers and library and IP partners using our broad selection of process technologies, ranging from the latest 20-, 28-, 40-, 45-, 55- and 65-nanometer processes to 0.18-, 0.25-, 0.35-, and 0.5-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 dedication 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 relationship 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 fast 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 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 cost-saving; and

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availability of our online service which provides real-time necessary information in design, engineering, and logistics to ensure seamless services to our customers throughout product life cycle.

We also conduct an annual customer satisfaction survey to assess customer satisfaction and to ensure that their needs and wants are adequately understood and addressed. Continual improvement plans based upon customer feedback are an integral part of this business process. We use data derived from the survey as a key indicator of our corporate performance as well as a leading indicator of future performance. We believe that satisfaction leads to better customer relationships, which would result in more business opportunities.

## **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 to 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\$29,707 million, NT\$33,830 million and NT\$40,402 million (US\$1,391 million) in 2010, 2011 and 2012, respectively, on research and development, which represented 7.1%, 7.9% and 8.0% of our net sales for these periods. We plan to continue to invest significant amounts on research and development in 2013, with the goal of maintaining a leading position in the development of advanced process technologies. Our research and development efforts have allowed us to provide our customers access to certain advanced process technologies, such as 65-nanometer, 55-nanometer, 45-nanometer, 40-nanometer and 28-nanometer 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 20/16-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, and cost-effective 3D IC Chip on Wafer on Substrate (CoWoS) solutions. Fab-related research and development activities mostly focus on upgrading the manufacturing process technologies.

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 research and development 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, the majority 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. To accelerate the development of next-generation lithographic technology, in August 2012 TSMC joined the ASML Holding N.V. Customer Co-Investment Program. The program's scope includes development of extreme ultraviolet (EUV) lithography technology and 450-millimeter (450mm) lithography tools. Under the agreement with ASML, TSMC made an investment of EUR838 million to acquire 5% of ASML's equity, and has committed EUR277 million, to be spread over five years, to ASML's research and development program.

The principal pieces of equipment used by us to manufacture semiconductors are scanners, 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.

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### **Raw Materials**

Our manufacturing processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious metals. Raw materials costs constituted 13.0%, 12.6% and 13.6% of our net sales in 2010, 2011 and 2012, respectively. Although most of our raw materials are available from multiple suppliers, some materials are purchased through sole-sourced vendors. 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.

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, Siltronic AG of Germany and Formosa Sumco Technology Corporation of Taiwan. Together they supplied approximately 96.8%, 96.0% and 94.2% of our total wafer needs in 2010, 2011 and 2012, 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. Please see Item 3. Key Information - Risk Factors - Risks Relating to Our Business for a discussion of the risk related to raw materials. In order to secure a reliable and flexible supply of high quality wafers, we have entered into long-term agreements and intend to continue to develop strategic relationships with major wafer vendors to cover our anticipated wafer needs for future years. Also, we have established a special cross-function taskforce comprised of individuals from our fab operations, materials management, risk management and quality system management divisions to reduce our supply chain risks. 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 foundry service providers, as well as with integrated device manufacturers that devote a significant or exclusive portion of their manufacturing capacity to foundry operations. We compete primarily on the basis of process technologies, manufacturing excellence and customer trust. 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 foundries worldwide.

### **Environmental Regulations**

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 in our fabs various types of pollution control equipment for the treatment of gaseous chemical wastes and wastewater and equipment for the recycling of treated water. Operations at our fabs are subject to regulation and periodic monitoring by the R.O.C. Environmental Protection Administration, the U.S. Environmental Protection Agency and the State Environmental Protection Administration of mainland China, and local environmental protection authorities, including the various science park administrations in the R.O.C., the Washington State Department of Ecology and 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 environmental audits at least once annually 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. An ESH (environmental, safety and health) team operates at the corporate level that is responsible for policy establishment and enforcement, coordination with ESH teams located at each manufacturing facility and for coordinating and interacting with government agencies worldwide.

### **Electricity and Water**

We use electricity supplied by the Taiwan Power Company in our manufacturing process. Businesses in the Hsinchu Science Park, Southern Taiwan Science Park and Central Taiwan Science Park, such as ours, enjoy preferential electricity supply. We have sometimes suffered power outages caused by difficulties encountered by the Taiwan Power Company, which have led to interruptions in our production schedule. The semiconductor manufacturing process also uses extensive amounts of fresh water. Due to the growth of the semiconductor manufacturers in the Hsinchu Science Park, Southern Taiwan Science Park and Central Taiwan 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 that insufficient water supplies may have on our semiconductor production. To help address these potential shortages, we have adopted state-of-the-art natural resources conservation methodologies.



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### **Risk Management**

We employ an enterprise risk management system to integrate the prevention and control of risk that we or our subsidiaries may face. We have also prepared emergency plans to respond to natural disasters and other disruptive events that could interrupt the operation of our business. These emergency plans have been developed in order to prevent or minimize the loss of personnel or damage to our facilities, equipment and machinery caused by natural disasters 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, typhoons, earthquakes and 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 with respect to the construction 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. To further help mitigate our major operational and financial risks, our ERM (enterprise risk management) group reports regularly to our Audit Committee composed of independent board directors.

For further information, 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, 2013, we owned approximately 40.4% 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. As of February 28, 2013, 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, and build a fab in Singapore. The SSMC fab commenced production in December 2000. As of February 28, 2013, 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. Since July 2011, we are no longer deemed to be a controlling entity of GUC and its subsidiaries due to the termination of a Shareholders Agreement. As a result, we no longer consolidate GUC and its subsidiaries in our financial statements. As of February 28, 2013, we owned approximately 34.8% of the equity interest in GUC.

**TSMC 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. TSMC China commenced production in late 2004.

**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, 2013, we owned approximately 42.7% 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, 2013, we owned approximately 40.2% combined equity interest in Xintec.

**Mcube Inc. ( Mcube ).** In September 2009, we acquired preferred and common equity interest in Mcube, a U.S. company engaged in the business of MEMS ( Micro Electro Mechanical Systems ) applications. As of February 28, 2013, we owned approximately 24.7% of the equity interest in Mcube.





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**Motech Industries, Inc. ( Motech ).** In February 2010, we acquired a 20.0% equity interest in Motech, a Taiwan solar cell manufacturer. Motech has been a publicly traded company on Taiwan's GreTai Security Market since May 2003. In August 2011, we transferred our 20.0% equity interest in Motech to TSMC Solar Ltd.

**TSMC Solar Ltd. ( TSMC Solar ).** We transferred our solar businesses into our subsidiary, TSMC Solar, in August 2011. TSMC Solar is engaged in research, development, design, manufacture and sales of technologies and products related to renewable energy and energy saving. As of February 28, 2013, we owned approximately 98.6% of the equity interest in TSMC Solar.

**TSMC Solid State Lighting Ltd. ( TSMC SSL ).** We transferred our solid state lighting businesses into our subsidiary, TSMC SSL, in August 2011. TSMC SSL is engaged in research, development, design, manufacture and sales of solid state lighting devices and related application products and systems. As of February 28, 2013, we owned approximately 95.0% of the equity interest in TSMC SSL.

### **ITEM 4A. UNRESOLVED STAFF COMMENTS**

None.

### **ITEM 5. OPERATING AND FINANCIAL REVIEWS AND PROSPECTS**

#### **Overview**

We manufacture a variety of semiconductors based on designs provided by our customers. Our business model is commonly called a dedicated semiconductor foundry. The foundry segment of the semiconductor industry as a whole experienced rapid growth over the last 26 years since our inception. As the leader of the foundry segment of the semiconductor industry, our net sales and net income were NT\$419,538 million and NT\$161,605 million in 2010, NT\$427,081 million and NT\$134,201 million in 2011, and NT\$506,249 million (US\$17,427 million) and NT\$166,159 million (US\$5,720 million) in 2012, respectively. The sales in 2011 increased slightly by 1.8% from 2010, mainly due to growth in customer demand and more favorable product mix, partially offset by the effect of U.S. dollar depreciation. Our sales in 2012 increased by 18.5% from 2011, mainly due to continuous growth in customer demand and increase in sales of our 28-nanometer products, which commanded a higher selling price.

The principal source of our revenue is wafer fabrication, which accounted for approximately 91% of our net sales in 2012. The rest of our net sales were derived from design, mask making, and testing and assembly services. Factors that significantly impact our revenue include:

the worldwide demand and capacity supply for semiconductor products;

pricing;

capacity utilization;

availability of raw materials and supplies;

technology migration; and

fluctuation in foreign currency exchange rate.

Though equally important, three of the above factors are discussed as follows:

**Pricing.** We establish pricing levels for specific periods of time with our customers, usually subject to adjustment during the course of that period to take into account market developments and other factors. Not all prices are subject to such adjustments though. We believe that our large capacity, flexible manufacturing capabilities, focus on customer service and ability to deliver high yields in a timely manner have contributed to our ability to obtain premium pricing for our wafer production.

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**Production Capacity.** We currently own and operate our semiconductor manufacturing facilities, the aggregate production capacity for which had been expanded from 1,036,871 200mm equivalent wafers per month as of the end of 2010 to 1,163,708 200mm equivalent wafers per month as of the end of 2011 and 1,356,409 200mm equivalent wafers per month as of the end of 2012.

**Technology Migration.**

Our operations utilize a variety of process technologies, ranging from mainstream process technologies of 0.5 micron or above circuit resolutions to advanced process technologies of 28-nanometer circuit resolutions. The table below presents a breakdown of wafer sales by circuit resolution during the last three years:

Resolution	Year ended December 31		
	2010 Percentage of total wafer revenue <sup>(1)</sup>	2011 Percentage of total wafer revenue <sup>(1)</sup>	2012 Percentage of total wafer revenue <sup>(1)</sup>
28-nanometer	-	1%	12%
40/45-nanometer	17%	26%	27%
65-nanometer	29%	29%	23%
90-nanometer	14%	9%	9%
0.11/0.13 micron	12%	8%	6%
0.15 micron	4%	6%	4%
0.18 micron	13%	12%	11%
0.25 micron	4%	4%	4%
0.35 micron	4%	3%	2%
≥0.5 micron	3%	2%	2%
Total	100%	100%	100%

(1) Percentages represent wafer revenue by technology as a percentage of total revenue from wafer sales, which exclude revenue associated with design, mask making, probing, and testing and assembly services. Total wafer revenue excludes sales returns and allowances.

**Critical Accounting Policies**

Summarized below are our accounting policies that we believe are important to the portrayal of our financial results and also involve the need for management to make estimates about the effect of matters that are uncertain in nature. Actual results may differ from these estimates, judgments and assumptions. Certain accounting policies are particularly critical because of their significance to our reported financial results and the possibility that future events may differ significantly from the conditions and assumptions underlying the estimates used and judgments made by our management in preparing our financial statements. The following discussion should be read in conjunction with the consolidated financial statements and related notes, which are included in this annual report.

**Revenue Recognition.** We recognize revenue when evidence of an arrangement exists, the rewards of ownership and significant risk of the goods have been transferred to the buyer, price is fixed or determinable, and the collectability is reasonably assured. We record a provision for estimated future returns and other allowances in the same period the related revenue is recorded. Provision for estimated sales returns and other allowances is generally made and adjusted at a specific percentage based on historical experience, our management's judgment, and any known factors that would significantly affect the allowance, and our management periodically reviews the adequacy of the percentage used. However, because of the inherent nature of estimates, actual returns and allowances could be different from our estimates. If the actual returns are greater than our estimated amount, we could be required to record an additional provision, which would have a negative impact on our recorded revenue and gross margin.

As of December 31, 2010, 2011 and 2012, the amount recorded as sales returns and allowances in the accompanying consolidated statements of income was NT\$12,093 million, NT\$3,410 million and NT\$7,187 million (US\$247 million), respectively, representing 2.8%, 0.8% and 1.4% of our gross sales for the years ended December 31, 2010, 2011 and 2012. The decline in discount percentages for 2011 from 2010 reflected lower

level of sales incentives and product related issues. The discount percentage returned to 1.4% in 2012 with stabilized product yield and sales incentives.

***Allowance for Doubtful Accounts.*** We determine provision for doubtful accounts by examining our historical collection experience and current trends in the credit quality of our customers as well as our internal credit policies. If economic conditions or financial conditions of our customers deteriorate, additional allowance may be required in the future and such additional allowance would increase our operating expenses and therefore reduce our operating income and net income.

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Prior to January 1, 2011, we recorded provision for doubtful accounts based on a percentage of accounts receivable due from our customers. Effective on January 1, 2011, we evaluate for indication of impairment of accounts receivable based on an individual and collective basis at the end of each reporting period according to the third revision of Statement of Financial Accounting Standards (SFAS) No. 34. When objective evidence indicates that the estimated future cash flow of accounts receivable decreases as a result of one or more events that occurred after the initial recognition of the accounts receivable, such accounts receivable are deemed to be impaired.

Because of the short average collection period, the amount of the impairment loss recognized is the difference between the carrying amount of accounts receivable and estimated future cash flows without considering the discounting effect. Changes in the carrying amount of the allowance account are recognized as bad debt expense which is recorded in the operating expenses - general and administrative. When accounts receivable are considered uncollectable, the amount is written off against the allowance account.

As of December 31, 2011 and 2012, the allowance set aside for doubtful receivables was NT\$491 million and NT\$480 million (US\$17 million), respectively, representing 1.1% and 0.8% of our gross notes and accounts receivables as of those dates.

**Inventory valuation.** Inventories are stated at the lower of cost or net realizable value for finished goods, work-in-progress, raw materials, supplies and spare parts. Inventory write-downs are made on an item-by-item basis, except where it may be appropriate to group similar or related items.

A significant amount of our manufacturing costs are fixed because our extensive manufacturing facilities (which provide us such large production capacity) require substantial investment to construct and are largely fixed-cost assets once they become operational. When the capacity utilization increases, the fixed manufacturing costs are spread over a larger amount of output, which would lower the inventory cost per unit thereby improving our gross margin.

We evaluate our ending inventory based on standard cost under normal capacity utilization, and reduce the carrying value of our inventory when the actual capacity utilization is higher than normal capacity utilization. No adjustment is made to the carrying value of inventory when the actual capacity utilization is at or lower than normal capacity utilization. Normal capacity utilization is established based on historic loadings compared to total available capacity in our wafer manufacturing fabs.

Due to rapid technology changes, we also evaluate our ending inventory and reduce the carrying value of inventory for estimated obsolescence and unmarketable inventory by an amount that is the difference between the cost of the inventory and the net realizable value. The net realizable value of the inventory is mainly determined based on assumptions of future demand within a specific time horizon, which is generally 180 days or less.

**Valuation allowance for deferred tax assets.** When we have net operating loss carry forwards, investment tax credits or temporary differences in the amount of tax recorded for tax purposes and accounting purposes, we may be able to reduce the amount of tax that we would otherwise be required to pay in future periods. We recognize all existing future tax benefits arising from these tax attributes as deferred tax assets and then establish a valuation allowance equal to the extent, if any, that it is more likely than not that such deferred tax assets will not be realized. We record an income tax benefit or expense when there is a net change in our total deferred tax assets and liabilities in a period. The ultimate realization of the deferred tax assets depends upon the generation of future taxable income during the periods in which the net operating losses and temporary differences become deductible or the investment tax credits may be utilized. Specifically, our valuation allowance is impacted by our expected future revenue growth and profitability, tax holidays, Alternative Minimum Tax, 10% tax imposed on unappropriated earnings and the amount of tax credits that can be utilized within the statutory period. In determining the amount of valuation allowance for deferred tax assets as of December 31, 2012, we considered past performance, the general outlook of the semiconductor industry, business conditions, future taxable income and prudent and feasible tax planning strategies.

Because the determination of the amount of valuation allowance is based, in part, on our forecast of future profitability, it is inherently uncertain and subjective. Changes in market conditions and our assumptions may cause the actual future profitability to differ materially from our current expectation, which may require us to increase or decrease the amount of valuation allowance that we have recorded.

As of December 31, 2011 and 2012, the ending balances for valuation allowance were NT\$13,531 million and NT\$6,671 million (US\$230 million), respectively, representing 50.3% and 34.3% of gross deferred tax assets as of those dates. In 2012, we evaluated our future profitability, the effect of Alternative Minimum Tax and the applicable year of the profits generated from projects exempt from income tax for a five-year period. Based on such evaluation, our income tax payable is anticipated to increase and we will utilize available investment tax credits as an offset against income taxes. Since more investment tax credits can be utilized, the valuation allowance has been adjusted down in 2012 accordingly.



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

significant under performance relative to historical or projected future operating results;

significant changes in the manner of our use of the acquired assets or our overall business strategy; and

significant unfavorable industry or economic trends.

When we determine that the carrying value of intangible assets and other long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment for long-lived assets based on a projected future cash flow. If the long-lived or intangible assets are determined to be impaired, we recognize an impairment loss through a charge to our operating results to the extent the present value of discounted cash flows attributable to the assets are less than their carrying value. Such cash flow analysis includes assumptions about expected future economic and market conditions, the applicable discount rate, and the future revenue generation from the use or disposition of the assets. We also perform a periodic review to identify assets that are no longer used and are not expected to be used in future periods. An impairment charge is recorded to the extent, if any, that the carrying amount of the idle assets exceeds their fair value. Under R.O.C. GAAP, if the recoverable amount increases in a future period, the amount previously recognized as impairment will be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, as if no impairment loss had been recognized. Under U.S. GAAP, the reversal of impairment charges is prohibited.

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

For purposes of evaluating the recoverability of long-lived assets, assets purchased for use in the business but subsequently determined to have no future economic benefits are written down to their fair value and recorded as either idle assets or assets held for disposition. In 2010, 2011 and 2012, an impairment loss for idle assets of NT\$0.3 million, NT\$98 million and NT\$445 million (US\$15 million) was recorded, respectively. As of December 31, 2011 and 2012, net long-lived assets and intangible assets amounted to NT\$495,542 million and NT\$622,965 million (US\$21,445 million), respectively.

***Goodwill.*** Goodwill is recorded when the purchase price paid for an acquisition exceeds the estimated fair value of the net identified tangible and intangible assets acquired. Under U.S. GAAP, and effective on January 1, 2005 under R.O.C. GAAP, we assess the impairment of goodwill 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. Moreover, effective on January 1, 2006, goodwill is no longer amortizable under R.O.C. GAAP. Factors we consider important which could trigger an impairment review include, without limitation, the following:

significant decline in our stock price for a sustained period; and

significant decline in our market capitalization relative to net book value.

Application of the goodwill impairment test is also highly subjective and requires significant judgment, including the identification of cash generating units, assigning assets and liabilities to the relevant cash generating units, assigning goodwill to the relevant cash generating units, and determining the fair value of the relevant cash generating units. Our assessment of fair value is based upon a cash flow analysis that includes assumptions about expected future operating performance, such as revenue growth rates and operating margins, risk-adjusted discount rates,



future economic and market conditions, and determination of appropriate market comparables. Under R.O.C. GAAP, the fair value of the cash generating units is compared to the associated carrying value including goodwill. On the other hand, under U.S. GAAP, the fair value of the reporting units is compared to the associated carrying value including goodwill.

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Under R.O.C. GAAP, goodwill recorded from the acquisition of TSMC-Acer and WaferTech is evaluated for impairment on an annual basis. Based on our most recent evaluation, the fair value calculated by discounting projected cash flow in five years was higher than the associated carrying value. As a result, we did not record any impairment charge under R.O.C. GAAP. Under U.S. GAAP, goodwill recorded from the acquisition of TSMC-Acer and WaferTech is evaluated for impairment on an annual basis. Based on our most recent evaluation, the fair value calculated by using the discounted cash flow method was higher than the associated carrying value. As a result, we did not record any impairment charge under U.S. GAAP either.

As of December 31, 2011 and 2012, goodwill amounted to NT\$5,694 million and NT\$5,524 million (US\$190 million), respectively, under R.O.C. GAAP. The change in the NT dollar amount of goodwill was due to changes in the exchange rate between NT dollar and U.S. dollar.

**Valuation of investments accounted for using the equity method.** We assess the impairment of investments accounted for using the equity method whenever triggering events or changes in circumstances indicate that an investment may be impaired and carrying value may not be recoverable. We measure the impairment based on a projected future cash flow of the investees, the underlying assumptions for which had been formulated by such investees' internal management team, taking into account market conditions for the industries which the investees operate in to ensure the reasonableness of such assumptions. If an investment is determined to be impaired, we recognize an impairment loss through a charge to our operating results to the extent the present value of discounted cash flows attributable to the investee is less than the carrying value of the investment.

In 2012, an impairment loss of NT\$1,187 million (US\$41 million) was recorded. No impairment loss was recorded in 2010 and 2011. As of December 31, 2011 and 2012, investments accounted for using the equity method amounted to NT\$24,900 million and NT\$23,430 million (US\$807 million), respectively.

**Accounting for investments in private and publicly-traded securities.** We hold equity interests in companies, some of which are publicly traded and have highly volatile share prices. We also hold investments in debt securities, such as corporate bonds, government bonds, and so on. We review all of our investments for impairment on a quarterly basis and record an impairment charge when we believe an investment has experienced an other-than-temporary decline in value. Determining whether an other-than-temporary decline in value of the investment has occurred is highly subjective. Such evaluation is dependent on the specific facts and circumstances. Factors we consider include, but are not limited to, the following: the market value of the security in relation to its cost basis, the duration of the decline in value, the financial condition of the investees and our intent and ability to retain the investment for a sufficient period of time to allow for recovery in the market value of the investment. Impairment reviews with respect to private security investments also require significant judgment. Factors indicative of an other-than-temporary decline in value include recurring operating losses, credit defaults and subsequent rounds of financing at valuation below the cost basis of the investment.

We have experienced declines in the value of certain privately held investments and publicly traded securities and recorded impairment loss of NT\$160 million, NT\$266 million and NT\$3,045 million (US\$105 million) in 2010, 2011 and 2012, respectively. While we have recognized all declines that are currently believed to be other-than-temporary as a charge to income, adverse changes in market conditions or poor operating results of underlying investments could result in further losses in future periods.

**Results of Operations**

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

	<b>For the year ended December 31</b>		
	<b>2010</b>	<b>2011</b>	<b>2012</b>
Net sales	100.0%	100.0%	100.0%
Cost of sales	(50.6)%	(54.6)%	(51.9)%
Gross profit	49.4%	45.4%	48.1%
Operating expenses			
Research and development	(7.1)%	(7.9)%	(8.0)%
General and administrative	(3.1)%	(3.3)%	(3.4)%
Sales and marketing	(1.3)%	(1.1)%	(0.9)%

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Total operating expenses	(11.5)%	(12.3)%	(12.3)%
Income from operations	37.9%	33.1%	35.8%
Non-operating income and gains	3.2%	1.3%	1.3%

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	For the year ended December 31		
	2010	2011	2012
Non-operating expenses and losses	(0.5)%	(0.4)%	(1.2)%
Income before income tax	40.6%	34.0%	35.9%
Income tax expense	(1.9)%	(2.5)%	(3.1)%
Net income	38.7%	31.5%	32.8%
Net income attributable to minority interests	(0.2)%	(0.1)%	(0.0)%
Net income attributable to shareholders of the parent	38.5%	31.4%	32.8%

**Year to Year Comparisons***Net Sales and Gross Margin*

	For the year ended December 31					
	2010	2011	% Change	2012		% Change
	NT\$	NT\$	from 2010	NT\$	US\$	from 2011
	(in millions)	(in millions)		(in millions)		
Net sales	419,538	427,081	1.8%	506,249	17,427	18.5%
Cost of sales	(212,484)	(232,938)	9.6%	(262,629)	(9,041)	12.7%
Gross profit before affiliates elimination	207,054	194,143	(6.2)%	243,620	8,386	25.5%
Unrealized gross profit from affiliates		(74)		(25)	(1)	
Gross profit	207,054	194,069	(6.3)%	243,595	8,385	25.5%
Gross margin percentage	49.4%	45.4%		48.1%	48.1%	

*Net Sales*

Our net sales in 2012 increased by 18.5% from 2011, which was largely attributable to continuous growth in customer demand, resulting in a 11.9% increase in wafer shipment. We shipped approximately 14.0 million 200mm equivalent wafers in 2012 compared to 12.5 million in 2011. In addition, sales of our 28-nanometer products, which commanded a higher selling price, also increased to 12% of our total wafer sales in 2012 compared to 1% in 2011.

Our net sales in 2011 increased by 1.8% from 2010, which was mainly attributable to the growth in customer demand. The overall wafer shipments increased by 5.8%, from 11,860 thousand 200mm equivalent wafers in 2010 to 12,549 thousand 200mm equivalent wafers in 2011. Furthermore, we had a more favorable product mix in 2011 as the portion of wafer sales from 65-nanometer and below circuit resolutions reached 56% compared to 46% in 2010. However, as a significant portion of our sales were denominated in U.S. dollars, our net sales in 2011 were negatively impacted by a stronger weighted average NT dollar against U.S. dollar, which appreciated against the U.S. dollar by 6.7% to NT\$29.367 to US\$1.00 in 2011 from NT\$31.491 to US\$1.00 in 2010.

*Gross Margin*

Our gross margin fluctuates with the level of capacity utilization, price change and product mix, among other factors. In 2012, our gross margin increased to 48.1% of net sales from 45.4% of net sales in 2011. The higher margin in 2012 was primarily due to higher capacity utilization and cost reductions, which contributed favorably to our gross margin by 5.5 and 2.8 percentage points, respectively, partially offset by price decline and higher portion of wafer sales in 28-nanometer technology bearing lower than corporate average margins at initial production stage, which negatively impacted our gross margin by 5.3 percentage points.

In 2011, our gross margin decreased to 45.4% of net sales from 49.4% of net sales in 2010. The lower margin in 2011 was primarily due to lower capacity utilization as we increased our capacity in 2011, price decline and a stronger NT dollar against the U.S. dollar, which negatively impacted our gross margin by 7.1, 2.8 and 2.4 percentage points, respectively, offset in part by cost improvements and others which contributed

favorably to a 8.3 percentage points increase in the gross margin.

**Table of Contents***Operating Expenses*

	For the year ended December 31					
	2010	2011	% Change	2012		% Change
	NT\$	NT\$	from 2010	NT\$	US\$	from 2011
	(in millions)	(in millions)		(in millions)		
Research and development	29,707	33,830	13.9%	40,402	1,391	19.4%
General and administrative	12,804	14,164	10.6%	17,638	607	24.5%
Sales and marketing	5,368	4,518	(15.8)%	4,498	154	(0.4)%
Total operating expenses	47,879	52,512	9.7%	62,538	2,152	19.1%
Percentage of net sales	11.5%	12.3%		12.3%	12.3%	
Income from operations	159,175	141,557	(11.1)%	181,057	6,233	27.9%
Operating Margin	37.9%	33.1%		35.8%	35.8%	

Operating expenses increased by NT\$10,026 million in 2012, or 19.1%, from NT\$52,512 million in 2011, after an increase in operating expenses by NT\$4,633 million in 2011, or 9.7%, from NT\$47,879 million in 2010.

*Research and Development Expenses*

We remain strongly committed to being the leader in developing advanced process technologies. We believe that continued investments in process technologies are essential for us to remain competitive in the markets we serve. Research and development expenditures increased by NT\$6,572 million in 2012, or 19.4%, from 2011, mainly due to a higher level of research activities for 20-nanometer technologies and higher employee profit sharing expenses and bonus. In 2011, research and development expenditures increased by NT\$4,123 million, or 13.9%, from 2010, mainly due to higher spending in developing 20-nanometer technology, partially offset by lower employee profit sharing expenses and bonus. We plan to continue to invest significant amounts in research and development in 2013.

*General and Administrative, Sales and Marketing Expenses*

General and administrative, sales and marketing expenses in 2012 increased by NT\$3,454 million, or 18.5% from 2011, due to an increase in general and administrative expenses by NT\$3,474 million, or 24.5%, and a decrease of sales and marketing expenses by NT\$20 million, or 0.4%. The net increase was primarily due to higher opening expenses for ramping up 28-nanometer capacity.

General and administrative, sales and marketing expenses in 2011 increased by NT\$510 million, or 2.8% from 2010, due to an increase in general and administrative expenses by NT\$1,360 million, or 10.6%, and a decrease of sales and marketing expenses by NT\$850 million, or 15.8%. The net increase was primarily due to higher opening expenses for Fab15 (Phase I) and Fab10 (Phase II), partially offset by lower employee profit sharing expenses and bonus in 2011.

*Non-Operating Income and Expenses*

	For the year ended December 31					
	2010	2011	% Change	2012		% Change
	NT\$	NT\$	from 2010	NT\$	US\$	from 2011
	(in millions)	(in millions)		(in millions)		
Non-operating income and gains	13,136	5,359	(59.2)%	6,782	233	26.6%
Non-operating expenses and losses	(2,041)	(1,768)	(13.4)%	(6,285)	(216)	255.5%
Net non-operating income (expenses)	11,095	3,591	(67.6)%	497	17	(86.2)%

Net non-operating income in 2012 decreased by NT\$3,094 million, or 86.2% from NT\$3,591 million in 2011 primarily due to a NT\$3,966 million increase in loss on impairment of financial assets, resulting from valuation of our equity securities (please refer to Valuation of investments accounted for using the equity method and Accounting for investments in private and publicly-traded securities under critical accounting policies section), partially offset by a NT\$1,131 million increase in equity in earnings of equity method investees reflecting their better operating results in 2012.

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Net non-operating income in 2011 decreased by NT\$7,504 million, or 67.6% from NT\$11,095 million in 2010 primarily due to a NT\$5,993 million decrease in settlement income from SMIC as we received less settlement payment in cash and absence of receipt of SMIC shares in 2011 pursuant to the settlement agreement. In addition, equity in earnings of equity method investees declined by NT\$1,400 million as a result of weakened operating performance of such equity method investees in 2011.

*Income Tax Benefit (Expense)*

	For the year ended December 31					
	2010 NT\$ (in millions)	2011 NT\$ (in millions)	% Change from 2010	2012		% Change from 2011
				NT\$ (in millions)	US\$	
Income tax expense	(7,988)	(10,695)	33.9%	(15,590)	537	45.8%
Net income attributable to shareholders of the parent	161,605	134,201	(17.0)%	166,159	5,720	23.8%
Net margin	38.5%	31.4%		32.8%	32.8%	

Income tax expenses increased by NT\$4,895 million in 2012, or 45.8%, from 2011. The increase was mainly due to higher taxable income and higher tax rate as a result of expired exemption period for part of Fab 12 (Phase II).

Income tax expenses increased by NT\$2,707 million in 2011, or 33.9%, from 2010. The increase was mainly related to increase in tax on unappropriated earnings as a result of higher unappropriated earnings in 2011 compared to 2010.

**Liquidity and Capital Resources**

Our sources of liquidity include cash flow from operations, cash and cash equivalents, short-term investments, and revolving credit facilities provided by multiple banks. Issuance of corporate bonds is another source of fund.

Our primary source of liquidity is cash flow from operations. Cash flow from operations for 2012 was NT\$289,064 million (US\$9,951 million), an increase of NT\$41,477 million from 2011.

Our cash, cash equivalents and current investments in financial instruments amounted to NT\$150,918 million (US\$5,195 million) as of December 31, 2012, approximately flat compared to NT\$150,622 million as of December 31, 2011. The current investments in financial instruments primarily consist of publicly-traded stocks, corporate bonds, and money market funds.

As of December 31, 2012, we also had an aggregate unused short-term credit lines of approximately NT\$53,422 million (US\$1,839 million) and an aggregate unused long-term credit lines of approximately NT\$1,335 million (US\$46 million).

We believe that our cash generated from operations, cash and cash equivalents, short-term investments, ability to access capital market and revolving credit facilities will be sufficient to fund our working capital needs, capital expenditures, dividend payments and other business requirements associated with existing operations over the next 12 months.

	For the year ended December 31			
	2010	2011	2012	
	NT\$ (in millions)	NT\$ (in millions)	NT\$ (in millions)	US\$
Net cash provided by operating activities	229,476	247,587	289,064	9,951
Net cash used in investing activities	(202,086)	(182,523)	(273,196)	(9,404)
Net cash used in financing activities	(48,638)	(67,858)	(13,811)	(475)



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Net decrease in cash	(23,389)	(4,415)	(61)	(2)
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Cash and cash equivalents decreased by NT\$61 million in 2012, following a decrease of NT\$4,415 million in 2011, or 3.0%, from 2010.

**Table of Contents***Operating Activities*

In 2012, we generated NT\$289,064 million (US\$9,951 million) net cash from operating activities, as compared to NT\$247,587 million and NT\$229,476 million in 2011 and 2010, respectively. In 2012, net cash generated from operating activities increased primarily due to an increase of NT\$31,958 million in net income and an increase of NT\$23,668 million in non-cash depreciation and amortization expenses, partially offset by change in working capital and others of NT\$14,149 million.

In 2011, net cash generated from operating activities increased primarily due to an increase of NT\$19,872 million in non-cash depreciation and amortization expenses, the absence of non-cash gain of NT\$4,434 million from SMIC shares received as litigation compensation and from change in inventories and notes and accounts receivables, partially offset by a decrease of NT\$27,404 million in net income.

In 2012, depreciation and amortization expenses were NT\$131,349 million (US\$4,521 million), as compared to NT\$107,682 million and NT\$87,810 million in 2011 and 2010, respectively. Higher depreciation and amortization expenses in 2012 and 2011 were mainly attributable to expansion of production capacity in advanced technologies.

*Investing Activities*

In 2012, net cash used in investing activities was NT\$273,196 million (US\$9,404 million), as compared to NT\$182,523 million and NT\$202,086 million in 2011 and 2010, respectively. The increase in 2012 was primarily due to higher net purchase of investment in financial assets and higher spending on capital expenditures during the year. Net purchase of investment in financial assets in 2012 primarily included our investment of EUR838 million to acquire 5% of ASML's equity. The decrease in 2011 was primarily due to lower investment in financial assets, higher disposal or redemption of investment in financial assets, lower refundable deposits and the absence of new investment in equity method investees, partially offset by higher spending on capital expenditures during the year.

Capital expenditures in 2012 were primarily related to:

adding production capacity to 300mm wafer fabs;

developing process technologies including 20-nanometer node and below;

expanding buildings/facilities for Fab 12, Fab 14 and Fab 15;

other research and development projects;

capacity expansion for mask and backend operations; and

solar and solid state lighting businesses.

Prior to 2012, our capital expenditures were funded by our operating cash flow. Starting 2012, our capital expenditures were partially funded by the issuance of corporate bonds. The capital expenditures for 2013 are also expected to be funded in similar ways. See Item 3. Risk Factors section for the risks associated with the inability of raising the requisite funding for our expansion programs. Please also see Item 4. Information on the Company Capacity Management and Technology Upgrade Plans for discussion of our capacity management and capital expenditures.

*Financing Activities*

In 2012, net cash used in financing activities was NT\$13,811 million (US\$475 million), as compared to NT\$67,858 million and NT\$48,638 million in 2011 and 2010, respectively. Net cash used in financing activities in 2012 decreased primarily due to proceeds from issuance of corporate bonds amounting to NT\$62,000 million in 2012 compared to NT\$18,000 million in 2011, the change from NT\$5,287 million cash

used to repay short-term loans in 2011 to NT\$8,788 million cash provided by short-term loans in 2012, partially offset by repayment of corporate bonds of NT\$4,500 million during the year. In 2011, net cash used in financing activities increased primarily due to the change from NT\$31,214 million cash provided by short-term loans in 2010 to NT\$5,287 million cash used to repay short-term loans in 2011 and the higher repayment of other long-term liabilities of NT\$2,526 million, partially offset by the proceeds from issuance of corporate bonds amounting to NT\$18,000 million and increase in long-term debts of NT\$2,250 million.

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As of December 31, 2012, our short-term loans were NT\$34,715 million (US\$1,195 million), and our aggregate long-term debt was NT\$81,488 million (US\$2,805 million) of which NT\$128 million (US\$4 million) was classified as current. The short-term loans were denominated in U.S. dollars. The purpose of the short-term loans was mainly to naturally hedge a portion of our receivables. As a substantial portion of our receivables was denominated in U.S. dollars, we use short-term loans denominated in U.S. dollars to naturally hedge the fluctuation of foreign exchanges rates. See Item 11. Quantitative and Qualitative Disclosures About Market Risk for a discussion of the hedging instruments used. The long-term debt primarily included NT\$80,000 million of the long-term corporate bonds with fixed interest rates ranging from 1.28% to 1.63%.

*Cash Requirements*

The following table sets forth the maturity of our long-term debt (bank loans and bonds) outstanding as of December 31, 2012:

	<b>Long-term debt (in NT\$ millions)</b>
During 2013	128
During 2014	588
During 2015	137
During 2016	11,125
During 2017 and thereafter	69,510

The following table sets forth information on our material contractually obligated payments for the periods indicated as of December 31, 2012:

Contractual Obligations	Total	Payments Due by Period			
		Less than	1-3 Years	4-5 Years	More than
		1 Year	(in NT\$ millions)		5 Years
Short-Term Loans <sup>(1)</sup>	34,715	34,715	-	-	-
Long-Term Debt <sup>(2)</sup>	81,488	128	725	43,735	36,900
Capital Lease Obligations <sup>(3)</sup>	865	27	54	54	730
Operating Leases <sup>(4)</sup>	7,394	694	1,290	1,188	4,222
Other Payments <sup>(5)</sup>	11,602	2,564	4,182	4,856	-
Capital Purchase or Other Purchase Obligations <sup>(6)</sup>	77,310	75,234	2,076	-	-
Total Contractual Cash Obligations <sup>(7)</sup>	213,374	113,362	8,327	49,833	41,852

(1) The maximum amount and average amount of short-term loans outstanding during the year ended December 31, 2012 were NT\$35,875 million and NT\$32,383 million, respectively. See note 16 to our consolidated financial statements for further information regarding interest rates and future repayment dates.

(2) Includes bank loans payable and corporate bonds payable but excludes relevant interest payments. See notes 17 and 18 to our consolidated financial statements for further information regarding interest rates and future repayment of long-term debts.

(3) Capital lease obligations represent our commitment for leases of property, which are described in note 14 to our consolidated financial statements.

(4) Operating lease obligations are described in note 29 to our consolidated financial statements.

(5) Other payments represent payables for acquisition of property, plant and equipment, payables for software and system design costs, payables for technology transfer, and our commitment of EUR277 million to ASML's research and development programs from 2013 to 2017.

(6) Represents commitments for construction or purchase of equipment, raw material and other property or services. These commitments are not recorded on our balance sheet as of December 31, 2012, as we have not received related goods or taken title of the property.

(7) Minimum pension funding requirement is not included since such amounts have not been determined. We made pension contributions of approximately NT\$221 million in 2012 and estimate that we will contribute approximately NT\$226 million to the pension fund in 2013. See note 20 to our consolidated financial statements for additional details regarding our pension plan.



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During 2012, we entered into derivative financial instruments transactions to manage exposures related to foreign-currency denominated receivables or payables and interest rate fluctuations. As of December 31, 2012, we anticipated our cash requirements in 2013 for outstanding forward exchange agreements and cross currency swaps of approximately NT\$11,135 million and US\$309 million with our expected cash receipts of approximately JPY130 million, US\$58 million, NT\$8,384 million and EUR246 million and RMB125 million. See Item 11. Quantitative and Qualitative Disclosures about Market Risk for more information regarding our derivative financial instruments transactions. See also note 2 to the consolidated financial statements for our accounting policy of derivative financial instruments, and note 6 and note 26 to the consolidated financial statements for additional details regarding our derivative financial instruments transactions.

Generally, we do not provide letters of credit to, or guarantees for any entity other than our consolidated subsidiaries.

Significant amount of capital is required to build, expand, and upgrade our production facilities and equipment. Our capital expenditures for 2013 are expected to be approximately US\$9 billion, which, depending on market conditions, may be adjusted later.

**U.S. GAAP Reconciliation**

Our consolidated financial statements are prepared in accordance with R.O.C. GAAP, which differs in certain material aspects from U.S. GAAP. The following table sets forth a comparison of our net income and shareholders' equity in accordance with R.O.C. GAAP and U.S. GAAP for the periods indicated:

	For the year ended December 31			
	2010 NT\$	2011 NT\$	2012 NT\$	US\$
	(in millions)			
Net income attributable to the shareholders of the parent in accordance with:				
R.O.C. GAAP	161,605	134,201	166,159	5,720
U.S. GAAP	163,639	136,873	158,850	5,468
Shareholders' equity attributable to the shareholders of the parent in accordance with:				
R.O.C. GAAP	574,145	629,594	723,198	24,895
U.S. GAAP	610,597	669,163	754,860	25,985

Differences between R.O.C. GAAP and U.S. GAAP that have a material effect on our net income and shareholders' equity as reported under R.O.C. GAAP include compensation expense pertaining to stock bonuses to employees, recognition of and subsequent accounting for goodwill, 10% tax imposed on unappropriated earnings, stock-based compensation and deconsolidation of investees. Please refer to note 33 to the consolidated financial statements, which provides a description of the principal differences between R.O.C. GAAP and U.S. GAAP as they relate to us and a reconciliation to U.S. GAAP of certain items, including net income and shareholders' equity.

Starting in 2013, our financial statements will be prepared in accordance with International Financial Reporting Standards, International Accounting Standards, and relevant Interpretations (collectively, "IFRSs") as issued by International Accounting Standards Board ("IASB") and IFRSs as endorsed for use in R.O.C. Since the transition date to IFRSs was January 1, 2012, our 2012 consolidated financial statements under IFRSs may be materially different from the accompanied 2012 consolidated financial statements under R.O.C. GAAP.

**Taxation**

In 2010, the R.O.C. government reduced the corporate income tax rate from 25% to 17% effective from 2010. In the same year, the Statute for Industries Innovation was passed to replace the Statute for Upgrading Industries in tax incentives. Under the new statute, the tax credit rate for research and development expenditure was reduced from 30% to 15%, and the 7% tax credit incentive for purchased equipment and the five-year tax exemption were terminated.

We are eligible for five-year tax holidays for income generated from construction and capacity expansions of production facilities according to the regulation under the Statute for Upgrading Industries of the R.O.C. The exemption period may begin at any time within five years, as applicable, following the completion of a construction or expansion of production facilities. The Statute for Upgrading Industries expired at the end of 2009. However, under the Grandfather Clause, we can continue to enjoy five-year tax holidays if the relevant investment plans were approved by R.O.C. tax authority before the expiration of the Statute. Pursuant to the Grandfather Clause, we commenced the exemption period for part of Fab 14 (Phase III), part of Fab 12 (Phase III) and others in 2010; part of Fab 12 (Phase IV), part of Fab 14 (Phase III and IV) in 2011. The aggregate tax benefits of such exemption periods in 2010, 2011 and 2012 were NT\$17,410 million, NT\$13,832 million and NT\$9,830 million.

million (US\$338 million), respectively.

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Under regulations promulgated under the R.O.C. Statute for Industries Innovation, we were eligible for a tax credit for specified percentages of research and development expenditures. The tax credit rate of research and development expenditures is 15% during the period from 2010 to 2019.

The R.O.C. government enacted the R.O.C. Alternative Minimum Tax Act ( AMT Act ) which became effective on January 1, 2006. The alternative minimum tax ( AMT ) imposed under the R.O.C. AMT Act is a supplemental tax which is payable if the income tax payable pursuant to the R.O.C. Income Tax Act is below the minimum amount prescribed under the R.O.C. AMT Act. The taxable income for calculating the AMT includes most income that is exempted from income tax under various legislations, such as tax holidays and investment tax credits. In August 2012, the AMT rate for business entities was amended from 10% to 12% effective from 2013. However, the R.O.C. AMT Act grandfathered certain tax exemptions and tax credits granted prior to the enactment of the R.O.C. AMT. We have evaluated the impact from the amendments and adjusted deferred tax assets with the resulting differences recorded as income tax expense in 2012.

In consideration of the above tax credit incentives, five-year tax exemption, amended AMT rate and other relevant factors, we expect our effective tax rate for 2013 to be around 14%.

## **Off-Balance Sheet Arrangements**

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

## **Inflation & Deflation**

During 2012, neither inflation nor deflation had a material impact on our operations, or the business operations of our customers and suppliers. However, in light of the uncertain global economic outlook and the fluctuating global oil price, we cannot assure that there will be no significant variations in the future, which may have a material impact on our results of operations. Further, the recent lifting of price limits by the Taiwan government on oil and electricity prices may have additional inflationary effects. As such, there is a likelihood of increased energy taxes, oil, electricity and water prices that may occur in Taiwan, and thus far there is no indication as to whether these increased costs would be material to our business operations.

## **Recent Accounting Pronouncements**

For R.O.C. GAAP, please refer to note 4 to the consolidated financial statements. For U.S GAAP, please refer to note 34 to the consolidated financial statements.

## **Climate Change Related Issues**

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 as well as international accords such as the Kyoto Protocol. Climate change related laws or regulations currently are too indefinite for us to assess the impact on our future financial condition with any degree of reasonable certainty. For example, the Taiwan legislative authority has been studying relevant laws relating to environmental protection and climate related changes, such as the Greenhouse Gas Reduction Act and Energy Tax . Since there has been no concrete guidance or laws issuing from the Taiwan government as of the date of this filing, the impact of such laws is indeterminable at the moment. 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 . Please also see our compliance record with Taiwan and international environmental and climate related laws and regulations in Item 4. Information on the Company Environmental Regulation .



**Table of Contents****ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES****Directors and Executive Officers****MANAGEMENT**

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

Pursuant to R.O.C. Securities and Exchange Law, effective from January 1, 2007, a public company is required to either establish an audit committee or to have supervisors. A public company's audit committee should be composed of all of its independent directors but not less than three, of which at least one member should have accounting or related financial management expertise, and the relevant provisions under the R.O.C. Securities and Exchange Law, the R.O.C. Company Law and other laws applicable to the supervisors are also applicable to the audit committee.

Pursuant to the R.O.C. Company Law, a person may serve as our director in his personal capacity or as the representative of another legal entity. A director who serves as the representative of a legal entity may be removed or replaced at any time at the discretion of that legal entity, and the replacement director may serve the remainder of the term of office of the replaced director. For example, the National Development Fund of Taiwan, R.O.C., one of our largest shareholders, has served as our director since our founding. As a corporate entity, the National Development Fund is required to appoint a representative to act on its behalf. Mr. Johnsee Lee has been the representative of the National Development Fund since August 6, 2010.

The following table sets forth the name of each director and executive officer, their positions, the year in which their term expires and the number of years they have been with us as of February 28, 2013. The business address for each of our directors and executive officers is No. 8, Li Hsin Road 6, Hsinchu Science Park, Hsinchu, Taiwan, Republic of China.

<b>Name</b>	<b>Position with our company</b>	<b>Term Expires</b>	<b>Years with our company</b>
Morris Chang	Chairman & Chief Executive Officer	2015	26
F.C. Tseng	Vice Chairman	2015	26
Johnsee Lee	Director (Representative of the National Development Fund)	2015	3
Stan Shih	Independent Director	2015	13
Sir Peter Leahy Bonfield	Independent Director	2015	11
Thomas J. Engibous	Independent Director	2015	4
Gregory C. Chow	Independent Director	2015	2
Kok-Choo Chen	Independent Director	2015	2
Rick Tsai	Director	2015	23
Shang-yi Chiang	Executive Vice President & Co-Chief Operating Officer		13
Mark Liu	Executive Vice President & Co-Chief Operating Officer		19
C.C. Wei	Executive Vice President & Co-Chief Operating Officer		15
Stephen T. Tso	Senior Vice President & Chief Information Officer		16
Richard Thurston	Senior Vice President & General Counsel		11
Lora Ho	Senior Vice President, Chief Financial Officer & Spokesperson		14
Jason C.S. Chen	Senior Vice President, Worldwide Sales and Marketing		8
M.C. Tzeng	Vice President, Operations/Affiliate Fabs		26
Wei-Jen Lo	Vice President, Research & Development		9
Jack Sun	Vice President, Research & Development & Chief Technology Officer		16
Y.P. Chin	Vice President, Operations/Product Development		26
N.S. Tsai	Vice President, Quality & Reliability		24
Rick Cassidy	Vice President & President, TSMC North America		16
L.C. Tu <sup>(1)</sup>	Vice President, Human Resources		26
J.K. Lin	Vice President, Operations/Mainstream Fabs & Manufacturing Technology		26

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J.K. Wang	Vice President, Operations/300mm Fabs	26
Irene Sun	Vice President, Corporate Planning Organization	9
Burn J. Lin	Vice President, Research & Development	13
Y. J. Mii	Vice President, Research & Development	19
Cliff Hou	Vice President, Research & Development	16

<sup>(1)</sup> Vice President of Human Resources L.C. Tu was appointed as the President of TSMC China, effective March 15, 2013.

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**Morris Chang** is the Chairman and Chief Executive Officer. He has been the founding Chairman of our board of directors since our establishment and was our Chief Executive Officer from March 1998 to June 2005. He resumed his position as our Chief Executive Officer on June 12, 2009. From 1985 to 1994, he was President and then Chairman of the board of directors of ITRI. Prior to that, Dr. Chang was President and Chief Operating Officer of General Instrument Corporation; Corporate Group and Senior Vice-President for Texas Instruments. He holds a bachelor's degree and a master's degree in mechanical engineering from the Massachusetts Institute of Technology and a Ph.D. in electrical engineering from Stanford University and has been active in the international semiconductor industry for over 57 years.

**F.C. Tseng** is the Vice Chairman. He has been our Vice Chairman since July 2005. He was Deputy Chief Executive Officer from August 2001 to June 2005. He is also the Chairman of Global Unichip Corp., a director of Digimax, Inc., TSMC Solar Ltd., TSMC Solid State Lighting Ltd., and Vanguard International Semiconductor Corp. He also serves as an independent director, a member of Compensation Committee and Chairman of Financial Statement and Internal Control Review Committee of Acer Inc. He formerly served as the President of Vanguard from 1996 to 1998 and our President from May 1998 to August 2001. Prior to his presidency at Vanguard, Dr. Tseng served as our Senior Vice President of Operations. He holds a Ph.D. in electrical engineering from National Cheng-Kung University and has been active in the semiconductor industry for over 41 years.

**Johnsee Lee** is a director. He is the Chairman of the Development Center for Biotechnology. He also serves as the President of Taiwan Bio Industry Organization and an independent director of Taiwan Polysilicon Corp., Zhen Ding Technology Holding Ltd. and Far Eastern New Century Corp. He was the President of ITRI from 2003 to 2010 and has also served on many government and industrial boards and committees. Before returning to Taiwan, he held various technical and managerial positions at Argonne National Laboratory and Johnson Matthey Inc. in the U.S. from 1981 to 1990. He holds a Ph.D. in chemical engineering from the Illinois Institute of Technology, and a MBA from the University of Chicago. He is also a graduate of Harvard Business School's Advanced Management Program.

**Stan Shih** is an independent director. He is the Group Chairman of iD SoftCapital and a director of Acer Inc., Qisda Corp., Wistron Corp. and Nan Shan Life Insurance Company, Ltd. He is also co-founder and Chairman Emeritus of the Acer Group. He served as the Chairman and Chief Executive Officer of the Acer Group from 1976 to 2004. Mr. Shih holds a bachelor's degree, a master's degree and an honorary Ph.D. in electrical engineering from National Chiao Tung University. He also holds an honorary doctoral degree in technology from the Hong Kong Polytechnic University, an honorary fellowship from the University of Wales and an honorary doctoral degree in international law from the Thunderbird, American Graduate School of International Management.

**Sir Peter Leahy Bonfield** is an independent director. Sir Peter Bonfield was the Chief Executive Officer and Chairman of the Executive Committee of British Telecommunications from January 1996 to January 2002. He was the Vice President of the British Quality Foundation from its creation in 1993 until 2012. He is currently the Chairman of the Board of Directors of NXP Semiconductor in the Netherlands. He is also a director of L.M. Ericsson in Sweden, Mentor Graphics Corporation Inc. in U.S. and Sony Corporation in Japan. He is a member of the Sony Corporation Advisory Board, The Longreach Group Advisory Board, and New Venture Partners LLP Advisory Board. He also serves as an advisor to Apax Partners LLP, a board mentor of CMI, and a senior advisor to Rothschild in London. He is a fellow of The Royal Academy of Engineering and the Chair of Council and Senior Pro-Chancellor at Loughborough University in UK. He holds an honors degree in engineering from Loughborough University.

**Thomas J. Engibous** is an independent director. He joined Texas Instruments (TI) in 1976 and served there until retirement in 2008. During his 32-year career at TI, his duties included Chairman from 2004 to 2008, Chairman, President and Chief Executive Officer from 1998 to 2004, President and Chief Executive Officer from 1996 to 1998 and Executive Vice President and President of the company's Semiconductor Group from 1993 to 1996. Mr. Engibous currently serves as the Chairman of J.C. Penney Company Inc. and Honorary Trustee of the Southwestern Medical Foundation. He is also a member of the Texas Business Hall of Fame. He received the Woodrow Wilson Award in 2004. He holds a master's degree in electrical engineering and an honorary doctorate in engineering from Purdue University.

**Gregory C. Chow** is an independent director. He is currently Professor of Economics and Class of 1913 Professor of Political Economy, Emeritus, and Lecture with the Rank at Princeton University. He is a member of the Taiwan Academia Sinica and the American Philosophical Society, and a fellow of the American Statistical Association and the Econometric Society. Professor Chow has over 50 years of teaching experience at such institutes as M.I.T., Cornell University, IBM Thomas Watson Research Center, Columbia University and Princeton University. Professor Chow also served as an adviser on economic policy, economic reform and economic education in Taiwan and China. He holds a Ph.D. and master degree in Economics from Chicago University and an honorary Doctorate of Business Administration from Hong Kong University of Science and Technology. He also holds honorary professorships at various major universities in China and the City University of Hong Kong. His publications include 14 books and over 200 articles.

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**Kok-Choo Chen** is an independent director. She served as our Senior Vice President and General Counsel from 1997 to 2001. Currently, Ms. Chen is an advisor to the Taiwan Executive Yuan and the Taipei City Government. Ms. Chen has over 24 years of experience working in international law firms. She has also taught law at Soochow University, National Chengchi University and National Tsing-Hua University in Taiwan for over 28 years. In addition, Ms. Chen is the founder of two Taiwan heritage site museums (Taipei Story House and Futai Street Mansion), as well as a director of the TSMC Education and Culture Foundation. Ms. Chen is licensed to practice law in England, Singapore and California.

**Rick Tsai** is a director. He is currently the Chairman and Chief Executive Officer of two TSMC subsidiaries, TSMC Solar Ltd. and TSMC Solid State Lighting Ltd. He is also a director of Motech Industries, Inc. and an advisor to the Taiwan Executive Yuan. Dr. Tsai was TSMC's President of New Businesses from June 12, 2009 to July 31, 2011, President and Chief Executive Officer from July 2005 to June 11, 2009, President & Chief Operating Officer from August 2001 to June 2005 and Executive Vice President of Worldwide Marketing and Sales from September 2000 to August 2001. Prior to that, he served as our Executive Vice President of Operations. He also served as the President of Vanguard from 1999 to 2000. He joined us in 1989 as Deputy Director of our Fab 2 operations. He holds a Ph.D. in material science from Cornell University.

**Shang-yi Chiang** is our Executive Vice President and Co-Chief Operating Officer. Dr. Chiang re-joined us as Senior Vice President of Research and Development in September 2009. He was also Chairman of VisEra Technologies Company and Xintec Inc. from August 2006 to July 2010. He was Senior Vice President of Research and Development from November 2000 to August 2006. He joined us as Vice President of Research and Development in 1997. Prior to that, he worked at Hewlett Packard. Dr. Chiang holds a Ph.D. in electrical engineering from Stanford University.

**Mark Liu** is our Executive Vice President and Co-Chief Operating Officer. Prior to that, he was our Senior Vice President of Operations. From March 2008 to October 2009, he served as Senior Vice President of Advanced Technology Business. From January 2002 to March 2008, he was Senior Vice President of Operations II. He was Vice President of our Fab 8 and Fab 12 Sites Operations from July 2000 to January 2002 and Vice President of South-Site Operations from 1999 to July 2000. Dr. Liu joined us in 1993 and held the positions as Director of Fab 3 Operations and Senior Director of South-Site Operations. He holds a Ph.D. in electrical engineering and computer science from University of California, Berkeley.

**C.C. Wei** is our Executive Vice President and Co-Chief Operating Officer. Prior to that, he was our Senior Vice President of Business Development. From March 2008 to October 2009, he was Senior Vice President of Mainstream Technology Business. From January 2002 to March 2008, Dr. Wei was Senior Vice President of Operations I. He was Vice President of South-Site Operations from April 2000 to January 2002 and Vice President of North-Site Operations from February 1998 to April 2000. Prior to that, he was Senior Vice President at Chartered Semiconductor Manufacturing Ltd. in Singapore starting from 1993. He holds a Ph.D. in electrical engineering from Yale University.

**Stephen T. Tso** is our Senior Vice President of Information Technology, Material Management and Risk Management and Chief Information Officer. He joined us as Vice President of Research and Development in December 1996. Prior to that, he was General Manager of Metal CVD Products in Applied Materials. He was assigned as the President of WaferTech in November 2001. Dr. Tso holds a Ph.D. in material science and engineering from University of California, Berkeley.

**Richard Thurston** is our Senior Vice President and General Counsel. Prior to joining us in January 2002, he was a partner with Kelt Capital Partners, LP, in Addison, Texas, and a senior partner with the Dallas Texas-based law firm of Haynes and Boone. Dr. Thurston was also Vice President and Assistant General Counsel, and the Asia Pacific Regional Counsel for TI from 1984 to 1996. Dr. Thurston holds a Ph.D. in East Asian studies from University of Virginia and a J.D. from Rutgers School of Law.

**Lora Ho** is our Senior Vice President, Chief Financial Officer and Spokesperson. Prior to joining us in 1999 as controller, she had served as Vice President of Finance and Chief Financial Officer at Acer Semiconductor Manufacturing Inc. since 1990. Ms. Ho holds an MBA from National Taiwan University.

**Jason C.S. Chen** is our Senior Vice President of Worldwide Sales and Marketing. He joined us as Vice President of Corporate Development in March 2005. Prior to that, he was Vice President and Co-Director of Marketing and Sales group with Intel Corporation. Mr. Chen holds an MBA degree from University of Missouri, Columbia.

**M.C. Tzeng** is our Vice President of Operations/Affiliate Fabs. From March 2008 to October 2009, he was Vice President of Mainstream Technology Business. Prior to that, he was Vice President of Operations I from January 2002 to March 2008. He was the Senior Director of Fab 2 Operations from 1997 to January 2002. He joined us in 1987 and has held various positions in manufacturing functions. He holds a master degree in applied chemistry from Chung Yuan University.

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**Wei-Jen Lo** is our Vice President of Research & Development. He was Vice President of Operations/Manufacturing Technology from October 2009 to February 2013, Vice President of Advanced Technology Business from September 2009 to October 2009, Vice President of Research & Development from June 2006 to September 2009 and Vice President of Operations from July 2004 to June 2006. Prior to that, he was Director in charge of advanced technology development with Intel Corporation. Dr. Lo holds a Ph.D. in solid state physics & surface chemistry from University of California, Berkeley.

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**Jack Sun** is our Chief Technology Officer, effective November 2009, and also has been our Vice President of Research and Development since 2006. He was promoted to Senior Director in 2000. He joined us in 1997 as Director of Advanced Module Technology Division before taking the position of Director, Logic Technology Development Division. Prior to that, he served at International Business Machines for 14 years in Research and Development. Dr. Sun holds a Ph.D. in electrical engineering from University of Illinois at Urbana-Champaign.

**Y.P. Chin** is Vice President of Operations/Product Development. He was Vice President of Advanced Technology Business from March 2008 to October 2009. Prior to that, he was Senior Director of Operations II from June 2006 to March 2008 and Product Engineering & Services from 2000 to 2006. He joined us in 1987 and has held various positions in product and engineering functions. He holds a master degree in electrical engineering from National Cheng Kung University.

**N.S. Tsai** has been Vice President of Quality & Reliability since February 2008. Prior to that, he was Senior Director of Quality & Reliability since 2004, Senior Director of Assembly Test Technology & Service from 2002 to 2004. Dr. Tsai also served as a Vice President of Vanguard from 1997 to 2000. He joined us in 1989 and held various positions in research and development and manufacturing functions. He holds a Ph.D. in material science from Massachusetts Institute of Technology.

**Rick Cassidy** was promoted as Vice President in February 2008. He has been President of TSMC North America since January 2005. He joined us in 1997 and has held various positions in TSMC North America, including Business Operations, Field Technical Support, and Business Management. He holds a B.A. degree in engineering technology from United States Military Academy at West Point.

**L.C. Tu** is the President of TSMC China, effective March 15, 2013. He was the Vice President of Human Resources from August 2009 to March 2013. Prior to that, he was Senior Director of Corporate Planning Organization from 2002 to 2009. He joined us in 1987 and held various positions in engineering functions. He holds a master degree in business administration from Tulane University.

**J.K. Lin** is our Vice President of Operations/Mainstream Fabs and Manufacturing Technology. He was promoted as Vice President of Operations in August 2010. Prior to that, he was Senior Director of Mainstream Fabs from May to August in 2010. He joined us in 1987 and held various positions in manufacturing functions. He holds a B.S. degree from National Changhua University of Education.

**J.K. Wang** is our Vice President of Operations/300mm Fabs. He was promoted as Vice President of Operations in August 2010. Prior to that, he was Senior Director of 300mm Fabs from May to August in 2010. He joined us in 1987 and held various positions in manufacturing functions and research and development technology development. He holds a master degree in chemical engineering from National Cheng-Kung University.

**Irene Sun** is our Vice President of Corporate Planning Organization. She was promoted as Vice President of Corporate Planning Organization in August 2010. Prior to that, she was Senior Director of Corporate Planning Organization from 2009 to 2010. She joined us in 2003 and held various positions in Corporate Planning Organization. She holds a Ph.D. in materials science and engineering from Cornell University.

**Burn J. Lin** is our Vice President of Research & Development. He was promoted as Vice President of Research & Development in February 2011. Prior to that, he was our Senior Director of Nanopatterning Technology Division from 2000 to 2011. He joined us in 2000. Dr. Lin is the editor in chief of the Journal of Micro/nanolithography, MEMS, and MOEMS, a fellow of IEEE and of SPIE. He holds a Ph.D. in electrical engineering from Ohio State University.

**Y. J. Mii** is our Vice President of Research & Development. He was promoted as Vice President of Research and Development in August 2011. Prior to that, he was our Senior Director of Platform I Division from 2006 to 2011. He joined TSMC in 1994 and has been involved continuously in the development and manufacturing of advanced CMOS technologies in both Operations and research and development. He holds a Ph.D. in electrical engineering from the University of California, Los Angeles.

**Cliff Hou** is our Vice President of Design and Technology Platform. He was prompted as Vice President of Design and Technology Platform in August 2011. Prior to that, he was Senior Director of Design and Technology Platform from 2010 to 2011. He joined TSMC in 1997 and established the Company's technology design kit and reference flow development organizations. He holds a Ph.D. in electrical and computer engineering from Syracuse University.

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There is no family relationship between any of our directors or executive officers and any other director or executive officer.

**Share Ownership**

The following table sets forth certain information as of February 28, 2013 with respect to our common shares owned by our directors and executive officers.

Name of Shareholders	Number of Common Shares Owned <sup>(2)</sup>	Percentage of Outstanding Common Shares <sup>(2)</sup>	Number of Common Shares Underlying Stock Options <sup>(3)</sup>
Morris Chang, Chairman & CEO	123,137,914	0.47%	-
F.C. Tseng, Vice Chairman	34,662,675	0.13%	-
Johnsee Lee, Director <sup>(1)</sup>	1,653,709,980	6.38%	-
Stan Shih, Independent Director	1,480,286	0.01%	-
Sir Peter Leahy Bonfield, Independent Director	-	-	-
Thomas J. Engibous, Independent Director	-	-	-
Gregory C. Chow, Independent Director	-	-	-
Kok-Choo Chen, Independent Director	-	-	-
Rick Tsai, Director	32,687,046	0.13%	-
Shang-yi Chiang, Executive Vice President & Co-Chief Operating Officer	1,062,481	0.00%	-
Mark Liu, Executive Vice President & Co-Chief Operating Officer	13,127,114	0.05%	-
C.C. Wei, Executive Vice President & Co-Chief Operating Officer	8,460,207	0.03%	-
Stephen T. Tso, Senior Vice President & CIO	14,425,064	0.06%	-
Richard Thurston, Senior Vice President & General Counsel	869,892	0.00%	-
Lora Ho, Senior Vice President, CFO & Spokesperson	6,381,080	0.02%	-
Jason C.S. Chen, Senior Vice President	2,027,320	0.01%	-
M.C. Tzeng, Vice President	7,592,595	0.03%	-
Wei-Jen Lo, Vice President	1,913,127	0.01%	-
Jack Sun, Vice President & CTO	4,402,831	0.02%	-
Y.P. Chin, Vice President	7,540,122	0.03%	-
N.S. Tsai, Vice President	2,051,180	0.01%	-
Rick Cassidy, Vice President	-	-	-
L.C. Tu, Vice President <sup>(4)</sup>	9,347,440	0.04%	-
J.K. Lin, Vice President	12,507,018	0.05%	-
J.K. Wang, Vice President	2,553,947	0.01%	-
Irene Sun, Vice President	960,709	0.00%	-
Burn J. Lin, Vice President	2,997,746	0.01%	-
Y.J. Mii, Vice President	1,000,419	0.00%	-
Cliff Hou, Vice President	752,532	0.00%	-

(1) Represents shares held by the National Development Fund of the Executive Yuan.

(2) Except for the number of shares held by the National Development Fund of the Executive Yuan, the disclosed number of shares owned by the directors and executive officers does not include any common shares held in ADS form by such individuals as such individual ownership of ADSs has not been disclosed to shareholders or otherwise made public and each of these individuals owns less than one percent of all common shares outstanding as of February 28, 2013.

(3) The numbers of the common shares underlying the stock options and the exercise prices were adjusted for the cash and stock dividends distributed from 2003 to 2012, according to the terms of the 2002 Employee Stock Option Plan. The options were granted

to certain of our officers except Rick Cassidy as a result of their voluntary selection to exchange part of their profit sharing to stock options.

(4) Vice President of Human Resources L.C. Tu was appointed as the President of TSMC China, effective March 15, 2013.



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### **Compensation**

The aggregate compensation paid and benefits in kind granted to our directors and executive officers in 2012, which included a cash bonus to the directors, was NT\$1,430 million (US\$49 million). According to our Articles of Incorporation, not more than 0.3 percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as compensation to our directors and at least one percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as bonuses to employees, including executive officers. Compensation to directors is always paid in cash, while bonuses to our executive officers may be granted in cash, stock, or stock options or the combination of all these three. Individual awards are based on each individual's responsibility, contribution and performance. See note 23 to our consolidated financial statements. Under our Articles of Incorporation, directors who also serve as executive officers are not entitled to any director compensation.

### **Board Practices**

#### ***General***

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

### **Audit Committee**

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

All members of the Audit Committee must have a basic understanding of finance and accounting and at least one member must have accounting or related financial management expertise.

Currently, the Audit Committee consists of five members comprising all of our independent directors. The members of the Audit Committee are Sir Peter Bonfield, the Chairman of our Audit Committee, Mr. Stan Shih, Mr. Thomas J. Engibous, Mr. Gregory C. Chow and Ms. Kok-Choo Chen. In addition, Mr. J. C. Lobbezoo was appointed to serve as financial expert consultant to the Audit Committee from February 14, 2006 onwards. See Item 16A. Audit Committee Financial Expert. The Audit Committee is required to meet at least once every quarter. Our Audit Committee charter grants the Audit Committee the authority to conduct any investigation which it deems appropriate to fulfill its responsibilities. It has direct access to all our books, records, facilities, and personnel, as well as our registered public accountants. It has the authority to, among other things, appoint, terminate and approve all fees to be paid to our registered public accountants, subject to the approval of the board of directors as appropriate, and to oversee the work performed by the registered public accountants. The Audit Committee also has the authority to engage special legal, accounting, or other consultants it deems necessary in the performance of its duties. Beginning on January 1, 2007, the Audit Committee also assumed the responsibilities of supervisors pursuant to the R.O.C. Securities and Exchange Law.

The Audit Committee convened four regular meetings in 2012. In addition to these meetings, the Audit Committee members and consultant participated in five telephone conferences to discuss the Company's Annual Report to be filed with the Taiwan and U.S. authorities and investor conference materials with management.

### **Compensation Committee**

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

The Compensation Committee, by its charter, shall consist of no fewer than three independent directors of the Board. Currently, the Compensation Committee is comprised of all five independent directors. The members of the Compensation Committee are Mr. Stan Shih, the Chairman of our Compensation Committee, Sir Peter Bonfield, Mr. Thomas J. Engibous, Mr. Gregory C. Chow and Ms. Kok-Choo Chen.

The Compensation Committee convened four regular meetings in 2012.



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

<b>Function</b>	<b>As of December 31,</b>		
	<b>2010</b>	<b>2011<sup>(1)</sup></b>	<b>2012<sup>(1)</sup></b>
Managers	3,142	3,601	3,865
Professionals	12,729	13,665	15,844
Assistant Engineers/Clericals	2,650	2,796	3,079
Technicians	14,711	15,395	16,479
<b>Total</b>	<b>33,232</b>	<b>35,457</b>	<b>39,267</b>

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

<b>Location of Facility and Principal Offices</b>	<b>As of December 31,</b>		
	<b>2010</b>	<b>2011<sup>(1)</sup></b>	<b>2012<sup>(1)</sup></b>
Hsinchu Science Park, Taiwan	20,703	20,107	21,534
Southern Taiwan Science Park, Taiwan	9,158	9,041	8,964
Central Taiwan Science Park, Taiwan	29	1,410	3,558
Taoyuan County, Taiwan	-	1,333	1,378
China	1,903	2,134	2,353
North America	1,355	1,343	1,395
Europe	48	53	50
Japan	32	32	32
Korea	4	4	3
<b>Total</b>	<b>33,232</b>	<b>35,457</b>	<b>39,267</b>

<sup>(1)</sup> Including employees of our non-wholly owned subsidiaries, Xintec Inc. and Mutual-Pak Technology Co., Ltd., since 2011.

As of December 31, 2012, our total employee population was 39,267 with an educational makeup of 3.6% Ph.Ds, 34.4% masters, 25.9% university bachelors, 12.8% college degrees and 23.3% others. Among this employee population, 50.2% were at a managerial or professional level. Continuous learning is the cornerstone of our employee development strategy. Individual development plans for each employee are customized and tailored to their individual development needs. Employee development is further supported and enforced by a comprehensive and integrated network of resources including on-the-job training, coaching, mentoring, job rotation, on-site courses, e-learning and external learning opportunities.

Pursuant to our Articles of Incorporation, our employees participate in our profits sharing program by way of a bonus. Employees in the aggregate are entitled to not less than 1% of our net income after the deduction for prior years' losses and contributions to legal and special reserves. Our practice in the past has been to determine the amount of the bonus based on our operating results and industry practice in the R.O.C. In 2011 and 2012, we distributed an employees' cash bonus of NT\$8,990 million (US\$309 million) and an employees' cash profit sharing of NT\$8,990 million (US\$309 million) to our employees in relation to year 2011 earnings. In 2012 and 2013, we also distributed an employees' cash bonus of NT\$11,115 million (US\$383 million) to our employees in relation to year 2012 earnings.

In June 2002, we adopted the 2002 Employee Stock Option Plan that authorizes the grant of options exercisable for up to 100 million common shares (approximately 0.5% of our total then outstanding common shares). These options vested between two and four years after the date of

grant, with 50% of the option granted being exercisable two years after the grant, 75% exercisable three years after the grant and 100% exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2002 Employee Stock Option Plan, a total of 48,137,264 options were granted, of which 2,726,796 options were originally granted to certain of our officers as a result of their voluntary election to exchange part of their profit sharing for stock options. The remaining balance of options under the 2002 Employee Stock Option Plan expired on June 25, 2003. As of December 31, 2012, 3,361,794 options were outstanding under the 2002 Employee Stock Option Plan.

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In September 2003, we adopted the 2003 Employee Stock Option Plan that authorizes the grant of the options exercisable for up to 120 million common shares (approximately 0.6% of our total then outstanding common shares) in one or more tranches before October 29, 2004, when the 2003 Employee Stock Option Plan expired. These options vested between two and four years after the date of grant, with 50% of the options granted being exercisable two years after the grant, 75% exercisable three years after the grant and 100% exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2003 Employee Stock Option Plan, a total of 12,055,735 options have been granted. The remaining balance under the 2003 Employee Stock Option Plan expired on October 29, 2004. As of December 31, 2012, 995,506 options were outstanding under the 2003 Employee Stock Option Plan.

In November 2004, we adopted the 2004 Employee Stock Option Plan that authorizes the grant of options exercisable for up to 11 million common shares (approximately 0.05% of our total then outstanding common shares) in one or more tranches before January 6, 2006, when the 2004 Employee Stock Option Plan expired. These options vested between two and four years after the date of grant, with 50% of the options granted being exercisable two years after the grant, 75% exercisable three years after the grant and 100% exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2004 Employee Stock Option Plan, a total of 10,374,550 options have been granted. The remaining balance under the 2004 Employee Stock Option Plan expired on January 6, 2006. As of December 31, 2012, 1,587,490 options were outstanding under the 2004 Employee Stock Option Plan.

In order to attract qualified senior managers, we maintain a sign-on bonus plan, under which selected newly hired senior managers, upon approval by our senior management, receive hiring bonus with the general condition of staying in our employment for at least one year (based on the quantum of sign-on bonus). In 2012, a total of NT\$15 million (US\$0.5 million) was distributed to our senior management under our sign-on bonus plan.

We value two-way communication and are committed to keeping our communication channels open and transparent between the management level and their subordinates. In addition, we are dedicated to providing diverse employee engagement programs, which support our goals in reinforcing close rapport with employees and maintaining harmonious labor relations.

**ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****Major Shareholders**

The following table sets forth certain information as of February 28, 2013, with respect to our common shares owned by (i) each person who, according to our records, beneficially owned five percent or more of our common shares and by (ii) all directors and executive officers as a group.

<b>Names of Shareholders</b>	<b>Number of Common Shares Owned</b>	<b>Percentage of Total Outstanding Common Shares</b>
National Development Fund <sup>(1)</sup>	1,653,709,980	6.38%
Capital World Investors <sup>(2)</sup>	1,488,857,477	5.74%
Directors and executive officers as a group <sup>(3)</sup>	291,940,745	1.13%

<sup>(1)</sup> Excludes any common shares that may be owned by other funds controlled by the R.O.C. government. The National Development Fund was previously named Development Fund.

<sup>(2)</sup> According to the Schedule 13G of Capital World Investors filed with the Securities and Exchange Commission on February 6, 2013, Capital World Investors is deemed to be the beneficial owner of the number of common shares listed above as a result of Capital Research and Management Company acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940 though Capital World Investors disclaims its beneficial ownership. We do not have further information

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with respect to Capital World Investors ownership in us subsequent to its Schedule 13G filed on February 6, 2013.

<sup>(3)</sup> Excludes ownership of the National Development Fund.

As of February 28, 2013 a total of 25,926,367,175 common shares were outstanding. With certain limited exceptions, holders of common shares that are not R.O.C. persons are required to hold their common shares through a brokerage account in the R.O.C. As of February 28, 2013, 5,457,339,113 common shares were registered in the name of a nominee of Citibank, N.A., the depositary under our ADS deposit agreement. Citibank, N.A., has advised us that, as of February 28, 2013, 1,091,467,817 ADSs, representing 5,457,339,113 common shares, were held of record by Cede & Co. and 258 other registered shareholders domiciled in and outside of the United States. We have no further information as to common shares held, or beneficially owned, by U.S. persons.

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

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

## **Related Party Transactions**

### ***Vanguard International Semiconductor Corporation***

In 1994, we, the R.O.C. Ministry of Economic Affairs and other investors established Vanguard, then an integrated DRAM manufacturer. Vanguard commenced volume commercial production in 1995 and listed its shares on the GreTai Securities Market in March 1998. In 2004, Vanguard completely terminated its DRAM production and became a pure-play foundry company. As of February 28, 2013, we owned approximately 40.4% of Vanguard.

On April 1, 2004, we entered into an agreement with Vanguard with an initial term of two years. During the term of this agreement, Vanguard is obligated to use its best commercial efforts to manufacture wafers at specified yield rates for us up to a fixed amount of reserved capacity per month, and TSMC is required to use its best commercial efforts to maintain utilization of such reserved capacity within a specified range of wafers per month. Pursuant to its terms, upon expiration of its initial two-year term, this agreement is to be automatically renewed for additional one year periods unless earlier terminated by the parties. This Agreement has been so renewed per its terms. We pay Vanguard at a fixed discount to the actual selling price as mutually agreed between the parties in respect of each purchase order. We also agreed to license Vanguard certain of our process technologies and transfer certain technical know-how and information. TSMC receives from Vanguard certain royalty payments for granting such licenses. In 2010, 2011 and 2012, we had total purchases of NT\$4,959 million, NT\$5,598 million and NT\$4,476 million (US\$154 million) from Vanguard, representing 2.3%, 2.4% and 1.7 % of our total cost of sales, respectively.

### ***Systems on Silicon Manufacturing Company Pte. Ltd. ( SSMC )***

SSMC is a joint venture in Singapore that we established with Philips and EDB Investment Pte. Ltd. to produce integrated circuits by means of advanced submicron manufacturing processes. These integrated circuits are made pursuant to the product design specifications provided primarily by us and Philips under an agreement with Philips, and EDB Investment Pte. Ltd. (the SSMC Shareholders Agreement ) in March 1999 and, primarily by us and NXP, subsequent to the assignment by Philips of its rights to NXP and NXP's assumption of Philips' obligations under the SSMC Shareholders Agreement pursuant to the Assignment and Assumption Agreement effective September 25, 2006. SSMC's business is limited to manufacturing wafers for us, our subsidiaries, NXP and NXP's subsidiaries. In November 15, 2006, we and NXP exercised the option rights under the SSMC Shareholders Agreement to purchase all of the SSMC shares owned by EDB Investment Pte. Ltd. As a result, we now own 38.8%, and NXP owns 61.2% of SSMC. While we, together with NXP, have the right to purchase up to 100% of SSMC's annual capacity, we and NXP are required to purchase, in the aggregate, at least 70% of SSMC's full capacity; we, alone, are required to purchase up to 28% of the annual installed capacity. As of February 28, 2013, we owned approximately 38.8% of the equity interest in SSMC. See below for a detailed discussion of the contract terms we entered into with SSMC.

We entered into a technology cooperation agreement with SSMC effective March 30, 1999 in which SSMC agreed to base at least a major part of its production activities on processes compatible to those in use in our MOS integrated circuits wafer volume production fabs. In return, we have agreed to provide SSMC with access to and benefit of the technical knowledge and experience relating to certain processes in use in our MOS integrated circuits wafer volume production fabs and to assist SSMC by rendering certain technical services in connection with its production activities. In addition, we granted to SSMC limited licenses of related intellectual property rights owned or controlled by us for the purpose of MOS integrated circuit production for the sole use in manufacturing products for us. SSMC pays to us during, and up to three years after, the term of this agreement a remuneration of a fixed percentage of the net selling price of all products manufactured by SSMC. In 2010, 2011 and 2012, we had total purchases of NT\$4,521 million, NT\$3,949 million and NT\$3,639 million (US\$125 million) from SSMC, representing 2.1%, 1.7% and 1.4% of our total cost of sales, respectively.

### ***VisEra Technologies Company, Ltd.***

In October 2003, we and OmniVision Technologies, Inc. ( OVT ) entered into a shareholders' agreement (the VisEra Agreement ) to form VisEra Technologies Company, Ltd. ( VisEra ), a joint venture in Taiwan, for the purpose of providing back-end manufacturing services. In connection with the formation of VisEra, we and OVT each entered into separate nonexclusive license agreements with VisEra pursuant to which each party licenses certain intellectual property to VisEra relating to the manufacturing services. As of February 28, 2013, we owned a 42.7% equity interest in VisEra Technologies Company Ltd. through VisEra Cayman.





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In August 2005, we entered into the first amendment to the VisEra Agreement (the "Amended VisEra Agreement") with OVT, VisEra, and VisEra Cayman, pursuant to which VisEra became a subsidiary of VisEra Cayman. In accordance with the Amended VisEra Agreement, VisEra purchased color filter processing equipment and related assets from us for an aggregate price equivalent to US\$16 million. In January 2007, we signed the second amendment and agreed to an expansion in VisEra's manufacturing capacity. For the capacity expansion, we and OVT each agreed to make an additional US\$27 million investment to VisEra. There were no significant sales to or purchases from VisEra from 2010 to 2012.

### ***Global Unichip Corporation ( GUC )***

In January 2003, we acquired 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 the Taiwan Stock Exchange since November 3, 2006. Since July 2011, we are no longer deemed to be a controlling entity of GUC and its subsidiaries due to the termination of a Shareholders' Agreement. As a result, we no longer consolidate GUC and its subsidiaries in our financial statements. As of February 28, 2013, we owned approximately 34.8% of the equity interest in GUC.

In the second half of 2011 and for the full year of 2012, we had total sales of NT\$2,461 million and NT\$4,881 million (US\$168 million) to GUC, representing 0.6% and 1.0% of our total sales, respectively.

## **ITEM 8. FINANCIAL INFORMATION**

### **Consolidated Financial Statements and Other Financial Information**

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

### **Legal Proceedings**

As is the case with many companies in the semiconductor industry, we have received from time to time communications from third parties asserting that our technologies, manufacturing processes, the design of the integrated circuits made by us or the use by our customers of semiconductors made by us may infringe upon patents or other intellectual property rights of others. In some instances, these disputes have resulted in litigation by or against us and certain settlement payments by us in some cases. Irrespective of the validity of these claims, we could incur significant costs in the defense thereof or could suffer adverse effects on our operations.

In June 2010, Keranos, LLC. filed a lawsuit in the U.S. District Court for the Eastern District of Texas alleging that TSMC, TSMC North America, and several other leading technology companies infringe three expired U.S. patents. In response, TSMC, TSMC North America, and several co-defendants in the Texas case filed a lawsuit against Keranos in the U.S. District Court for the Northern District of California in November 2010, seeking a judgment declaring that they did not infringe the asserted patents, and that those patents are invalid. These two litigations have been consolidated into a single case in the U.S. District Court for the Eastern District of Texas. The outcome cannot be determined at this stage.

In December 2010, Ziptronix, Inc. filed a complaint in the U.S. District Court for the Northern District of California accusing TSMC, TSMC North America and one other company of infringing several U.S. patents. The outcome cannot be determined at this time.

Other than the matters described above, we were not involved in any other material litigation in 2012 and are not currently involved in any material litigation.

### **Dividends and Dividend Policy**

The following table sets forth the dividends per share paid during each of the years indicated in respect of common shares outstanding on the record date applicable to the payment of those dividends. During the period from 2008 to 2012, we paid cash dividends in the amounts of NT\$76,881,311,145, NT\$76,876,311,768, NT\$77,708,119,866, NT\$77,730,235,992 and NT\$77,748,667,725 (US\$2,676,374,104), respectively.



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	<b>Cash Dividends Per Share NT\$</b>	<b>Stock dividends Per 100 shares</b>	<b>Total shares issued as stock dividends</b>	<b>Outstanding common shares at year end</b>
2008	3.0251	0.50417 <sup>(1)</sup>	128,135,520 <sup>(1)</sup>	25,625,437,256
2009	2.9999	0.49998 <sup>(1)</sup>	128,127,187 <sup>(1)</sup>	25,902,706,622
2010	2.9997	-	-	25,910,078,664
2011	2.9995	-	-	25,916,222,575
2012	2.9995	-	-	25,924,435,668

<sup>(1)</sup> 40% of the stock dividends were paid out of retained earnings and 60% were from capitalization of capital surplus. Our dividend policy is set forth in our articles of incorporation. Except as otherwise specified in the articles of incorporation or under Taiwan law, we will not pay dividends when there is no profit or retained earnings. Our profits may be distributed by way of cash dividend, stock dividend, or a combination of cash and stock. On December 21, 2004, our shareholders approved amendments to our articles of incorporations pursuant to which distributions of profits shall be made preferably by way of cash dividend. In addition, pursuant to the amendments, the ratio for stock dividends shall not exceed 50% of the total distribution.

Holders of outstanding common shares on a dividend record date will be entitled to the full dividend declared without regard to any subsequent transfer of the common shares. Payment of dividends (including in cash and in common shares) in respect of the prior year is made following approval by our shareholders at the annual general meeting of shareholders. Distribution of stock dividends is subject to approval by the R.O.C. Financial Supervisory Commission.

Except as otherwise specified in the articles of incorporation or under Taiwan law, we are not permitted to distribute dividends or make other distributions to shareholders in respect of any year in which we have no current or retained earnings (excluding reserves). The R.O.C. Company Law also requires that 10% of annual net income (less prior years' losses and outstanding taxes) be set aside as legal reserves until the accumulated legal reserves equal our paid-in capital. Our articles of incorporation provide that at least one percent of annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as a bonus to employees and that not more than 0.3 percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as a bonus to directors. Under our articles of incorporation, directors who also serve as executive officers are not entitled to any director bonuses.

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

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

**ITEM 9. THE OFFER AND LISTING**

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



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	Taiwan Stock Exchange			New York Stock Exchange <sup>(1)</sup>		
	Closing price per common share <sup>(2)</sup>		Average daily Trading volume (in thousands of shares) <sup>(2)</sup>	Closing price per ADS <sup>(2)</sup>		Average daily Trading volume (in thousands of ADSs) <sup>(2)</sup>
	High (NT\$)	Low (NT\$)		High (US\$)	Low (US\$)	
2008	54.17	30.47	63,140	9.42	4.90	17,527
2009	57.16	32.78	63,800	10.10	5.86	19,433
2010	67.39	50.30	46,661	11.76	8.33	14,140
First Quarter	57.07	50.30	48,643	10.22	8.44	16,443
Second Quarter	56.63	51.35	46,187	9.93	8.33	15,460
Third Quarter	58.24	52.76	46,715	9.79	8.64	13,772
Fourth Quarter	67.39	55.93	45,350	11.76	9.45	11,012
2011	73.87	61.05	50,131	12.86	10.56	14,704
First Quarter	72.11	62.31	62,530	12.67	10.59	16,176
Second Quarter	71.65	62.96	51,369	12.86	11.07	15,740
Third Quarter	71.07	61.05	50,817	12.53	10.56	15,292
Fourth Quarter	73.87	66.16	37,212	12.76	10.92	11,621
2012	99.20	72.33	39,620	17.27	12.57	10,581
First Quarter	82.74	72.33	42,302	14.85	12.69	8,925
Second Quarter	85.73	73.77	39,622	15.59	12.57	11,219
Third Quarter	89.80	74.30	40,892	15.82	12.65	12,327
Fourth Quarter	99.20	84.80	35,971	17.27	15.03	9,814
October	91.00	84.80	36,309	16.16	15.03	11,387
November	98.70	89.20	38,349	17.27	15.77	9,616
December	99.20	94.80	33,128	17.19	16.75	8,371
2013						
January	102.00	99.00	35,008	18.27	17.52	10,721
February	109.00	101.50	36,496	19.15	17.81	8,522
March (through March 29, 2013)	105.00	98.00	39,896	18.33	16.89	9,800

Source: Bloomberg

- (1) Trading in ADSs commenced on October 8, 1997 on the New York Stock Exchange. Each ADS represents the right to receive five common shares.
- (2) As adjusted for a NT\$3.0251 cash dividend per share and a 0.50417% stock dividend in July 2008, a NT\$2.9999 cash dividend per share and a 0.49998% stock dividend in July 2009, a NT\$2.9997 cash dividend per share in July 2010, a NT\$2.9995 cash dividend per share in July 2011, and a NT\$2.9995 cash dividend per share in July 2012.

**ITEM 10. ADDITIONAL INFORMATION**  
**Description of Common Shares**

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We are organized under the laws of the R.O.C. Set forth below is a description of our common shares, including summaries of the material provisions of our articles of incorporation, the R.O.C. Company Law, the R.O.C. Securities and Exchange Law and the regulations promulgated thereunder.

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### ***General***

Our authorized share capital is NT\$280,500,000,000, divided into 28,050,000,000 common shares of which 500,000,000 common shares are reserved for the issuance for our employee stock options and among which 25,924,435,668 common shares were issued and outstanding as of December 31, 2012.

The R.O.C. Company Law, the R.O.C. Act for Establishment and Administration of Science Parks and the R.O.C. Securities and Exchange Law provide that any change in the issued share capital of a public company, such as us, requires the approval of its board of directors, (or, for capital reduction, a resolution of its shareholders meeting), an amendment to its articles of incorporation (if such change also involves a change in the authorized share capital) and the approval of, or the registration with, the R.O.C. Financial Supervisory Commission and the Ministry of Economic Affairs or the Science Park Administration (as applicable).

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

### ***Dividends and Distributions***

An R.O.C. company is generally not permitted to distribute dividends or to make any other distributions to shareholders in respect of any year for which it did not have either earnings or retained earnings (excluding reserves). In addition, before distributing a dividend to shareholders following the end of a fiscal year, the company must recover any past losses, pay all outstanding taxes and set aside in a legal reserve, until such time as its legal reserve equals its paid-in capital, 10% of its net income for that fiscal year (less any past losses and outstanding tax), and may set aside a special reserve. Our articles of incorporation provide that at least one percent of the net distributable income for that fiscal year be distributed as a bonus to employees and that not more than 0.3 percent of the net distributable income for that fiscal year may be distributed as a bonus to directors. Under our articles of incorporation, directors who also serve as executive officers are not entitled to any director bonuses. Prior to 2004, it has been our practice in each of the past years to pay all of employee bonuses in the form of stock. In 2004, we paid 20% of the bonus in the form of cash, and in 2005, 2006, 2007, 2008 and 2009, we paid 50% of the bonus in the form of cash. In 2011 and 2012, we paid 100% of the bonus in the form of cash. Effective in 2008, both bonus to directors and employees became expense items under the company's income statements. In 2009, half of the employee profit sharing was paid in stock, for which, the number of shares was determined based on the closing price of TSMC common shares the day before TSMC's annual shareholders' meeting. Subject to compliance with these requirements, a company may pay dividends or make other distributions from its accumulated earnings or reserves as permitted by the R.O.C. Company Law as set forth below.

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

In addition to permitting dividends to be paid out of earnings or retained earnings, the R.O.C. Company Law permits us to make distributions to our shareholders in cash or in the form of common shares from capital surplus and the legal reserve. However, dividend distribution out of our legal reserve can only be effected when the accumulated legal reserve exceeds 25% of our paid-in capital.

For information as to R.O.C. taxes on dividends and distributions, see [Taxation](#) [R.O.C. Taxation](#).

### ***Preemptive Rights and Issues of Additional Common Shares***

Under the R.O.C. Company Law, when a public company such as us issues new shares of common stock for cash, 10% to 15% of the issue must be offered to its employees. The remaining new shares must be offered to existing shareholders in a preemptive rights offering, subject to a requirement under the R.O.C. Securities and Exchange Law that at least 10% of these issuances must be offered to the public. This percentage can be increased by a resolution passed at a shareholders' meeting, thereby limiting or waiving the preemptive rights of existing shareholders. The preemptive rights provisions do not apply to limited circumstances, such as:

issuance of new shares upon conversion of convertible bonds; and

offerings of new shares through a private placement approved at a shareholders' meeting.



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

### ***Meetings of Shareholders***

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

### ***Voting Rights***

A holder of common shares has one vote for each common share. Except as otherwise provided by law, a resolution may be adopted by the holders of a simple majority of the total issued and outstanding common shares represented at a shareholders' meeting at which a majority of the holders of the total issued and outstanding common shares are present. The election of directors at a shareholders' meeting is by cumulative voting. Directors are nominated by our shareholders on the shareholders' meeting at which ballots for these elections are cast. Moreover, as authorized under the R.O.C. Company Law, we have adopted a nomination procedure for election of our independent directors in our articles of incorporation. According to our articles of incorporation, ballots for the election of directors and independent directors are cast separately.

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

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

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

### ***Other Rights of Shareholders***

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

The R.O.C. Company Law has been amended to allow shareholder(s) holding 1% or more of the total issued shares of a company to, during the period of time prescribed by the company, submit one proposal in writing containing no more than three hundred words (Chinese characters) for discussion at the general meeting of shareholders. In addition, if a company adopts a nomination procedure for election of directors or supervisors in its articles of incorporation, shareholders representing 1% or more of the total issued shares of such company may submit a candidate list in writing to the company along with relevant information and supporting documents.



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### ***Register of Shareholders and Record Dates***

Our share registrar, Chinatrust Commercial Bank, maintains the register of our shareholders at its office in Taipei, Taiwan. Under the R.O.C. Company Law, the transfer of common shares in registered form is effected by endorsement of the transferor's and transferee's seals on the share certificates and delivery of the related share certificates. In order to assert shareholders' rights against us, however, the transferee must have his name and address registered on the register of shareholders. Shareholders are required to file their respective specimen signatures or seals with us. The settlement of trading in the common shares is carried out on the book-entry system maintained by the Taiwan Depository & Clearing Corporation.

The R.O.C. Company Law permits us to set a record date and close the register of shareholders for a specified period in order for us to determine the shareholders or pledgees that are entitled to certain rights pertaining to common shares by giving advance public notice. Under the R.O.C. Company Law, our register of shareholders should be closed for a period of sixty days, thirty days and five days immediately before each general meeting of shareholders, special meeting of shareholders and record date of dividend distribution, respectively.

### ***Annual Financial Statements***

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

### ***Acquisition of Common Shares by Us***

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

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

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

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

### ***Liquidation Rights***

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

### ***Transaction Restrictions***

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

**Table of Contents****Material Contracts**

On November 9, 2009, we settled our action brought in the California State Court against Semiconductor Manufacturing International Corporation (SMIC) in 2006 related to SMIC's misappropriation of TSMC's trade secrets and its breach of the 2005 settlement agreement between the two companies. Pursuant to the new settlement agreement, the parties entered a stipulated judgment in favor of TSMC in the California action and the dismissal of the SMIC appeal against the Beijing Higher Court's finding in favor of TSMC. The new settlement agreement and the stipulated judgment also require SMIC to: (a) make cash payments to TSMC totaling US\$200 million, which are in addition to the US\$135 million previously paid to TSMC under the 2005 settlement agreement; and (b) conditional upon relevant government regulatory approvals, to issue to TSMC a total of 1,789,493,218 common shares of SMIC (representing about 8% of SMIC's total shares outstanding as of December 31, 2009) and a three-year warrant to purchase 695,914,030 SMIC common shares (subject to adjustment) at HK\$1.30 per share (subject to adjustment). Both parties also agreed to terminate the patent cross-licensing agreement signed in 2005. On July 5, 2010, we acquired the above mentioned common shares.

We joined the Customer Co-Investment Program of ASML Holding N.V. (ASML) and entered into an investment agreement in August 2012. The agreement includes an investment of EUR838 million to acquire 5% of ASML's equity with a lock-up period of 2.5 years. Both parties also signed a research and development funding agreement under which we will provide EUR277 million to ASML's research and development programs from 2013 to 2017.

**Foreign Investment in the R.O.C.**

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

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

Under the Regulations, foreign investors are classified as either onshore foreign investors or offshore foreign investors according to their respective geographical location. Both onshore and offshore foreign investors are allowed to invest in R.O.C. securities after they register with the Taiwan Stock Exchange. The Regulations further classify foreign investors into foreign institutional investors and foreign individual investors. Foreign institutional investors refer to those investors incorporated and registered in accordance with foreign laws outside of the R.O.C. (i.e., offshore foreign institutional investors) or their branches set up and recognized within the R.O.C. (i.e., onshore foreign institutional investors). Offshore overseas Chinese and foreign individual investors may be subject to a maximum investment ceiling that will be separately determined by the R.O.C. Financial Supervisory Commission after consultation with the Central Bank of the Republic of China (Taiwan). Currently, there is no maximum investment ceiling for offshore overseas Chinese and foreign individual investors. On the other hand, foreign institutional investors are not subject to any ceiling for investment in the R.O.C. securities market.

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

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

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



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In addition to the general restriction against direct investment by non-R.O.C. persons in securities of R.O.C. companies, non-R.O.C. persons (except in certain limited cases) are currently prohibited from investing in certain industries in the R.O.C. pursuant to a negative list, as amended by the Executive Yuan. The prohibition on foreign investment in the prohibited industries specified in the negative list is absolute in the absence of a specific exemption from the application of the negative list. Pursuant to the negative list, certain other industries are restricted so that non-R.O.C. persons (except in limited cases) may invest in these industries only up to a specified level and with the specific approval of the relevant competent authority that is responsible for enforcing the relevant legislation that the negative list is intended to implement.

The R.O.C. Financial Supervisory Commission announced on April 30, 2009 the Regulations Governing Mainland Chinese Investors' Securities Investments (PRC Regulations). According to the PRC Regulations, a PRC qualified domestic institutional investor (QDII) is allowed to invest in R.O.C. securities (including less than 10% shareholding of an R.O.C. company listed on Taiwan Stock Exchange or Over-the-Counter (GreTai) Securities Market). Nevertheless, the total investment amount of QDIIs cannot exceed US\$500 million. For each QDII, the custodians of such QDIIs must apply with the Taiwan Stock Exchange for the remittance amount for each QDII, which cannot exceed US\$100 million, and QDII can only invest in the R.O.C. securities market with the amount approved by the Taiwan Stock Exchange. In addition, QDIIs are currently prohibited from investing in certain industries, and their investment of certain other industries in a given company is restricted to a certain percentage pursuant to a list promulgated by the FSC and amended from time to time. PRC investors other than QDII are prohibited from making investments in an R.O.C. company listed on the Taiwan Stock Exchange or the Over-the-Counter (GreTai) Securities Market if the investment is less than 10% of the equity interest of such R.O.C. company.

In addition to investments permitted under the PRC Regulations, PRC investors who wish to make (i) direct investment in the shares of R.O.C. private companies or (ii) investments, individually or aggregately, in 10% or more of the equity interest of an R.O.C. company listed on the Taiwan Stock Exchange or Over-the-Counter (GreTai) Securities Market are required to submit an investment approval application to the Investment Commission of the Ministry of Economic Affairs or other government authority. The Investment Commission or such other government authority reviews Investment Approval application and approves or disapproves each application after consultation with other governmental agencies. Furthermore, PRC investor who wishes to be elected as an R.O.C. company's director or supervisor shall also submit an investment approval application to the Investment Commission of the Ministry of Economic Affairs or other government authority for approval.

## **Depository Receipts**

In April 1992, the R.O.C. Financial Supervisory Commission enacted regulations permitting R.O.C. companies with securities listed on the Taiwan Stock Exchange, with the prior approval of the R.O.C. Financial Supervisory Commission, to sponsor the issuance and sale to foreign investors of depository receipts. Depository receipts represent deposited shares of R.O.C. companies. In December 1994, the R.O.C. Financial Supervisory Commission allowed companies whose shares are traded on the R.O.C. Over-the-Counter (GreTai) Securities Market or listed on the Taiwan Stock Exchange, upon approval of the R.O.C. Financial Supervisory Commission, to sponsor the issuance and sale of depository receipts.

Our deposit agreement has been amended and restated on November 16, 2007 to: (i) make our ADSs eligible for the direct registration system, as required by the New York Stock Exchange, by providing that ADSs may be certificated or uncertificated securities, (ii) enable the distribution of our reports by electronic means and (iii) reflect changes in R.O.C. laws in connection with the nomination of candidates for independent directors, for voting at the meeting of the shareholders. A copy of our amended and restated deposit agreement has been filed under the cover of Form F-6 on November 16, 2007.

A holder of depository receipts (other than citizens of the PRC and entities organized under the laws of the PRC save for QDII or those which otherwise obtain the approval of the Investment Commission of the Ministry of Economic Affairs) may request the depository to either cause the underlying shares to be sold in the R.O.C. and to distribute the sale proceeds to the holder or to withdraw from the depository receipt facility the shares represented by the depository receipts to the extent permitted under the deposit agreement (for depository receipts representing existing shares, immediately after the issuance of the depository receipts; and for depository receipts representing new shares, in practice four to seven business days after the issuance of the depository receipts) and transfer the shares to the holder.

We, or the foreign depository bank, may not increase the number of depository receipts by depositing shares in a depository receipt facility or issuing additional depository receipts against these deposits without specific R.O.C. Financial Supervisory Commission approval, except in limited circumstances. These circumstances include issuances of additional depository receipts in connection with:

dividends or free distributions of shares;



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

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

However, the total number of deposited shares outstanding after an issuance under the circumstances described in the third clause above may not exceed the number of deposited shares previously approved by the R.O.C. Financial Supervisory Commission plus any depositary receipts created under the circumstances described in the first two clauses above. Issuances of additional depositary receipts under the circumstances described in the third clause above will be permitted to the extent that previously issued depositary receipts have been canceled and the underlying shares have been withdrawn from the depositary receipt facility.

Under current R.O.C. law, a non-R.O.C. holder of ADSs who withdraws and holds the underlying shares must register with the Taiwan Stock Exchange and appoint an eligible local agent to:

open a securities trading account with a local securities brokerage firm;

remit funds; and

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

Under existing R.O.C. laws and regulations, without this account, holders of ADSs that withdraw and hold the common shares represented by the ADSs would not be able to hold or subsequently transfer the common shares, whether on the Taiwan Stock Exchange or otherwise. In addition, a withdrawing non-R.O.C. holder must appoint a local bank to act as custodian for handling confirmation and settlement of trades, safekeeping of securities and cash proceeds and reporting of information.

Holders of ADSs who are non-R.O.C. persons withdrawing common shares represented by ADSs are required under current R.O.C. law and regulations to appoint an agent in the R.O.C. for filing tax returns and making tax payments. This agent, a tax guarantor, must meet certain qualifications set by the R.O.C. Ministry of Finance and, upon appointment, becomes a guarantor of the withdrawing holder's R.O.C. tax payment obligations. In addition, under current R.O.C. law, repatriation of profits by a non-R.O.C. withdrawing holder is subject to the submission of evidence of the appointment of a tax guarantor to, and approval thereof by, the tax authority, or submission of tax clearance certificates or submission of evidencing documents issued by such agent (so long as the capital gains from securities transactions are exempt from R.O.C. income tax).

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

### ***Direct Share Offerings***

Since 1997, the R.O.C. government has amended regulations to permit R.O.C. companies listed on the Taiwan Stock Exchange or Over-the-Counter (GreTai) Securities Market to issue shares directly (not through depositary receipt facility) overseas.





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### ***Overseas Corporate Bonds***

Since 1989, the R.O.C. Financial Supervisory Commission has approved a series of overseas bonds issued by R.O.C. companies listed on the Taiwan Stock Exchange or the Over-the-Counter (GreTai) Securities Market in offerings outside the R.O.C. Under current R.O.C. law, these overseas corporate bonds can be:

converted by bondholders, other than citizens of the PRC and entities organized under the laws of the PRC save for QDII or those that have obtained the approval of the Investment Commission of the Ministry of Economic Affairs, into shares of R.O.C. companies; or

subject to R.O.C. Financial Supervisory Commission approval, converted into depositary receipts issued by the same R.O.C. company or by the issuing company of the exchange shares, in the case of exchangeable bonds.

The relevant regulations also permit public issuing companies to issue corporate debt in offerings outside the R.O.C. Proceeds from the sale of the shares converted from overseas convertible bonds may be used for reinvestment in securities listed on the Taiwan Stock Exchange or traded on the Over-the-Counter (GreTai) Securities Market, subject to compliance with applicable laws and regulations.

### **Exchange Controls in the R.O.C.**

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

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

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

### **Voting of Deposited Securities**

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

Except as described below, the holders will not be able to exercise the voting rights attaching to the common shares represented by the ADSs on an individual basis. According to provisions of the deposit agreement, the voting rights attaching to the common shares represented by ADSs must be exercised as to all matters subject to a vote of shareholders by the depositary bank or its nominee, who represents all holders of ADSs, collectively in the same manner, except in the case of an election of directors. Directors are elected by cumulative voting unless our articles of incorporation stipulate otherwise.

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



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We will provide the depositary bank with copies (including English translations) of notices of meetings of our shareholders and the agenda of these meetings, including an indication of the number of directors to be elected if an election of directors is to be held at the meeting. The depositary bank has agreed to request and we will, therefore, also provide a list of the candidates who have expressed their intention to run for an election of directors. The depositary bank will mail these materials, together with a voting instruction form to holders as soon as practicable after the depositary bank receives the materials from us. In order to validly exercise its voting rights, the holder of ADSs must complete, sign and return to the depositary bank the voting instruction form by a date specified by the depositary bank. Additional or different candidates may be nominated at the meeting of the shareholders other than those proposed in the list provided by us and after the depositary bank has mailed the voting instruction form to the holders. If such change were to occur, the depositary bank may calculate the votes according to procedures not inconsistent with the provisions of the deposit agreement, but shall not exercise any discretion regarding the holders' voting rights and if the depositary bank elects to develop such procedures, it has agreed to do so in a manner so as to give effect, to the extent practicable, to the instructions received from the holders.

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

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

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

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

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

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Moreover, in accordance with the deposit agreement, as further amended and restated as of November 16, 2007 and pursuant to R.O.C. Company Law, holders that individually or together with other holders hold at least 51% of the ADSs outstanding at the relevant record date are entitled to submit each year one written proposal for voting at the general meeting of shareholders; provided, that (i) such proposal is in Chinese language and does not exceed 300 Chinese characters, (ii) such proposal is submitted to the depositary bank at least two business days prior to the expiry of the relevant submission period, which shall be publicly announced by us each year in a report on Form 6-K filed with the Securities Exchange Commission prior to the commencement of the 60 days closed period for general meetings of shareholders, (iii) such proposal is accompanied by a written certificate to the depositary bank, in the form required by the depositary bank, certifying that such proposal is being submitted by holders that individually or together with other holders hold at least 51% of the ADSs outstanding at the date of the submission and, if the date of the submission is on or after the relevant record date, also certifying that the holders who submitted the proposal held at least 51% of the ADSs outstanding as of the relevant record date, (iv) if the date of the submission is prior to the relevant record date, the holders who submitted the proposal must also provide, within five business days after the relevant record date, a second written certificate to the depositary bank, in the form required by the depositary bank, certifying that the holders who submitted the proposal continued to hold at least 51% of the ADSs outstanding at the relevant record date, (v) such proposal is accompanied by a joint and several irrevocable undertaking of all submitting holders to pay all fees and expenses incurred in relation to the submission (including the costs and expenses of the depositary bank or its agent to attend the general meeting of the shareholders) as such fees and expenses may be reasonably determined and documented by the depositary bank or us, and (vi) such proposal shall only be voted upon at the general meeting of shareholders if such proposal is accepted by our board of directors as eligible in accordance with applicable law for consideration at a shareholders meeting.

## **Taxation**

### **R.O.C. Taxation**

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

an individual who is not an R.O.C. citizen, who owns ADSs and who is not physically present in the R.O.C. for 183 days or more during any calendar year (a Non-ROC Individual Holder ); or

a corporation or a non-corporate body that is organized under the laws of a jurisdiction other than the R.O.C. for profit-making purposes and has no fixed place of business or other permanent establishment in the R.O.C. (a Non-ROC Entity Holder ).

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

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

Distribution of common shares declared by us out of our capital reserves is not subject to R.O.C. withholding tax.

**Capital Gains.** Capital gains realized from the sale or disposal of the common shares on or before December 31, 2012 are exempt from R.O.C. income tax under Article 4-1 of the R.O.C. Income Tax Act. Starting from January 1, 2013, Non-R.O.C. Entity Holders remain exempt from income tax on capital gains from the sale or disposal of the common shares. However, Non-R.O.C. Individual Holders are now subject to R.O.C. income tax on capital gains from the sale or disposal of the common shares. Capital loss incurred therefrom can be deducted from capital gains in calculating the net capital gain and income tax liability, but cannot be carried forward to subsequent years. Capital gains are taxed at a flat rate of 15%. In addition, only 50% of the net capital gains are subject to income tax if the Non-R.O.C. Individual Holder has held the common shares for one year or longer. As a result, the tax agent of each Non-R.O.C. Individual Holder should pay the income tax payable, if any, and file an income tax return in May 2014 for the capital gains that the Non-R.O.C. Individual Holder generates in year 2013.



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**Subscription Rights.** Distributions of statutory subscription rights for common shares in compliance with R.O.C. law are not subject to any R.O.C. tax. Proceeds derived from sales of statutory subscription rights evidenced by securities are exempted from income tax but are subject to securities transaction tax at the rate of 0.3% of the gross amount received. Non-R.O.C. Entity Holders remain exempt, after January 1, 2013, from income tax on capital gains from the sale of statutory subscription rights evidenced by securities. However, Non-R.O.C. Individual Holders are now subject to R.O.C. income tax on capital gains from such sale. Proceeds derived from sales of statutory subscription rights that are not evidenced by securities are subject to capital gains tax at the rate of 20%.

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

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

**Estate and Gift Tax.** R.O.C. estate tax is payable on any property within the R.O.C. of a deceased who is an individual, and R.O.C. gift tax is payable on any property within the R.O.C. donated by an individual. Estate tax and Gift tax are currently payable at the rate of 10%. Under R.O.C. estate and gift tax laws, common shares issued by R.O.C. companies are deemed located in the R.O.C. regardless of the location of the holder. It is unclear whether a holder of ADSs will be considered to hold common shares for this purpose.

**Tax Treaty.** The R.O.C. does not have a double taxation treaty with the United States. On the other hand, the R.O.C. has double taxation treaties with Indonesia, Singapore, South Africa, Australia, Vietnam, New Zealand, Malaysia, Macedonia, Israel, Gambia, The Netherlands, the United Kingdom, Senegal, Sweden, Belgium, Denmark, Paraguay, Hungary, France, Swaziland, India, Slovakia, Switzerland, Germany and Thailand which may limit the rate of R.O.C. withholding tax on dividends paid with respect to common shares in R.O.C. companies. The ADS holders may be considered to hold common shares for the purposes of these treaties. Accordingly, if the holders may otherwise be entitled to the benefits of the relevant income tax treaty, the holders should consult their tax advisors concerning their eligibility for the benefits with respect to the ADSs.

## **United States Federal Income Taxation**

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

dealers or traders in securities or foreign currencies;

banks and certain other financial institutions;

brokers;

traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;

tax-exempt organizations, retirement plans, individual retirement accounts and other tax-deferred accounts;

life insurance companies;

persons liable for alternative minimum tax;

persons that actually or constructively own 10% or more of our voting stock;



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persons that hold common shares or ADSs as part of a straddle or a hedging or conversion or integrated transaction for tax purposes;

persons who are former citizens or former long-term residents of the United States, or

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

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

Further, this section is based on the depositary's representation that it will not, by reason of existing Taiwanese legal and regulatory limitations applicable to depositary receipt programs, engage in the issuance of ADRs prior to the receipt of shares or the release of shares prior to the cancellation of ADRs (pre-release transactions). The depositary has not represented that it will not engage in pre-release transactions if such Taiwanese legal and regulatory limitations change. If the depositary engages in such pre-release transactions, there may be material adverse United States federal income tax consequences to holders of ADRs.

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

a citizen or resident of the United States;

a domestic corporation, or other entity subject to United States federal income tax as a domestic corporation;

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

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

If a partnership (including for this purpose any entity treated as a partnership for United States federal income tax purposes) is a beneficial owner of the common shares or ADSs, the United States tax treatment of a partner in the partnership generally will depend on the status of the partner and the activities of the partnership. A holder of the common shares or ADSs that is a partnership and partners in such a partnership should consult their own tax advisors concerning the United States federal income tax consequences of purchasing, owning and disposing of common shares or ADSs.

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

**Table of Contents*****Taxation of Dividends***

Subject to the passive foreign investment company, or PFIC, rules discussed below, if you are a U.S. holder, the gross amount of any dividend we pay in respect of your common shares or ADSs out of our current or accumulated earnings and profits (as determined for United States federal income tax purposes) including the amount of any R.O.C. tax withheld reduced by any credit against such withholding tax on account of the 10% retained earnings tax imposed on us, is subject to United States federal income taxation. Because we do not intend to calculate our earnings and profits under U.S. federal income tax principles, a U.S. Holder should expect that any distribution made by us to such holder will generally be treated as a dividend. If you are a noncorporate U.S. holder, under existing law any dividends paid to you in taxable years beginning before January 1, 2013 that constitute qualified dividend income will be taxable to you at a maximum tax rate of 15% provided that you hold the common shares or ADSs for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meet other holding period requirements. Dividends we pay with respect to the common shares or ADSs will be qualified dividend income provided that, in the year that you receive the dividend, the common shares or ADSs are readily tradable on an established securities market in the United States. The dividend is taxable to you when you, in the case of common shares, or the Depositary, in the case of ADSs, receive the dividend actually or constructively. The dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations in respect of dividends received from other United States corporations. The amount of the dividend distribution that you must include in your income as a U.S. holder will be the U.S. dollar value of the NT Dollar payments made, determined at the spot NT Dollar/U.S. dollar rate on the date the dividend distribution is includible in your income, regardless of whether the payment is in fact converted into U.S. dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date you include the dividend payment in income to the date you convert the payment into U.S. dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes. Distributions in excess of current and accumulated earnings and profits, as determined for United States federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the common shares or ADSs and thereafter as capital gain.

Subject to generally applicable limitations and restrictions, the R.O.C. taxes withheld from dividend distributions and paid over to the R.O.C. (reduced by any credit against such withholding tax on account of the 10% retained earnings tax) will be eligible for credit against your U.S. federal income tax liabilities. Special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the maximum 15% tax rate. Dividends will be income from sources outside the United States. Dividends will, depending on your circumstances, be passive or general income which, in either case, is treated separately from other types of income for purposes of computing the foreign tax credit allowable to you. The rules applicable to the United States foreign tax credit are complex, and we urge you to consult your own tax adviser concerning the availability of the credit in your particular circumstances.

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

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

***Taxation of Capital Gains***

Subject to the PFIC rules discussed below, if you are a U.S. holder and you sell or otherwise dispose of your common shares or ADSs, you will recognize capital gain or loss for United States federal income tax purposes equal to the difference between the U.S. dollar value of the amount that you realize and your tax basis, determined in U.S. dollars, in your common shares or ADSs. Capital gain of a noncorporate U.S. holder that is recognized in taxable years beginning before January 1, 2013 is generally taxed under existing law at a maximum rate of 15% where the property is held more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes.

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### ***Medicare Tax***

For taxable years beginning after December 31, 2012, a United States person that is an individual or estate, or a trust that does not fall into a special class of trusts that is exempt from such tax, is subject to a 3.8% tax on the lesser of (1) the United States person's net investment income for the relevant taxable year and (2) the excess of the United States person's modified adjusted gross income for the taxable year over a certain threshold (which in the case of individuals will be between \$125,000 and \$250,000, depending on the individual's circumstances). A holder's net investment income will generally include its gross dividend income and its net gains from the disposition of ADSs, unless such dividends or net gains are derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities). If you are a United States person that is an individual, estate or trust, you are urged to consult your tax advisors regarding the applicability of the Medicare tax to your income and gains in respect of your investment in the ADSs.

### ***Passive Foreign Investment Company Rules***

We believe that common shares and ADSs should not be treated as stock of a PFIC for United States federal income tax purposes for the current taxable year and for future taxable years, but this conclusion is a factual determination that is made annually, based on the categories and amounts of income that we earn and the categories and valuation of our assets (including goodwill) for each taxable year, and thus may be subject to change. Accordingly, no assurance can be given that the Company will not be considered by the U.S. Internal Revenue Service to be a PFIC in the current or future years.

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

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

at least 50% of the value, determined on the basis of a quarterly average, of our assets is attributable to assets that produce or are held for the production of passive income.

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

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

any gain you realize on the sale or other disposition of your common shares or ADSs; and

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

Under these rules:

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

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

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

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

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

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

Also, where a company that is a PFIC meets certain reporting requirements, a U.S. holder could avoid certain adverse PFIC consequences described herein by making a qualified electing fund ( QEF ) election to be taxed currently on its proportionate share of the PFIC's ordinary income and net capital gains. U.S. holders will not be able to treat the Company as a QEF if the Company does not prepare the information that U.S. holders would need to make a QEF election. We do not intend to prepare or provide the information that would enable U.S. Holders to make a QEF election.

In addition, notwithstanding any election you make with regard to the common shares or ADSs, dividends that you receive from us will not constitute qualified dividend income to you if we are a PFIC either in the taxable year of the distribution or the preceding taxable year. Moreover, your common shares or ADSs will be treated as stock in a PFIC if we were a PFIC at any time during your holding period in your shares or ADSs, even if we are not currently a PFIC. For purposes of this rule, if you make a mark-to-market election with respect to your shares or ADSs, you will be treated as having a new holding period in your shares or ADSs beginning on the first day of the first taxable year beginning after the last taxable year for which the mark-to-market election applies. Dividends that you receive that do not constitute qualified dividend income are not eligible for taxation at the 15% maximum rate applicable to qualified dividend income. Instead, you must include the gross amount of any such dividend paid by us out of our accumulated earnings and profits (as determined for United States federal income tax purposes) in your gross income, and it will be subject to tax at rates applicable to ordinary income as well as the special rules provided with respect to excess distributions, if applicable, as described above.

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

The rules dealing with PFICs and with the QEF and mark-to-market elections are very complex and are affected by various factors in addition to those described above, including the Company's ownership of any non-U.S. subsidiaries. As a result, U.S. holders are urged to consult their own tax advisors concerning the PFIC rules.

***Non-U.S. Holders***

Except as described in the section titled "Information reporting and backup withholding" below, a non-U.S. holder will not be subject to U.S. federal income or withholding tax on the payment of dividends and the proceeds from the disposition of shares or ADSs unless: such item is effectively connected with the conduct by the non-U.S. holder of a trade or business in the United States and, in the case of a resident of a country which has a treaty with the United States and is eligible for the benefits of the treaty with the United States, such item is attributable to a permanent establishment or, in the case of an individual, a fixed place of business, in the United States; or the non-U.S. holder is an individual who holds the shares or ADSs as a capital asset and is present in the United States for 183 days or more in the taxable year of the disposition, certain other conditions are met, and such non-U.S. holder does not qualify for an exemption. If the first exception applies, the non-U.S. holder generally will be subject to U.S. federal income tax with respect to such item in the same manner as a U.S. holder unless otherwise provided in an applicable income tax treaty; a non-U.S. holder that is a corporation for U.S. federal income tax purposes may also be subject to a branch profits tax with respect to such item at a rate of 30% (or at a reduced rate under an applicable income tax treaty). If the second exception applies, the non-U.S. holder generally will be subject to U.S. federal income tax at a rate of 30% (or at a reduced rate under an applicable income tax treaty) on the amount by which such non-U.S. holder's capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of disposition of the shares or ADSs.

**Table of Contents****Information reporting and backup withholding**

U.S. holders generally are subject to information reporting requirements with respect to dividends paid on shares or ADSs and on the proceeds from the sale, exchange or disposition of shares or ADSs unless the holder is a corporation or otherwise establishes a basis for exemption. In addition, U.S. holders are subject to back-up withholding (currently at 28%) on dividends paid on shares or ADSs, and on the sale, exchange or other disposition of shares or ADSs, unless each such U.S. holder provides a taxpayer identification number and a duly executed IRS Form W-9 or otherwise establishes an exemption. Non-U.S. holders generally are not subject to information reporting or backup withholding with respect to dividends, or the proceeds from the sale, exchange or other disposition of shares or ADSs, provided that each such non-U.S. holder certifies as to its foreign status on the applicable duly executed IRS Form W-8 or otherwise establishes an exemption. Backup withholding is not an additional tax and the amount of any backup withholding will be allowed as a credit against a U.S. holder's or non-U.S. holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that certain required information is timely furnished to the IRS.

**Information with Respect to Foreign Financial Assets**

Under recently enacted legislation, individuals that own specified foreign financial assets with an aggregate value in excess of \$50,000 in taxable years beginning after March 18, 2010 will generally be required to file an information report with respect to such assets with their tax returns.

Specified foreign financial assets include any financial accounts maintained by foreign financial institutions, as well as any of the following, but only if they are not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-U.S. persons, (ii) financial instruments and contracts held for investment that have non-U.S. issuers or counterparties and (iii) interests in foreign entities. U.S. holders that are individuals are urged to consult their tax advisors regarding the application of this legislation to their ownership of ADSs.

**Documents on Display**

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file reports and other information with the Securities and Exchange Commission. These materials, including this annual report and the exhibits thereto, may be inspected and copied at the Commission's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Commission's Public Reference Room by calling the Commission in the United States at 1-800-SEC-0330. The Commission also maintains a web site at <http://www.sec.gov> that contains reports, proxy statements and other information regarding registrants that file electronically with the Commission. In addition, material filed by us can be inspected at the offices of the New York Stock Exchange at 20 Broad Street, New York, New York 10005.

**ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS**

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

**Interest Rate Risks:** We are exposed to interest rate risks, primarily related to borrowings for general corporate purposes.

The table below presents annual principal amounts due and related weighted average implied forward interest rates by year of maturity for our debt obligations outstanding as of December 31, 2012.

	As of December 31, 2012						As of December 31, 2011	
	Expected Maturity Dates						Aggregate	
	2013	2014	2015	2016	2017 and thereafter	Total	Aggregate Fair Value	Total Fair Value
Long-term debt (in millions)								
NT\$ denominated debt								
Variable rate	NT\$128	NT\$588	NT\$137	NT\$625	NT\$10	NT\$1,488	NT\$1,488	NT\$1,650

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Average interest rate	1.25%	1.60%	1.47%	1.56%	1.70%	1.54% <sup>(2)</sup>		1.52% <sup>(2)</sup>	-
Fixed rate	-	-	-	NT\$10,500	NT\$69,500	NT\$80,000	NT\$80,343 <sup>(1)</sup>	NT\$22,500	NT\$22,597 <sup>(1)</sup>
Average interest rate	-	-	-	1.40%	1.38%	1.39% <sup>(2)</sup>	-	1.80% <sup>(2)</sup>	-
Interest rate swaps (in millions)									
Variable to fixed rate	-	-	-	-	-	-	-	NT\$80	NT\$(0)
Average pay fixed rate	-	-	-	-	-	-	-	1.38%	-

<sup>(1)</sup> Represents the then quoted market price.

<sup>(2)</sup> Average interest rates under Total are the weighted average interest rates of each year for loans outstanding.

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**Foreign Currency Risk:** Substantial portions of our revenues and expenses are denominated in currencies other than NT dollar. As a result, as of December 31, 2012, the majority of our receivables and payables were denominated in currencies other than NT dollar, primarily in U.S. dollar, Euro and Japanese Yen. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we utilize foreign currency denominated debts and offsetting derivatives, including currency forward contracts and cross currency swaps, to hedge our currency exposure. These hedging transactions help to reduce partially, but do not eliminate, the impact of foreign currency exchange rate movements. Based on a sensitivity analysis performed on our financial position as of December 31, 2012, a hypothetical, unfavorable 10% movement in the levels of foreign currency exchange rates relative to the NT dollar, after taking into account hedges and offsetting positions, would have increased our net unrealized losses by NT\$887 million.

Our policy is to account for the unrealized gains or losses of these hedging contracts on a mark-to-market rate basis through profit or loss. These derivative financial instruments are required under R.O.C. Statement of Financial Accounting Standards No. 34 Financial Instruments: Recognition and Measurement to be recognized at fair market value on the balance sheet. Please see note 26 of our consolidated financial statements for information on the net assets, liabilities and purchase commitments that have been hedged by these derivative transactions.



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The table below presents our outstanding financial derivative transactions as of December 31, 2012. These contracts all had a maturity date of not more than 12 months.

Forward  Exchange  Agreements  (in millions)	As of December 31, 2012 Expected Maturity Dates						As of December 31, 2011		
	2017 and					Aggregate Fair Value <sup>(1)</sup>	Total	Aggregate Fair Value <sup>(1)</sup>	
	2013	2014	2015	2016	thereafter				
(Sell US\$/Buy NT\$) Contract amount	US\$13.7	-	-	-	-	US\$13.7	NT\$0.4	US\$16.9	NT\$(1.4)
Average contractual exchange rate (against NT\$ dollars)	29.07	-	-	-	-	29.07	-	30.18	-
(Sell NT\$/Buy JPY) Contract amount	NT\$44.1	-	-	-	-	NT\$44.1	NT\$(0.4)	-	-
Average contractual exchange rate (against NT\$ dollars)	0.34	-	-	-	-	0.34	-	-	-
(Sell RMB/Buy US\$) Contract amount	-	-	-	-	-	-	-	RMB1,118.7	NT\$(10.9)
Average contractual exchange rate (against RMB)	-	-	-	-	-	-	-	6.32	-
(Sell EUR/Buy US\$) Contract amount	-	-	-	-	-	-	-	-	-
Average contractual exchange rate (against US\$ dollars)	-	-	-	-	-	-	-	-	-
(Sell EUR/Buy NT\$) Contract amount	-	-	-	-	-	-	-	EUR38.6	NT\$14.9
Average contractual exchange rate (against NT\$ dollars)	-	-	-	-	-	-	-	39.59	-
(Sell US\$/Buy EUR) Contract amount	-	-	-	-	-	-	-	US\$2.1	NT\$(0.9)
Average contractual exchange rate (against US\$ dollars)	-	-	-	-	-	-	-	1.31	-
(Sell US\$/Buy JPY) Contract amount	-	-	-	-	-	-	-	US\$3.3	NT\$0.1
Average contractual exchange rate (against Japanese Yen)	-	-	-	-	-	-	-	77.92	-
(Sell NT\$/Buy US\$) Contract amount	NT\$590	-	-	-	-	NT\$590	NT\$(0.2)	NT\$163.5	NT\$(0.1)
Average contractual exchange rate (against NT\$ dollars)	28.94	-	-	-	-	28.94	-	30.28	-
(Sell US\$/Buy RMB) Contract amount	US\$20	-	-	-	-	US\$20	NT\$(7.7)	-	-
Average contractual exchange rate (against Japanese Yen)	6.24	-	-	-	-	6.24	-	-	-
(Sell NT\$/Buy EUR) Contract amount	NT\$9,417	-	-	-	-	NT\$9,417	NT\$34.3	-	-
Average contractual exchange rate (against NT\$ dollars)	38.28	-	-	-	-	38.28	-	-	-



**Table of Contents****Cross Currency****Swap**

(in millions)	As of December 31, 2012 Expected Maturity Dates						As of December 31, 2011	
	2012	2013	2014	2015	2016 onward	Total	Aggregate Fair Value <sup>(1)</sup>	Aggregate Fair Value <sup>(1)</sup>
(Sell NT\$/Buy US\$)								
Contract amount	NT\$1,083.1	-	-	-	-	NT\$1,083.1	NT\$(0.7)	NT\$420.4
Range of interest rate paid	0%	-	-	-	-	0%	-	0%
Range of interest rate received	0.06%	-	-	-	-	0.06%	-	0.48%
(Sell US\$/Buy NT\$)								
Contract amount	US\$275	-	-	-	-	US\$275	NT\$(1.8)	-
Range of interest rate paid	0.14%~0.17%	-	-	-	-	0.14%~0.17%	-	-
Range of interest rate received	0%	-	-	-	-	0%	-	-

(1) Fair value represents the amount of the receivable from or payable to the counter-parties if the contracts were terminated on the balance sheet date.

**Other Market Risk:** In addition to our interests in VIS, SSMC, VisEra, Mcube, GUC and Motech, we have made investments in equity securities including convertible bonds issued by private companies related to semiconductor and other technology industries mostly through a number of investment funds. As of December 31, 2012, the aggregate carrying value of these investments on our balance sheet was NT\$3,605 million (US\$124 million). As of December 31, 2012, approximately NT\$2,976 million (US\$102 million) of this amount in venture capital investments was made through InveStar Semiconductor Development Fund, and InveStar Semiconductor Development Fund (II), our two 97.1% owned subsidiaries, Emerging Alliance Fund L.P., VentureTech Alliance Fund II, and VentureTech Alliance Fund III, our 99.5%, 98.0% and 99.0% respectively owned subsidiaries. The carrying value of these investments in private companies and in the investment funds are subject to fluctuation based on many factors such as prevailing market conditions. Moreover, because most of the investments are unlisted securities, the fair market value may be significantly different from our carrying value. Upon any subsequent sale of our investments, we may not be able to realize our carrying value as of December 31, 2012 or any subsequent date. As of December 31, 2012, we also had investments in the amount of NT\$46,219 million (US\$1,591 million), of which, NT\$41,162 million (US\$1,417 million) was classified as available-for-sale which predominantly consists of our investment in ASML shares with a carrying value of NT\$38,751 million (US\$1,334 million) and NT\$5,057 million (US\$174 million) was classified as held-to-maturity. We have experienced declines in the value of certain investments and recorded an impairment loss of NT\$3,045 million (US\$105 million) in 2012. As of December 31, 2012, our net unrealized gain related to bonds and publicly traded stocks was NT\$7,973 million (US\$274 million).

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

**ITEM 12D. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES****Depository Fees and Charges**

Under the terms of the Depository Agreement for the TSMC American Depositary Shares (ADSs), an ADS holder may have to pay the following service fees to the depository bank:

<u>Service</u>	<u>Fees</u>
Issuance of ADS	Up to US\$0.05 (or fractions thereof) per ADS issued

Cancellation of ADS	Up to US\$0.05 (or fractions thereof) per ADS cancelled
Distribution of cash proceeds (i.e. upon sale of rights and other entitlements)	Up to US\$0.02 per ADS held
Distribution of ADS rights or other free distributions of Stock (excluding stock dividends)	Up to US\$0.05 (or fractions thereof) per ADS issued

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Depository fees payable upon the issuance and cancellation of ADSs are typically paid to the depository bank by the brokers (on behalf of their clients) receiving the newly-issued ADSs from the depository bank and by the brokers (on behalf of their clients) delivering the ADSs to the depository bank for cancellation. The brokers in turn charge these transaction fees to their clients.

### **Depository Payment**

In 2012, Citibank, N.A., the Depository Bank for our ADR program, made no payment to us.

## **PART II**

### **ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

### **ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

None.

### **ITEM 15. CONTROLS AND PROCEDURES**

**Disclosure Controls and Procedures.** Pursuant to Rule 13a-15(b) of the Securities Exchange Act of 1934, an evaluation was carried out under the supervision and with the participation of our principal executive and principal financial officers of the effectiveness of our disclosure controls and procedures. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of December 31, 2012.

**Management's Annual Report on Internal Control over Financial Reporting.** Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of our principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with R.O.C. GAAP and the required reconciliation to U.S. GAAP. Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with R.O.C. GAAP and the required reconciliation to U.S. GAAP, and that receipts and expenditures are being made only in accordance with authorizations of our management and directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

As of the end of 2012, management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ( COSO ). Based on this assessment, management has determined that our internal control over financial reporting as of December 31, 2012 is effective.

Our independent registered public accounting firm, Deloitte & Touche, independently assessed the effectiveness of our company's internal control over financial reporting. Deloitte & Touche has issued an attestation report, which is included at the end of this Item 15.

**Changes in Internal Control over Financial Reporting.** During 2012, there was no material change to our internal control over financial reporting.

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**Attestation Report of the Independent Registered Public Accounting Firm.**

***REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM***

To the Board of Directors and Shareholders of

Taiwan Semiconductor Manufacturing Company Limited

We have audited the internal control over financial reporting of Taiwan Semiconductor Manufacturing Company Limited and subsidiaries (the Company) as of December 31, 2012, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with auditing standards generally accepted in the Republic of China and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2012 of the Company and our report dated March 14, 2013 expressed an unqualified opinion on those financial statements and included explanatory paragraphs regarding i) the reconciliation to accounting principles generally accepted in the United States of America; and ii) the convenience translation of New Taiwan dollar amounts into U.S. dollar amounts.

/s/ Deloitte & Touche  
Taipei, Taiwan  
The Republic of China  
March 14, 2013



**Table of Contents****ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

Our Audit Committee is currently comprised of five independent directors. Since June 1, 2005, no Audit Committee member has served as audit committee financial expert. Instead, our Audit Committee has engaged a financial expert consultant who our board of directors determined has the attributes required of an audit committee financial expert as defined under the applicable rules of the U.S. SEC issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002. In particular, our board of directors appointed Mr. J.C. Lobbezoo to serve as an independent financial expert consultant to our Audit Committee from February 14, 2006 onwards. Our board of directors believes that the Audit Committee members along with the advisors of the Audit Committee, including the financial expert consultant, possess sufficient financial knowledge and experience.

**ITEM 16B. CODE OF ETHICS**

We have adopted a Policy of Ethics and Business Conduct for employees, officers and directors, which also applies to our Chief Executive Officer, Chief Financial Officer, Controller, and any other persons performing similar functions.

We will provide to any person without charge, upon request, a copy of our Policy of Ethics and Business Conduct. Any request should be made per email to our Investor Relations Division at [invest@tsmc.com](mailto:invest@tsmc.com).

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The table below summarizes the fees that we paid for services provided by Deloitte & Touche and its affiliated firms (the Deloitte Entities) for the years ended December 31, 2011 and 2012.

	2011 NT\$	2012 NT\$
	(In thousands)	
Audit Fees	77,056	66,048
Audit-Related Fees	350	590
All Other Fees	400	2,250
Total	77,806	68,888

*Audit Fees.* This category includes the audit of our annual financial statements and internal control over financial reporting, review of quarterly financial statements and services that are normally provided by the independent auditors in connection with statutory and regulatory filings or engagements for those fiscal years. This category also includes advice on audit and accounting matters that arose during, or as a result of, the audit or the review of quarterly financial statements and statutory audits required by non-U.S. jurisdictions, including statutory audits required by the Tax Bureau of the R.O.C., Customs Bureau of the R.O.C., and Financial Supervisory Commission (R.O.C. Financial Supervisory Commission) of the R.O.C.

*Audit-Related Fees.* This category consists of assurance and related services by the Deloitte Entities that are reasonably related to the performance of the audit or review of our financial statements and are not reported above under Audit Fees. The services for the fees disclosed under this category include review of certain regulatory filings with the R.O.C. Financial Supervisory Commission.

*All Other Fees.* This category consists of professional services rendered by the Deloitte Entities for IFRS adoption.

We have not established any pre-approval policies and procedures, and, accordingly, all non-audit services need to be pre-approved by the Audit Committee on a case-by-case basis. In its meeting of May 5, 2006, the Audit Committee agreed to delegate to the Chairman of the Audit Committee authority to pre-approve non-material unanticipated non-audit services and to report any such actions to the Audit Committee for ratification at its next scheduled meeting. All audit and non-audit services performed by Deloitte & Touche after May 6, 2003, the effective date of revised Rule 2-01(c) (7) of Regulation S-X entitled Audit Committee Administration of the Engagement on strengthening requirements regarding auditor independence, were pre-approved by the Audit Committee.



**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES**

Not applicable.

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### **ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

Not applicable.

### **ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

Not applicable.

### **ITEM 16G. CORPORATE GOVERNANCE**

TSMC's corporate governance practices are governed by applicable Taiwan law, specifically, the Company Law and Securities Exchange Law, and also TSMC's Articles of Incorporation. Also, because TSMC securities are registered with the U.S. Securities and Exchange Commission (U.S. SEC) and are listed on the New York Stock Exchange (NYSE), TSMC is subject to corporate governance requirements applicable to NYSE-listed foreign private issuers.

Under Section 303A of the NYSE Listed Company Manual, NYSE-listed non-US companies may, in general, follow their home country corporate governance practices in lieu of most of the new NYSE corporate governance requirements. However, all NYSE-listed foreign private issuers must comply with NYSE Sections 303A.06, 303A.11, 303A.12(b) and 303A.12(c).

Item 16G as well as NYSE Section 303A.11 requires that foreign private issuers disclose any significant ways in which their corporate governance practices differ from US companies under NYSE listing standards. A NYSE-listed foreign private issuer is required to provide to its US investors, a brief, general summary of the significant differences, either: (a) on the company website in English, or (b) in its annual report distributed to its US investors. To comply with NYSE Section 303A.11, TSMC has prepared the comparison in the table below.

The most relevant differences between TSMC corporate governance practices and NYSE standards for listed companies are as follows:

#### **NYSE Standards for US Companies under Listed Company Manual**

##### **Section 303A**

**NYSE Section 303A.01** requires a NYSE-listed company to have a majority of independent directors on its board of directors.

**NYSE Section 303A.02** establishes general standards to evaluate directors' independence (no director qualifies as independent unless the board of directors affirmatively determines that the director has no material relationship with the listed company either directly or as a partner, shareholder or officer of an organization that has a relationship with the listed company).

**NYSE Section 303A.03** requires non-management directors to meet at regularly scheduled executive meetings that are not attended by management.

##### **TSMC Corporate Practices**

Taiwan law does not require a board of directors of publicly traded companies to consist of a majority of independent directors. Taiwan law requires public companies meeting certain criteria to have at least two independent directors but no less than one fifth of the total number of directors on its board of directors. In addition, Taiwan law requires public companies to disclose information pertaining to their directors, including their independence status. Please see TSMC's annual report for the relevant year filed with the Taiwan authorities and the U.S. SEC (both of which are available online at [www.tsmc.com](http://www.tsmc.com)) for information on the total number of TSMC directors and directors who would be considered independent under NYSE Section 303A.02 and Taiwan law.

Taiwan law establishes comparable standards to evaluate director independence. For further information, please consult TSMC's Taiwan Annual Report for the relevant year.

Taiwan law does not contain such a requirement. Except for meetings of sub-committees of the board of directors and those held by managing directors, Taiwan law does not allow separate board meetings of part but not all of the board of directors.



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**NYSE Section 303A.04** requires listed companies to have a nominating/corporate governance committee comprised entirely of independent directors which committee shall have a written charter establishing certain minimum responsibilities as set forth in NYSE Section 303A.04(b)(i) and providing for an annual evaluation of the committee's performance.

**NYSE Section 303A.05(a)** requires listed companies to have a compensation committee comprised entirely of independent directors.

**NYSE Section 303A.05(b)** requires a compensation committee's charter to establish certain minimum responsibilities and to provide for an annual evaluation of the committee's performance.

**NYSE Section 303A.06** requires listed companies to have an audit committee that satisfies the requirements of Rule 10A-3 under the Securities Exchange Act of 1934 (the Exchange Act). Foreign private issuers must satisfy the requirements of Rule 10A-3 under the Exchange Act by July 31, 2005.

**NYSE Section 303A.07(a)** requires an audit committee to consist of at least three board members. All of its members shall be financially literate or must acquire such financial knowledge within a reasonable period and at least one of its members shall have experience in accounting or financial administration.

**NYSE Section 303A.07(a)** requires that if an audit committee member is simultaneously a member of the audit committee of more than three public companies, and the listed company does not limit the number of audit committees on which its members may serve, then, in each case the board of that company shall determine whether the simultaneous service would prevent such member from effectively serving on the listed company's audit committee, and shall report its decision in the annual proxy statement of the company or in the company's annual report on Form 10-K filed with the SEC.

Taiwan law does not contain such a requirement. Taiwan law requires directors to be nominated either by the shareholders or by the entire board of directors.

Taiwan law requires certain public companies, such as us, to establish a compensation committee by September 30, 2011. TSMC, however, has established its compensation committee since 2003, which has met the requirements under the Taiwan law. Please see TSMC's annual report for the relevant year filed with the Taiwan authorities and the U.S. SEC (both of which are available online at [www.tsmc.com](http://www.tsmc.com)) for further information regarding the composition and functions of its compensation committee.

Taiwan law requires certain public companies, such as us, to establish a compensation committee by September 30, 2011. TSMC, however, has established its compensation committee since 2003, which has met the requirements under the Taiwan law, and TSMC's compensation committee charter contains the same responsibilities as those provided under NYSE Section 303A.05(b)(i) and mandates the committee to review the adequacy of its charter annually.

Taiwan law requires public companies meeting certain criteria (which has yet been promulgated) to have an audit committee that satisfies comparable standards or public companies may voluntarily elect to establish an audit committee. TSMC has voluntarily elected to establish an audit committee. Please see TSMC's annual report for the relevant year filed with the Taiwan authorities and the U.S. SEC (both of which are available online at [www.tsmc.com](http://www.tsmc.com)) for further information regarding the composition of its audit committee. TSMC's audit committee members are all financially literate and are assisted by a financial expert consultant.

Taiwan law requires all independent directors of a public company to be members of the audit committee if the company has established such a committee of which at least one shall have accounting or financial expertise. Please see TSMC's annual report for the relevant year filed with the Taiwan authorities and the U.S. SEC (both of which are available online at [www.tsmc.com](http://www.tsmc.com)) for further information regarding the composition of its audit committee. TSMC's audit committee members are all financially literate and are assisted by a financial expert consultant.

Taiwan law does not contain such requirement. Taiwan law requires all independent directors of a public company to be members of the audit committee if the company has established such a committee. Taiwan law forbids an independent director from serving as an independent director on a total of four or more Taiwan public companies.

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**NYSE Section 303A.07(a)** All members of the audit committee are required to be independent.

**NYSE Section 303A.07(b)** requires an audit committee to have a written charter establishing the duties and responsibilities of its members, including the duties and responsibilities required, at a minimum, by Rule 10A-3(b)(2), (3), (4) & (5) of the Exchange Act.

**NYSE Section 303A.07(b)(iii)(B) and (C)** establishes audit committee objectives: (i) to discuss the annual audited financial statements and the quarterly financial statements of the company with management and the independent auditor, including the information disclosed under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations"; and (ii) to discuss the company's press releases relating to its earnings as well as the financial information and guidelines relating to its earnings that are supplied to analysts and rating agencies.

**NYSE Section 303A.07(b)(iii)(G)** requires an audit committee to establish clear policies for hiring external auditor's employees.

**NYSE Section 303A.07(c)** requires each company to have an internal audit function that provides to the management and to the audit committee ongoing assessments on the company's risk management processes and internal control system.

**NYSE Section 303A.08** requires each company to give to shareholders the opportunity to vote on all equity based compensation plans and material revisions thereto with certain exceptions.

**NYSE Section 303A.09** requires public companies to adopt and disclose corporate governance guidelines, including several issues for which such reporting is mandatory, and to include such information on the company's website (which website should also include the charters of the audit committee, the nominating committee, and the compensation committee.)

**NYSE Section 303A.09** requires the board of directors to make a self-assessment of its performance at least once a year to determine if it or its committees function effectively and report thereon.

**NYSE Section 303A.10** provides for the adoption of a Code of Business Conduct and Ethics and sets out the topics that such code must contain.

Taiwan law requires all independent directors of a public company to be members of the audit committee if the company has established such a committee.

Taiwan law requires comparable standards. TSMC currently has a written audit committee charter containing the same duties and responsibilities as those provided under Section 10A-3(b)(1) of the Exchange Act.

TSMC's written audit committee charter establishes the same audit committee objectives.

Taiwan law does not contain such requirement.

Taiwan law requires public companies to establish an internal audit department. Internal auditors are subject to strict qualification standards under Taiwan law, which require the board of directors to approve the head of a company's internal audit department. TSMC's internal audit department has substantially the same responsibilities as provided under NYSE Section 303A.07(d).

Taiwan law imposes a similar requirement. TSMC currently has in place an equity based compensation plan. TSMC's employee stock option plans (ESOPs) are required to be approved by the board of directors. Shareholders' approval is not required if the number of options granted under the relevant ESOP does not exceed the reservation made in TSMC's Articles of Incorporation. Otherwise, any change to such reservation in the Articles requires shareholders approval.

Under Taiwan law, if a listed company has adopted corporate governance guidelines, it must inform investors how to access such guidelines.

Taiwan law does not contain such requirement.

Taiwan law does not contain such requirement. But, because of sound corporate governance principles, TSMC has adopted a Policy of Ethics and Business Conduct, which complies with the Sarbanes-Oxley Act's requirements concerning financial officers and CEO accountability.

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**NYSE Section 303A.12(a)** requires the CEO, on a yearly basis, to certify to the NYSE that he or she knows of no violation by the company of NYSE rules relating to corporate governance.

**NYSE Section 303A.12(b)** requires the CEO to notify the NYSE in writing whenever any executive officer of the company becomes aware of any substantial non-fulfillment of any applicable provision under NYSE Section 303A.

**NYSE Section 303A.12(c)** requires each listed company to submit an executed Written Affirmation annually to the NYSE and Interim Written Affirmation each time a change occurs in the board or any of the committees subject to Section 303A.

Taiwan law does not contain such a requirement. But, in order to comply with relevant SEC regulations, TSMC's CEO is required to certify in TSMC's 20-F annual report that, to his or her knowledge the information contained therein fairly represents in all material respects the financial condition and results of operation of TSMC.

Taiwan law does not contain such requirement. But, in order to be consistent with the corporate governance principles established under the Sarbanes-Oxley Act of 2002, TSMC's CEO complies with the notice provision as set forth under NYSE Section 303A.12(b).

Taiwan law does not contain such requirement. But, in order to comply with the corporate governance principles established under the Sarbanes-Oxley Act of 2002, TSMC complies with NYSE Section 303A.12(c).

### **ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

## **PART III**

### **ITEM 17. FINANCIAL STATEMENTS**

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

### **ITEM 18. FINANCIAL STATEMENTS**

Refer to the consolidated financial statements on page F-1.

### **ITEM 19. EXHIBITS**

(a) See page F-1 for an index of the financial statements filed as part of this annual report.

(b) Exhibits to this Annual Report:

1.1 Articles of Incorporation of Taiwan Semiconductor Manufacturing Company Limited, as amended and restated on June 12, 2012.

2b.1 The Company hereby agrees to furnish to the Securities and Exchange Commission, upon request, copies of instruments defining the rights of holders of long-term debt of the Company and its subsidiaries.

3.1 Rules for Election of Directors, as amended and restated on June 12, 2012.

3.2 Rules and Procedures of Board of Directors Meetings, as amended and restated on Nov 13, 2012.

3.3<sup>(2)</sup> Rules and Procedures of Shareholders Meetings, as amended and restated on May 7, 2002.

4.1<sup>(2)</sup> Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Southern Taiwan Science Park (effective August 1, 1997 to July 31, 2017) (in Chinese with English



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4.2 <sup>(3)</sup>	Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Southern Taiwan Science Park (effective May 1, 1998 to April 30, 2018) (in Chinese with English summary).
4.3 <sup>(3)</sup>	Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Southern Taiwan Science Park (effective November 1, 1999 to October 31, 2019) (in Chinese with English summary).
4.4 <sup>(3)</sup>	Land Lease with Hsinchu Science Park Administration relating to Fab 7 (effective December 4, 1989 to December 3, 2009) (in Chinese with English summary).
4.5 <sup>(2)</sup>	Land Lease with Hsinchu Science Park Administration relating to the Fab 7 (effective July 1, 1995 to June 30, 2015) (in Chinese with English summary).
4.6 <sup>(2)</sup>	Land Lease with Hsinchu Science Park Administration relating to Fab 8 (effective March 15, 1997 to March 14, 2017) (in Chinese with English summary).
4.7 <sup>(3)</sup>	Land Lease with Hsinchu Science Park Administration relating to Fab 12 (Phase I) (effective December 1, 1999 to November 30, 2019) (in Chinese with English summary).
4.8a <sup>(4)</sup>	Taiwan Semiconductor Manufacturing Company Limited 2002 Employee Stock Option Plan, as revised by the board of directors on March 4, 2003.
4.8aa <sup>(5)</sup>	Taiwan Semiconductor Manufacturing Company Limited 2003 Employee Stock Option Plan.
4.8aaa <sup>(6)</sup>	Taiwan Semiconductor Manufacturing Company Limited 2004 Employee Stock Option Plan.
4.8aaaa <sup>(1)</sup>	Taiwan Semiconductor Manufacturing Company Limited 2004 Employee Stock Option Plan, as revised on February 22, 2005.
4.8b <sup>(4)</sup>	TSMC North America 2002 Employee Stock Option Plan, as revised on June 5, 2003.
4.8bb <sup>(5)</sup>	TSMC North America 2003 Employee Stock Option Plan.
4.8c <sup>(4)</sup>	WaferTech, LLC 2002 Employee Stock Option Plan, as revised on June 5, 2003.
4.8cc <sup>(5)</sup>	WaferTech, LLC 2003 Employee Stock Option Plan.
4.8ccc <sup>(6)</sup>	WaferTech, LLC 2004 Employee Stock Option Plan.
4.8cccc <sup>(1)</sup>	WaferTech, LLC 2004 Employee Stock Option Plan, as revised on February 22, 2005.
+4.9 <sup>(7)</sup>	Shareholders Agreement, dated as of March 15, 1999, by and among EDB Investments Pte. Ltd., Koninklijke Philips Electronics N.V. and Taiwan Semiconductor Manufacturing Company Ltd.
4.10 <sup>(9)</sup>	Land Lease with Hsinchu Science Park Administration relating to Fabs 2 and 5 and Corporate Headquarters (effective April 1, 1988 to March 31, 2008) (in Chinese with English summary).
4.11 <sup>(9)</sup>	



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Land Lease with Hsinchu Science Park Administration relating to Fabs 3 and 4 (effective May 16, 1993 to May 15, 2013)  
(in Chinese with English summary).

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4.12 <sup>(8)</sup>	Land Lease with Hsinchu Science Park Administration relating to Fab 12 (Phase II) (effective May 1, 2001 to December 31, 2020) (English summary).
4.13 <sup>(8)</sup>	Land Lease with Southern Taiwan Science Park Administration relating to fabs located in Southern Taiwan Science Park (effective November 1, 2000 to October 31, 2020) (English summary).
4.14	Land Lease with Central Science Industrial Park Administration relating to fabs located in Taichung Science Park (effective September 1, 2009 to September, 2029) (English summary).
12.1	Certification of Chief Executive Officer required by Rule 13a-14(a) under the Exchange Act.
12.2	Certification of Chief Financial Officer required by Rule 13a-14(a) under the Exchange Act.
13.1	Certification of Chief Executive Officer required by Rule 13a-14(b) under the Exchange Act.
13.2	Certification of Chief Financial Officer required by Rule 13a-14(b) under the Exchange Act.
99.1	Consent of Deloitte & Touche.
(1)	Previously filed in TSMC's annual report on Form 20-F for the fiscal year ended December 31, 2004, filed by TSMC on May 16, 2005.
(2)	Previously filed in TSMC's annual report on Form 20-F for the fiscal year ended December 31, 2001, filed by TSMC on May 9, 2002.
(3)	Previously filed in TSMC's annual report on Form 20-F for the fiscal year ended December 31, 1999, filed by TSMC on June 29, 2000.
(4)	Previously filed in TSMC's annual report on Form 20-F for the fiscal year ended December 31, 2002, filed by TSMC on June 23, 2003.
(5)	Previously filed in TSMC's registration statement on Form S-8, filed by TSMC on October 20, 2003.
(6)	Previously filed in TSMC's registration statement on Form S-8, filed by TSMC on January 6, 2005.
(7)	Previously filed in TSMC's annual report on Form 20-F for the fiscal year ended December 31, 1998, filed by TSMC on April 30, 1999.
(8)	Previously filed in TSMC's annual report on Form 20-F for the fiscal year ended December 31, 2003, filed by TSMC on May 28, 2004.
(9)	Previously filed in TSMC's registration statement on Form F-1, filed by TSMC on September 15, 1997.
+	Contains portions for which confidential treatment has been requested.

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**SIGNATURE**

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

Date: April 2, 2013

TAIWAN SEMICONDUCTOR MANUFACTURING

COMPANY LIMITED

By: /s/ Lora Ho  
Name: Lora Ho  
Title: Senior Vice President, Chief Financial Officer &  
Spokesperson

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders of

Taiwan Semiconductor Manufacturing Company Limited

We have audited the accompanying consolidated balance sheets of Taiwan Semiconductor Manufacturing Company Limited (a Republic of China corporation) and subsidiaries (the Company) as of December 31, 2011 and 2012, and the related consolidated statements of income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2012 (all expressed in New Taiwan dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Taiwan Semiconductor Manufacturing Company Limited and subsidiaries as of December 31, 2011 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012, in conformity with accounting principles generally accepted in the Republic of China.

Accounting principles generally accepted in the Republic of China vary in certain significant respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of net income for each of the three years in the period ended December 31, 2012 and the determination of shareholders' equity and financial position as of December 31, 2011 and 2012, to the extent summarized in Note 33.

Our audits also comprehended the translation of New Taiwan dollar amounts into U.S. dollar amounts and, in our opinion, such translation has been made in conformity with the basis stated in Note 3. Such U.S. dollar amounts are presented solely for the convenience of the readers in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2012, based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 14, 2013 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche  
Taipei, Taiwan  
The Republic of China

March 14, 2013

**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED BALANCE SHEETS**

(In Millions of New Taiwan or U.S. Dollars, Except Par Value)

ASSETS	Notes	December 31		
		2011 NT\$	2012 NT\$	US\$ (Note 3)
CURRENT ASSETS				
Cash and cash equivalents	2, 5	\$ 143,472.3	\$ 143,410.6	\$ 4,936.7
Financial assets at fair value through profit or loss	2, 6, 26	15.4	39.5	1.4
Available-for-sale financial assets	2, 7, 26	3,308.8	2,410.6	83.0
Held-to-maturity financial assets	2, 8, 26	3,825.7	5,057.0	174.1
Receivables from related parties	4, 27	185.7	353.8	12.2
Notes and accounts receivable, net	2, 4, 9	40,762.0	51,739.6	1,781.0
Other receivables from related parties	4, 27	122.3	185.6	6.4
Other financial assets	28	617.1	473.8	16.3
Inventories	2, 10	24,840.6	37,830.5	1,302.2
Deferred income tax assets	2, 21	5,936.5	8,001.2	275.4
Prepaid expenses and other current assets		2,174.0	2,786.4	95.9
Total current assets		225,260.4	252,288.6	8,684.6
LONG-TERM INVESTMENTS				
	2, 7, 8, 11, 13, 26			
Investments accounted for using equity method		24,900.3	23,430.0	806.5
Available-for-sale financial assets		-	38,751.2	1,334.0
Held-to-maturity financial assets		5,243.2	-	-
Financial assets carried at cost		4,315.0	3,605.1	124.1
Total long-term investments		34,458.5	65,786.3	2,264.6
PROPERTY, PLANT AND EQUIPMENT, NET	2, 14, 27	490,374.9	617,529.5	21,257.5
INTANGIBLE ASSETS				
Goodwill	2	5,694.0	5,523.7	190.1
Deferred charges, net	2, 15	5,167.6	5,435.9	187.1
Total intangible assets		10,861.6	10,959.6	377.2
OTHER ASSETS				
Deferred income tax assets	2, 21	7,436.7	4,776.0	164.4
Refundable deposits	27	4,518.8	2,426.7	83.5
Others	2, 27	1,354.0	1,267.9	43.7
Total other assets		13,309.5	8,470.6	291.6

TOTAL ASSETS	\$ 774,264.9	\$ 955,034.6	\$ 32,875.5
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The accompanying notes are an integral part of the consolidated financial statements.

(With Deloitte & Touche audit report dated March 14, 2013)

LIABILITIES AND SHAREHOLDERS' EQUITY	Notes	December 31		
		2011 NT\$	2012 NT\$	US\$ (Note 3)
CURRENT LIABILITIES				
Short-term loans	16	\$ 25,926.5	\$ 34,714.9	\$ 1,195.0
Financial liabilities at fair value through profit or loss	2, 6, 26	13.8	15.6	0.5
Hedging derivative financial liabilities	2, 12, 26	0.2	-	-
Accounts payable		10,530.5	14,490.4	498.8
Payable to related parties	27	1,328.5	748.6	25.8
Income tax payable	2, 21	10,656.1	15,635.6	538.2
Salary and bonus payable		6,148.5	7,535.3	259.4
Accrued profit sharing to employees and bonus to directors and supervisors	2, 22	9,081.3	11,186.6	385.1
Payables to contractors and equipment suppliers		35,540.5	44,831.8	1,543.3
Accrued expenses and other current liabilities	14, 19, 26, 30	13,218.3	13,149.0	452.6
Current portion of bonds payable and long-term bank loans	17, 18, 26	4,562.5	128.1	4.4
Total current liabilities		117,006.7	142,435.9	4,903.1
LONG-TERM LIABILITIES				
Bonds payable	17, 26	18,000.0	80,000.0	2,753.9
Long-term bank loans	18, 26, 28	1,587.5	1,359.4	46.8
Other long-term payables	19, 26	-	54.0	1.9
Obligations under capital leases	2, 14, 26	871.0	748.1	25.7
Total long-term liabilities		20,458.5	82,161.5	2,828.3
OTHER LIABILITIES				
Accrued pension cost	2, 20	3,908.5	3,979.6	137.0
Guarantee deposits		444.0	203.9	7.0
Others	27	403.7	500.0	17.2
Total other liabilities		4,756.2	4,683.5	161.2
Total liabilities		142,221.4	229,280.9	7,892.6
COMMITMENTS AND CONTINGENCIES				
	30			
EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT				
Capital stock - NT\$10 par value	22			
Authorized: 28,050,000 thousand shares				
Issued: 25,916,222 thousand shares in 2011				
25,924,435 thousand shares in 2012		259,162.2	259,244.4	8,924.1
Capital surplus	2, 22	55,846.4	56,137.8	1,932.5
Retained earnings	22	322,191.2	410,601.3	14,134.2
Cumulative translation adjustments	2	(6,433.4)	(10,753.8)	(370.2)
Net loss not recognized as pension cost	2	-	(5.3)	(0.2)
Unrealized gain/loss on financial instruments	2, 12, 26	(1,172.9)	7,973.3	274.5
Equity attributable to shareholders of the parent		629,593.5	723,197.7	24,894.9
MINORITY INTERESTS	2	2,450.0	2,556.0	88.0



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Total shareholders' equity	632,043.5	725,753.7	24,982.9
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 774,264.9	\$ 955,034.6	\$ 32,875.5

**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED STATEMENTS OF INCOME****(In Millions of New Taiwan or U.S. Dollars, Except Earnings Per Share that are in New Taiwan or U.S. Dollars)**

	Notes	2010 NT\$	Year Ended December 31 2011 NT\$	2012 NT\$	US\$ (Note 3)
NET SALES	2, 27, 32	\$ 419,537.9	\$ 427,080.6	\$ 506,248.6	\$ 17,426.8
COST OF SALES	10, 27	212,484.3	232,937.4	262,628.7	9,040.6
GROSS PROFIT BEFORE AFFILIATES ELIMINATION		207,053.6	194,143.2	243,619.9	8,386.2
UNREALIZED GROSS PROFIT FROM AFFILIATES	2	-	(74.0)	(25.0)	(0.9)
GROSS PROFIT		207,053.6	194,069.2	243,594.9	8,385.3
OPERATING EXPENSES					
Research and development	27	29,706.7	33,829.9	40,402.1	1,390.8
General and administrative		12,804.0	14,164.1	17,638.1	607.1
Marketing		5,367.6	4,517.8	4,497.5	154.8
Total operating expenses		47,878.3	52,511.8	62,537.7	2,152.7
INCOME FROM OPERATIONS	32	159,175.3	141,557.4	181,057.2	6,232.6
NON-OPERATING INCOME AND GAINS					
Equity in earnings of equity method investees, net	2, 11	2,298.2	897.6	2,028.6	69.8
Interest income		1,665.2	1,479.5	1,645.0	56.6
Settlement income	30	6,939.8	947.3	883.8	30.4
Foreign exchange gain, net	2	-	-	582.5	20.1
Gain on settlement and disposal of financial assets, net	2, 26	736.8	233.2	541.1	18.6
Technical service income	27	450.5	407.1	496.7	17.1
Valuation gain on financial instruments, net	2, 6, 26	320.7	507.4	-	-
Others	2, 27	724.9	886.4	604.3	20.9
Total non-operating income and gains		13,136.1	5,358.5	6,782.0	233.5
NON-OPERATING EXPENSES AND LOSSES					
Impairment of financial assets	2, 7, 11, 13, 26	159.8	265.5	4,231.6	145.7
Interest expense		425.4	626.7	1,020.4	35.1
Impairment loss on idle assets	2	0.3	98.0	444.5	15.3
Loss on disposal of property, plant and equipment	2	849.3	200.7	31.8	1.1
Foreign exchange loss, net	2	99.1	185.6	-	-
Casualty loss	10	191.0	-	-	-
Others	2, 6, 26	316.1	391.7	556.9	19.2

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Total non-operating expenses and losses		2,041.0	1,768.2	6,285.2	216.4
INCOME BEFORE INCOME TAX		170,270.4	145,147.7	181,554.0	6,249.7
INCOME TAX EXPENSE	2, 21	7,988.5	10,694.4	15,590.3	536.7
NET INCOME		\$ 162,281.9	\$ 134,453.3	\$ 165,963.7	\$ 5,713.0
ATTRIBUTABLE TO:					
Shareholders of the parent		\$ 161,605.0	\$ 134,201.3	\$ 166,158.8	\$ 5,719.7
Minority interests		676.9	252.0	(195.1)	(6.7)
		\$ 162,281.9	\$ 134,453.3	\$ 165,963.7	\$ 5,713.0

(Continued)

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**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED STATEMENTS OF INCOME****(In Millions of New Taiwan or U.S. Dollars, Except Earnings Per Share that are in New Taiwan or U.S. Dollars)**

	Notes	2010 NT\$	Year Ended December 31			US\$ (Note 3)
			2011 NT\$		2012 NT\$	
<b>BASIC EARNINGS PER SHARE</b>	<b>2, 25</b>					
Before income tax		\$ 6.54	\$ 5.59	\$ 7.01	\$ 0.24	
After income tax		\$ 6.24	\$ 5.18	\$ 6.41	\$ 0.22	
<b>DILUTED EARNINGS PER SHARE</b>	<b>2, 25</b>					
Before income tax		\$ 6.54	\$ 5.59	\$ 7.01	\$ 0.24	
After income tax		\$ 6.23	\$ 5.18	\$ 6.41	\$ 0.22	
<b>BASIC EARNINGS PER EQUIVALENT ADS</b>	<b>2</b>					
Before income tax		\$ 32.72	\$ 27.95	\$ 35.06	\$ 1.21	
After income tax		\$ 31.19	\$ 25.89	\$ 32.05	\$ 1.10	
<b>DILUTED EARNINGS PER EQUIVALENT ADS</b>	<b>2</b>					
Before income tax		\$ 32.70	\$ 27.94	\$ 35.05	\$ 1.21	
After income tax		\$ 31.17	\$ 25.88	\$ 32.04	\$ 1.10	
<b>BASIC WEIGHTED AVERAGE SHARES OUTSTANDING (THOUSANDS)</b>	<b>2, 25</b>	25,905,832	25,914,076	25,920,735		
<b>DILUTED WEIGHTED AVERAGE SHARES OUTSTANDING (THOUSANDS)</b>	<b>2, 25</b>	25,919,814	25,924,682	25,927,936		

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

(With Deloitte &amp; Touche audit report dated March 14, 2013)

(Concluded)



**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**

(In Millions of New Taiwan Dollars, Except Dividends Per Share)

	Equity Attributable to Shareholders of the Parent										
	Capital Stock (NT\$10 Par Value) Common Stock		Capital  Surplus NT\$	Retained  Earnings NT\$	Cumulative Translation Adjustments NT\$	Net Loss Recognized in Pension cost NT\$	Unrealized Gain/Loss on Financial Instruments NT\$	Treasury Stock NT\$	Total NT\$	Minority Interests NT\$	Total Shareholders Equity NT\$
	Shares (Thousands)	Amount NT\$									
BALANCE, JANUARY 1, 2010	25,902,706	\$ 259,027.1	\$ 55,486.0	\$ 181,882.7	\$ (1,766.7)	\$ -	\$ 453.6	\$ -	\$ 495,082.7	\$ 3,965.8	\$ 499,048.5
Appropriations of prior year's earnings											
Cash dividends to shareholders - NT\$3.00 per share	-	-	-	(77,708.1)	-	-	-	-	(77,708.1)	-	(77,708.1)
Net income in 2010	-	-	-	161,605.0	-	-	-	-	161,605.0	676.9	162,281.9
Adjustment arising from changes in percentage of ownership in equity method investees	-	-	(17.9)	-	-	-	-	-	(17.9)	4.4	(13.5)
Translation adjustments	-	-	-	-	(4,776.5)	-	-	-	(4,776.5)	7.3	(4,769.2)
Issuance of stock from exercising employee stock options	7,372	73.7	171.1	-	-	-	-	-	244.8	-	244.8
Net changes of valuation gain/loss on available-for-sale financial assets	-	-	-	-	-	-	(338.0)	-	(338.0)	4.0	(334.0)
Net change in shareholders equity from equity method investees	-	-	59.2	-	-	-	(6.0)	-	53.2	31.7	84.9
Net change in unrealized gain/loss on hedging derivative financial instruments	-	-	-	-	-	-	(0.3)	-	(0.3)	(0.5)	(0.8)
Decrease in minority interests	-	-	-	-	-	-	-	-	-	(130.1)	(130.1)

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BALANCE, DECEMBER 31, 2010	25,910,078	259,100.8	55,698.4	265,779.6	(6,543.2)	-	109.3	-	574,144.9	4,559.5	578,704.4
Appropriations of prior year s earnings											
Cash dividends to shareholders - NT\$3.00 per share	-	-	-	(77,730.2)	-	-	-	-	(77,730.2)	-	(77,730.2)
Net income in 2011	-	-	-	134,201.3	-	-	-	-	134,201.3	252.0	134,453.3
Adjustment arising from changes in percentage of ownership in equity method investees	-	-	59.9	-	-	-	-	-	59.9	1.1	61.0
Translation adjustments	-	-	-	-	109.8	-	-	-	109.8	7.6	117.4
Issuance of stock from exercising employee stock options	7,144	71.4	146.3	-	-	-	-	-	217.7	-	217.7
Net changes of valuation gain/loss on available-for-sale financial assets	-	-	-	-	-	-	(1,241.3)	-	(1,241.3)	(3.3)	(1,244.6)
Net change in shareholders equity from equity method investees	-	-	(56.1)	-	-	-	(41.1)	-	(97.2)	-	(97.2)
Net change in unrealized gain/loss on hedging derivative financial instruments	-	-	-	-	-	-	0.2	-	0.2	0.3	0.5
Acquisition of treasury stock - shareholders executed the appraisal right	-	-	-	-	-	-	-	(71.6)	(71.6)	-	(71.6)
Retirement of treasury stock	(1,000)	(10.0)	(2.1)	(59.5)	-	-	-	71.6	-	-	-
Decrease in minority interests	-	-	-	-	-	-	-	-	-	(379.3)	(379.3)
Effect of changes in consolidated entities	-	-	-	-	-	-	-	-	-	(1,987.9)	(1,987.9)
BALANCE, DECEMBER 31, 2011	25,916,222	259,162.2	55,846.4	322,191.2	(6,433.4)	-	(1,172.9)	-	629,593.5	2,450.0	632,043.5
Appropriations of prior year s earnings											
Cash dividends to shareholders - NT\$3.00 per	-	-	-	(77,748.7)	-	-	-	-	(77,748.7)	-	(77,748.7)

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share												
Net income in 2012	-	-	-	166,158.8	-	-	-	-	166,158.8	(195.1)	165,963.7	
Adjustment arising from changes in percentage of ownership in equity method investees	-	-	128.6	-	-	-	-	-	128.6	(38.2)	90.4	
Translation adjustments	-	-	-	-	(4,320.4)	-	-	-	(4,320.4)	52.9	(4,267.5)	
Net loss not recognized as pension cost	-	-	-	-	-	(4.4)	-	-	(4.4)	-	(4.4)	
Issuance of stock from exercising employee stock options	8,213	82.2	160.3	-	-	-	-	-	242.5	-	242.5	
Stock option compensation cost	-	-	2.5	-	-	-	-	-	2.5	3.7	6.2	
Net changes of valuation gain/loss on available-for-sale financial assets	-	-	-	-	-	-	9,128.6	-	9,128.6	(3.6)	9,125.0	
Net change in shareholders equity from equity method investees	-	-	-	-	-	(0.9)	17.5	-	16.6	-	16.6	
Net change in unrealized gain/loss on hedging derivative financial instruments	-	-	-	-	-	-	0.1	-	0.1	0.1	0.2	
Increase in minority interests	-	-	-	-	-	-	-	-	-	286.2	286.2	
<b>BALANCE, DECEMBER 31, 2012</b>	<b>25,924,435</b>	<b>\$ 259,244.4</b>	<b>\$ 56,137.8</b>	<b>\$ 410,601.3</b>	<b>\$ (10,753.8)</b>	<b>\$ (5.3)</b>	<b>\$ 7,973.3</b>	<b>\$ -</b>	<b>\$ 723,197.7</b>	<b>\$ 2,556.0</b>	<b>\$ 725,753.7</b>	
<b>BALANCE, DECEMBER 31, 2012 (IN MILLIONS OF US\$ - Note 3)</b>		<b>\$ 8,924.1</b>	<b>\$ 1,932.5</b>	<b>\$ 14,134.2</b>	<b>\$ (370.2)</b>	<b>\$ (0.2)</b>	<b>\$ 274.5</b>	<b>\$ -</b>	<b>\$ 24,894.9</b>	<b>\$ 88.0</b>	<b>\$ 24,982.9</b>	

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

(With Deloitte & Touche audit report dated March 14, 2013)



**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED STATEMENTS OF CASH FLOWS**

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

	Year Ended December 31			
	2010 NT\$	2011 NT\$	2012 NT\$	US\$ (Note 3)
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>				
Net income attributable to shareholders of the parent	\$ 161,605.0	\$ 134,201.3	\$ 166,158.8	\$ 5,719.7
Net income (loss) attributable to minority interests	676.9	252.0	(195.1)	(6.7)
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	87,810.1	107,681.5	131,349.3	4,521.5
Unrealized gross profit from affiliates	-	74.0	25.0	0.9
Amortization of premium/discount of financial assets	34.2	24.7	4.9	0.2
Stock option compensation cost	-	-	6.2	0.2
Impairment loss of financial assets	159.8	265.5	4,231.6	145.7
Gain on disposal of available-for-sale financial assets, net	(603.3)	(212.4)	(399.6)	(13.8)
Gain on disposal of financial assets carried at cost, net	(133.5)	(20.8)	(141.5)	(4.8)
Equity in earnings of equity method investees, net	(2,298.2)	(897.6)	(2,028.6)	(69.8)
Cash dividends received from equity method investees	320.0	2,848.1	2,088.5	71.9
Loss (gain) on disposal of property, plant and equipment and other assets, net	633.2	(3.3)	(0.1)	-
Settlement income from receiving equity securities	(4,434.4)	(158.8)	(0.9)	-
Impairment loss on idle assets	0.3	98.0	444.5	15.3
Deferred income tax	(377.3)	(491.1)	573.2	19.7
Changes in operating assets and liabilities:				
Financial assets and liabilities at fair value through profit or loss	198.2	(13.7)	(22.3)	(0.8)
Receivables from related parties	9.8	123.3	(168.1)	(5.8)
Notes and accounts receivable, net	(7,609.8)	1,136.3	(10,971.3)	(377.7)
Other receivables from related parties	(3.3)	2.3	(63.3)	(2.2)
Other financial assets	741.0	376.3	122.3	4.2
Inventories	(7,492.1)	2,611.3	(12,989.9)	(447.2)
Prepaid expenses and other current assets	(752.4)	(403.8)	(626.4)	(21.6)
Accounts payable	933.9	(1,968.8)	1,395.9	48.1
Payables to related parties	84.1	462.6	(605.2)	(20.8)
Income tax payable	(1,615.6)	3,490.3	4,979.5	171.4
Salary and bonus payable	(2,892.9)	(275.6)	1,386.8	47.7
Accrued profit sharing to employees and bonus to directors and supervisors	4,277.8	(1,925.6)	2,105.3	72.5
Accrued expenses and other current liabilities	189.0	212.1	2,337.6	80.5
Accrued pension cost	15.3	98.9	66.7	2.3
<b>Net cash provided by operating activities</b>	<b>229,475.8</b>	<b>247,587.0</b>	<b>289,063.8</b>	<b>9,950.6</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>				
Acquisitions of:				
Property, plant and equipment	(186,944.2)	(213,962.5)	(246,137.4)	(8,472.9)
Available-for-sale financial assets	(48,340.3)	(35,088.4)	(31,525.9)	(1,085.2)
Held-to-maturity financial assets	(4,101.5)	(584.3)	-	-
Investments accounted for using equity method	(6,242.4)	-	-	-
Financial assets carried at cost	(1,812.9)	(403.9)	(56.5)	(1.9)
Proceeds from disposal or redemption of:				
Available-for-sale financial assets	37,816.3	59,305.0	964.4	33.2
Held-to-maturity financial assets	15,943.0	4,789.0	2,711.4	93.3
Financial assets carried at cost	242.3	226.2	353.7	12.2

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Property, plant and equipment and other assets	115.5	698.1	157.5	5.4
Increase in deferred charges	(1,801.7)	(1,715.9)	(1,782.3)	(61.4)
Decrease (increase) in refundable deposits	(5,944.9)	4,149.6	2,092.1	72.0
Decrease (increase) in other assets	(1,015.4)	63.7	26.7	0.9
Net cash used in investing activities	(202,086.2)	(182,523.4)	(273,196.3)	(9,404.4)

(Continued)

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**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED STATEMENTS OF CASH FLOWS****(In Millions of New Taiwan or U.S. Dollars)**

	Year Ended December 31			
	2010	2011	2012	US\$
	NT\$	NT\$	NT\$	(Note 3)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>				
Increase (decrease) in short-term loans	\$ 31,213.9	\$ (5,287.4)	\$ 8,788.4	\$ 302.5
Cash dividends	(77,708.1)	(77,730.2)	(77,748.7)	(2,676.4)
Proceeds from long-term bank loans	-	2,250.0	50.0	1.7
Repayment of long-term bank loans	(967.0)	(1,143.0)	(212.5)	(7.3)
Proceeds from issuance of bonds	-	18,000.0	62,000.0	2,134.3
Repayment of bonds	-	-	(4,500.0)	(154.9)
Decrease in obligations under capital lease	-	-	(108.8)	(3.7)
Decrease in other long-term payables	(1,107.3)	(3,633.1)	(2,367.9)	(81.5)
Decrease in guarantee deposits	(232.9)	(342.2)	(240.1)	(8.3)
Proceeds from donation	49.0	-	-	-
Proceeds from exercise of employee stock options	244.8	217.7	242.5	8.3
Acquisition of treasury stock	-	(71.6)	-	-
Increase (decrease) in minority interests	(130.1)	(118.2)	286.2	9.9
<b>Net cash used in financing activities</b>	<b>(48,637.7)</b>	<b>(67,858.0)</b>	<b>(13,810.9)</b>	<b>(475.4)</b>
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(21,248.1)</b>	<b>(2,794.4)</b>	<b>2,056.6</b>	<b>70.8</b>
<b>EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS</b>	<b>(2,141.2)</b>	<b>(147.7)</b>	<b>(2,118.3)</b>	<b>(72.9)</b>
<b>EFFECT OF CHANGES IN CONSOLIDATED ENTITIES</b>	<b>-</b>	<b>(1,472.6)</b>	<b>-</b>	<b>-</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR</b>	<b>171,276.3</b>	<b>147,887.0</b>	<b>143,472.3</b>	<b>4,938.8</b>
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	<b>\$ 147,887.0</b>	<b>\$ 143,472.3</b>	<b>\$ 143,410.6</b>	<b>\$ 4,936.7</b>
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION</b>				
Interest paid	\$ 392.8	\$ 540.7	\$ 736.6	\$ 25.4
Capitalized interest	-	(9.1)	(6.4)	(0.2)
Interest paid (excluding capitalized interest)	\$ 392.8	\$ 531.6	\$ 730.2	\$ 25.2
Income tax paid	\$ 9,818.4	\$ 7,677.1	\$ 11,312.0	\$ 389.4
<b>INVESTING ACTIVITIES AFFECTING BOTH CASH AND NON-CASH ITEMS</b>				
Acquisition of property, plant and equipment	\$ 201,696.5	\$ 207,175.6	\$ 257,689.2	\$ 8,870.5
Decrease (increase) in payables to contractors and equipment suppliers	(14,600.0)	6,846.6	(11,551.7)	(397.6)
Nonmonetary exchange trade-out price	(124.7)	(3.1)	(0.1)	-
Increase in other liabilities	(27.6)	(56.6)	-	-
<b>Cash paid</b>	<b>\$ 186,944.2</b>	<b>\$ 213,962.5</b>	<b>\$ 246,137.4</b>	<b>\$ 8,472.9</b>

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Disposal of property, plant and equipment and other assets	\$	458.5	\$	543.2	\$	157.6	\$	5.4
Decrease (increase) in other financial assets		(218.3)		158.0		-		-
Nonmonetary exchange trade-out price		(124.7)		(3.1)		(0.1)		-
Cash received	\$	115.5	\$	698.1	\$	157.5	\$	5.4

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**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****CONSOLIDATED STATEMENTS OF CASH FLOWS****(In Millions of New Taiwan or U.S. Dollars)**

	<b>Year Ended December 31</b>			
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>US\$</b>
	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>	<b>(Note 3)</b>
Acquisition of deferred charges	\$ 1,801.7	\$ 1,715.9	\$ 2,253.7	\$ 77.6
Increase in accounts payable	-	-	(303.6)	(10.4)
Increase in payables to related parties	-	-	(25.3)	(0.9)
Increase in other long-term payables	-	-	(142.5)	(4.9)
Cash paid	\$ 1,801.7	\$ 1,715.9	\$ 1,782.3	\$ 61.4
<b>NON-CASH INVESTING AND FINANCING ACTIVITIES</b>				
Idle assets reclassified from property, plant and equipment	\$ 0.3	\$ 98.0	\$ 444.5	\$ 15.3
Current portion of other long-term payables (under accrued expenses and other current liabilities)	\$ 1,406.6	\$ 3,399.9	\$ 913.5	\$ 31.4
Current portion of bonds payable	\$ -	\$ 4,500.0	\$ -	\$ -
Current portion of long-term bank loans	\$ 241.4	\$ 62.5	\$ 128.1	\$ 4.4

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

(With Deloitte &amp; Touche audit report dated March 14, 2013)

(Concluded)

**Table of Contents****Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****1. GENERAL**

Taiwan Semiconductor Manufacturing Company Limited (TSMC), a Republic of China (R.O.C.) corporation, was incorporated on February 21, 1987. TSMC is a dedicated foundry in the semiconductor industry which engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks. Beginning in 2010, TSMC also engages in the researching, developing, designing, manufacturing and selling of solid state lighting devices and related applications products and systems, and renewable energy and efficiency related technologies and products. In August 2011, TSMC transferred its solid state lighting and solar businesses into its wholly-owned, newly incorporated subsidiaries, TSMC Solid State Lighting Ltd. (TSMC SSL) and TSMC Solar Ltd. (TSMC Solar), respectively.

On September 5, 1994, TSMC's shares were listed on the Taiwan Stock Exchange (TWSE). On October 8, 1997, TSMC listed some of its shares of stock on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs).

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The consolidated financial statements are presented in conformity with the Guidelines Governing the Preparation of Financial Reports by Securities Issuers and accounting principles generally accepted in the R.O.C.

Significant accounting policies are summarized as follows:

**Principles of Consolidation**

The accompanying consolidated financial statements include the accounts of all directly and indirectly majority owned subsidiaries of TSMC, and the accounts of investees in which TSMC's ownership percentage is less than 50% but over which TSMC has a controlling interest. All significant intercompany balances and transactions are eliminated upon consolidation.

The consolidated entities were as follows:

Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2011	2012	
TSMC	TSMC North America	100%	100%	-
	TSMC Japan Limited (TSMC Japan)	100%	100%	-
	TSMC Partners, Ltd. (TSMC Partners)	100%	100%	-
	TSMC Korea Limited (TSMC Korea)	100%	100%	-
	TSMC Europe B.V. (TSMC Europe)	100%	100%	-
	TSMC Global Ltd. (TSMC Global)	100%	100%	-
	TSMC China Company Limited (TSMC China)	100%	100%	-
	VentureTech Alliance Fund III, L.P. (VTAF III)	53%	50%	(Note 1)
		98%	98%	-

VentureTech Alliance Fund II, L.P. (VTAF II)			
Emerging Alliance Fund, L.P. (Emerging Alliance)	99.5%	99.5%	-
Global Unichip Corporation (GUC)	(Note 2)	(Note 2)	-
Xintec Inc. (Xintec)	40%	40%	TSMC obtained three out of five director positions and has a controlling interest in Xintec

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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2011	2012	
	TSMC SSL	100%	95%	Established in August 2011  TSMC and TSMC GN aggregately have a controlling interest of 96% in TSMC SSL
	TSMC Solar	100%	99%	Established in August 2011  TSMC and TSMC GN aggregately have a controlling interest of 99% in TSMC Solar
	TSMC Guang Neng Investment, Ltd. (TSMC GN)	-	100%	Established in January 2012
TSMC Partners	TSMC Design Technology Canada Inc. (TSMC Canada)	100%	100%	-
	TSMC Technology, Inc. (TSMC Technology)	100%	100%	-
	TSMC Development, Inc. (TSMC Development)	100%	100%	-
	InveStar Semiconductor Development Fund, Inc. (ISDF)	97%	97%	-
	InveStar Semiconductor Development Fund, Inc. (II) LDC. (ISDF II)	97%	97%	-
TSMC Development	WaferTech, LLC (WaferTech)	100%	100%	-
VTAF III	Mutual-Pak Technology Co., Ltd. (Mutual-Pak)	57%	58%	-
	Growth Fund Limited (Growth Fund)	100%	100%	-
VTAF III, VTAF II and Emerging Alliance	VentureTech Alliance Holdings, LLC (VTA Holdings)	100%	100%	-
GUC	Global Unichip Corp.-NA (GUC-NA)	(Note 2)	(Note 2)	-
	Global Unichip Japan Co., Ltd. (GUC-Japan)	(Note 2)	(Note 2)	-
	Global Unichip Europe B.V. (GUC-Europe)	(Note 2)	(Note 2)	-
	Global Unichip (BVI) Corp. (GUC-BVI)	(Note 2)	(Note 2)	-
GUC-BVI	Global Unichip (Shanghai) Company, Limited (GUC-Shanghai)	(Note 2)	(Note 2)	-
TSMC SSL	TSMC Lighting North America, Inc. (TSMC Lighting NA)	100%	100%	(Note 1)
TSMC Solar	TSMC Solar North America, Inc. (TSMC Solar NA)	100%	100%	(Note 1)
	TSMC Solar Europe B.V. (TSMC Solar Europe)	100%	100%	(Note 1)
	VentureTech Alliance Fund III, L.P. (VTAF III)	46%	49%	(Note 1)
TSMC Solar Europe	TSMC Solar Europe GmbH	100%	100%	(Note 1)

(Concluded)





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Note 1: In August 2011, TSMC adjusted its investment structure by transferring TSMC Lighting NA to TSMC SSL and transferring TSMC Solar Europe, TSMC Solar NA and part of VTAF III to TSMC Solar.

Note 2: Since July 2011, TSMC is no longer deemed to be a controlling entity of GUC and its subsidiaries due to the termination of a Shareholders Agreement. As a result, GUC and its subsidiaries are no longer consolidated and are accounted for using the equity method.

The following diagram presents information regarding the relationship and ownership percentages between TSMC and its consolidated investees as of December 31, 2012:

Since July 2011, TSMC is no longer deemed to be a controlling entity of GUC and its subsidiaries due to the termination of a Shareholders Agreement. As a result, GUC and its subsidiaries are no longer consolidated and are accounted for using the equity method.

TSMC North America is engaged in selling and marketing of integrated circuits and semiconductor devices. TSMC Japan, TSMC Korea and TSMC Europe are engaged mainly in marketing or customer service, engineering and technical supporting activities. TSMC Partners is engaged in investment in companies involved in the design, manufacture, and other related business in the semiconductor industry. TSMC Global, TSMC Development and TSMC GN are engaged in investing activities. TSMC China is engaged in the manufacturing and selling of integrated circuits pursuant to the orders from and product design specifications provided by customers. Emerging Alliance, VTAF II, VTAF III, VTA Holdings, ISDF, ISDF II and Growth Fund are engaged in investing in new start-up technology companies. TSMC Canada and TSMC Technology are engaged mainly in engineering support activities. WaferTech is engaged in the manufacturing, selling, testing and computer-aided designing of integrated circuits and other semiconductor devices. Xintec is engaged in the provision of wafer packaging service. TSMC SSL is engaged in researching, developing, designing, manufacturing and selling solid state lighting devices and related applications products and systems. TSMC Lighting NA is engaged in selling and marketing of solid state lighting related products. TSMC Solar is engaged in researching, developing, designing, manufacturing and selling renewable energy and energy saving related technologies and products. TSMC Solar NA is engaged in selling and marketing of solar related products. TSMC Solar Europe is engaged in investing activities of solar related business. TSMC Solar Europe GmbH is engaged in the selling and customer service of solar cell modules and related products. Mutual-Pak is engaged in the manufacturing and selling of electronic parts and researching, developing and testing of RFID.

TSMC together with its subsidiaries are hereinafter referred to collectively as the Company.

Minority interests in the aforementioned subsidiaries are presented as a separate component of shareholders equity.

## **Foreign-currency Transactions and Translation of Foreign-currency Financial Statements**

Foreign-currency transactions other than derivative contracts are recorded in New Taiwan dollars at the rates of exchange in effect when the transactions occur. Exchange gains or losses derived from foreign-currency transactions or monetary assets and liabilities denominated in foreign currencies are recognized in earnings.

At the balance sheet date, monetary assets and liabilities denominated in foreign currencies are revalued at prevailing exchange rates with the resulting gains or losses recognized in earnings.

The financial statements of foreign subsidiaries are translated into New Taiwan dollars at the following exchange rates: Assets and liabilities - spot rates at year-end; shareholders equity - historical rates; income and expenses - average rates during the year. The resulting translation adjustments are recorded as a separate component of shareholders equity.

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### **Use of Estimates**

The preparation of consolidated financial statements in conformity with the aforementioned guidelines and principles requires management to make reasonable assumptions and estimates of matters that are inherently uncertain. The actual results may differ from management's estimates.

### **Classification of Current and Noncurrent Assets and Liabilities**

Current assets are assets held for trading purposes and assets expected to be converted to cash, sold or consumed within one year from the balance sheet date. Current liabilities are obligations incurred for trading purposes and obligations expected to be settled within one year from the balance sheet date. Assets and liabilities that are not classified as current are noncurrent assets and liabilities, respectively.

### **Cash Equivalents**

Repurchase agreements collateralized by corporate bonds, short-term commercial paper and government bonds acquired with maturities of less than three months from the date of purchase are classified as cash equivalents. The carrying amount approximates fair value due to their short term nature.

### **Financial Assets/Liabilities at Fair Value through Profit or Loss**

Derivatives that do not meet the criteria for hedge accounting are initially recognized at fair value, with transaction costs expensed as incurred. The derivatives are remeasured at fair value subsequently with changes in fair value recognized in earnings. A regular way purchase or sale of financial assets is accounted for using settlement date accounting.

Fair value is estimated using valuation techniques incorporating estimates and assumptions that are consistent with prevailing market conditions. When the fair value is positive, the derivative is recognized as a financial asset; when the fair value is negative, the derivative is recognized as a financial liability.

### **Available-for-sale Financial Assets**

Available-for-sale financial assets are initially recognized at fair value plus transaction costs that are directly attributable to the acquisition. Changes in fair value from subsequent remeasurement are reported as a separate component of shareholders' equity. The corresponding accumulated gains or losses are recognized in earnings when the financial asset is derecognized from the balance sheet. A regular way purchase or sale of financial assets is accounted for using settlement date accounting.

Fair value is determined as follows: Money market funds - net asset values at the end of the year; and publicly traded stocks - closing prices at the end of the year.

Cash dividends are recognized as investment income upon resolution of shareholders of an investee. Stock dividends are recorded as an increase in the number of shares held and do not affect investment income. The cost per share is recalculated based on the new total number of shares.

If there is objective evidence which indicates that a financial asset is impaired, a loss is recognized. For equity securities, if the fair value subsequently increases, the increase in value is recorded in shareholders' equity.

### **Held-to-maturity Financial Assets**

Debt securities for which the Company has a positive intention and ability to hold to maturity are categorized as held-to-maturity financial assets and are carried at amortized cost. Those financial assets are initially recognized at fair value plus transaction costs that are directly attributable to the acquisition. Gains or losses are recognized at the time of derecognition, impairment or amortization. A regular way purchase or sale of financial assets is accounted for using settlement date accounting.

If there is objective evidence which indicates that a financial asset is impaired, a loss is recognized. If, in a subsequent period, the amount of the impairment loss decreases and the decrease is clearly attributable to an event which occurred after the impairment loss was recognized, the previously recognized impairment loss is reversed to the extent of the decrease. The reversal may not result in a carrying amount that exceeds

the amortized cost that would have been determined as if no impairment loss had been recognized.

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### **Hedging Derivative Financial Instruments**

Hedge derivatives are mainly derivatives instruments that are for cash flow hedge purposes and determined to be an effective hedge. The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized in shareholders' equity. The amount recognized in shareholders' equity is recognized in profit or loss in the same year or year during which the hedged forecast transaction or an asset or liability arising from the hedged forecast transaction affects profit or loss. However, if all or a portion of a loss recognized in shareholders' equity is not expected to be recovered in the future, the amount that is not expected to be recovered is reclassified into profit or loss.

### **Financial Assets Carried at Cost**

Investments for which the Company does not exercise significant influence and that do not have a quoted market price in an active market and whose fair value cannot be reliably measured, such as non-publicly traded stocks and mutual funds, are carried at their original cost. The costs of non-publicly traded stocks and mutual funds are determined using the weighted-average method. If there is objective evidence which indicates that a financial asset is impaired, a loss is recognized. A subsequent reversal of such impairment loss is not allowed.

The accounting treatment for cash dividends and stock dividends arising from financial assets carried at cost is the same as that for cash and stock dividends arising from available-for-sale financial assets.

### **Allowance for Doubtful Receivables**

An allowance for doubtful receivables is provided based on a review of the collectability of receivables. The Company assesses the collectability of receivables by performing the account aging analysis and examining current trends in the credit quality of its customers.

TSMC's provision was originally set at 1% of the amount of outstanding receivables. On January 1, 2011, the Company adopted the third revision of Statement of Financial Accounting Standards (SFAS) No. 34, Financial Instruments: Recognition and Measurement (SFAS No. 34). One of the main revisions is that the impairment of receivables originated by the Company is subject to the provisions of SFAS No. 34. Accordingly, the Company evaluates for indication of impairment of accounts receivable based on an individual and collective basis at the end of each reporting period. When objective evidence indicates that the estimated future cash flow of accounts receivable decreases as a result of one or more events that occurred after the initial recognition of the accounts receivable, such accounts receivable are deemed to be impaired.

Because of the Company's short average collection period, the amount of the impairment loss recognized is the difference between the carrying amount of accounts receivable and estimated future cash flows without considering the discounting effect. Changes in the carrying amount of the allowance account are recognized as bad debt expense which is recorded in the operating expenses - general and administrative. When accounts receivable are considered uncollectable, the amount is written off against the allowance account.

### **Inventories**

Inventories are recorded at standard cost and adjusted to approximate weighted-average cost on the balance sheet date.

Inventories are stated at the lower of cost or net realizable value. Inventory write-downs are made on an item-by-item basis, except where it may be appropriate to group similar or related items. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and necessary selling costs.

### **Investments Accounted for Using Equity Method**

Investments in companies wherein the Company exercises significant influence over the operating and financial policy decisions are accounted for using the equity method. The Company's share of the net income or net loss of an investee is recognized in the equity in earnings/losses of equity method investees, net account. The cost of an investment shall be analyzed and the cost of investment in excess of the fair value of identifiable net assets acquired, representing goodwill, shall not be amortized. If the fair value of identifiable net assets acquired exceeds the cost of investment, the excess shall be proportionately allocated as reductions to fair values of non-current assets (except for financial assets other than investments accounted for using the equity method and deferred income tax assets).



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When an indication of impairment is identified, the carrying amount of the investment is reduced by the difference of the carrying amount (including goodwill) of each investment and its own recoverable amount, with the related impairment loss recognized in earnings. If the recoverable amount increases in a subsequent period, the amount previously recognized as impairment would be reversed and recognized as a gain.

When the Company subscribes for additional investee's shares at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment in the investee differs from the amount of the Company's share of the investee's equity. The Company records such a difference as an adjustment to long-term investments with the corresponding amount charged or credited to capital surplus. Cash dividends received from an investee shall reduce the carrying amount of the investment. Stock dividends are recorded as an increase in the number of shares held and do not affect investment income.

Gains or losses on sales from the Company to equity method investees or from equity method investees to the Company are deferred in proportion to the Company's ownership percentages in the investees until such gains or losses are realized through transactions with third parties.

If an investee's functional currency is a foreign currency, differences will result from the translation of the investee's financial statements into the reporting currency of the Company. Such differences are charged or credited to cumulative translation adjustments, a separate component of shareholders' equity.

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

Property, plant and equipment and assets leased to others are stated at cost less accumulated depreciation. Properties covered by agreements qualifying as capital leases are carried at the lower of the leased equipment's market value or the present value of the minimum lease payments at the inception date of the lease, with the corresponding amount recorded as obligations under capital leases. Borrowing costs directly attributable to the acquisition or construction of property, plant and equipment are capitalized as part of the cost of those assets. When an indication of impairment is identified, any excess of the carrying amount of an asset over its recoverable amount is recognized as a loss. If the recoverable amount increases in a subsequent period, the amount previously recognized as impairment would be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, as if no impairment loss had been recognized. Significant additions, renewals and betterments incurred during the construction period are capitalized. Maintenance and repairs are expensed as incurred.

Depreciation is computed using the straight-line method over the following estimated service lives: land improvements - 20 years; buildings - 10 to 20 years; machinery and equipment - 3 to 5 years; office equipment - 3 to 15 years; and leased assets - 20 years.

Upon sale or disposal of property, plant and equipment and assets leased to others, the related cost and accumulated depreciation are deducted from the corresponding accounts, with any gain or loss recorded as non-operating gains or losses in the year of sale or disposal.

When property, plant and equipment are determined to be idle or useless, they are transferred to idle assets at the lower of the net realizable value or carrying amount. Depreciation on the idle assets is provided continuously, and the idle assets are tested for impairment on a periodical basis.

### **Intangible Assets**

Goodwill represents the excess of the consideration paid for acquisition over the fair value of identifiable net assets acquired. Goodwill is no longer amortized and instead is tested for impairment annually, or more frequently if events or changes in circumstances suggest that the carrying amount may not be recoverable. If an event occurs or circumstances change which indicate that the fair value of goodwill is more likely than not below its carrying amount, an impairment loss is recognized. A subsequent reversal of such impairment loss is not allowed.

Deferred charges consist of technology license fees, software and system design costs and patent and others. The amounts are amortized over the following periods: Technology license fees - the estimated life of the technology or the term of the technology transfer contract; software and system design costs - 2 to 5 years; patent and others - the economic life or contract period. When an indication of impairment is identified, any excess of the carrying amount of an asset over its recoverable amount is recognized as a loss. If the recoverable amount increases in a subsequent period, the previously recognized impairment loss would be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of amortization, as if no impairment loss had been recognized.





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Expenditures related to research activities and those related to development activities that do not meet the criteria for capitalization are charged to expense when incurred.

### **Pension Costs**

For employees who participate in defined contribution pension plans, pension costs are recorded based on the actual contributions made to employees' individual pension accounts during their service periods. For employees who participate in defined benefit pension plans, pension costs are recorded based on actuarial calculations.

If additional accrued pension cost based on actuarial calculation is not in excess of the sum of the unamortized balance of prior service costs and unrecognized net transition obligation, deferred pension cost will be debited. Otherwise, the excess amount should be debited to net loss not recognized as pension cost as a deduction in stockholders' equity.

### **Income Tax**

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

Any tax credits arising from purchases of machinery and equipment, research and development expenditures and personnel training expenditures are recognized using the flow-through method.

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

Income tax on unappropriated earnings (excluding earnings from foreign consolidated subsidiaries) at a rate of 10% is expensed in the year of shareholder approval which is the year subsequent to the year the earnings are generated.

### **Stock-based Compensation**

Employee stock options that were granted or modified in the period from January 1, 2004 to December 31, 2007 are accounted for by the interpretations issued by the Accounting Research and Development Foundation of the Republic of China. The Company adopted the intrinsic value method and any compensation cost determined using this method is recognized in earnings over the employee vesting period. Employee stock option plans that were granted or modified after December 31, 2007 are accounted for using fair value method in accordance with SFAS No. 39, Accounting for Share-based Payment. Under the statement, the value of the stock options granted, which is equal to the best available estimate of the number of stock options expected to vest multiplied by the grant-date fair value, is expensed on a straight-line basis over the vesting period, with a corresponding adjustment to capital surplus - employee stock options. The estimate is revised if subsequent information indicates that the number of stock options expected to vest differs from previous estimates.

### **Treasury Stock**

Treasury stock represents the outstanding shares that the Company buys back from market, which is stated at cost and shown as a deduction in shareholders' equity. When the Company retires treasury stock, the treasury stock account is reduced and the common stock as well as the capital surplus - additional paid-in capital are reversed on a pro rata basis. When the book value of the treasury stock exceeds the sum of the par value and additional paid-in capital, the difference is charged to capital surplus - treasury stock transactions and to retained earnings for any remaining amount. While disposing of the treasury stock, the treasury stock shall be reversed, and if the disposal value is greater than the book value, the amount in excess of the book value shall be credited to additional paid-in capital - treasury stock.

### **Revenue Recognition and Allowance for Sales Returns and Others**

The Company recognizes revenue when evidence of an arrangement exists, the rewards of ownership and significant risk of the goods has been transferred to the buyer, price is fixed or determinable, and collectability is reasonably assured. Provisions for estimated sales returns and other allowances are recorded in the year the related revenue is recognized, based on historical experience, management's judgment, and any known

factors that would significantly affect the allowance.

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

### **Concentration of Credit Risk**

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents, receivables, investments and deposits. The Company limits its exposure to credit loss by depositing its cash and cash equivalents with high credit rating financial institutions. The Company's sales are primarily denominated in U.S. dollars. Sales to top ten customers represented 54%, 56% and 59% of the consolidated sales for the years ended December 31, 2010, 2011 and 2012, respectively. The Company routinely assesses the financial strength of substantially all customers. The financial condition of the counter-party to investments and deposits is assessed by management on a regular basis.

### **Fair Values of Financial Instruments**

The carrying amount of cash equivalents approximates fair value due to the short period of time to maturity. Fair values of investments in equity or debt securities and derivative financial instruments are based on quoted market prices or pricing models using current market data. Receivables, other financial assets, payables and short-term loans are financial instruments with carrying amounts that approximate fair values. Fair value of long-term loans with floating interest rates is their carrying amount. Fair value of long-term loans with fixed interest rates is the present value of expected cash flows discounted using the interest rate the Company may obtain for similar long-term loans. For the Company's investment portfolio without immediately available market quotes, management believes that the carrying amount of the portfolio approximates the fair value at December 31, 2011 and 2012.

### **Earnings Per Share**

Earnings per share is computed by dividing income attributable to shareholders of the parent by the weighted-average number of shares outstanding in each year, which is retroactively adjusted for stock dividends until 2008. Earnings per equivalent ADS is calculated by multiplying earnings per share by five (one ADS represents five common shares).

## **3. U.S. DOLLAR AMOUNTS**

The Company maintains its accounts and expresses its consolidated financial statements in New Taiwan dollars. For convenience only, U.S. dollar amounts presented in the accompanying consolidated financial statements have been translated from New Taiwan dollars at the exchange rate as set forth in the statistical release of the Federal Reserve Board, which was NT\$29.05 to US\$1.00 as of December 31, 2012. The convenience translations should not be construed as representations that the New Taiwan dollar amounts have been, could have been, or could in the future be, converted into U.S. dollars at this or any other rate of exchange.

## **4. ACCOUNTING CHANGES**

### **Effect of Adopting the Newly Released and Revised R.O.C. SFASs**

On January 1, 2011, the Company prospectively adopted the newly revised SFAS No. 34, Financial Instruments: Recognition and Measurement. The main revisions include (1) finance lease receivables are now covered by SFAS No. 34; (2) the scope of the applicability of SFAS No. 34 to insurance contracts is amended; (3) loans and receivables originated by the Company are now covered by SFAS No. 34; (4) additional guidelines on impairment testing of financial assets carried at amortized cost when the debtor has financial difficulties and the terms of obligations have been modified; and (5) accounting treatment by a debtor for modifications in the terms of obligations. This accounting change did not have a significant effect on the Company's consolidated financial statements as of and for the year ended December 31, 2011.

On January 1, 2011, the Company adopted the newly issued SFAS No. 41, Operating Segments. The statement requires identification and disclosure of operating segments on the basis of how the Company's chief operating decision maker regularly reviews information in order to allocate resources and assess performance. This statement supersedes SFAS No. 20, Segment Reporting and the Company conformed to the

disclosure requirement and provided the operating segments disclosure in the consolidated financial statements accordingly.

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**Table of Contents****5. CASH AND CASH EQUIVALENTS**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Cash and deposits in banks	\$ 139,637.4	\$ 140,072.3
Repurchase agreements collateralized by corporate bonds	-	2,691.1
Repurchase agreements collateralized by short-term commercial paper	-	349.3
Repurchase agreements collateralized by government bonds	3,834.9	297.9
	\$ 143,472.3	\$ 143,410.6

**6. FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS**

	December 31	
	2011	2012
	NT\$	NT\$
	(In Millions)	
Trading financial assets		
Forward exchange contracts	\$ 15.4	\$ 38.6
Cross currency swap contracts	-	0.9
	\$ 15.4	\$ 39.5
Trading financial liabilities		
Forward exchange contracts	\$ 13.7	\$ 12.2
Cross currency swap contracts	0.1	3.4
	\$ 13.8	\$ 15.6

The Company entered into derivative contracts during the years ended December 31, 2010, 2011 and 2012 to manage exposures due to fluctuations of foreign exchange rates. The derivative contracts entered into by the Company did not meet the criteria for hedge accounting. Therefore, the Company did not apply hedge accounting treatment for derivative contracts.

Outstanding forward exchange contracts consisted of the following:

	<b>Contract Amount</b>
<b>Maturity Date</b>	<b>(In Millions)</b>

December 31, 2011

Sell EUR/Buy NT\$	January 2012	EUR 38.6/NT\$1,528.2
Sell US\$/Buy NT\$	January 2012 to February 2012	US\$16.9/NT\$510.1
Sell US\$/Buy EUR	January 2012	US\$2.1/EUR1.6
Sell US\$/Buy JPY	January 2012	US\$3.3/JPY259.8
Sell RMB/Buy US\$	January 2012	RMB1,118.7/US\$177.0
Sell NT\$/Buy US\$	January 2012 to February 2012	NT\$163.5/US\$5.4

December 31, 2012

Sell NT\$/Buy EUR	January 2013	NT\$9,417.1/EUR246.0
Sell US\$/Buy RMB	January 2013	US\$20.0/RMB124.7
Sell US\$/Buy NT\$	January 2013 to March 2013	US\$13.7/NT\$398.2
Sell NT\$/Buy US\$	January 2013	NT\$590.4/US\$20.4
Sell NT\$/Buy JPY	January 2013	NT\$44.1/JPY130.0

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Outstanding cross currency swap contracts consisted of the following:

		Range of	Range of
	Contract Amount	Interest Rates	Interest Rates
Maturity Date	(in Millions)	Paid	Received
<u>December 31, 2011</u>			
January 2012	NT\$420.4/US\$13.9	-	0.48%
<u>December 31, 2012</u>			
January 2013	US\$275.0/NT\$7,986.2	0.14%-0.17%	-
January 2013	NT\$1,083.1/US\$37.3	-	0.06%

For the years ended December 31, 2010, 2011 and 2012, net gains on derivative financial instruments were NT\$320.7 million, NT\$507.4 million and a net loss on derivative financial instruments was NT\$252.5 million, respectively.

**7. AVAILABLE-FOR-SALE FINANCIAL ASSETS**

	December 31	
	2011 NT\$	2012 NT\$
	(In Millions)	
Publicly traded stocks	\$ 3,306.3	\$ 41,160.4
Money market funds	2.5	1.4
	3,308.8	41,161.8
Current portion	(3,308.8)	(2,410.6)
	\$ -	\$ 38,751.2

In October 2012, the Company invested ASML Holding N.V. (ASML) for EUR837.8 million to acquire 5% of equity with a lock-up period of 2.5 years.

For the year ended December 31, 2012, the Company recognized an impairment loss on some of the overseas publicly traded stocks in the amount of NT\$2,677.5 million due to the significant decline in fair value.

**8. HELD-TO-MATURITY FINANCIAL ASSETS**

December 31  
2011 2012

	NT\$	NT\$
	(In Millions)	
Corporate bonds	\$ 8,614.6	\$ 5,057.0
Government bonds	454.3	-
	9,068.9	5,057.0
Current portion	(3,825.7)	(5,057.0)
	\$ 5,243.2	\$ -

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**Table of Contents****9. RECEIVABLES, NET**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Notes and accounts receivable	\$ 46,321.3	\$ 58,257.8
Allowance for doubtful receivables	(491.0)	(480.2)
Allowance for sales returns and others	(5,068.3)	(6,038.0)
	(5,559.3)	(6,518.2)
	\$ 40,762.0	\$ 51,739.6

Changes in the allowances are summarized as follows:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>		
Allowance for doubtful receivables			
Balance, beginning of year	\$ 543.3	\$ 504.0	\$ 491.0
Provision (reversal)	(37.0)	(3.1)	0.4
Write-off	(2.3)	(9.7)	(11.1)
Effect of changes in consolidated entities	-	(0.2)	-
Effect of exchange rate changes	-	-	(0.1)
Balance, end of year	\$ 504.0	\$ 491.0	\$ 480.2

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>		
Allowance for sales returns and others			
Balance, beginning of year	\$ 8,724.5	\$ 7,546.3	\$ 5,068.3
Provision	12,093.0	3,409.9	7,187.0
Write-off	(13,265.6)	(5,890.4)	(6,211.2)
Effect of exchange rate changes	(5.6)	2.5	(6.1)
Balance, end of year	\$ 7,546.3	\$ 5,068.3	\$ 6,038.0

**10. INVENTORIES**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Finished goods	\$ 3,347.8	\$ 6,244.8
Work in process	17,941.0	25,713.2
Raw materials	1,808.6	3,864.1
Supplies and spare parts	1,743.2	2,008.4
	\$ 24,840.6	\$ 37,830.5

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Write-down of inventories to net realizable value in the amount of NT\$900.2 million, NT\$35.3 million and NT\$1,558.9 million, respectively, were included in the cost of sales for the years ended December 31, 2010, 2011 and 2012. Inventory losses related to earthquake in the amount of NT\$191.0 million were classified under non-operating expenses and losses for the year ended December 31, 2010.

**11. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD**

	December 31		December 31	
	2011	% of	2012	% of
	Carrying	Owner-	Carrying	Owner-
	Amount	ship	Amount	ship
	NT\$		NT\$	
	(In Millions)		(In Millions)	
Vanguard International Semiconductor Corporation (VIS)	\$ 8,988.0	39	\$ 9,462.0	40
Systems on Silicon Manufacturing Company Pte Ltd. (SSMC)	6,289.4	39	6,711.0	39
Motech Industries, Inc. (Motech)	5,612.3	20	2,998.4	20
VisEra Holding Company (VisEra Holding)	2,853.4	49	3,035.6	49
GUC	1,157.2	35	1,223.0	35
Mcube Inc. (Mcube)	-	25	-	25
	\$ 24,900.3		\$ 23,430.0	

Since July 2011, TSMC is no longer deemed to be a controlling entity of GUC and its subsidiaries due to the termination of a Shareholders Agreement. As a result, GUC and its subsidiaries are no longer consolidated and are accounted for using the equity method.

For the year ended December 31, 2012, the Company recognized an impairment loss in the amount of NT\$1,186.7 million, due to the lower estimated recoverable amount compared with the carrying amount of its investments in stocks traded on the Taiwan GreTai Securities Market.

For the years ended December 31, 2010, 2011 and 2012, equity in earnings of equity method investees was a net gain of NT\$2,298.2 million, NT\$897.6 million and NT\$2,028.6 million, respectively.

As of December 31, 2011 and 2012, the quoted market price of publicly traded stocks in unrestricted investments accounted for using the equity method (VIS and GUC) were NT\$11,273.2 million and NT\$17,350.8 million, respectively.

Movements of the difference between the cost of investments and the Company's share in investees' net assets allocated to depreciable assets were as follows:

	Year Ended December 31		
	2010	2011	2012
	NT\$	NT\$	NT\$
	(In Millions)		
Balance, beginning of year	\$ 1,391.5	\$ 2,491.9	\$ 1,645.8
Additions	2,055.7	-	-
Amortization	(955.3)	(846.1)	(501.8)

Balance, end of year	\$ 2,491.9	\$ 1,645.8	\$ 1,144.0
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Movements of the difference allocated to goodwill were as follows:

	Year Ended December 31		
	2010 NT\$	2011 NT\$	2012 NT\$
	(In Millions)		
Balance, beginning of year	\$ 1,061.9	\$ 1,415.6	\$ 1,415.6
Additions	353.7	-	-
Balance, end of year	\$ 1,415.6	\$ 1,415.6	\$ 1,415.6

**12. HEDGING DERIVATIVE FINANCIAL INSTRUMENTS**

	December 31	
	2011 NT\$	2012 NT\$
	(In Millions)	

**Hedging derivative financial liabilities**

Interest rate swap contract	\$ 0.2	\$ -
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The Company entered into forward exchange contracts to hedge cash flow risk arising from foreign exchange rate fluctuations of an expected equity security transaction. The forward exchange contract was due in October 2012. For the year ended December 31, 2012, the adjustment to shareholders' equity amounted to a net gain of NT\$8.8 million for the above forward exchange contracts.

The Company's long-term bank loans bear floating interest rates; therefore, changes in the market interest rate may cause future cash flows to be volatile. Accordingly, the Company entered into an interest rate swap contract in order to hedge cash flow risk caused by floating interest rates. The interest rate swap contract of the Company was due in August 2012.

The outstanding interest rate swap contract consisted of the following:

Contract Amount		Range of	Range of
NT\$		Interest Rates	Interest Rates
(In Million)	Maturity Date	Paid	Received
<u>December 31, 2011</u>			
NT\$80.0	August 31, 2012	1.38%	0.63%-0.86%

For the years ended December 31, 2010, 2011 and 2012, the adjustment to shareholders' equity amounted to a net loss of NT\$1.2 million, NT\$0.1 million and nil, respectively; and the amount removed from shareholders' equity and recognized as a loss from the above interest rate swap contract amounted to NT\$0.4 million, NT\$0.6 million and NT\$0.2 million, respectively.



**Table of Contents****13. FINANCIAL ASSETS CARRIED AT COST**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Non-publicly traded stocks	\$ 4,004.3	\$ 3,314.7
Mutual funds	310.7	290.4
	\$ 4,315.0	\$ 3,605.1

The common stock of InvenSense, Inc. and Audience, Inc. was listed on the NYSE and NASDAQ in November 2011 and in May 2012, respectively. Thus, the Company reclassified the aforementioned investments from financial assets carried at cost to available-for-sale financial assets.

For the years ended December 31, 2010, 2011 and 2012, the Company recognized impairment on financial assets carried at cost of NT\$159.8 million, NT\$265.5 million and NT\$367.4 million, respectively.

**14. PROPERTY, PLANT AND EQUIPMENT**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
<b>Cost</b>		
Land and land improvements	\$ 1,541.1	\$ 1,527.1
Buildings	172,872.5	197,314.7
Machinery and equipment	1,057,588.7	1,279,167.7
Office equipment	16,969.3	19,973.7
Leased assets	791.5	766.8
	1,249,763.1	1,498,750.0
Advance payments and construction in progress	116,864.0	119,064.0
	1,366,627.1	1,617,814.0
<b>Accumulated depreciation</b>		
Land and land improvements	355.6	367.4
Buildings	101,004.0	111,737.3
Machinery and equipment	762,774.4	874,785.4
Office equipment	11,820.7	13,066.3
Leased assets	297.5	328.1
	876,252.2	1,000,284.5

Net	\$ 490,374.9	\$ 617,529.5
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Depreciation expense on property, plant and equipment was NT\$85,551.4 million, NT\$105,327.2 million and NT\$129,161.9 million for the years ended December 31, 2010, 2011 and 2012, respectively.

The Company entered into agreements to lease buildings that qualify as capital leases. The term of the leases is from December 2003 to November 2018.



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As of December 31, 2012, future lease payments were as follows:

<b>Year</b>	<b>Amount NT\$ (In Millions)</b>
2013	\$ 27.0
2014	27.0
2015	27.0
2016	27.0
2017	27.0
2018 and thereafter	729.8
	<b>\$ 864.8</b>

During the years ended December 31, 2011 and 2012, the Company capitalized the borrowing costs directly attributable to the acquisition or construction of property, plant and equipment. Information about capitalized interest was as follows:

	<b>Year Ended December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Capitalized interest	\$ 9.1	\$ 6.4
Capitalization rates	1.07%-1.29%	1.08%-1.20%

**15. DEFERRED CHARGES, NET**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Technology license fees	\$ 1,682.9	\$ 1,461.9
Software and system design costs	2,366.5	2,969.0
Patent and others	1,118.2	1,005.0
	<b>\$ 5,167.6</b>	<b>\$ 5,435.9</b>

Amortization expense on deferred charges was NT\$2,236.7 million, NT\$2,337.6 million and NT\$2,180.8 million for the years ended December 31, 2010, 2011 and 2012, respectively.

As of December 31, 2012, the Company's estimated aggregate amortization expense for each of the five succeeding fiscal years and thereafter is as follows:

<b>Year</b>	<b>Amount NT\$ (In Millions)</b>
2013	\$ 2,012.2
2014	1,573.6
2015	1,032.2
2016	442.3
2017	270.4
2018 and thereafter	105.2
	\$ 5,435.9

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**Table of Contents****16. SHORT-TERM LOANS**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Unsecured loans:		
US\$856.0 million, due by February 2012 and annual interest at 0.45%-1.00% in 2011;		
US\$1,195.5 million, due in January 2013, and annual interest at 0.39%-0.58 % in 2012	\$ 25,926.5	\$ 34,714.9

**17. BONDS PAYABLE**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Domestic unsecured bonds:		
Issued in September 2011 and repayable in September 2016, 1.40% interest payable annually	\$ 10,500.0	\$ 10,500.0
Issued in September 2011 and repayable in September 2018, 1.63% interest payable annually	7,500.0	7,500.0
Issued in January 2012 and repayable in January 2017, 1.29% interest payable annually	-	10,000.0
Issued in January 2012 and repayable in January 2019, 1.46% interest payable annually	-	7,000.0
Issued in August 2012 and repayable in August 2017, 1.28% interest payable annually	-	9,900.0
Issued in August 2012 and repayable in August 2019, 1.40% interest payable annually	-	9,000.0
Issued in September 2012 and repayable in September 2017, 1.28% interest payable annually	-	12,700.0
Issued in September 2012 and repayable in September 2019, 1.39% interest payable annually	-	9,000.0
Issued in October 2012 and repayable in October 2022, 1.53% interest payable annually	-	4,400.0
Issued in January 2002 and repayable in January 2012, 3.00% interest payable annually	4,500.0	-
	22,500.0	80,000.0
Current portion	(4,500.0)	-
	\$ 18,000.0	\$ 80,000.0

With the approval from the Financial Supervisory Commission (FSC), the Company issued domestic unsecured bonds in the amount of NT\$23,600.0 million and NT\$21,400.0 million in January 2013 and February 2013, respectively.

The provision of a loan guarantee to TSMC Global, a subsidiary of TSMC, for its issuance of unsecured corporate bonds for an amount not to exceed US\$1,500.0 million had been approved in the meeting of the Board of Directors of TSMC held on February 5, 2013.

**Table of Contents****18. LONG-TERM BANK LOANS**

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Bank loans for working capital:		
Repayable in full in one lump sum payment in June 2016, annual interest at 1.00%-1.08% in 2011 and 1.08%-1.21% in 2012	\$ 650.0	\$ 550.0
Repayable in full in one lump sum payment in March 2014, annual interest at 1.02%-1.16% in 2011 and 1.16%-1.18% in 2012	500.0	450.0
Repayable from July 2012 in 16 quarterly installments, annual interest at 1.11%-1.21% in 2011 and 1.21%-1.24% in 2012	300.0	262.5
Repayable from September 2012 in 16 quarterly installments, annual interest at 1.13%-1.21% in 2011 and 1.21%-1.24% in 2012	200.0	175.0
Repayable from October 2013 in 16 quarterly installments, annual interest at 1.23%-1.24% in 2012	-	50.0
	1,650.0	1,487.5
Current portion	(62.5)	(128.1)
	\$ 1,587.5	\$ 1,359.4

Pursuant to the loan agreements, financial ratios calculated based on semi-annual and annual financial statements of Xintec must comply with predetermined financial covenants. As of December 31, 2012, Xintec was in compliance with all such financial covenants.

As of December 31, 2012, future principal repayments for the long-term loans were as follows:

<b>Year of Repayment</b>	<b>Amount NT\$</b>
	<b>(In Million)</b>
2013	\$ 128.1
2014	587.5
2015	137.5
2016	625.0
2017	9.4
	\$ 1,487.5

**19. OTHER LONG-TERM PAYABLES****December 31**

	2011 NT\$	2012 NT\$
	(In Millions)	
Payables for acquisition of property, plant and equipment (Note 30g)	\$ 3,399.9	\$ 825.5
Payables for software and system design costs	-	113.0
Payables for technology transfer	-	29.0
	3,399.9	967.5
Current portion (classified under accrued expenses and other current liabilities)	(3,399.9)	(913.5)
	\$ -	\$ 54.0

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As of December 31, 2012, future payments for other long-term payables were as follows:

<b>Year of Payment</b>	<b>Amount</b>
2013	\$ 913.5
2014	18.0
2015	18.0
2016	18.0
	\$ 967.5

**20. PENSION PLANS**

The pension mechanism under the Labor Pension Act (the Act) is deemed a defined contribution plan. Pursuant to the Act, TSMC, GUC, Xintec, Mutual-Pak, TSMC SSL and TSMC Solar have made monthly contributions equal to 6% of each employee's monthly salary to employees' pension accounts. Furthermore, TSMC North America, TSMC China, TSMC Europe, TSMC Canada, TSMC Solar NA and TSMC Solar Europe GmbH are required by local regulations to make monthly contributions at certain percentages of the basic salary of their employees. Pursuant to the aforementioned Act and local regulations, the Company recognized pension costs of NT\$1,121.7 million, NT\$1,297.6 million and NT\$1,403.5 million for the years ended December 31, 2010, 2011 and 2012, respectively.

TSMC, GUC, Xintec, TSMC SSL and TSMC Solar have defined benefit plans under the Labor Standards Law that provide benefits based on an employee's length of service and average monthly salary for the six-month period prior to retirement. The aforementioned companies contribute an amount equal to 2% of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the Committee's name in the Bank of Taiwan.

Changes in projected benefit obligation and plan assets for the years ended December 31, 2010, 2011 and 2012 are summarized as follows:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>		
<b><u>Projected benefit obligation</u></b>			
Balance, beginning of year	\$ 6,557.8	\$ 9,288.8	\$ 9,214.1
Service cost	129.7	133.0	129.3
Interest cost	146.7	167.9	160.0
Actuarial loss (gain)	2,474.6	(330.7)	656.1
Benefits paid	(20.0)	(7.3)	(26.1)
Effect of changes in consolidated entities	-	(37.6)	-
Balance, end of year	\$ 9,288.8	\$ 9,214.1	\$ 10,133.4
<b><u>Plan assets</u></b>			

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Balance, beginning of year	\$ 2,661.6	\$ 2,907.2	\$ 3,120.6
Actual return of plan assets	44.4	35.5	37.0
Employer contribution	212.2	212.0	221.1
Benefits paid	(11.0)	(7.3)	(26.1)
Effect of changes in consolidated entities	-	(26.8)	-
Balance, end of year	\$ 2,907.2	\$ 3,120.6	\$ 3,352.6

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Other information of defined benefit plans was as follows:

a. Components of net periodic pension cost

	Year Ended December 31		
	2010	2011	2012
	NT\$	NT\$	NT\$
	(In Millions)		
Service cost	\$ 129.7	\$ 133.0	\$ 129.2
Interest cost	146.6	167.9	160.0
Projected return on plan assets	(40.9)	(68.0)	(63.2)
Amortization	2.2	74.8	65.1
Net periodic pension cost	\$ 237.6	\$ 307.7	\$ 291.1

b. Reconciliation of funded status of the plans and accrued pension cost at December 31, 2011 and 2012

	December 31	
	2011	2012
	NT\$	NT\$
	(In Millions)	
Benefit obligation		
Vested benefit obligation	\$ 313.5	\$ 427.9
Nonvested benefit obligation	5,456.9	6,069.7
Accumulated benefit obligation	5,770.4	6,497.6
Additional benefits based on future salaries	3,443.7	3,635.8
Projected benefit obligation	9,214.1	10,133.4
Fair value of plan assets	(3,120.6)	(3,352.6)
Funded status	6,093.5	6,780.8
Unrecognized net transition obligation	(74.8)	(66.4)
Prior service cost	147.6	140.3
Unrecognized net loss	(2,257.8)	(2,879.6)
Additional liability	-	4.5
Accrued pension cost	\$ 3,908.5	\$ 3,979.6
Vested benefit	\$ 350.0	\$ 479.6
Net loss not recognized as pension cost	\$ -	\$ 4.5



c. Actuarial assumptions at December 31, 2011 and 2012

	2011	2012
Discount rate used in determining present values	1.75%	1.50%-1.75%
Future salary increase rate	2.50%-3.00%	2.00%-3.00%
Expected rate of return on plan assets	2.00%	1.75%-2.00%

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- d. Expected benefit payments

<b>Year</b>	<b>Amount NT\$ (In Millions)</b>
2013	\$ 157.5
2014	100.5
2015	144.3
2016	217.9
2017	224.7
2018 and thereafter	1,998.9

- e. TSMC, Xintec, TSMC SSL and TSMC Solar expect to make contributions to their pension funds in 2013 of NT\$221.2 million, NT\$1.9 million, NT\$1.5 million and NT\$0.9 million, respectively.

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>		
f. Contributions to the Funds for the year	\$ 212.2	\$ 212.0	\$ 221.1
g. Payments from the Funds for the year	\$ 20.0	\$ 7.3	\$ 26.1

- h. Plan assets allocation

The government is responsible for the administration of all the defined benefit plans for the companies in Taiwan under the Labor Standards Law. The government also sets investment policies and strategies, determines investment allocation and selects investment managers. As of December 31, 2011 and 2012, the asset allocation was primarily in cash, equity securities and debt securities. Furthermore, under the Labor Standards Law, the rate of return on assets shall not be less than the average interest rate on a two-year time deposit published by the local banks and the government is responsible for any shortfall in the event that the rate of return is less than the required rate of return. However, information on how investment allocation decisions are made, inputs and valuation techniques used to measure the fair value of plan assets, the effect of fair value measurements using significant unobservable inputs on changes in plan assets for the period and significant concentrations of risk within plan assets is not fully made available to the companies by the government. Therefore, the Company is unable to provide the required fair value disclosures related to pension plan assets.

## 21. INCOME TAX

- a. Income tax expense consisted of:

<b>Year Ended December 31</b>		
<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	

Current			
Domestic	\$ 8,131.6	\$ 11,040.4	\$ 14,853.4
Foreign	159.4	144.4	163.7
	8,291.0	11,184.8	15,017.1
Deferred			
Domestic	(327.9)	(466.4)	2,603.1
Foreign	25.4	(24.0)	(2,029.9)
	(302.5)	(490.4)	573.2
Income tax expense	\$ 7,988.5	\$ 10,694.4	\$ 15,590.3

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- b. A reconciliation of income tax expense based on income before income tax at the statutory rates and income tax currently payable was as follows:

	Year Ended December 31		
	2010 NT\$	2011 NT\$	2012 NT\$
	(In Millions)		
Income tax expense based on income before income tax at statutory rates	\$ 30,456.4	\$ 25,964.2	\$ 33,654.1
Tax effect of the following:			
Tax-exempt income	(17,410.2)	(13,832.2)	(9,830.3)
Temporary and permanent differences	(827.0)	(1,597.3)	(3,020.7)
Additional income tax under the Alternative Minimum Tax Act	-	286.8	-
Additional tax at 10% on unappropriated earnings	138.2	6,293.4	4,193.5
Net operating loss carryforwards used	(529.3)	(395.3)	(647.8)
Investment tax credits used	(4,888.0)	(6,318.2)	(9,588.2)
Income tax currently payable	\$ 6,940.1	\$ 10,401.4	\$ 14,760.6

- c. Income tax expense consisted of the following:

	Year Ended December 31		
	2010 NT\$	2011 NT\$	2012 NT\$
	(In Millions)		
Income tax currently payable	\$ 6,940.1	\$ 10,401.4	\$ 14,760.6
Income tax adjustments on prior years	977.9	470.4	55.3
Other income tax adjustments	373.1	313.0	201.2
Net change in deferred income tax assets			
Investment tax credits	(7,129.5)	2,304.9	7,102.8
Net operating loss carryforwards	546.2	224.1	182.8
Temporary differences	(78.2)	(71.0)	74.3
Valuation allowance	6,358.9	(2,873.4)	(6,786.7)
Effect of changes in consolidated entities	-	(75.0)	-
Income tax expense	\$ 7,988.5	\$ 10,694.4	\$ 15,590.3

- d. Net deferred income tax assets consisted of the following:

December 31	
2011	2012
NT\$	NT\$
(In Millions)	

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Current deferred income tax assets		
Investment tax credits	\$ 4,913.8	\$ 6,214.7
Temporary differences		
Allowance for sales returns and others	506.2	718.0
Unrealized loss on inventories	44.0	416.6
Unrealized loss on financial instruments, net	308.9	224.6
Others	304.1	473.7
Valuation allowance	(140.5)	(46.4)
	\$ 5,936.5	\$ 8,001.2

(Continued)

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	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Noncurrent deferred income tax assets		
Investment tax credits	\$ 15,399.5	\$ 6,995.8
Net operating loss carryforwards	2,491.7	2,224.2
Temporary differences		
Depreciation	2,280.9	1,420.8
Others	654.7	759.7
Valuation allowance	(13,390.1)	(6,624.5)
	\$ 7,436.7	\$ 4,776.0

(Concluded)

Effective in May 2010, the Article 5 of the Income Tax Law of the Republic of China was amended, in which the income tax rate of profit-seeking enterprises would be reduced from 20% to 17%. The last amended income tax rate of 17% is retroactively applied on January 1, 2010.

Under the Article 10 of the Statute for Industrial Innovation (SII), effective in May 2010, a profit-seeking enterprise may deduct up to 15% of its research and development expenditures from its income tax payable for the year in which these expenditures are incurred, but this deduction should not exceed 30% of the income tax payable for that year. This incentive is retroactive to January 1, 2010 and effective until December 31, 2019.

Under the Income Basic Tax Act amended in August 2012, the standard deduction and the tax rate of Alternative Minimum Tax were amended from NT\$2.0 million to be NT\$0.5 million and from 10% to 12%, respectively. The amended Income Basic Tax Act is effective on January 1, 2013.

The Company has evaluated the impact from above amendments and adjusted the deferred tax assets with the resulting differences recorded as income tax expense for the year ended December 31, 2012. In addition, the Company evaluated the effect of Alternative Minimum Tax and the applicable year of the profits generated from projects exempt from income tax for a five-year period. As the Company plans to apply the tax-exempt income in later years, income tax payable is anticipated to increase and the Company will utilize available investment tax credits as an offset against income taxes. Since more investment tax credits can be utilized, valuation allowance has been adjusted down accordingly.

As of December 31, 2012, the net operating loss carryforwards generated by WaferTech, Xintec, Mutual-Pak, TSMC SSL and TSMC Solar would expire on various dates through 2023.

e. Integrated income tax information:

The balance of the imputation credit account of TSMC as of December 31, 2011 and 2012 was NT\$4,003.2 million and NT\$8,130.1 million, respectively.

The actual and estimated creditable ratios for distribution of TSMC's earnings of 2011 and 2012 were 6.69% and 7.92%, respectively.

The imputation credit allocated to shareholders is based on its balance as of the date of the dividend distribution. The estimated creditable ratio may change when the actual distribution of the imputation credit is made.

f. All of TSMC's earnings generated prior to December 31, 1997 have been appropriated.



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- g. As of December 31, 2012, investment tax credits of TSMC, Xintec, Mutual-Pak and TSMC SSL consisted of the following:

Law/Statute	Item	Total Creditable Amount NT\$ (In Millions)	Remaining Creditable Amount NT\$	Expiry Year
Statute for Upgrading Industries	Purchase of machinery and equipment	\$ 7.0	\$ -	2012
		6,514.2	927.6	2013
		7,045.6	7,045.6	2014
		505.2	505.2	2015
		\$ 14,072.0	\$ 8,478.4	
Statute for Upgrading Industries	Research and development expenditures	\$ 1,179.8	\$ -	2012
		4,732.1	4,732.1	2013
		\$ 5,911.9	\$ 4,732.1	
Statute for Upgrading Industries	Personnel training expenditures	\$ 17.4	\$ -	2012
Statute for Industrial Innovation	Research and development expenditures	\$ 2,828.3	\$ -	2012

- h. The profits generated from the following projects of TSMC and Xintec are exempt from income tax for a five-year period:

	Tax-Exemption Period
Construction and expansion of 2004 by TSMC	2008 to 2012
Construction and expansion of 2005 by TSMC	2010 to 2014
Construction and expansion of 2006 by TSMC	2011 to 2015
Construction and expansion of 2003 and 2006 by Xintec	2010 to 2014

- i. The tax authorities have examined income tax returns of TSMC through 2009. All investment tax credit adjustments assessed by the tax authorities have been recognized accordingly.



## **22. SHAREHOLDERS' EQUITY**

### **Common Stock, Capital Surplus and Earnings**

As of December 31, 2012, 1,091,468 thousand ADSs of TSMC were traded on the NYSE. The number of common shares represented by the ADSs was 5,457,339 thousand (one ADS represents five common shares).

Capital surplus can be used to offset a deficit under the Company Law. However, the capital surplus generated from donations and the excess of the issuance price over the par value of capital stock (including the stock issued for new capital, mergers, convertible bonds and the surplus from treasury stock transactions) may be appropriated as stock dividends, which are limited to a certain percentage of TSMC's paid-in capital. In addition, the capital surplus from long-term investments may not be used for any purpose. However, according to the revised Company Law, effective January 2012, the aforementioned capital surplus generated from donations and the excess of the issuance price over the par value of capital stock can also be used to distribute cash in proportion to original shareholders' holding.

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Capital surplus consisted of the following:

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Additional paid-in capital	\$ 23,774.3	\$ 23,934.6
From merger	22,804.5	22,804.5
From convertible bonds	8,892.9	8,892.9
From long-term investments	374.7	503.3
From employee stock options	-	2.5
	\$ 55,846.4	\$ 56,137.8

As of December 31, 2011 and 2012, retained earnings consisted of:

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Unappropriated earnings	\$ 213,357.3	\$ 287,174.9
Legal capital reserve	102,400.0	115,820.1
Special capital reserve	6,433.9	7,606.3
	\$ 322,191.2	\$ 410,601.3

TSMC's Articles of Incorporation provide that, when allocating the net profits for each fiscal year, TSMC shall first offset its losses in previous years and then set aside the following items accordingly:

- Legal capital reserve at 10% of the profits left over, until the accumulated legal capital reserve equals TSMC's paid-in capital;
- Special capital reserve in accordance with relevant laws or regulations or as requested by the authorities in charge;
- Bonus to directors and profit sharing to employees of TSMC of not more than 0.3% and not less than 1% of the remainder, respectively. Directors who also serve as executive officers of TSMC are not entitled to receive the bonus to directors. TSMC may issue profit sharing to employees in stock of an affiliated company meeting the conditions set by the Board of Directors or, by the person duly authorized by the Board of Directors;
- Any balance left over shall be allocated according to the resolution of the shareholders' meeting.

TSMC's Articles of Incorporation also provide that profits of TSMC may be distributed by way of cash dividend and/or stock dividend. However, distribution of profits shall be made preferably by way of cash dividend. Distribution of profits may also be made by

way of stock dividend; provided that the ratio for stock dividend shall not exceed 50% of the total distribution.

Any appropriations of the profits are subject to shareholders' approval in the following year.

TSMC accrued profit sharing to employees based on certain percentage of net income during the year, which amounted to NT\$8,990.0 million and NT\$11,115.2 million for the years ended December 2011 and 2012, respectively. Bonuses to directors were expensed based on estimated amount of payment. If the actual amounts subsequently resolved by the shareholders differ from the estimated amounts, the differences are recorded in the year of shareholders' resolution as a change in accounting estimate. If profit sharing is resolved to be distributed to employees in stock, the number of shares is determined by dividing the amount of profit sharing by the closing price (after considering the effect of dividends) of the shares on the day preceding the shareholders' meeting.

TSMC no longer has supervisors since January 1, 2007. The required duties of supervisors are being fulfilled by the Audit Committee.

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According to the revised Company Law, effective January 2012, the appropriation for legal capital reserve shall be made until the reserve equals the Company's paid-in capital. The reserve may be used to offset a deficit, or be distributed as dividends in cash or stocks for the portion in excess of 25% of the paid-in capital if the Company incurs no loss.

A special capital reserve equivalent to the net debit balance of the other components of shareholders' equity (for example, cumulative translation adjustments, unrealized loss on financial instruments and net loss not recognized as pension cost, but excluding treasury stock) shall be made from unappropriated earnings pursuant to existing regulations promulgated by the Securities and Futures Bureau (SFB). Any special reserve appropriated may be reversed to the extent that the net debit balance reverses.

The appropriations of earnings for 2010 and 2011 had been approved in TSMC's shareholders' meetings held on June 9, 2011 and June 12, 2012, respectively. The appropriations and dividends per share were as follows:

	<b>Appropriation of Earnings</b>		<b>Dividends Per Share</b>	
	<b>For Fiscal</b>	<b>For Fiscal</b>	<b>For Fiscal</b>	<b>For Fiscal</b>
	<b>Year 2010</b>	<b>Year 2011</b>	<b>Year 2010</b>	<b>Year 2011</b>
	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>			
Legal capital reserve	\$ 16,160.5	\$ 13,420.1		
Special capital reserve	5,120.8	1,172.4		
Cash dividends to shareholders	77,730.2	77,748.7	\$3.00	\$3.00
	\$ 99,011.5	\$ 92,341.2		

TSMC's profit sharing to employees and bonus to directors in the amounts of NT\$10,908.3 million and NT\$51.1 million in cash for 2010, respectively, and profit sharing to employees and bonus to directors in the amounts of NT\$8,990.0 million and NT\$62.3 million in cash for 2011, respectively, had been approved in the shareholders' meeting held on June 9, 2011 and June 12, 2012, respectively. The resolved amounts of the profit sharing to employees and bonus to directors were consistent with the resolutions of meeting of the Board of Directors held on February 15, 2011 and February 14, 2012 and same amount had been charged against earnings of 2010 and 2011, respectively.

TSMC's appropriations of earnings for 2012 had been resolved in the meeting of the Board of Directors held on February 5, 2013. The appropriations and dividends per share were as follows:

	<b>Appropriation of</b>	<b>Dividends Per</b>
	<b>Earnings</b>	<b>Share</b>
	<b>For Fiscal</b>	<b>For Fiscal</b>
	<b>Year 2012</b>	<b>Year 2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Legal capital reserve	\$ 16,615.9	
Special capital reserve	(4,820.5)	
Cash dividends to shareholders	77,773.3	\$ 3.0
	\$ 89,568.7	

The Board of Directors of TSMC also resolved to appropriate profit sharing to employees and bonus to directors in the amounts of NT\$11,115.2 million and NT\$71.4 million in cash for 2012, respectively. There is no significant difference between the aforementioned resolved amounts and the amounts charged against earnings of 2012.

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The appropriations of earnings, profit sharing to employees and bonus to directors for 2012 are to be resolved in the TSMC's shareholders meeting held on June 11, 2013 (expected).

The information about the appropriations of TSMC's profit sharing to employees and bonus to directors is available at the Market Observation Post System website.

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Under the Integrated Income Tax System that became effective on January 1, 1998, R.O.C. resident shareholders are allowed a tax credit for their proportionate share of the income tax paid by TSMC on earnings generated since January 1, 1998.

**23. STOCK-BASED COMPENSATION PLANS**

## a. Under Intrinsic Value Method

TSMC's Employee Stock Option Plans, consisting of the TSMC 2002 Plan, TSMC 2003 Plan, and TSMC 2004 Plan, were approved by the SFB on June 25, 2002, October 29, 2003 and January 6, 2005, respectively. The maximum number of options authorized to be granted under the TSMC 2002 Plan, TSMC 2003 Plan and TSMC 2004 Plan was 100,000 thousand, 120,000 thousand and 11,000 thousand, respectively, with each option eligible to subscribe for one common share of TSMC when exercised. The options may be granted to qualified employees of TSMC or any of its domestic or foreign subsidiaries, in which TSMC's shareholding with voting rights, directly or indirectly, is more than fifty percent (50%). The options of all the plans are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date. Under the terms of the plans, the options are granted at an exercise price equal to the closing price of TSMC's common shares listed on the TWSE on the grant date.

Options of the plans that had never been granted or had been granted but subsequently canceled had expired as of December 31, 2012.

Information about TSMC's outstanding options for the years ended December 31, 2010, 2011 and 2012 was as follows:

	<b>Number of Options (In Thousands)</b>	<b>Weighted- average Exercise Price (NT\$)</b>
<b><u>Year ended December 31, 2010</u></b>		
Balance, beginning of year	28,810	\$ 32.4
Options exercised	(7,372)	33.2
Options canceled	(1)	50.1
 Balance, end of year	 21,437	 32.3
 <b><u>Year ended December 31, 2011</u></b>		
Balance, beginning of year	21,437	\$ 31.4
Options exercised	(7,144)	30.5
 Balance, end of year	 14,293	 32.1
 <b><u>Year ended December 31, 2012</u></b>		
Balance, beginning of year	14,293	\$ 31.4
Options exercised	(8,213)	29.5
Options canceled	(135)	34.6

Balance, end of year	5,945	34.6
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The numbers of outstanding options and exercise prices have been adjusted to reflect the distribution of earnings by TSMC in accordance with the plans.

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As of December 31, 2012, information about TSMC's outstanding options was as follows:

Range of Exercise Price (NT\$)	Number of Options (In Thousands)	Options Outstanding Weighted-average Remaining Contractual Life (Years)	Weighted-average Exercise Price (NT\$)
\$20.2-\$28.3	3,362	0.4	\$ 25.9
38.0- 50.1	<u>2,583</u>	2.0	45.8
	<u>5,945</u>	1.1	34.6

As of December 31, 2012, all of the above outstanding options were exercisable.

Xintec's Employee Stock Option Plans, consisting of the Xintec 2006 Plan and Xintec 2007 Plan, were approved by the SFB on July 3, 2006 and June 26, 2007, respectively. The maximum number of options authorized to be granted under the Xintec 2006 Plan and Xintec 2007 Plan was 6,000 thousand each, with each option eligible to subscribe for one common share of Xintec when exercised. The options may be granted to qualified employees of Xintec or any of its subsidiaries. The options of Xintec 2006 Plan and Xintec 2007 Plan are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date.

Information about Xintec's outstanding options for the years ended December 31, 2010, 2011 and 2012 was as follows:

	Number of Options (In Thousands)	Weighted-average Exercise Price (NT\$)
<u>Year ended December 31, 2010</u>		
Balance, beginning of year	3,960	\$14.7
Options exercised	(1,856)	13.9
Options canceled	<u>(272)</u>	17.3
Balance, end of year	<u>1,832</u>	15.1
<u>Year ended December 31, 2011</u>		
Balance, beginning of year	1,832	\$14.4
Options exercised	(967)	14.4
Options canceled	<u>(40)</u>	17.4
Balance, end of year	<u>825</u>	15.1
<u>Year ended December 31, 2012</u>		
Balance, beginning of year	825	\$15.0
Options exercised	(291)	17.1
Options canceled	<u>(19)</u>	15.0
Balance, end of year	<u>515</u>	13.8

The exercise prices have been adjusted to reflect the distribution of earnings by Xintec in accordance with the plans.





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As of December 31, 2012, information about Xintec's outstanding and exercisable options was as follows:

Range of Exercise Price (NT\$)	Options Outstanding			Options Exercisable	
	Number of Options (In Thousands)	Weighted- average Remaining Contractual Life (Years)	Weighted- average Exercise Price (NT\$)	Number of Options (In Thousands)	Weighted- average Exercise Price (NT\$)
\$10.7-\$12.5	201	3.7	\$ 10.7	198	\$ 10.7
14.8- 18.6	314	4.6	15.8	314	15.8
	515	4.2	13.8	512	13.8

The requisite service period under the TSMC 2002 Plan, 2003 Plan, and 2004 Plan is 4 years, which is the same as the vesting period. Based on the vesting schedule, 50% of the options vest two years after the date of grant, 25% of the options vest three years after the date of grant, and the remaining 25% of the options vest four years after the date of grant. If employment is terminated voluntarily by an employee or by the Company, any vested options must be exercised within three months of the employment termination date. For the Xintec 2006 Plan and 2007 Plan, the requisite service period is also 4 years, with 50% of the options vested two years after the date of grant, 25% of the options vested three years after the date of grant, and the remaining 25% of the options vested four years after the date of grant. If employment is terminated voluntarily by an employee or by the Company, any vested options must be exercised within three months of the employment termination date.

No compensation cost was recognized under the intrinsic value method for the years ended December 31, 2010, 2011 and 2012. Had the Company used the fair value based method to evaluate the options using the Black-Scholes model, the assumptions at the various grant dates and pro forma results of the Company for the years ended December 31, 2010, 2011 and 2012 would have been as follows:

	TSMC	Xintec
Valuation assumptions:		
Expected dividend yield	1.00%-3.44%	0.80%
Expected volatility	43.77%-46.15%	31.79%-47.42%
Risk free interest rate	3.07%-3.85%	1.88%-2.45%
Expected life	5 years	3 years

	Year Ended December 31		
	2010 NT\$	2011 NT\$	2012 NT\$
	(In Millions)		
Net income attributable to shareholders of the parent:			
As reported	\$ 161,605.0	\$ 134,201.3	\$ 166,158.8
Pro forma	161,470.0	134,146.5	165,986.0
Earnings per share (EPS) - after income tax (NT\$):			
Basic EPS as reported	\$ 6.24	\$ 5.18	\$ 6.41
Pro forma basic EPS	6.23	5.18	6.40
Diluted EPS as reported	6.23	5.18	6.41
Pro forma diluted EPS	6.23	5.17	6.40

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The expected volatility is determined based on the historical stock price trends. The expected life computation is based on business environment and the option plan itself. The risk-free interest rate for periods within the contractual life of the option is based on the treasury yield curve in effect at the time of grant. The dividend yield is based on the anticipated future cash dividends yield at the time of grant.

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## b. Under Fair Value Method

The Board of Directors of TSMC SSL and TSMC Solar resolved on November 21, 2011 to issue new shares for cash and reserved 17,175 thousand shares and 12,341 thousand shares, respectively, for their employees to subscribe to, according to the Company Law. The aforementioned shares were fully vested on the grant date.

Information about TSMC SSL's and TSMC Solar's employee stock options related to the aforementioned new shares issued was as follows:

	TSMC SSL		TSMC Solar	
	Number of Options (In Thousands)	Weighted- average Exercise Price (NT\$)	Number of Options (In Thousands)	Weighted- average Exercise Price (NT\$)
<b>Year ended December 31, 2012</b>				
Balance, beginning of year	-	\$ -	-	\$ -
Options granted	17,175	10.0	12,341	10.0
Options exercised	(17,175)	10.0	(12,341)	10.0
Balance, end of year	-		-	

The grant date of aforementioned stock options was January 9, 2012. TSMC SSL and TSMC Solar used the Black-Scholes model to determine the fair value of the options. The valuation assumptions were as follows:

	TSMC SSL	TSMC Solar
<b>Valuation assumptions:</b>		
Stock price on grant date (NT\$/share)	\$ 8.9	\$ 9.0
Exercise price (NT\$/share)	\$ 10.0	\$ 10.0
Expected volatility	40.32%	40.32%
Expected life	40 days	40 days
Risk free interest rate	0.76%	0.76%

The stock price on grant date was determined based on the cost approach. The expected volatility was calculated using the historical rate of return based on the TWSE Optoelectronic Index.

The fair value of the aforementioned stock option was close to nil, and accordingly, no compensation cost was recognized.

Xintec's Employee Stock Option Plan was approved by the SFB on January 10, 2012 (the "Xintec 2011 Plan"). The maximum number of options authorized to be granted under the Xintec 2011 Plan was 6,000 thousand, with each option eligible to subscribe for one common share of Xintec when exercised. The options may be granted to qualified employees of Xintec or any of its subsidiaries. The options of Xintec 2011 Plan are valid for five years and exercisable at certain percentages subsequent to the second anniversary of the grant date.

Number of Options (In Thousands)	Weighted- average Exercise Price (NT\$)
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Year ended December 31, 2012

Balance, beginning of year	-	\$ -
Options granted	6,000	22.3
Options canceled	(472)	22.1

Balance, end of year	5,528	22.1
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Weighted-average fair value of options granted (NT\$)	\$ 5.82
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The exercise prices have been adjusted to reflect the distribution of earnings by Xintec in accordance with the plan.

As of December 31, 2012, information about the outstanding and exercisable options of Xintec 2011 Plan was as follows:

Range of Exercise Price (NT\$)	Number of Options (In Thousands)	Options Outstanding		Options Exercisable	
		Weighted- average Remaining Contractual Life (Years)	Weighted- average Exercise Price (NT\$)	Number of Options (In Thousands)	Weighted- average Exercise Price (NT\$)
\$22.1	5,528	4.5	\$ 22.1	-	\$ -

For the Xintec 2011 Plan, the requisite service period is 4 years, with 50% of the options vested two years after the date of grant, 25% of the options vested three years after the date of grant, and the remaining 25% of the options vested four years after the date of grant. If employment is terminated voluntarily by an employee or by the Company, any vested options must be exercised within one months of the employment termination date.

The grant date of Xintec 2011 Plan was June 14, 2012. Xintec used the Black-Scholes model to determine the fair value of the option. The valuation assumptions were as follow:

	Xintec
Valuation assumptions:	
Stock price on grant date (NT\$/share)	\$19.42
Exercise price (NT\$/share)	\$22.30
Expected volatility	43.73%
Expected life	3.875 years
Expected dividend yield	-
Risk free interest rate	0.96%

The stock price on grant date was determined based on the market approach. The expected volatility was calculated based on the historical stock prices of the comparative companies of Xintec.

For the year ended December 31, 2012, Xintec recognized compensation cost of the above stock option in the amount of NT\$ 6.2 million.

**24. TREASURY STOCK**

(Shares in Thousands)

Purpose of Treasury Stock	Number of Shares, Beginning of Year	Addition	Retirement	Number of Shares, End of Year
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Year ended December 31, 2011

Shareholders executed the appraisal right	-	1,000	(1,000)	-
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In August 2011, at the option of the shareholders of TSMC, certain shareholders requested TSMC to buy back their shares pursuant to the Company Law, which shares were subsequently retired in November 2011.

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**Table of Contents****25. EARNINGS PER SHARE**

	Amounts (Numerator)		Number of Shares (Denominator) (In Thousands)	EPS	
	Before Income Tax NT\$ (In Millions)	After Income Tax NT\$		Before Income Tax NT\$	After Income Tax NT\$
<u>Year ended December 31, 2010</u>					
Basic EPS					
Earnings available to common shareholders of the parent	\$ 169,520.1	\$ 161,605.0	25,905,832	\$ 6.54	\$ 6.24
Effect of dilutive potential common shares	<u>-</u>	<u>-</u>	<u>13,982</u>		
Diluted EPS					
Earnings available to common shareholders of the parent (including effect of dilutive potential common shares)	<u>\$ 169,520.1</u>	<u>\$ 161,605.0</u>	<u>25,919,814</u>	<u>\$ 6.54</u>	<u>\$ 6.23</u>
<u>Year ended December 31, 2011</u>					
Basic EPS					
Earnings available to common shareholders of the parent	\$ 144,852.9	\$ 134,201.3	25,914,076	\$ 5.59	\$ 5.18
Effect of dilutive potential common shares	<u>-</u>	<u>-</u>	<u>10,606</u>		
Diluted EPS					
Earnings available to common shareholders of the parent (including effect of dilutive potential common shares)	<u>\$ 144,852.9</u>	<u>\$ 134,201.3</u>	<u>25,924,682</u>	<u>\$ 5.59</u>	<u>\$ 5.18</u>
<u>Year ended December 31, 2012</u>					
Basic EPS					
Earnings available to common shareholders of the parent	\$ 181,756.6	\$ 166,158.8	25,920,735	\$ 7.01	\$ 6.41
Effect of dilutive potential common shares	<u>-</u>	<u>-</u>	<u>7,201</u>		
Diluted EPS					
Earnings available to common shareholders of the parent (including effect of dilutive potential common shares)	<u>\$ 181,756.6</u>	<u>\$ 166,158.8</u>	<u>25,927,936</u>	<u>\$ 7.01</u>	<u>\$ 6.41</u>

If the Company may settle the obligation by cash, by issuing shares, or in combination of both cash and shares, profit sharing to employees which will be settled in shares should be included in the weighted average number of shares outstanding in calculation of diluted EPS, if the shares have a dilutive effect. The number of shares is estimated by dividing the amount of profit sharing to employees in stock by the closing price (after considering the dilutive effect of dividends) of the common shares on the balance sheet date. Such dilutive effect of the potential shares needs to be included in the calculation of diluted EPS until the shares of profit sharing to employees are resolved in the shareholders meeting in the following year.



**Table of Contents****26. DISCLOSURES FOR FINANCIAL INSTRUMENTS**

- a. Fair values of financial instruments were as follows:

	December 31			
	2011		2012	
	Carrying Amount NT\$ (In Millions)	Fair Value NT\$ (In Millions)	Carrying Amount NT\$ (In Millions)	Fair Value NT\$ (In Millions)
<b>Assets</b>				
Financial assets at fair value through profit or loss	\$ 15.4	\$ 15.4	\$ 39.5	\$ 39.5
Available-for-sale financial assets	3,308.8	3,308.8	41,161.8	41,161.8
Held-to-maturity financial assets	9,068.9	9,128.1	5,057.0	5,066.4
Financial assets carried at cost	4,315.0	-	3,605.1	-
<b>Liabilities</b>				
Financial liabilities at fair value through profit or loss	\$ 13.8	\$ 13.8	\$ 15.6	\$ 15.6
Hedging derivative financial liabilities	0.2	0.2	-	-
Bonds payable (including current portion)	22,500.0	22,597.1	80,000.0	80,343.4
Long-term bank loans (including current portion)	1,650.0	1,650.0	1,487.5	1,487.5
Other long-term payables (including current portion)	3,399.9	3,399.9	967.5	967.5
Obligations under capital leases (including current portion)	871.0	871.0	756.3	756.3

- b. Methods and assumptions used in the estimation of fair values of financial instruments

- 1) The aforementioned financial instruments do not include cash and cash equivalents, receivables, other financial assets, refundable deposits, short-term loans, payables and guarantee deposits. The carrying amounts of these financial instruments approximate their fair values due to their short maturities.
- 2) Except for derivatives, available-for-sale and held-to-maturity financial assets were based on their quoted market prices.
- 3) The fair values of those derivatives are determined using valuation techniques incorporating estimates and assumptions that were consistent with prevailing market conditions.
- 4) Financial assets carried at cost have no quoted prices in an active market and entail an unreasonably high cost to obtain verifiable fair values. Therefore, no fair value is presented.
- 5) Fair value of bonds payable was based on their quoted market price.
- 6) Fair values of long-term bank loans, other long-term payables and obligations under capital leases were based on the present value of expected cash flows, which approximate their carrying amounts.

- c. Valuation gains/losses arising from changes in fair value of derivatives contracts determined using valuation techniques were recognized as a net loss of NT\$12.1 million and net gains of NT\$1.6 million and NT\$23.9 million for the years ended December 31, 2010, 2011 and 2012, respectively.
- d. As of December 31, 2011 and 2012, financial assets exposed to fair value interest rate risk were NT\$9,086.8 million and NT\$5,097.9 million, respectively; financial liabilities exposed to fair value interest rate risk were NT\$52,711.2 million and NT\$116,312.3 million, respectively; and financial liabilities exposed to cash flow interest rate risk were NT\$1,650.2 million and NT\$1,487.5 million, respectively.

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- e. Movements of the unrealized gains or losses on financial instruments for the years ended December 31, 2010, 2011 and 2012 were as follows:

	Year Ended December 31, 2010			
	From	Equity	Gain (Loss)	Total
	Available-	Method	on Cash Flow	
	for-sale Financial Assets NT\$	Investments NT\$	Hedges NT\$	
	(In Millions)			
Balance, beginning of year	\$ 424.1	\$ 29.5	\$ -	\$ 453.6
Recognized directly in shareholders' equity	250.4	(6.0)	(0.4)	244.0
Removed from shareholders' equity and recognized in earnings	(588.4)	-	0.1	(588.3)
Balance, end of year	\$ 86.1	\$ 23.5	\$ (0.3)	\$ 109.3

	Year Ended December 31, 2011			
	From	Equity	Gain (Loss)	Total
	Available-	Method	on Cash Flow	
	for-sale Financial Assets NT\$	Investments NT\$	Hedges NT\$	
	(In Millions)			
Balance, beginning of year	\$ 86.1	\$ 23.5	\$ (0.3)	\$ 109.3
Recognized directly in shareholders' equity	(1,034.5)	(41.4)	-	(1,075.9)
Removed from shareholders' equity and recognized in earnings	(206.5)	-	0.2	(206.3)
Effect of changes in consolidated entities	(0.3)	0.3	-	-
Balance, end of year	\$ (1,155.2)	\$ (17.6)	\$ (0.1)	\$ (1,172.9)

	Year Ended December 31, 2012			
	From	Equity	Gain (Loss)	Total
	Available-	Method	on Cash Flow	
	for-sale Financial Assets NT\$	Investments NT\$	Hedges NT\$	
	(In Millions)			
Balance, beginning of year	\$ (1,155.2)	\$ (17.6)	\$ (0.1)	\$ (1,172.9)
Recognized directly in shareholders' equity	7,282.3	17.5	-	7,299.8
Removed from shareholders' equity and recognized in earnings	1,846.3	-	0.1	1,846.4

Balance, end of year	\$ 7,973.4	\$ (0.1)	\$ -	\$ 7,973.3
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f. Information about financial risks

- 1) Market risk. The derivative financial instruments categorized as financial assets/liabilities at fair value through profit or loss are mainly used to hedge the market exchange rate fluctuations of foreign-currency assets and liabilities; therefore, the market exchange rate risk of derivatives will be offset by the foreign exchange risk of these hedged items. Available-for-sale financial assets and held-to-maturity financial assets held by the Company are mainly fixed-interest-rate debt securities and publicly traded stocks; therefore, the fluctuations in market interest rates and market prices will result in changes in fair values of these debt securities and the fluctuations in market prices will result in changes in fair values of publicly traded stocks.

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- 2) Credit risk. Credit risk represents the potential loss that would be incurred by the Company if the counter-parties or third-parties breached contracts. Financial instruments with positive fair values at the balance sheet date are evaluated for credit risk. The Company evaluated whether the financial instruments for any possible counter-parties or third-parties are reputable financial institutions, business enterprises, and government agencies and accordingly, the Company believed that the Company's exposure to credit risk was not significant.
- 3) Liquidity risk. The Company has sufficient operating capital and bank facilities to meet cash needs upon settlement of derivative financial instruments, bonds payable and bank loans. Therefore, the liquidity risk is low.
- 4) Cash flow interest rate risk. The Company mainly invests in fixed-interest-rate debt securities. Therefore, cash flows are not expected to fluctuate significantly due to changes in market interest rates. The long-term bank loans were floating-rate loans; therefore, changes in the market interest rates will result in changes in the interest rate of the long-term bank loans, which will affect future cash flows.

- g. The Company seeks to reduce the effects of future cash flow related interest rate changes by primarily using derivative financial instruments.

The Company entered into forward exchange contracts to hedge cash flow risk arising from foreign exchange rate fluctuations of an expected equity transaction. The forward exchange contract was due in October 2012.

The Company's long-term bank loans bear floating interest rates; therefore, changes in the market interest rate may cause future cash flows to be volatile. Accordingly, the Company entered into an interest rate swap contract in order to hedge cash flow risk caused by floating interest rates. The interest rate swap contract of the Company was due in August 2012. Information about outstanding interest rate swap contract consisted of the following:

Hedged Item	Hedging	Fair Value NT\$ (In Millions)	Expected	Expected Timing for the
	Financial		Cash Flow	Recognition of
	Instrument		Generated Period	Gains
				or Losses from
				Hedge
December 31, 2011				
Long-term bank loans	Interest rate swap contract	\$ (0.2)	2011 to 2012	2011 to 2012

**27. RELATED PARTY TRANSACTIONS**

Except as disclosed in the consolidated financial statements and other notes, the following is a summary of significant related party transactions:

- a. Investees of TSMC

GUC (prior to July 2011, GUC was a subsidiary. Since July 2011, GUC is accounted for using the equity method.)

VIS (accounted for using the equity method)

SSMC (accounted for using the equity method)

b. Indirect investees

VisEra Technology Company, Ltd. (VisEra) (accounted for using the equity method)

Mcube (accounted for using the equity method)

c. Others

Related parties over which the Company has significant influence but with which the Company had no material transactions.

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	Year Ended December 31		
	2010 NT\$	2011 NT\$ (In Millions)	2012 NT\$
<b>For the year</b>			
Sales			
GUC	\$ -	\$ 2,461.4	\$ 4,880.5
VIS	223.6	302.8	177.5
VisEra	82.6	10.9	3.4
Others	<u>11.4</u>	<u>50.3</u>	<u>249.6</u>
	<u>\$ 317.6</u>	<u>\$ 2,825.4</u>	<u>\$ 5,311.0</u>
Purchases			
VIS	\$ 4,959.1	\$ 5,597.9	\$ 4,475.7
SSMC	4,521.0	3,949.2	3,638.6
Others	<u>39.1</u>	<u>124.6</u>	<u>-</u>
	<u>\$ 9,519.2</u>	<u>\$ 9,671.7</u>	<u>\$ 8,114.3</u>
Manufacturing expenses			
VisEra (primarily outsourcing and rent)	\$ 102.2	\$ 49.2	\$ 15.5
VIS (rent)	10.2	5.9	8.3
Others	<u>-</u>	<u>-</u>	<u>0.1</u>
	<u>\$ 112.4</u>	<u>\$ 55.1</u>	<u>\$ 23.9</u>
Research and development expenses			
VisEra	\$ 12.1	\$ 19.0	\$ 8.9
GUC	-	-	4.5
VIS (primarily rent)	12.0	2.0	-
Others	<u>0.1</u>	<u>-</u>	<u>0.1</u>
	<u>\$ 24.2</u>	<u>\$ 21.0</u>	<u>\$ 13.5</u>
Sales of property, plant and equipment and other assets			
VIS	\$ 37.0	\$ 36.0	\$ 20.4
VisEra	4.4	-	9.0
SSMC	<u>2.4</u>	<u>-</u>	<u>-</u>
	<u>\$ 43.8</u>	<u>\$ 36.0</u>	<u>\$ 29.4</u>
Purchase of property, plant and equipment and other assets			
GUC	\$ -	\$ 1.8	\$ 47.1
VisEra	-	11.1	1.2
VIS	<u>109.9</u>	<u>45.5</u>	<u>-</u>
	<u>\$ 109.9</u>	<u>\$ 58.4</u>	<u>\$ 48.3</u>
Non-operating income and gains			
VIS (primarily technical service income)	\$ 267.4	\$ 227.0	\$ 261.8
SSMC (primarily technical service income)	198.2	199.4	221.2
Others	<u>-</u>	<u>4.1</u>	<u>2.5</u>
	<u>\$ 465.6</u>	<u>\$ 430.5</u>	<u>\$ 485.5</u>

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	Year Ended December 31		
	2010 NT\$	2011 NT\$ (In Millions)	2012 NT\$
<u>As of December 31</u>			
Receivables			
GUC	\$ -	\$ 154.1	\$ 273.4
Mcube	-	31.4	80.2
Others	<u>2.7</u>	<u>0.2</u>	<u>0.2</u>
	<u>\$ 2.7</u>	<u>\$ 185.7</u>	<u>\$ 353.8</u>
Other receivables			
VIS	\$ 70.8	\$ 87.5	\$ 128.8
SSMC	53.8	34.3	56.8
Others	<u>-</u>	<u>0.5</u>	<u>-</u>
	<u>\$ 124.6</u>	<u>\$ 122.3</u>	<u>\$ 185.6</u>
Refundable deposit			
VIS	<u>\$ 2.3</u>	<u>\$ -</u>	<u>\$ 5.8</u>
Payables			
VIS	\$ 428.8	\$ 987.9	\$ 368.6
SSMC	430.2	336.0	351.4
Others	<u>8.1</u>	<u>4.6</u>	<u>28.6</u>
	<u>\$ 867.1</u>	<u>\$ 1,328.5</u>	<u>\$ 748.6</u>
Deferred credits (other assets)			
VIS	\$ -	\$ -	\$ (7.8)
VisEra	<u>-</u>	<u>-</u>	<u>0.9</u>
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (6.9)</u>

The sales prices and payment terms to related parties were not significantly different from those of sales to third parties. For other related party transactions, prices and terms were determined in accordance with mutual agreements.

The Company leased certain office space and facilities from VIS. The lease terms and prices were determined in accordance with mutual agreements. The rental expense was paid monthly and the related expenses were classified under research and development expenses and manufacturing expenses.

The Company leased certain factory building from VisEra. The lease terms and prices were determined in accordance with mutual agreements. The rental expense was paid monthly and the related expenses were classified under manufacturing expenses. The lease expired in June 2011.

The Company deferred the disposal gains/losses (classified under other assets and deferred credits) derived from sales of property, plant and equipment and other assets to VIS and VisEra, and then recognized such gains/losses (classified under non-operating gains and losses) over the depreciable lives of the disposed assets.



**Table of Contents****28. PLEDGED OR MORTGAGED ASSETS**

The Company provided other financial assets as collateral mainly for building lease agreements. As of December 31, 2011 and 2012, the aforementioned other financial assets amounted to NT\$121.1 million and NT\$119.7 million, respectively.

**29. SIGNIFICANT LONG-TERM LEASES**

The Company leases several parcels of land, factory and office premises from the Science Park Administration and Jhongli Industrial Park Service Center. These operating leases expire on various dates from March 2013 to July 2032 and can be renewed upon expiration.

The Company entered into lease agreements for its office premises and certain office equipment located in the United States, Japan, Shanghai and Taiwan. These operating leases expire between 2013 and 2020 and can be renewed upon expiration.

As of December 31, 2012, future lease payments were as follows:

Year	Amount NT\$ (In Millions)
2013	\$ 693.8
2014	651.3
2015	639.1
2016	625.2
2017	562.8
2018 and thereafter	4,221.5
	\$ 7,393.7

Rent expense for the years ended December 31, 2010, 2011 and 2012 was NT\$1,907.1 million, NT\$1,809.5 million and NT\$2,423.6 million, respectively.

**30. SIGNIFICANT COMMITMENTS AND CONTINGENCIES**

Significant commitments and contingencies of the Company as of December 31, 2012, excluding those disclosed in other notes, were as follows:

- a. Under a technical cooperation agreement with Industrial Technology Research Institute, the R.O.C. Government or its designee approved by TSMC can use up to 35% of TSMC's capacity if TSMC's outstanding commitments to its customers are not prejudiced. The term of this agreement is for five years beginning from January 1, 1987 and is automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice.
- b. Under a Shareholders Agreement entered into with Philips and EDB Investments Pte Ltd. on March 30, 1999, the parties formed a joint venture company, SSMC, which is an integrated circuit foundry in Singapore. TSMC's equity interest in SSMC was 32%. Nevertheless, Philips parted with its semiconductor company which was renamed as NXP B.V. in September 2006. TSMC and NXP B.V. purchased all the SSMC shares owned by EDB Investments Pte Ltd. pro rata according to the Shareholders Agreement on November 15, 2006. After the purchase, TSMC and NXP B.V. currently own approximately 39% and 61% of the

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SSMC shares respectively. TSMC and Philips (now NXP B.V.) are required, in the aggregate, to purchase at least 70% of SSMC's capacity, but TSMC alone is not required to purchase more than 28% of the capacity. If any party defaults on the commitment and the capacity utilization of SSMC fall below a specific percentage of its capacity, the defaulting party is required to compensate SSMC for all related unavoidable costs.

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- c. In August 2006, TSMC filed a lawsuit against Semiconductor Manufacturing International Corporation, SMIC (Shanghai) and SMIC Americas (aggregately referred to as SMIC) in the Superior Court of California for Alameda County for breach of a 2005 agreement that settled an earlier trade secret misappropriation and patent infringement litigation between the parties, as well as for trade secret misappropriation, seeking injunctive relief and monetary damages. In September 2006, SMIC filed a cross-complaint against TSMC in the same court alleging breach of settlement agreement, implied covenant of good faith and fair dealing. SMIC also filed a civil action against TSMC in November 2006 with the Beijing People's High Court alleging defamation and breach of good faith. On June 10, 2009, the Beijing People's High Court ruled in favor of TSMC and dismissed SMIC's lawsuit. On November 4, 2009, after a two-month trial, a jury in the California action found SMIC to have both breached the 2005 settlement agreement and misappropriated TSMC's trade secrets. TSMC has subsequently settled both lawsuits with SMIC. Pursuant to the new settlement agreement, the parties have agreed to the entry of a stipulated judgment in favor of TSMC in the California action, and to the dismissal of SMIC's appeal against the Beijing High Court's finding in favor of TSMC. Under the new settlement agreement and the related stipulated judgment, SMIC has agreed to make cash payments by installments to TSMC totaling US\$200 million, which are in addition to the US\$135 million previously paid to TSMC under the 2005 settlement agreement, and, conditional upon relevant government regulatory approvals, to issue to TSMC a total of 1,789,493,218 common shares of Semiconductor Manufacturing International Corporation and a three-year warrant to purchase 695,914,030 common shares (subject to adjustment) of Semiconductor Manufacturing International Corporation at HK\$1.30 per share (subject to adjustment). TSMC has acquired the above mentioned common shares in July 2010, which are recorded within available for sale financial assets, and obtained the subsequent cash settlement income in accordance with the agreement.
- d. In June 2010, Keranos, LLC. filed a lawsuit in the U.S. District Court for the Eastern District of Texas alleging that TSMC, TSMC North America, and several other leading technology companies infringe three expired U.S. patents. In response, TSMC, TSMC North America, and several co-defendants in the Texas case filed a lawsuit against Keranos in the U.S. District Court for the Northern District of California in November 2010, seeking a judgment declaring that they did not infringe the asserted patents, and that those patents are invalid. These two litigations have been consolidated into a single case in the U.S. District Court for the Eastern District of Texas. The outcome cannot be determined at this time.
- e. In December 2010, Ziptronix, Inc. filed a complaint in the U.S. District Court for the Northern District of California accusing TSMC, TSMC North America and one other company of allegedly infringing several U.S. patents. The outcome cannot be determined at this time.
- f. TSMC joined the Customer Co-Investment Program of ASML and entered into the investment agreement in August 2012. The agreement includes an investment of EUR837.8 million by TSMC Global to acquire 5% of ASML's equity with a lock-up period of 2.5 years. TSMC Global has acquired the aforementioned equity in October 2012. Both parties also signed the research and development funding agreement and TSMC will provide EUR277.0 million to ASML's research and development programs from 2013 to 2017.
- g. TSMC entered into an agreement with a counterparty in 2003 whereby TSMC China is obligated to purchase certain property, plant and equipment at the agreed-upon price within the contract period. If the purchase is not completed, TSMC China is obligated to compensate the counterparty for the loss incurred. The property, plant and equipment have been in use by TSMC China since 2004 and are being depreciated over their estimated service lives. The related obligation totaled NT\$3,399.9 million and NT\$825.5 million as of December 31, 2011 and 2012, respectively, which is included in accrued expenses and other current liabilities.
- h. Amounts available under unused letters of credit as of December 31, 2012 were NT\$99.7 million.

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The significant financial assets and liabilities denominated in foreign currencies were as follows:

	December 31			
	2011		2012	
	Foreign Currency  (In Millions)	Exchange Rate  (Note)	Foreign Currency  (In Millions)	Exchange Rate  (Note)
<b>Financial assets</b>				
Monetary items				
USD	\$ 3,744.8	30.288	\$ 3,437.2	29.038
EUR	135.9	39.18-39.27	126.0	38.39-38.49
JPY	37,276.7	0.3897-0.3906	35,734.9	0.3352-0.3364
RMB	201.4	4.81	103.0	4.66
Non-monetary items				
USD	141.5	30.288	1,611.5	29.038
HKD	671.1	3.90	492.0	3.75
Investments accounted for using equity method				
USD	294.8	30.288	328.3	29.038
<b>Financial liabilities</b>				
Monetary items				
USD	1,744.7	30.288	2,193.3	29.038
EUR	111.8	39.18-39.27	247.1	38.39-38.49
JPY	35,349.2	0.3897-0.3906	43,311.4	0.3352-0.3364
RMB	278.9	4.81	205.9	4.66

Note: Exchange rate represents the number of N.T. dollars for which one foreign currency could be exchanged.

**32. OPERATING SEGMENTS INFORMATION**

The Company's only reportable segment is the foundry segment. The foundry segment engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks. The Company also had other operating segments that did not exceed the quantitative threshold for separate reporting. These segments mainly engage in the researching, developing, and providing SoC (System on Chip) design and also engage in the researching, developing, designing, manufacturing and selling of solid state lighting devices and renewable energy and efficiency related technologies and products.

The Company uses the operating profit as the measurement for segment profit and the basis of performance assessment. There was no material inconsistency between the accounting policies of the operating segment and the accounting policies described in Note 2.

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The Company's operating segment information was as follows:

a. Industry financial information

	Foundry NT\$	Others NT\$	Elimination NT\$	Total NT\$
(In Millions)				
<u>Year ended December 31, 2010</u>				
Sales from external customers	\$ 409,216.7	\$ 10,321.2	\$ -	\$ 419,537.9
Sales among intersegments	3,816.5	8.8	(3,825.3)	-
Operating profit (loss)	159,633.6	(458.3)	-	159,175.3
Equity in earnings of equity method investees, net	1,756.0	542.2	-	2,298.2
Income tax expense	7,928.7	59.8	-	7,988.5
<u>Year ended December 31, 2011</u>				
Sales from external customers	422,691.1	4,389.5	-	427,080.6
Sales among intersegments	1,588.6	6.2	(1,594.8)	-
Operating profit (loss)	143,222.1	(1,664.7)	-	141,557.4
Equity in earnings (losses) of equity method investees, net	1,635.3	(737.7)	-	897.6
Income tax expense	10,649.7	44.7	-	10,694.4
<u>Year ended December 31, 2012</u>				
Sales from external customers	506,097.9	150.7	-	506,248.6
Sales among intersegments	-	14.7	(14.7)	-
Operating profit (loss)	183,683.0	(2,625.8)	-	181,057.2
Equity in earnings (losses) of equity method investees, net	3,428.4	(1,399.8)	-	2,028.6
Income tax expense	15,590.3	-	-	15,590.3

b. Geographic information

	Year Ended December 31		
	Sales to Other Than Consolidated Entities		
	2010	2011	2012
	NT\$	NT\$	NT\$
(In Millions)			
Taiwan	\$ 56,420.4	\$ 49,798.5	\$ 64,744.1
United States	221,148.7	250,811.7	334,704.7
Asia	91,862.9	75,946.7	72,953.2
Europe	49,000.3	48,982.7	30,476.6
Others	1,105.6	1,541.0	3,370.0
	\$ 419,537.9	\$ 427,080.6	\$ 506,248.6



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	Year Ended December 31		
	Non-current Assets		
	2010	2011	2012
	NT\$	NT\$	NT\$
	(In Millions)		
Taiwan	\$ 379,553.6	\$ 472,168.7	\$ 603,844.8
United States	8,164.8	8,284.6	7,699.4
Asia	13,817.1	22,122.0	18,196.8
Europe	17.8	15.2	16.0
	\$ 401,553.3	\$ 502,590.5	\$ 629,757.0

The geographic information is presented by billed regions. Non-current assets include property, plant and equipment, intangible assets and other assets, but not include financial instruments and deferred income tax assets.

## c. Production information

Production	Year Ended December 31		
	2010	2011	2012
	NT\$	NT\$	NT\$
	(In Millions)		
Wafer	\$ 375,060.8	\$ 384,632.5	\$ 462,970.5
Mask	19,796.9	23,818.6	26,266.9
Others	24,680.2	18,629.5	17,011.2
	\$ 419,537.9	\$ 427,080.6	\$ 506,248.6

## d. Major customers representing at least 10% of gross sales

	2010		Year Ended December 31				2012	
	Amount		Amount				Amount	
	NT\$ (In Millions)	%	NT\$ (In Millions)	%	NT\$ (In Millions)	%	NT\$ (In Millions)	%
Customer A	\$ 37,962.0	9	\$ 60,412.1	14	\$ 87,099.3	17		
Customer B	41,022.2	10	31,635.5	7	43,392.4	8		

### 33. SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN ACCOUNTING PRINCIPLES FOLLOWED BY THE COMPANY AND GENERALLY ACCEPTED ACCOUNTING PRINCIPLES IN THE UNITED STATES OF AMERICA

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The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the Republic of China (R.O.C. GAAP), which differ in the following respects from accounting principles generally accepted in the United States of America (U.S. GAAP):

a. Equity-method investees

The Company's proportionate share of the net income (loss) from an equity-method investee may differ if the equity-method investee's net income (loss) under R.O.C. GAAP differs from that under U.S. GAAP. Such differences between R.O.C. GAAP and U.S. GAAP would result in adjustments to investments accounted for using the equity method and the equity in earnings (losses) of equity-method investees recorded in net income.

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### **b. 10% tax on unappropriated earnings**

In the R.O.C., a 10% tax is imposed on unappropriated earnings (excluding earnings from foreign consolidated subsidiaries). For R.O.C. GAAP purposes, the Company records the 10% tax on unappropriated earnings in the year of shareholders' approval. In the U.S., the 10% tax on unappropriated earnings should be accrued during the period the earnings arise and adjusted to the extent that distributions are approved by the shareholders in the following year. To the extent the Company does not have sufficient tax credits to offset the 10% tax, additional tax expense would be recognized under U.S. GAAP.

### **c. Goodwill and intangible assets**

Under R.O.C. GAAP, goodwill was recorded for the excess of the purchase price over the net tangible assets for the purchase of a 32% equity interest in TSMC-Acer Semiconductor Manufacturing Corporation (TSMC) in 1999 and was amortized over ten years. Under U.S. GAAP, the goodwill was originally amortized over five years.

Goodwill was not recorded under R.O.C. GAAP for the acquisition of the remaining 68% equity interest in TSMC in June 2000, because under R.O.C. GAAP, goodwill from a business combination in the form of a share exchange was charged to capital surplus. Under U.S. GAAP, the acquisition cost is the fair value of the shares issued in exchange and the difference between the acquisition cost and the sum of the fair values of the net tangible and identifiable intangible assets acquired is recorded as goodwill. Accordingly, the goodwill from the acquisition of the remaining 68% equity interest in TSMC was recorded for U.S. GAAP purposes and was originally amortized over the estimated life of five years.

Effective January 1, 2002, the Company adopted the U.S. GAAP guidance relating to goodwill and other intangible assets and ceased amortization of goodwill which is now assessed for impairment annually or more frequently if impairment indicators arise. In accordance with the U.S. GAAP guidance relating to goodwill and other intangible assets, the Company had completed its goodwill impairment test at the reporting unit level and found no impairment as of December 31, 2010, 2011 and 2012.

Effective January 1, 2005, the Company adopted R.O.C. SFAS No. 35, Accounting for Impairment of Assets which required the Company to evaluate impairment of an asset group, including goodwill allocated to such group. The Company found no impairment as of December 31, 2010, 2011 and 2012. Effective January 1, 2006, the Company adopted R.O.C. SFAS No. 25 (revised 2005), Business Combinations which is similar to U.S. GAAP guidance relating to goodwill and other intangible assets. Upon adoption of R.O.C. SFAS No. 25, the Company ceased amortization of goodwill which is now assessed for impairment in accordance with the provisions of the standard and R.O.C. SFAS No. 35.

### **d. Profit sharing to employees in stocks**

The Company accrues compensation expense related to profit sharing to employees during the period the earnings arise. The number of shares is determined based on the compensation expense recorded during the period the earnings arise divided by the market value of the Company's common stock at the date before the shareholders' meeting in the following year. However, under U.S. GAAP, the amount of compensation expense is the product of the number of shares and the market value at the date of stock distribution. Therefore, any difference of the market value of the Company's common stock between the date of stock distribution and the date before the shareholders' meeting gives rise to adjustments to U.S. GAAP.

### **e. Pension benefits**

The U.S. GAAP guidance relating to employer's accounting for pensions was amended on September 29, 2006 to require employers to recognize the overfunded or underfunded status of a defined benefit pension plan as an asset or liability in its statement of financial position and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. The funded status of a benefit plan is defined as the difference between the fair value of the plan assets and the projected benefit obligation. Previously unrecognized items such as gains or losses, prior service credits and the transition asset or obligation are required to be recognized in other comprehensive income and subsequently recognized through net periodic benefit cost.

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R.O.C. SFAS No. 18 does not require a company to recognize the overfunded or underfunded status of a defined benefit pension plan as an asset or liability in the statement of financial position. However, if the accrued pension liability is less than the minimum pension liability, which is the excess of accumulated benefit obligation over the pension plan assets, the difference shall be additionally accrued and charged to the net loss not recognized as pension cost in shareholders' equity. Due to the GAAP difference in pension accounting, there were adjustments to U.S. GAAP for the current year pension expense, comprehensive income and net loss not recognized as pension cost in shareholders' equity.

The difference of the overfunded or underfunded status at the date of adoption and hereafter give rise to a U.S. GAAP difference in the actuarial computation and the related amortization.

### **f. Stock-based compensation**

Under U.S. GAAP, effective January 1, 2006, the Company adopted the fair value recognition provisions to account for share-based payments, and applied the modified prospective transition method and therefore has not restated the results for prior periods. Under this transition method, stock-based compensation expense for the year ended December 31, 2006 included compensation expense for all unvested stock-based compensation awards granted prior to January 1, 2006 that were expected to vest, based on the grant-date fair value or the intrinsic value described in the next paragraph. Upon an employee's termination, unvested awards are forfeited, which affects the quantity of options to be included in the calculation of stock-based compensation expense. Forfeitures do not include vested options that expire unexercised. Stock-based compensation expense for all stock-based compensation awards granted after January 1, 2006 was based on the grant-date fair value. The Company recognizes these compensation costs using the graded vesting method over the requisite service period of the award, which is generally the option vesting term of four years. Please refer to Note 34e for additional stock-based compensation disclosures.

Under R.O.C. GAAP, employee stock option plans that were granted or modified in the period from January 1, 2004 to December 31, 2007 are accounted for by the interpretations issued by the ARDF. The Company adopted the intrinsic value method and any compensation expense determined using this method is recognized over the vesting period. No stock-based compensation expense was recognized under R.O.C. GAAP for the years ended December 31, 2010, 2011 and 2012 for the employee stock options granted or modified in the period from January 1, 2004 to December 31, 2007.

Effective January 1, 2008, the Company adopted R.O.C. SFAS No. 39, Accounting for Share-based Payment, which is similar in many respects to U.S. GAAP and requires companies to record share-based payment transactions in the financial statements at fair value for the employee stock option plans that were granted or modified after December 31, 2007. Please refer to Note 23b and 34e for the employee stock option plans granted in 2012 and accounted for using the fair value method.

Certain characteristics of the stock options granted under the TSMC 2002 Plan is not reasonably estimable using appropriate valuation methodologies and have been accounted for using the variable accounting method under U.S. GAAP. Such method requires the Company to account for these stock options based on their intrinsic value, remeasured at each reporting date through the date of exercise or settlement, which gives rise to a R.O.C. GAAP difference in the recognition of stock-based compensation expense.

### **g. Consolidated entities**

Under R.O.C. GAAP, the Company adopted R.O.C. SFAS No. 7, Consolidated Financial Statements, which requires that the accompanying consolidated financial statements include the accounts of all directly and indirectly majority owned subsidiaries of TSMC, and the accounts of investees in which TSMC's ownership percentage is less than 50% but over which TSMC has a controlling interest. All significant intercompany balances and transactions are eliminated upon consolidation. Partially owned, non-controlled equity investees are accounted for under the equity method.

U.S. GAAP has two different models for determining whether consolidation is appropriate. If a reporting entity has a variable interest in another entity that meets the definition of a variable interest entity (VIE), the VIE model should be applied. Under this model, consolidation is based on which interest holder has the power to direct the activities that most significantly impact the VIE's economics and has the right to receive benefits or the obligation to absorb the losses that could potentially be significant to the VIE. However, if a reporting entity has an interest in an entity that is not considered a VIE, consolidation is based on whether the reporting enterprise has a controlling financial interest in the entity (i.e. the majority voting interest requirement) which is similar to R.O.C. GAAP.



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## h. Deconsolidation

Under R.O.C. GAAP and U.S. GAAP, a parent must deconsolidate a subsidiary as of the date the parent ceases to have a controlling interest in that subsidiary due to the termination of a Shareholders' Agreement. Under R.O.C. GAAP, the carrying amount of the investment on the date when control is lost should be reflected as the cost on the initial measurement of such financial asset. However, under U.S. GAAP, the parent's retained noncontrolling interest in the former subsidiary is remeasured to fair value with any resulting adjustments being included as part of the gain or loss recognized on deconsolidation. The difference between the carrying amount and the fair value of the identifiable assets from the purchase price allocation process is amortized. Please refer to Note 34h Deconsolidation of GUC for details.

The following reconciles consolidated net income and shareholders' equity under R.O.C. GAAP as reported in the consolidated financial statements to the consolidated net income and shareholders' equity determined under U.S. GAAP, giving effect to the differences listed above.

	Year Ended December 31			
	2010	2011	2012	US\$
	NT\$	NT\$	NT\$	(Note 3)
(In Millions Except Per Share Amounts)				
<b>Net income</b>				
Consolidated net income based on R.O.C. GAAP	\$ 162,281.9	\$ 134,453.3	\$ 165,963.7	\$ 5,713.0
Adjustments:				
1. U.S. GAAP adjustments on equity- method investees	(7.0)	(127.2)	(319.5)	(11.0)
2. 10% tax on undistributed earnings	2,208.4	(1,428.8)	(6,820.8)	(234.8)
3. Profit sharing to employees- Fair market value adjustment of prior year accrual	-	(30.6)	-	-
4. Pension expense	4.2	3.8	3.9	0.1
5. Stock-based compensation	(179.7)	(60.1)	(157.7)	(5.4)
6. Gain from deconsolidation of GUC	-	4,304.1	-	-
Income tax effect of U.S. GAAP adjustments	12.6	(11.2)	(15.1)	(0.5)
Net adjustment	2,038.5	2,650.0	(7,309.2)	(251.6)
Consolidated net income based on U.S. GAAP	\$ 164,320.4	\$ 137,103.3	\$ 158,654.5	\$ 5,461.4
Attributable to				
Shareholders of the parent	\$ 163,638.6	\$ 136,872.7	\$ 158,849.6	\$ 5,468.1
Noncontrolling interests	681.8	230.6	(195.1)	(6.7)
	\$ 164,320.4	\$ 137,103.3	\$ 158,654.5	\$ 5,461.4
Earnings per common share based on U.S. GAAP				
Basic	\$ 6.32	\$ 5.28	\$ 6.13	\$ 0.21
Diluted	\$ 6.31	\$ 5.28	\$ 6.13	\$ 0.21
Earnings per ADS				
Basic	\$ 31.58	\$ 26.41	\$ 30.64	\$ 1.05
Diluted	\$ 31.57	\$ 26.40	\$ 30.63	\$ 1.05
Number of weighted average shares outstanding under U.S. GAAP (in thousands)				

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Basic	25,905,832	25,914,076	25,920,735
Diluted	25,919,814	25,924,682	25,927,936

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	2011 NT\$	December 31 2012 NT\$	US\$ (Note 3)
(In Millions)			
<u>Shareholders' equity</u>			
Total shareholders' equity based on R.O.C. GAAP	\$ 632,043.5	\$ 725,753.7	\$ 24,982.9
Adjustments:			
1. U.S. GAAP adjustments on equity-method investees	(627.0)	(939.0)	(32.4)
2. 10% tax on undistributed earnings	(2,808.4)	(9,629.2)	(331.4)
3. Goodwill			
3-1. Carrying amount difference from 68% equity interest in TSMC's share acquisition	52,212.7	52,212.7	1,797.3
3-2. Reversal of amortization of goodwill recognized under R.O.C. GAAP	(11,507.8)	(11,643.4)	(400.8)
4. Pension benefits			
4-1. Accrued pension cost	(23.7)	(19.8)	(0.7)
4-2. Accrual for deferred pension loss	(2,108.3)	(2,734.6)	(94.1)
4-3. Reversal of the increase in pension liability resulted from net loss not recognized as pension cost under R.O.C. GAAP	-	4.4	0.2
5. Gain from deconsolidation of GUC	4,304.1	4,304.1	148.2
Income tax effect of U.S. GAAP adjustments	127.5	107.2	3.7
Net adjustment	39,569.1	31,662.4	1,090.0
Total equity based on U.S. GAAP	\$ 671,612.6	\$ 757,416.1	\$ 26,072.9
Attributable to			
Shareholders of the parent	\$ 669,162.6	\$ 754,860.1	\$ 25,984.9
Noncontrolling interests	2,450.0	2,556.0	88.0
	\$ 671,612.6	\$ 757,416.1	\$ 26,072.9

	2010 NT\$	Year Ended December 31 2011 NT\$	2012 NT\$	US\$ (Note 3)
(In Millions)				
<u>Changes in equity based on U.S. GAAP</u>				
Balance, beginning of year	\$ 535,996.3	\$ 615,156.2	\$ 671,612.6	\$ 23,119.2
Net income for the year	164,320.4	137,103.3	158,654.5	5,461.4
Unrealized gain (loss) on available-for-sale marketable securities and hedging derivative financial instruments				
TSMC	(338.3)	(1,241.1)	9,128.7	314.2
Equity-method investees	(6.0)	(41.1)	17.5	0.6
Noncontrolling interests	4.0	(3.0)	(3.5)	(0.1)
Common shares issued as profit sharing to employees				
TSMC	-	12.3	-	-

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Equity-method investees	-	1.1	3.0	0.1
Noncontrolling interests	-	18.3	-	-
Adjustment arising from changes of ownership percentage in investees				
TSMC	41.3	3.8	128.6	4.4
Equity-method investees	(3.7)	(3.1)	(8.1)	(0.2)
Noncontrolling interests	4.4	1.1	(38.2)	(1.3)

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	Year Ended December 31			
	2010	2011	2012	US\$
	NT\$	NT\$	NT\$	(Note 3)
	(In Millions)			
Translation adjustments				
TSMC	\$ (4,776.5)	\$ 109.8	\$ (4,320.4)	\$ (148.7)
Equity-method investees	(187.9)	(9.4)	(140.7)	(4.8)
Noncontrolling interests	86.2	7.6	52.9	1.8
Treasury stock repurchased by the Company	-	(71.6)	-	-
Cash dividends to common shareholders	(77,708.1)	(77,730.2)	(77,748.7)	(2,676.4)
Stock-based compensation				
TSMC	172.4	57.0	160.2	5.5
Equity-method investees	(7.8)	(0.4)	30.7	1.1
Noncontrolling interests	7.3	3.1	3.7	0.1
Issuance of stock from exercising stock options	244.8	217.7	242.5	8.4
Changes in actuarial gain (loss) and transition obligation				
TSMC	(2,467.0)	369.4	(626.3)	(21.6)
Equity-method investees	(47.8)	19.0	(19.1)	(0.7)
Deconsolidation of GUC				
Noncontrolling interests	-	(1,987.9)	-	-
Increase (decrease) in noncontrolling interests	(177.8)	(379.3)	286.2	9.9
Balance, end of year	\$ 615,156.2	\$ 671,612.6	\$ 757,416.1	\$ 26,072.9
Attributable to				
Shareholders of the parent	\$ 610,596.7	\$ 669,162.6	\$ 754,860.1	\$ 25,984.9
Noncontrolling interests	4,559.5	2,450.0	2,556.0	88.0
	\$ 615,156.2	\$ 671,612.6	\$ 757,416.1	\$ 26,072.9

(Concluded)

The following U.S. GAAP condensed balance sheets as of December 31, 2011 and 2012, and statements of operations for the years ended December 31, 2010, 2011 and 2012 have been derived from the audited consolidated financial statements and reflect the adjustments presented above.

Certain accounts have been reclassified to conform to U.S. GAAP. Technical service income is included in sales with the related costs included in cost of sales. Casualty loss recorded in non-operating expense was reclassified under cost of sales. Gains or losses on disposal of property, plant and equipment and other assets, rental income with related costs, impairment losses on idle assets and certain other items in non-operating income (expense) are included in operating expenses.

The Company reports comprehensive income (loss) in accordance with the guidance related to reporting comprehensive income for U.S. GAAP purposes. The guidance related to reporting comprehensive income requires that in addition to net income (loss), a company should report other comprehensive income (loss) consisting of the changes in equity of the company during the year from transactions and other events and circumstance from nonowner sources. It includes all changes in equity during the year except those resulting from investments by shareholders and distribution to shareholders. The components of other comprehensive income for the Company consist of unrealized gains and losses relating to the translation of financial statements maintained in foreign currencies, unrealized gains and losses relating to the Company's investments in available-for-sale securities and hedging derivative financial instruments and changes in actuarial gain or loss and transition obligation of the defined benefit pension plans.





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	2011 NT\$	December 31 2012 NT\$	US\$ (Note 3)
	(In Millions)		
<b>Assets</b>			
Current assets	\$ 225,260.4	\$ 252,288.6	\$ 8,684.6
Long-term investments	38,135.6	69,151.3	2,380.4
Property, plant and equipment, net	490,374.9	617,529.5	21,257.5
Goodwill	46,398.9	46,093.0	1,586.7
Other assets	18,604.6	14,013.7	482.4
<b>Total assets</b>	<b>\$ 818,774.4</b>	<b>\$ 999,076.1</b>	<b>\$ 34,391.6</b>
<b>Liabilities</b>			
Current liabilities	\$ 119,815.1	\$ 152,065.2	\$ 5,234.6
Long-term liabilities	20,458.5	82,161.5	2,828.3
Other liabilities	6,888.2	7,433.3	255.8
Equity attributable to shareholders of the parent	669,162.6	754,860.1	25,984.9
Noncontrolling interests	2,450.0	2,556.0	88.0
<b>Total liabilities and equity</b>	<b>\$ 818,774.4</b>	<b>\$ 999,076.1</b>	<b>\$ 34,391.6</b>

	2010 NT\$	Year Ended December 31 2011 NT\$	2012 NT\$	US\$ (Note 3)
	(In Millions)			
Net sales	\$ 419,988.4	\$ 427,487.7	\$ 506,745.2	\$ 17,443.9
Cost of sales	212,772.1	232,988.4	262,717.0	9,043.6
Gross profit before affiliates elimination	207,216.3	194,499.3	244,028.2	8,400.3
Unrealized gross profit from affiliates	-	(74.0)	(25.0)	(0.9)
Gross profit	207,216.3	194,425.3	244,003.2	8,399.4
Operating expenses	48,433.6	52,405.6	63,045.7	2,170.2
Income from operations	158,782.7	142,019.7	180,957.5	6,229.2
Non-operating income, net	11,305.2	7,218.0	123.3	4.2
Income before income tax	170,087.9	149,237.7	181,080.8	6,233.4
Income tax expense	5,767.5	12,134.4	22,426.3	772.0
Net income	\$ 164,320.4	\$ 137,103.3	\$ 158,654.5	\$ 5,461.4
Net income attributable to shareholders of the parent	\$ 163,638.6	\$ 136,872.7	\$ 158,849.6	\$ 5,468.1

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Net income attributable to noncontrolling interests	\$	681.8	\$	230.6	\$	(195.1)	\$	(6.7)
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Consolidated net income based on U.S. GAAP	\$	164,320.4	\$	137,103.3	\$	158,654.5	\$	5,461.4
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Other comprehensive income (loss), net of tax:

Adjustment of unrealized gain (loss) on financial instruments, net of tax benefit of NT\$87.7 million and NT\$221.2 million for 2010 and 2011, respectively, and net of tax expense of NT\$409.3 million for 2012

TSMC	(338.3)	(1,241.1)	9,128.7	314.2
Equity-method investees	(6.0)	(41.1)	17.5	0.6
Noncontrolling interests	4.0	(3.0)	(3.5)	(0.1)

(Continued)

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	2010	Year Ended December 31		2012	
	NT\$	2011	NT\$	NT\$	US\$
		NT\$			(Note 3)
		(In Millions)			
Translation adjustments, net of tax expense of nil					
TSMC	\$ (4,776.5)	\$ 109.8	\$ (4,320.4)	\$ (148.7)	
Equity-method investees	(187.9)	(9.4)	(140.7)	(4.8)	
Noncontrolling interests	86.2	7.6	52.9	1.8	
Changes in actuarial gain/loss and transition obligation, net of tax expense of nil					
TSMC	(2,467.0)	369.4	(626.3)	(21.6)	
Equity-method investees	(47.8)	19.0	(19.1)	(0.7)	
Consolidated comprehensive income	\$ 156,587.1	\$ 136,314.5	\$ 162,743.6	\$ 5,602.1	
Attributable to					
Shareholders of the parent	\$ 155,815.1	\$ 136,079.3	\$ 162,889.3	\$ 5,607.1	
Noncontrolling interests	772.0	235.2	(145.7)	(5.0)	
	\$ 156,587.1	\$ 136,314.5	\$ 162,743.6	\$ 5,602.1	

(Concluded)

The components of accumulated other comprehensive income (loss) of the parent were as follows:

	2011	December 31		
	NT\$	2011	2012	US\$
		NT\$	NT\$	(Note 3)
		(In Millions)		
Cumulative translation adjustment	\$ (6,789.9)	\$ (11,251.0)	\$ (387.3)	
Unrealized gain on financial instruments	(1,172.9)	7,973.3	274.5	
Actuarial gain or loss and transition obligation	(2,123.1)	(2,768.5)	(95.3)	
Total accumulated other comprehensive loss	\$ (10,085.9)	\$ (6,046.2)	\$ (208.1)	

The Company applies R.O.C. SFAS No. 17, Statement of Cash Flows. Its objectives and principles are similar to those set out under U.S. GAAP. The principal differences between the two standards relate to classification. Changes in deferred charges, refundable deposits and other assets-miscellaneous under cash flows from investing activities under R.O.C. GAAP are reclassified to operating activities under U.S. GAAP. Changes in guarantee deposits under cash flows from financing activities under R.O.C. GAAP are reclassified to operating activities under U.S. GAAP. Effect of change in consolidated entities, which represents the cash decrease as a result of deconsolidation of GUC, is also reclassified to investing activities under U.S. GAAP guidance related to statement of cash flows. Summarized cash flow data by operating, investing and financing activities in accordance with U.S. GAAP guidance related to statement of cash flows are as follows:

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	2010	Year Ended December 31		2012	
	NT\$	2011	NT\$	NT\$	US\$
		NT\$			(Note 3)
		(In Millions)			
Net cash inflow (outflow) from:					
Operating activities	\$ 222,028.4	\$ 251,103.0	\$ 290,626.7	\$ 10,004.4	
Investing activities	(194,871.7)	(187,854.2)	(274,999.3)	(9,466.4)	
Financing activities	(48,404.8)	(67,515.8)	(13,570.8)	(467.2)	
Change in cash and cash equivalents	(21,248.1)	(4,267.0)	2,056.6	70.8	
Cash and cash equivalents at the beginning of year	171,276.3	147,887.0	143,472.3	4,938.8	
Effect of exchange rate changes	(2,141.2)	(147.7)	(2,118.3)	(72.9)	
Cash and cash equivalents at the end of year	\$ 147,887.0	\$ 143,472.3	\$ 143,410.6	\$ 4,936.7	

**34. ADDITIONAL DISCLOSURES REQUIRED BY U.S. GAAP****a. Transition to IFRS in 2013**

Starting in 2013, the Company's financial statements are prepared in accordance with International Financial Reporting Standards, International Accounting Standards, and relevant Interpretations (collectively, IFRSs) as issued by International Accounting Standards Board (IASB) and IFRSs as endorsed for use in R.O.C. Since the transition date to IFRSs was January 1, 2012, the Company's 2012 consolidated financial statements under IFRSs may be materially different from the accompanied 2012 consolidated financial statements under R.O.C. GAAP.

**b. Recent accounting pronouncements**

In May 2011, the FASB issued an accounting update to amend the fair value measurement guidance and include some enhanced disclosure requirements. The most significant change in disclosures is an expansion of the information required for Level 3 measurements based on unobservable inputs. The standard is effective for the Company for the year ending December 31, 2012. The Company has included these new disclosures, as applicable, in Note 34c below.

In June and December 2011, the FASB issued an accounting update to eliminate the current option to report other comprehensive income and its components in the statement of stockholders' equity. Instead, an entity will be required to present items of net income and other comprehensive income in one continuous statement or in two separate, but consecutive, statements. The new requirements do not change which components of comprehensive income are recognized in net income or other comprehensive income, or when an item of other comprehensive income must be reclassified to net income. This guidance must be applied retroactively and is effective for fiscal years beginning after December 15, 2011. Earlier application is permitted. The Company has determined to present items of net income and other comprehensive income in one continuous statement starting 2012.

In September 2011, the FASB issued an accounting update, which is intended to reduce the cost and complexity of the annual goodwill impairment test by providing entities an option to perform a qualitative assessment to determine whether further impairment testing is necessary. Specifically, an entity has the option to first assess qualitative factors to determine whether it is necessary to perform the current two-step test. If an entity believes, as a result of its qualitative assessment, that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is required. Otherwise, no further testing is required. This standard is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011. The adoption of this guidance did not have a material impact on the Company's results of operations, financial position or cash flows.

In December 2011, the FASB issued an accounting update, which creates new disclosure requirements regarding the nature of an entity's rights of setoff and related arrangements associated with its financial instruments and derivative instruments. Certain disclosures of the amounts of

certain instruments subject to enforceable master netting arrangements or similar agreements would be required, irrespective of whether the entity has elected to offset those instruments in the statement of financial position. The disclosure requirements are effective for annual reporting periods beginning on or after January 1, 2013 with retrospective application required. Since this standard impacts disclosure requirements only, its adoption is not expected to have a material impact on the Company's results of operations, financial condition or cash flows.

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In July 2012, the FASB issued an accounting update to simplify how entities test indefinite-lived intangible assets for impairment which improves consistency with impairment testing requirements among long-lived asset categories. The update permits an assessment of qualitative factors to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying value. For assets in which this assessment concludes it is more likely than not that the fair value is more than its carrying value, these amended standards eliminate the requirement to perform quantitative impairment testing as outlined in the previously issued standards. The standard is effective for fiscal years beginning after December 15, 2012. Based on the Company's analysis, the Company currently does not anticipate that the new guidance will have a material effect on the Company's results of operations and financial position or cash flows.

c. Fair Value

Fair value is the price that would be received upon sale of an asset or paid upon transfer of a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the Company.

The fair value prioritizes the valuation inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of the three levels which is determined by the lowest level input that is significant to the fair value measurement in its entirety. These levels are:

Level 1 - Use unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 - Use observable inputs other than Level 1 prices such as quoted prices for identical or similar instruments in markets that are not active, quoted prices for similar instruments in active markets, and model-based valuation in which all significant inputs are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 - Use inputs that are generally unobservable and reflect the use of significant management judgments and estimates.

Assets and liabilities measured at fair value on a recurring basis

The Company uses quoted prices in active markets for identical assets to determine fair value for Level 1 investments such as publicly traded stocks and money market funds.

For forward exchange and cross currency swap contracts, fair values are estimated using discounted cash flow model. The model uses market-based observable inputs including interest rate curves, foreign exchange rates, and forward and spot prices for currencies to project fair value. The forward exchange and cross currency swap contracts financial assets and liabilities are included in Level 2.

The following table presents the Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2011 and 2012:

December 31, 2011	Level 1 NT\$	Level 2 NT\$	Level 3 NT\$	Total NT\$
	(In Millions)			
<b>Assets</b>				
Derivative financial assets				
Forward exchange contract	\$ -	\$ 15.4	\$ -	\$ 15.4
Marketable securities - available-for-sale				
Publicly traded stocks	3,306.3	-	-	3,306.3
Money market funds	<u>2.5</u>	<u>-</u>	<u>-</u>	<u>2.5</u>
<b>Total</b>	<b>\$ 3,308.8</b>	<b>\$ 15.4</b>	<b>\$ -</b>	<b>\$ 3,324.2</b>
<b>Liabilities</b>				
Derivative financial liabilities				
Forward and Cross currency swap contract	\$ -	\$ 13.8	\$ -	\$ 13.8





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December 31, 2012	Level 1 NT\$	Level 2 NT\$ (In Millions)	Level 3 NT\$	Total NT\$
<b>Assets</b>				
Derivative financial assets				
Forward and Cross currency swap contract	\$ -	\$ 39.5	\$ -	\$ 39.5
Marketable securities - available-for-sale				
Publicly traded stocks	41,160.4	-	-	41,160.4
Money market funds	1.4	-	-	1.4
<b>Total</b>	<b>\$ 41,161.8</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 41,161.8</b>
<b>Liabilities</b>				
Derivative financial liabilities				
Forward and Cross currency swap contract	\$ -	\$ 15.6	\$ -	\$ 15.6

**Assets and liabilities measured at fair value on a nonrecurring basis**

The Company measures certain assets, including investments accounted for using the equity method and financial assets carried at cost, at fair value on a nonrecurring basis when they are deemed to be impaired. The valuation processes include controls that are designed to ensure appropriate fair values are recorded. These controls include model validation, review of key model inputs, and analysis of period-over-period fluctuations where appropriate. Due to significant unobservable inputs used, the Company classified these measurements as Level 3.

The Company assesses the impairment of investments accounted for using the equity method whenever triggering events or changes in circumstances indicate that an investment may be impaired and carrying value may not be recoverable. The Company measures the fair value based on the discounted cash flow of the investees, the underlying assumptions, for which had been formulated by such investees' internal management team, taking into account market conditions for the industries which the investees operate in to ensure the reasonableness of such assumptions. The compound annual revenue growth rate within the period covered by the most recent forecasts and the weighted average cost of capital, which are significant unobservable inputs used in the fair value measurement, were 9.30% and 8.01%, respectively.

Financial assets carried at cost consist primarily of non-publicly traded stocks. The Company reviews financial assets carried at cost for impairment quarterly and records an impairment charge when the Company believes an investment has experienced an other-than-temporary decline in value. Determining whether an other-than-temporary decline in value of the investment has occurred is highly subjective. Factors the Company considers include the value of the investment in relation to its cost basis and the duration of the decline in value below the cost basis of the investment. Due to the absence of quoted market prices, the fair values are determined significantly based on management judgment with the best information available. The Company calculates these fair values using the market approach which includes recent financing activities, valuation of comparable companies, technology development stage, market condition and other economic factors as their inputs.

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The table below sets out the balances for those assets required to be measured at fair value on a nonrecurring basis and the associated losses recognized during the years ended December 31, 2011 and 2012:

	December 31, 2011 NT\$	Level 1 NT\$	Level 2 NT\$ (In Millions)	Level 3 NT\$	Total Loss (Refer to Note 13) NT\$
<b>Assets</b>					
Financial assets carried at cost	\$ 4,315.0	\$ -	\$ -	\$ 4,315.0	\$ (265.5)

	December 31, 2012 NT\$	Level 1 NT\$	Level 2 NT\$ (In Millions)	Level 3 NT\$	Total Loss (Refer to Note 11 and 13) NT\$
<b>Assets</b>					
Investments accounted for using the equity method	\$ 23,430.0	\$ -	\$ -	\$ 23,430.0	\$ (1,186.7)
Financial assets carried at cost	\$ 3,605.1	\$ -	\$ -	\$ 3,605.1	\$ (367.4)

**Financial Assets and Liabilities not Measured at Fair Value but for which the Fair Value is Disclosed**

The Company uses quoted prices in active markets for identical assets to determine fair value for Level 1 investments such as corporate bonds and government bonds. For investments in corporate bonds using quoted prices in a less active market are classified as Level 2.

The fair value of the Company's bonds payable is determined using active market prices and classified as Level 1. The Company uses discounted cash flow model with observable market data, such as LIBOR based yield curve, to determine the fair value of long-term bank loans, other long-term payables and obligations under capital leases. These liabilities are therefore included in Level 2.

The table below sets out the balances for the Company's assets and liabilities at amortized cost but for which the fair value is disclosed as of December 31, 2011 and 2012:

December 31, 2011	Level 1 NT\$	Level 2 NT\$ (In Millions)	Level 3 NT\$	Total NT\$
<b>Assets</b>				
Held-to-maturity securities				
Corporate bonds	\$ 6,410.9	\$ 2,263.2	\$ -	\$ 8,674.1
Government bonds	454.0	-	-	454.0
<b>Total</b>	<b>\$ 6,864.9</b>	<b>\$ 2,263.2</b>	<b>\$ -</b>	<b>\$ 9,128.1</b>

Liabilities								
Bonds payable	\$	22,597.1	\$	-	\$	-	\$	22,597.1
Long-term bank loans	\$	-	\$	1,650.0	\$	-	\$	1,650.0
Other long-term payables	\$	-	\$	3,399.9	\$	-	\$	3,399.9
Obligations under capital leases	\$	-	\$	871.0	\$	-	\$	871.0

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December 31, 2012	Level 1 NT\$	Level 2 NT\$ (In Millions)	Level 3 NT\$	Total NT\$
<b>Assets</b>				
Held-to-maturity securities				
Corporate bonds	\$ 2,886.7	\$ 2,179.7	\$ -	\$ 5,066.4
<b>Liabilities</b>				
Bonds payable	\$ 80,343.4	\$ -	\$ -	\$ 80,343.4
Long-term bank loans	\$ -	\$ 1,487.5	\$ -	\$ 1,487.5
Other long-term payables	\$ -	\$ 967.5	\$ -	\$ 967.5
Obligations under capital leases	\$ -	\$ 756.3	\$ -	\$ 756.3

## d. Marketable securities

As of December 31, 2011 and 2012, the marketable securities by category were as follows:

	<b>December 31</b>	
	<b>2011</b>	<b>2012</b>
	<b>NT\$</b>	<b>NT\$</b>
	<b>(In Millions)</b>	
Marketable securities - available-for-sale	\$ 3,308.8	\$ 41,161.8
Marketable securities - held-to-maturity	9,068.9	5,057.0

The Company uses the average cost method for available-for-sale securities when determining their cost basis. Proceeds from sales of available-for-sale securities for the years ended December 31, 2010, 2011 and 2012 were NT\$37,816.3 million, NT\$59,305.0 million and NT\$964.4 million, respectively. The Company's gross realized gains on the sale of marketable securities for the years ended December 31, 2010, 2011 and 2012 were NT\$749.5 million, NT\$357.6 million and NT\$399.6 million, respectively. The Company's gross realized losses on the sale of marketable securities for the years ended December 31, 2010, 2011 and 2012 were NT\$146.2 million, NT\$145.2 million and nil, respectively.

As of December 31, 2011 and 2012, available-for-sale and held-to-maturity securities of the Company were as follows:

	December 31, 2011			
	Cost	Gross	Gross	Estimated
	NT\$	Unrealized	Unrealized	Fair
		Gains	Losses	Value
		NT\$	NT\$	NT\$
	(In Millions)			
Available-for-sale securities				
Publicly traded stocks	\$ 4,723.7	\$ 488.0	\$ (1,905.4)	\$ 3,306.3

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Money market funds	2.5	-	-	2.5
Total	\$ 4,726.2	\$ 488.0	\$ (1,905.4)	\$ 3,308.8
Held-to-maturity securities				
Corporate bonds	\$ 8,614.6	\$ 75.5	\$ (16.0)	\$ 8,674.1
Government bonds	454.3	-	(0.3)	454.0
Total	\$ 9,068.9	\$ 75.5	\$ (16.3)	\$ 9,128.1

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		<b>December 31, 2012</b>			
	<b>Cost NT\$</b>	<b>Gross Unrealized Gains NT\$</b>	<b>Gross Unrealized Losses NT\$</b>	<b>Estimated Fair Value NT\$</b>	
<b>(In Millions)</b>					
<b>Available-for-sale securities</b>					
Publicly traded stocks	\$ 33,057.7	\$ 8,143.1	\$ (40.4)	\$ 41,160.4	
Money market funds	1.4	-	-	1.4	
<b>Total</b>	<b>\$ 33,059.1</b>	<b>\$ 8,143.1</b>	<b>\$ (40.4)</b>	<b>\$ 41,161.8</b>	
<b>Held-to-maturity securities</b>					
Corporate bonds	\$ 5,057.0	\$ 11.0	\$ (1.6)	\$ 5,066.4	

The following table shows the fair value and gross unrealized losses of the marketable securities with unrealized losses that are not deemed to be other-than-temporarily impaired, aggregated by investment category and length of time that such securities have been in a continuous unrealized loss position as of December 31, 2012:

	<b>Less than 12 Months</b>		<b>12 Months or Greater</b>		<b>Total</b>	
	<b>Fair Value NT\$</b>	<b>Unrealized Losses NT\$</b>	<b>Fair Value NT\$</b>	<b>Unrealized Losses NT\$</b>	<b>Fair Value NT\$</b>	<b>Unrealized Losses NT\$</b>
<b>(In Millions)</b>						
<b>Available-for-sale securities</b>						
Publicly traded stocks	\$ -	\$ -	\$ 109.0	\$ (40.4)	\$ 109.0	\$ (40.4)
<b>Held-to-maturity securities</b>						
Corporate bonds	\$ 1,166.1	\$ (1.6)	\$ -	\$ -	\$ 1,166.1	\$ (1.6)

The gross unrealized losses related to bonds and publicly traded stock were due to fair value fluctuations. The Company presently does not intend to sell the above securities and believes that it is not more likely than not that the Company will be required to sell these securities that are in an unrealized loss position before recovery of the Company's cost.

As of December 31, 2012, the amortized cost and fair value of the Company's held-to-maturity investments in debt securities by contractual maturity were as follows:

	<b>Cost NT\$</b>	<b>Fair Value NT\$</b>
<b>(In Millions)</b>		
<b>Held-to-maturity securities</b>		
Due in one year or less	\$ 5,057.0	\$ 5,066.4

e. Stock-based compensation plans

Effective January 1, 2006, TSMC adopted the fair value recognition provisions to account for share-based payments, using the modified prospective transition method and therefore has not restated the results for prior periods. Under the transition method, stock-based compensation expense in the year ended December 31, 2006 includes stock-based compensation expense for all share-based payment awards granted prior to, but not yet vested as of January 1, 2006, based on the grant-date fair value. In addition, the stock-based compensation expense also includes intrinsic value of certain outstanding share-based awards for which it was not possible to reasonably estimate their grant-date fair value.

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Stock-based compensation expense for all share-based payment awards granted after January 1, 2006 is based on the grant-date fair value. The Company recognizes these compensation costs using the graded vesting method over the requisite service period of the award, which is generally a four-year vesting period. The adoption of the guidance relating to share-based payment resulted in a cumulative gain from accounting change of NT\$37.9 million, which reflects the net cumulative impact of estimating future forfeitures in the determination of period expense, rather than recording forfeitures when they occur as previously permitted. In March 2005, the SEC issued an interpretation relating to share-based payment and the value of share-based payments for public companies. TSMC has applied the interpretation in its adoption of the guidance relating to share-based payment. In December 2007, the SEC issued an amendment for prior interpretation regarding the use of the simplified method in developing estimates of the expected life of stock options in accordance with the guidance relating to share-based payment. The amendment allowed the continued use, subject to specific criteria, of the simplified method in estimating the expected life of stock options granted after December 31, 2008. During 2012, the Company granted employee stock option plans accounted for using the fair value method from TSMC Solar, TSMC SSL and Xintec.

The fair values of the options granted under the TSMC 2002 Plan was not reasonably estimable using appropriate valuation methodologies because the terms of such plans included a provision for a reduction in the exercise price in the event TSMC issues additional common shares or issues ADSs at a price lower than the exercise price of a granted stock option. Accordingly, the expenses for the stock options granted under the TSMC 2002 Plan were determined using the variable accounting method. Under such method, the Company accounts for these stock options based on their intrinsic value, remeasured at each reporting date through the date of exercise or other settlement.

Please refer to Note 23 of the Consolidated Financial Statements for other general terms of Employee Stock Option Plans of TSMC, TSMC Solar, TSMC SSL and Xintec, such as the maximum contractual term and the number of shares authorized for each stock option plan, as well as the supplemental information such as outstanding options as of December 31, 2012.

The weighted average remaining aggregate intrinsic value and contractual term of options under the foregoing plans as of December 31, 2012 were as follows:

	<b>Aggregate Intrinsic Value NT\$ (In Millions)</b>	<b>Weighted Average Remaining Contractual Term (In Years)</b>
<b>TSMC:</b>		
Options outstanding	371.1	1.1
Options exercisable	371.1	1.1
<b>Xintec:</b>		
Options outstanding	2.4	4.4
Options exercisable	2.4	4.3

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (the difference between the stock closing price on the last trading date of the year ended December 31, 2012 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2012.

The number of options expected to vest for the years ended December 31, 2011 and 2012 was nil and 5,528 thousand shares, respectively.

Total intrinsic value of options exercised in the years ended December 31, 2011 and 2012 was NT\$313.5 million and NT\$453.5 million, respectively. Total fair value of options vested, net of taxes, during the years ended December 31, 2011 and 2012 was NT\$2.5 million and NT\$1.7 million, respectively.

As of December 31, 2012, the unrecognized compensation cost related to stock-based compensation plans was NT\$22.7 million. The unrecognized compensation cost is expected to be recognized over a weighted average period of 3.5 years.





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### **f. Uncertainty in income taxes**

On January 1, 2007, the Company adopted new guidance related to accounting for uncertainty in income taxes, which clarifies the accounting for uncertainty in income taxes by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This guidance also provides rules guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. As a result of the implementation of this guidance, the Company did not recognize any cumulative effect adjustment impacting retained earnings as of the beginning of fiscal year 2007. As of December 31, 2011 and 2012, there were no material uncertain tax positions or unrecognized tax benefits identified by the Company. The Company does not expect there will be any significant change in this uncertain tax position or unrecognized tax benefits within 12 months of the reporting date.

### **g. Settlement income**

Settlement income of NT\$6,939.8 million, NT\$947.3 million and NT\$883.8 million was recognized in the years ended December 31, 2010, 2011 and 2012, respectively, under the settlement agreement with Semiconductor Manufacturing International Corporation (SMIC). The dispute settlement is not a component of the activities that constitute the Company's ongoing major or central operations and therefore is classified as non-operating income.

The Company recognized such settlement income on a cash basis due to the Company's serious doubt as to its collectability at the time the settlement agreement was consummated. The Company continues to analyze the recognition of the remaining settlement income based on its collectability, and will evaluate SMIC's reported financial condition, capital resources and liquidity condition on a regular basis.

### **h. Deconsolidation of GUC**

Since July 2011, the Company ceased to have controlling interest in GUC and its subsidiaries due to the termination of a Shareholders Agreement; as a result, the Company no longer consolidates GUC. Under the deconsolidation accounting guidelines, the investor's opening investment is recorded at fair value as of the date of deconsolidation. The difference between this fair value of the investment and the net carrying value is recognized as a gain or loss in earnings. During the third quarter of 2011, the Company completed a valuation analysis to determine the initial fair value of its investment in GUC. In determining the fair value, as GUC is listed on TSE, the Company used the market approach by considering GUC's market price and the Company's shareholding in GUC upon deconsolidation.

Based on the results of the valuation, the Company determined that at the deconsolidation date the fair value of its investment in GUC was NT\$5,369.2 million and recognized a non-cash gain of NT\$4,304.1 million in non-operating income under U.S. GAAP for the year ended December 31, 2011.