TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD
Form 20-F
April 13, 2015
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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

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

For the fiscal year ended December 31, 2014

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	**Republic of China**
(Translation of Registrant s Name Into English)	**(Jurisdiction of Incorporation or Organization)**

No. 8, Li-Hsin Road 6

Hsinchu Science Park

Hsinchu, Taiwan

Republic of China

(Address of Principal Executive Offices)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Shares, par value NT$10.00 each*	**The New York Stock Exchange, Inc.**

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

None

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

(Title of Class)

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report.

As of December 31, 2014, 25,929,662,436 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 x 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 x

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark 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 x 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 ¨

by the International Accounting Standards Board x

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 ¨

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 x

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

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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, could, should and other similar ex identify forward-looking statements. These statements appear in a number of places throughout this annual report and include statements regarding our intentions, beliefs or current expectations concerning, among other things, our results of operations, financial condition, liquidity, prospects, growth, strategies and the industries in which we operate.

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

- the volatility of the semiconductor and 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 16/10-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.

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PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

Selected Financial and Operating Data

The selected consolidated statements of profit or loss and other comprehensive income data and other consolidated financial data for the years ended December 31, 2012, 2013 and 2014, and the selected consolidated statements of financial position data as of December 31, 2013 and 2014, 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, which have been prepared in accordance with International Financial Reporting Standards, or IFRSs , as issued by the International Accounting Standards Board, or IASB . The selected consolidated statement of financial position data as of December 31, 2012, set forth below, is derived from our audited consolidated financial statements not included herein. Since 2013 was the first year our audited consolidated financial statements were prepared in accordance with IFRSs, pursuant to the transitional relief granted by the U.S. Securities and Exchange Commission in respect of the first-time adoption of IFRSs, we have only provided financial statements and financial information for the financial years ended December 31, 2012, 2013 and 2014. Additionally, financial data as of and for the years ended December 31, 2010 and 2011 derived from our consolidated financial statements prepared in accordance with accounting principles generally accepted (GAAP or R.O.C. GAAP) in the Republic of China (R.O.C. or Taiwan) have not been included below.

In addition to preparing financial statements in accordance with IFRSs as issued by the IASB included in this annual report, we also prepare financial statements in accordance with the IFRSs as adopted for use in Taiwan (Taiwan-IFRSs), which we are required to file with the Financial Supervisory Commission (FSC) of R.O.C. and Taiwan Stock Exchange (TWSE) under the applicable regulations and listing rules of the TWSE. Please see Item 5. Operating and Financial Reviews and Prospects First Time Adoption of IFRSs for more details. English translations of such financial statements are furnished to the SEC on Form 6-K, which are not incorporated by reference to this or any of our previous annual reports on Form 20-F.

	Year ended and as of December 31,			
	2012	2013	2014	
	NT$	NT$	NT$	US$
	(in millions, except for percentages, earnings per share and per ADS)			

Consolidated Statements of Profit or Loss and Other Comprehensive Income Data:				
Net revenue	506,745	597,024	762,806	24,139
Cost of revenue	(262,592)	(315,642)	(385,113)	(12,187)
Gross profit before realized (unrealized) gross profit on sales to associates	244,153	281,382	377,693	11,952
Realized (unrealized) gross profit on sales to associates	(25)	(21)	29	1
Gross profit	244,128	281,361	377,722	11,953
Operating expenses	(62,517)	(71,339)	(80,849)	(2,558)
Other operating income and expenses, net	(449)	47	(1,002)	(32)
Income from operations	181,162	210,069	295,871	9,363
Non-operating income and expenses, net	499	5,893	6,203	196
Income before income tax	181,661	215,962	302,074	9,559
Income tax expense	(22,375)	(32,112)	(47,890)	(1,515)
Net income	159,286	183,850	254,184	8,044
Other comprehensive income for the year, net of income tax	4,261	16,359	11,805	373
Total comprehensive income for the year	163,547	200,209	265,989	8,417
Net income attributable to shareholders of the parent	159,481	183,978	254,302	8,048
Net loss attributable to noncontrolling interests	(195)	(128)	(118)	(4)
Total comprehensive income attributable to shareholders of the parent	163,692	200,343	266,091	8,421
Total comprehensive loss attributable to noncontrolling interests	(145)	(134)	(102)	(4)
Basic earnings per share	6.15	7.10	9.81	0.31
Diluted earnings per share	6.15	7.10	9.81	0.31
Basic earnings per ADS equivalent	30.76	35.48	49.04	1.55
Diluted earnings per ADS equivalent	30.75	35.48	49.04	1.55
Basic weighted average shares outstanding	25,921	25,928	25,929	25,929
Diluted weighted average shares outstanding	25,928	25,930	25,930	25,930

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	Year ended and as of December 31,			
	2012	2013	2014	
	NT$	NT$	NT$	US$
	(in millions, except for cash dividend per common share)			
Consolidated Statements of Financial Position Data:				
Working capital	92,223	154,513	401,781	12,715
Long-term investments[1]	65,723	89,024	29,860	945
Property, plant and equipment	617,562	792,666	818,199	25,892
Intangible assets	10,960	11,490	13,531	428
Total assets	961,344	1,262,801	1,494,853	47,305
Hedging derivative financial liabilities		5,482		
Long-term bonds payable	80,000	210,768	213,674	6,762
Accrued pension cost	6,781	6,802	6,568	208
Total liabilities	247,749	428,688	472,492	14,952
Capital stock	259,245	259,286	259,297	8,206
Equity attributable to shareholders of the parent	711,052	833,846	1,022,234	32,349
Noncontrolling interests	2,543	267	127	4
Cash dividend per common share[2]	3.0	3.0	3.0	0.1

	Year ended and as of December 31,			
	2012	2013	2014	
	NT$	NT$	NT$	US$
	(in millions, except for percentages and operating data)			
Other Financial Data:				
Gross margin	48.2%	47.1%	49.5%	49.5%
Operating margin	35.8%	35.2%	38.8%	38.8%
Net margin	31.5%	30.8%	33.3%	33.3%
Capital expenditures	246,137	287,595	288,540	9,131
Depreciation and amortization	131,349	156,182	200,252	6,337
Cash generated by operating activities	284,963	347,384	421,524	13,339
Cash used in investing activities	(269,318)	(281,054)	(282,421)	(8,937)
Cash generated by (used in) financing activities	(13,589)	32,106	(32,328)	(1,023)
Effect of exchange rate changes and others	(2,118)	849	8,979	284
Net increase (decrease) in cash	(62)	99,285	115,754	3,663
Operating Data:				
Wafer (300mm equivalent) shipment[3]	6,242	6,963	8,263	8,263
Billing Utilization Rate[4]	91%	91%	97%	97%

(1) Investments accounted for using equity method, and noncurrent available-for-sale financial assets.

(2) Cash dividend per common share was approved by our shareholders on June 12, 2012, June 11, 2013 and June 24, 2014, respectively. The numbers are rounded to one decimal point.

(3) In thousands.

(4) Billing Utilization Rate is equal to annual wafer shipment divided by annual capacity. Annual capacity includes wafers committed by Vanguard International Semiconductor Corporation (VIS) and Systems on Silicon Manufacturing Company Pte. Ltd. (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 were made by the exchange rate as set forth in the statistical release of the Federal Reserve Board. Unless otherwise noted, all translations for the year 2014 were made at the exchange rate as of December 31, 2014, which was NT$31.60 to US$1.00. On April 3, 2015, the exchange rate was NT$30.87 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[1]	High	Low	Period-End
2012	29.47	29.91	29.05	29.05
2013	29.73	30.03	29.42	29.83
2014	30.38	31.60	29.87	31.60
October 2014	30.40	30.49	30.31	30.45
November 2014	30.73	30.99	30.48	30.99
December 2014	31.35	31.80	31.03	31.60
January 2015	31.64	32.00	31.06	31.75
February 2015	31.55	31.76	31.31	31.44
March 2015	31.44	31.71	31.19	31.24
April 2015 (through April 3, 2015)	31.05	31.24	30.87	30.87

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

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

Capitalization and Indebtedness

Not applicable.

Reasons for the Offer and Use of Proceeds

Not applicable.

Risk Factors

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

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, including the prolonged decrease in economic growth or insolvency of major countries, could cause turmoil in global markets that often result in declines in electronic products sales from which we generate our income through our

products and services. For example, there could be 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 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 reduce our operating income and net income. Thus, any future global economic crisis or catastrophic natural disaster could materially and adversely affect our results of operations.

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 are 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. Variations in order levels from our customers may 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. 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 could 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.

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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 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. We compete with other foundry service providers, as well as integrated device manufacturers that devote a significant portion of their manufacturing capacity to foundry operations. 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. For example, 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 try to attract our customers. If we are unable to compete with any and each of these new competitors with better technologies and manufacturing capacity and capabilities, we risk losing customers to these new contenders.

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 factors have also been intensified by the shift of the global technology market to consumer driven products such as mobile devices, and increasing concentration of customers and competition (all further discussed among these risk factors). If we are unable to innovate new technologies that meet the demands of our customers or overcome the above factors, 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, 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 long term market demand forecasts to estimate general economic and market 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. Recently, we have been adding capacity to our 300mm wafer fabs in the Hsinchu Science Park, Southern Taiwan Science Park and Central Taiwan Science Park, based on our market demand forecasts taking into account the demand forecasts of our customers. As a result, our total monthly capacity for 300mm wafer fabs was increased from 414,680 wafers as of December 31, 2013 to 494,696 wafers as of December 31, 2014. 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 revenue accordingly, in order to offset these higher costs, our financial performance may be adverse affected. See Item 4. Information on the Company Capacity Management and Technology Upgrade Plans for a further discussion.

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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.

Planning capital requirements is challenging in the highly dynamic, cyclical and rapidly changing semiconductor industry, especially during times of general market volatility in the fixed income, interest rates, foreign currencies and equities markets. 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 rely 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.

We may be unable to obtain in a timely manner and at a reasonable cost equipment that are 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. Further, the growing complexities especially in next-generation lithographic technologies may delay the timely availability of the equipment 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 demands on technology and production capacity, 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. In addition, major natural disasters, political or economic turmoil occurring within the country of origin of such raw materials may also significantly disrupt the availability of such raw materials or increase their prices. 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 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.

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Any inability to obtain, preserve, enforce, defend and protect 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 on, to a certain degree, 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 litigious, 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 technologies or intellectual property licenses and, if litigation relating to alleged intellectual property matters occurs, it could prevent us from manufacturing or selling particular products or applying particular technologies, which could reduce our opportunities to generate revenues. See Item 8. Financial Information Legal Proceedings for a further discussion.

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

We and many of our suppliers use highly combustible and toxic materials in 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, 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 IFRSs, we are required to evaluate our investments, tangible 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 IFRSs 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. We hold investments in certain publicly listed and private companies, some of which have incurred certain impairment charges as discussed further in our financial statements. We 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 Reviews and Prospects Critical Accounting Policies And Judgments for a discussion of how we assess if an impairment charge is required and, if so, how the amount is determined.

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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 60%, 62% and 63 % of our net revenue in 2012, 2013 and 2014, respectively. Our largest customer accounted for 17%, 22% and 21% of our net revenue in 2012, 2013 and 2014, 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 changes of nature in our customers business models. 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. But 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. If we fail to maintain the adequacy of our internal controls, 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.

The majority of 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, economic and social conditions, outbreak of war or hostilities, terrorism, security risks, social unrests, protests, strikes, 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, the financial markets have viewed certain past developments in relations between the R.O.C. and P.R.C. 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 P.R.C. In addition to the above factors, future expansions of our operations in Taiwan will likely be handicapped by shortages in water and electricity, the limited availability of commercial-use land, and experienced human resources.

Our operational results could also be materially and adversely affected by natural disasters, shortages 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 frequency and severity of natural disasters and severe weather has been increasing, in part due to climate change. We have manufacturing and other operations in locations subject to natural disasters, such as severe weather, flooding, earthquakes, tsunamis, and droughts as well as interruptions or shortages in the supply of utilities, such as water and electricity, which could disrupt operations. We source key raw materials from locations subject to natural disasters, such as severe weather, flooding, earthquakes, tsunamis, and droughts, and any major natural disaster occurring in any such locations may cause 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 that may cause shortages in electricity and water. In addition, we have occasionally suffered power outages or surges 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 operations. 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 our business insurance policies will fully cover any losses. One or more natural disasters, shortage 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.

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Our failure to comply with applicable environmental and climate related laws and regulations, as well as international laws, regulations and 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 metals, chemicals, minerals and materials that are subject to environmental, climate-related, health and safety, and humanitarian conflict-free sourcing laws (such as the U.S. SEC rule for filing Form SD to disclose the origins of certain strategic minerals), regulations and guidelines 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;
- challenges from our customers that place us at a significant competitive disadvantage, such as loss of actual or potential sales contracts in case we are unable to satisfy the conditions regarding environmental laws or requirements by our customers;
- restrictions on our operations or sales;
- loss of tax benefits, including termination of current tax incentives, disqualification of tax credit application and repayment of the tax benefits that we are not entitled to; and
- damages to our goodwill and reputation.

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.

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 provide products and services that exceed any existing standard(s) of environmental compliance. 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.

In addition, our inability to timely obtain environmental related approvals needed to undertake the development and construction of a new fab or expansion project may delay, limit, or increase the cost of our expansion plans that could also in turn adversely affect our business and operational results. In light of increased public interest in environmental issues, our operations and expansion plans may be adversely affected or delayed responding to public concern and social environmental pressures even if we comply with all applicable laws and regulations.

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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 .

To mitigate risks resulting from climate change, we continue to actively carry out energy conservation measures and voluntary perfluorinated compounds (PFC) emission reduction projects, and conduct greenhouse gas inventories verification every year.

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 2014, more than 90% of our revenue 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. Specifically, based on our 2014 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 expectations and resulting general market volatility 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 expectations and conditions. Both high inflation and deflation adversely affect an economy, at both the macro and micro levels, by reducing economic efficiency and disrupting saving and investment decisions. These macro-economic changes have resulted in general world market volatility across all assets classes. Such fluctuations and volatility 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 economy. Therefore, the demand for our products and services could unexpectedly fluctuate severely in accordance with expectations of inflation or deflation as affected by macro market volatility. Please see Item 5. Operating and Financial Reviews and Prospects Inflation & Deflation for a further discussion.

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. Any unfavorable changes of tax laws and regulations in this jurisdiction could increase our effective tax rate and have an adverse effect on our operating results. See Item 5. Operating and Financial Reviews and Prospects Taxation for 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. For example, we have invested to develop potential business in solar power. There is no guarantee that any of such investments will be successful commercially. Any such investment will incur risks, which may result in losses even with careful management. Any such loss resulting from such investments may result in significant impairment charges, lower profit margin and ultimately lower distributable earnings. For further information on these investments, please see Item 4. Information on the Company Our Subsidiaries and Affiliates .

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If our internet security systems succumb to cyber attacks initiated by third party entities worldwide, our manufacturing as well as daily operations may be severely interrupted or shutdown indefinitely that may materially harm our financial results, our commitments to our customers and stakeholders and corporate goodwill.

Even though we have established a comprehensive internet and computing security network, we cannot guarantee that our computing systems which control or maintain vital corporate functions like our manufacturing operations and enterprise accounting would be completely immune to crippling cyber viral attacks launched by third party to gain unauthorized access to our internal network systems to sabotage our operations and goodwill. In the event of a serious cyber attack, our systems may lose important corporate data and our production lines may be shutdown indefinitely pending the resolution of such attack. These cyber attacks may also attempt to steal our trade secrets and other intellectual properties and other sensitive information, such as personal information of our employees and proprietary information of our customers and other stakeholders. Malicious hackers may also try to introduce computer viruses or corrupted software into our network systems to disrupt our operations or spy for sensitive information. These attacks may result in us having to pay damages for our delayed or disrupted orders or incur significant expenses in attempting to re-establish control over our network. If we are not able to timely resolve the technical difficulties caused by such cyber attacks, our financial results as well as our commitments to our customers and other stakeholders may be materially impaired.

Risks Relating to Ownership of ADSs

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

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

ADS holders will not generally be able to exercise the voting rights attaching to the deposited securities on an individual basis. According to the 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. 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 6.38% of TSMC s outstanding shares as of February 28, 2015, has from time to time in the past sold our shares in the form of ADSs in several transactions.

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

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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

Our legal and commercial name is (Taiwan Semiconductor Manufacturing Company Limited). 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.

Our Principal Office

Our principal executive office is located at No. 8, Li-Hsin Road 6, Hsinchu Science Park, Hsinchu, Taiwan, Republic of China. Our telephone number at that office is (886-3) 563-6688. Our web site is www.tsmc.com. Information contained on our website 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 54% in 2014. We also offer design, mask making, bumping, probing, and 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, system companies to integrated device manufacturers, including, but not limited to, Advanced Micro Devices, Inc., Broadcom Corporation, Freescale Semiconductor, Inc., Huawei Tech, Marvell Semiconductor Inc., MediaTek Inc., NVIDIA Corporation, NXP Semiconductors, OmniVision Technologies, Qualcomm Inc. and Texas Instruments Inc. Fabless semiconductor and system companies accounted for approximately 85%, and integrated device manufacturers accounted for approximately 15% of our net revenue in 2014.

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 559,304 square meters. We lease these parcels from the Hsinchu Science Park Administration in Hsinchu under agreements that will be up for renewal between June 2015 and December 2033. 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 September 2029. We have leased from the Southern Taiwan Science Park Administration approximately 765,270 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 July 2034. We also own approximately 143,215 square meters of land located in Miaoli, Taiwan. 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 414,680 wafers as of December 31, 2013 to 494,696 wafers as of December 31, 2014. We will continuously evaluate our capacity in light of prevailing market conditions.

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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 revenue of advanced semiconductors with a resolution of 28-nanometer and below, and are one of the leaders in the semiconductor manufacturing industry generally. We are the first dedicated foundry with proven low-k interconnect technology in commercial production from the 0.13 micron node down to 28-nanometer node. In 2012, we continued 20-nanometer technology development to provide a migration path from 28-nanometer for both performance driven products and mobile computing applications. In 2014, we started volume production of 20-nanometer technology and continued the development of 16- and 10-nanometer technologies.

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 three years:

Fab[1]	Year of commencement	Current most advanced technology for volume production[2]	Monthly capacity[3][4][5]		
			2012	2013	2014
2	1990	450	21,516	21,623	21,623
3	1995	150	45,788	42,975	42,768
5	1997	150	22,155	14,891	16,157
6	2000	110	44,640	64,044	67,650
8	1998	110	39,817	32,348	34,926
10	2004	150	35,689	37,200	41,333
11	1998	150	16,667	16,889	17,222
12	2001	20	128,776	124,912	127,998
14	2004	20	186,161	190,001	252,350
15	2012	28	51,903	99,767	114,348
Total[5]			593,112	644,650	736,375

(1) Fab 2 produces 150mm wafers. Fabs 3, 5, 6, 8, 10 and Fab 11 (WaferTech) 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 and Fab 10 is located in Shanghai.

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

(3) Estimated capacity in 300mm equivalent wafers as of year-end for the total technology ranges available for production.

(4) Under an agreement with VIS, TSMC is required to use its best commercial efforts to maintain utilization of a certain amount of reserved capacity as agreed by both parties. Please see Item 7. Major Shareholders and Related Party Transactions Related Party Transactions Vanguard International Semiconductor Corporation for a discussion of certain of the VIS contract terms. The amounts to be used at VIS are not included in our monthly

capacity figures.

(5) Under an agreement with SSMC, TSMC is required to maintain utilization of a certain amount of reserved capacity as agreed by the parties. Please see Item 7. Major Shareholders and Related Party Transactions Related Party Transactions Systems on Silicon Manufacturing Company Pte. Ltd. for a discussion of certain of the SSMC contract terms. The amounts to be used at SSMC are not included in our monthly capacity figures.

As of December 31, 2014, our monthly capacity (in 300mm equivalent wafers) was 736,375 wafers, compared to 644,650 wafers at the end of 2013. This increase was primarily due to the expansion of our 20-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 perform long term market demand forecasts to estimate general economic and market 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. Since market conditions may vary significantly and unexpectedly, our market demand forecast may change significantly at any time. Based on our current market 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 2012, 2013 and 2014 were NT$246,137 million, NT$287,595 million and NT$288,540 million (US$9,522 million, translated from a weighted average exchange rate of NT$30.303 to US$1.00), respectively. Our capital expenditures in 2015 are expected to be approximately US$11.5 billion to US$12.0 billion, which, depending on market conditions, may be adjusted later. Our capital expenditures for 2012 and 2013 were funded by our operating cash flow and the issuance of corporate bonds and the capital expenditures for 2014 were funded by operating cash flow. Our capital expenditures for 2015 are expected to be funded primarily by our operating cash flow. In 2015, we anticipate our capital expenditures to focus primarily on the following:

- adding production capacity to our 300mm wafer fabs;
- developing new process technologies in 10-nanometer node and below;
- expanding buildings/facilities for Fab 12, Fab 14 and Fab 15;
- other research and development projects; and
- capacity expansion for mask and backend operations.

These investment plans are still preliminary and may change according to 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 revenue, including foundry services and others, by type of customers during the last three years:

	Year ended December 31,					
	2012		2013		2014	
Customer Type	**Net Revenue**	**Percentage**	**Net Revenue**	**Percentage**	**Net Revenue**	**Percentage**
	(NT$ in millions, except percentages)					
Fabless semiconductor companies/systems companies	432,090	85.3%	519,142	87.0%	646,936	84.8%
Integrated device manufacturers	74,007	14.6%	76,967	12.9%	114,620	15.0%
Others	648	0.1%	915	0.1%	1,250	0.2%
Total	506,745	100.0%	597,024	100.0%	762,806	100.0%

We categorize our net revenue mainly based on the country in which the customer is headquartered, which may be different from the net revenue 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 revenue during the last three years:

	Year ended December 31,					
	2012		2013		2014	
Region	Net Revenue	Percentage	Net Revenue	Percentage	Net Revenue	Percentage
	(NT$ in millions, except percentages)					
North America	345,478	68.2%	425,053	71.2%	527,256	69.1%
Asia Pacific	73,381	14.5%	78,500	13.2%	98,423	12.9%
China	24,674	4.9%	37,646	6.3%	50,514	6.6%
EMEA[1]	46,430	9.1%	41,288	6.9%	46,777	6.2%
Japan	16,782	3.3%	14,537	2.4%	39,836	5.2%
Total	506,745	100.0%	597,024	100.0%	762,806	100.0%

(1) EMEA stands for Europe, Middle East, and Africa.

We provide worldwide customer support. Our office in Hsinchu and wholly-owned subsidiaries in the United States, Canada, Japan, Mainland China, the Netherlands and South Korea 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.

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Commitments by Customers. Because of the fast-changing technology and functionality in semiconductor design, foundry customers generally do not place purchase orders far in advance to manufacture a particular type of product. However, we engage in discussions with customers regarding their expected manufacturing requirements in advance of the placement of purchase orders.

Some of our customers have entered into arrangements with us to ensure that they have access to specified capacity. These arrangements are primarily in the form of deposit agreements; and advanced cash deposits are made by customers for specified capacity at our fabs. Deposits are generally refunded when the terms and conditions set forth in the deposit agreement are satisfied and shipments have been made. As of December 31, 2014, we held approximately US$950 million on deposit to reserve future capacity.

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 following processes cover assembly, packaging, and testing of the semiconductor devices. 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 the bipolar complementary metal oxide silicon (BiCMOS , which uses CMOS transistors in conjunction with bipolar junction transistor) 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 mobile computing chips, 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 (Diffusion Metal Oxide Semiconductor) (BCD) and ultra-high voltage technology (UHV), ranging from 5V to 800V, which are suitable for various panel-size display driver and power supply applications.

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

	Year ended December 31,					
	2012		2013		2014	
Semiconductor Type	Net Revenue	Percentage	Net Revenue	Percentage	Net Revenue	Percentage
	(NT$ in millions, except percentages)					
CMOS						
Logic	352,139	69.5%	424,868	71.2%	573,539	75.2%
Mixed-Signal[1]	150,905	29.8%	167,333	28.0%	183,676	24.1%
Others	3,701	0.7%	4,823	0.8%	5,591	0.7%
Total	506,745	100.0%	597,024	100.0%	762,806	100.0%

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

Design and Technology Platforms. Modern IC designers need sophisticated design infrastructure to optimize productivity and cycle time. Such infrastructure includes design flow for electronic design automation (EDA), silicon proven building blocks such as libraries and intellectual properties, simulation and verification design kits such as process design kit (PDK) and technology files. All of this infrastructure is 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 2014. In the design methodology area, we announced the release of 16-nanometer Fin Field-Effect Transistor (FinFET) Plus (16FF+) reference flow for both full-chip and IP design.

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 intellectual property partners using our broad selection of process technologies, ranging from the latest 16FF+/16-, 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 intellectual properties 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 products of consistent quality, competitive ramp-up speed and fast yield improvement;
- responsiveness to customer s issues and requirements, such as engineering change and special wafer handling requests;
- 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
- availability of our online service which provides necessary information in design, engineering and logistics to ensure seamless services to our customers throughout product life cycle.

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We also conduct an annual customer satisfaction survey to assess customer satisfaction and to ensure that their needs are adequately understood and addressed. Continuous 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$40,387 million, NT$47,952 million and NT$56,829 million (US$1,798 million) in 2012, 2013 and 2014, respectively, on research and development, which represented 8.0%, 8.0% and 7.4% of our net revenue, respectively. We plan to continue to invest significant amounts on research and development in 2015, 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 28-nanometer and 20-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 16/10-nanometer and below in the coming years to maintain our technology leadership. We will also continue to invest in research and development for our mature 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 wafer level packaging solutions, including Integrated Fan-Out (InFO) and Chip-on-Wafer-on-Substrate (CoWoS) technologies. 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, we have applied for and have been 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 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 EUR276 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, chemical vapor deposition (CVD) equipment, chemical mechanism polish (CMP) 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 13.6%, 12.5% and 13.2% of our net revenue in 2012, 2013 and 2014, 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 whenever possible 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, SunEdison Semiconductor Ltd. of the United States, Siltronic AG of Germany and Formosa Sumco Technology Corporation of Taiwan. Together they supplied approximately 94.2%, 93.3% and 94.3% of our total wafer needs in 2012, 2013 and 2014, respectively. We have in the past obtained, and believe we will continue to be able to obtain, a sufficient supply of 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 actively address supply chain issues and bring together fab operations, materials management, quality system and risk management teams to mitigate potential supply chain risks and enhance supply chain agility. This taskforce works with our primary suppliers to review 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 foundry capacities worldwide, or to transform certain manufacturing operations of integrated device manufacturers (IDMs) into foundry capacities to compete with us.

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 environmental, safety and health (ESH) 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 in Taiwan. We have occasionally suffered power outages or surges caused by difficulties encountered by the Taiwan Power Company, which have led to interruptions in our production schedule. The semiconductor manufacturing process uses extensive amounts of electricity and fresh water. Due to the growth of 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 electricity and fresh water and the potential impact that insufficient electricity and water supplies may have on our semiconductor production. To help address these potential shortages, we have adopted various 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 response and business continuity plans to respond to natural disasters and other disruptive events that could interrupt the operation of our business. These 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 enterprise risk management (ERM) 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 VIS, then an integrated dynamic random access memory (DRAM) manufacturer. VIS commenced volume commercial production in 1995 and listed its shares on the R.O.C. Over-the-Counter (Taipei Exchange) in March 1998. In 2004, VIS completely terminated its DRAM production and became a dedicated foundry company. On April 14, 2014, we sold 82 million common shares of VIS. After this sale, we owned approximately 33.7% of the equity interest in VIS. As of February 28, 2015, we owned approximately 33.3% of the equity interest in VIS. 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, 2015, 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, 2015, we owned approximately 38.8% of the equity interest in SSMC. Please see Item 7. Major Shareholders and Related Party Transactions for a further discussion.

Global Unichip Corporation (GUC). In January 2003, we acquired a 52.0% equity interest in GUC, a System-on-Chip (SoC) design service company that provides large scale SoC implementation services. GUC has been listed on Taiwan Stock Exchange since November 3, 2006. As of February 28, 2015, 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, 2015, we owned approximately 42.7% of the equity interest in VisEra Technologies Company Ltd.

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 CMOS image sensor manufacturing business. Since June 2013, we were no longer deemed to be a controlling entity of Xintec due to the addition of independent directors to Xintec s board, which resulted in our appointed directors on its board representing less than a majority. As a result, we no longer consolidated Xintec in our financial statements. As of February 28, 2015, we owned approximately 39.9% of the equity interest in Xintec. On March 30, 2015, Xintec listed its shares on the R.O.C. Over-the-Counter (Taipei Exchange). Subsequent to Xintec s IPO, our shareholding in Xintec was diluted to approximately 34.6%.

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 the R.O.C. Over-the-Counter (Taipei Exchange) since May 2003. In August 2011, we transferred our 20.0% equity interest in Motech to TSMC Solar Ltd. As of February 28, 2015, we owned approximately 19.8% of the equity interest in Motech. On March 2, 2015, Motech and Topcell Solar International Co., Ltd merged, with Motech being the surviving entity. After the closing of such merger currently scheduled in July, 2015, our shareholding in Motech is expected to be diluted to approximately 18.0%.

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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, 2015, we owned approximately 99.1% of the equity interest in TSMC Solar.

TSMC Solid State Lighting Ltd. (TSMC SSL). TSMC SSL is engaged in research, development, design, manufacture and sales of solid state lighting devices and related application products and systems. On December 31, 2014, we reclassified TSMC SSL as a disposal group held for sale. On February 17, 2015, TSMS SSL ceased to be our subsidiary because all of our shares in TSMC SSL were sold to Epistar Corporation. On March 18, 2015, TSMC SSL was renamed as CHIP STAR Ltd.

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 28 years since our inception. As the leader of the foundry segment of the semiconductor industry, our net revenue and net income attributable to shareholders of the parent were NT$506,745 million and NT$159,481 million in 2012, NT$597,024 million and NT$183,978 million in 2013 and NT$762,806 million (US$24,139 million) and NT$254,302 million (US$8,048 million) in 2014, respectively. Our net revenue in 2013 increased by 17.8% from 2012, mainly due to continuous growth in customer demand and increase in sales of our 28-nanometer products, which commanded a higher selling price. Our net revenue in 2014 increased by 27.8% from 2013, mainly due to the introduction of the 20-nanometer products and continuing strong demand for 28-nanometer products.

The principal source of our revenue is wafer fabrication, which accounted for approximately 94.9% of our net revenue in 2014. The rest of our net revenue was majorly derived from mask making, design, and royalty income. 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, some of which are subject to adjustment during the course of that period to take into account market developments and other factors. We believe that our large capacity, flexible manufacturing capabilities, focus on customer service and timely delivery of high yield products have contributed to our ability to obtain premium pricing for our wafer products.

Production Capacity. We currently own and operate our semiconductor manufacturing facilities, the aggregate production capacity for which had been expanded from 593,112 300mm equivalent wafers per month as of the end of 2012 to 644,650 300mm equivalent wafers per month as of the end of 2013 and to 736,375 300mm equivalent wafers per month as of the end of 2014.

Technology Migration.

Our operations utilize a variety of process technologies, ranging from mature process technologies of 0.5 micron or above circuit resolutions to advanced process technologies of 20-nanometer circuit resolutions. The table below presents a breakdown of wafer revenue by circuit resolution during the last three years:

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	Year ended December 31,		
	2012	2013	2014
Resolution	Percentage of total wafer revenue[1]	Percentage of total wafer revenue[1]	Percentage of total wafer revenue[1]
20-nanometer	0%	0%	9%
28-nanometer	12%	30%	33%
40/45-nanometer	27%	20%	16%
65-nanometer	23%	16%	14%
90-nanometer	9%	8%	7%
0.11/0.13 micron	6%	4%	3%
0.15 micron	4%	4%	3%
0.18 micron	11%	12%	10%
0.25 micron	4%	3%	3%
0.35 micron	2%	2%	1%
³0.5 micron	2%	1%	1%
Total	100%	100%	100%

(1) Percentages represent wafer revenue by technology as a percentage of total wafer revenue, which excludes revenue associated with mask making, design, royalty income, etc. Total wafer revenue excludes sales returns and allowances.

First-Time Adoption of IFRSs

On May 14, 2009, the R.O.C. FSC announced that all companies with shares listed on TWSE, including us, were required to prepare consolidated financial statements in accordance with the IFRSs adopted for use in Taiwan (Taiwan-IFRSs) starting January 1, 2013, with a transition date of January 1, 2012. We have prepared and reported our consolidated financial statements under Taiwan-IFRSs and published such financial statements as required under the applicable regulations and listing rules of the TWSE since first quarter of 2013. Prior to 2013, we prepared and reported our consolidated financial statements in accordance with R.O.C. GAAP.

In addition, for our continuing US SEC reporting obligations, we are required to report our financial statements under IFRSs as issued by the IASB. Therefore, the consolidated financial statements included herein have been prepared in accordance with IFRSs as issued by the IASB. See note 42 to our 2013 consolidated financial statements not included herein for the explanation of how the transition from R.O.C. GAAP to IFRSs has affected the reported financial position, financial performance, and cash flows.

Critical Accounting Policies And Judgments

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 from the sale of goods when the goods are delivered and titles have passed, at which time all the following conditions are satisfied:

We have transferred to the buyer the significant risks and rewards of ownership of the goods;

We retain neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;

The amount of revenue can be measured reliably;

It is probable that the economic benefits associated with the transaction will flow to us; and

The costs incurred or to be incurred in respect of the transaction can be measured reliably.

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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 allowances is generally made and adjusted at a specific percentage based on historical experience, management judgment, and any known factors that would significantly affect the returns and allowances, 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.

The provisions recorded as the deduction of revenue were NT$7,187 million, NT$6,633 million and NT$10,506 million (US$332 million), respectively, representing 1.4%, 1.1% and 1.4% of our gross revenue for the years ended December 31, 2012, 2013 and 2014.

Allowance for Doubtful Accounts. We assess the allowance 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.

We evaluate 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 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, 2013 and 2014, the allowances set aside for doubtful receivables were NT$487 million and NT$487 million (US$15 million), respectively, representing 0.7% and 0.4% 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.

Realization of Deferred Income 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 generally recognize deferred tax assets to the extent that it is probable that sufficient taxable benefits will be available to utilize. The income tax benefit or expense is recorded 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 realization of deferred income tax assets is impacted by our expected future revenue growth and profitability, tax holidays, Alternative Minimum Tax (AMT), 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 deferred tax assets as of December 31, 2014, we considered past performance, the general outlook of the semiconductor industry, business conditions, future taxable income and prudent and feasible tax planning strategies.

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Because the determination of the amount of realization of the deferred tax assets 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 realization of the deferred tax assets that we have recorded. As of December 31, 2013 and 2014, the deferred tax assets were NT$7,145 million and NT$5,139 million (US$163 million), respectively. The deferred tax assets decreased by NT$2,006 million in 2014, mainly due to the utilization of the deferred tax assets relating to investment tax credit.

Impairment of Tangible and Intangible Assets Other than Goodwill. We assess the impairment of tangible and intangible assets other than goodwill whenever triggering events or changes in circumstances indicate that the asset may be impaired and carrying value may not be recoverable. Our tangible and intangible assets other than goodwill subject to this evaluation include property, plant and equipment and amortizable intangible assets.

Indicators we consider important which could trigger an impairment review include, but are not limited to, the following:

- significant underperformance 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 tangible and intangible assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment for tangible and intangible assets based on a projected future cash flow. If the tangible or intangible assets are determined to be impaired, we recognize an impairment loss through a charge to our operating results to the extent the recoverable amount, measured at the present value of discounted cash flows attributable to the assets, is 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 and record an impairment charge to the extent that the carrying amount of the tangible and intangible assets exceeds the recoverable amount. If the recoverable amount subsequently increases, the impairment loss previously recognized will be reversed to the extent of the increase in the recoverable amount, provided that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years.

The process of evaluating the potential impairment of tangible and intangible assets other than goodwill 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 judgment in determining the independent cash flows that can be related to specific asset groups. In addition, because we must make subjective judgment 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 lower 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 tangible and intangible assets other than goodwill, assets purchased for use in the business but subsequently determined to have no future economic benefits are written down to their recoverable amount. For the years ended December 31, 2012, 2013 and 2014, we recognized the impairment loss of NT$445 million, nil and NT$240 million (US$8 million), respectively. As of December 31, 2013 and 2014, net tangible and intangible assets amounted to NT$798,529 million and NT$825,841 million (US$26,134 million), respectively.

Noncurrent Assets Held for Sale. Noncurrent assets or disposal groups are classified as noncurrent assets held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the noncurrent asset held for sale is available for immediate sale in its present condition. To meet the criteria for the sale being highly probable, the appropriate level of management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the committed sale plan involves loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale, regardless of whether a noncontrolling interest in its former subsidiary is retained after the sale.

Noncurrent assets classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell. Recognition of depreciation would cease. We have reclassified TSMC SSL as a disposal group held for sale in the consolidated statements of financial position as of December 31, 2014. The expected fair value of TSMC SSL, determined based on the price agreed in the sale agreement, less costs to sell was substantially lower than the carrying amount of the related net assets; as such, for the year ended December 31, 2014, an impairment loss of NT$735 million (US$23 million) was recognized under other operating gains and losses. As of December 31, 2014, noncurrent assets held for sale and liabilities directly associated with noncurrent assets held for sale were NT$944 million (US$30 million) and NT$219 million (US$7 million), respectively. Please see Item 4. Our Subsidiaries and Affiliates TSMC Solid State Lighting Ltd. (TSMC SSL) for further details.

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Impairment of Goodwill. Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any. We assess the impairment of goodwill on an annual basis, or more frequently when there is an indication that goodwill may be impaired. Indicators we consider important which could trigger an impairment review include, but are not limited to, 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 recoverable amount of the relevant cash generating units. Our assessment of recoverable amount 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. The recoverable amount of the cash generating units is compared to the associated carrying value including goodwill and an impairment charge is recorded to the extent, if any, that the carrying value exceeds the recoverable amount.

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 recoverable amount 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. As of December 31, 2013 and 2014, goodwill amounted to NT$5,627 million and NT$5,889 million (US$186 million), respectively. The change in the NT dollar amount of goodwill was due to changes in the exchange rate between NT dollar and U.S. dollar.

Impairment assessment on investments accounted for using equity method. We assess the impairment of investments accounted for using equity method whenever triggering events or changes in circumstances indicate that an investment may be impaired and its carrying value may not be recoverable. The recoverable amount is determined by taking into consideration the discounted cash flow projections of the investee and the investee s market price, if available. The underlying assumptions of the future cash flow projections of the investees are formulated by the investees internal management team, taking into account market conditions for the industries which the investees operate in to ensure the reasonableness of such assumptions. An impairment charge is recorded to the extent, if any, that the carrying amount of the investments accounted for using equity method exceeds the recoverable amount. If the recoverable amount subsequently increases, the impairment loss previously recognized will be reversed to the extent of the increase in the recoverable amount.

In 2012, an impairment loss of NT$1,187 million was recorded from a certain invested company. In 2013, because the recoverable amount of the aforementioned investment had increased to be higher than its carrying amount before the 2012 impairment, the impairment loss of NT$1,187 million recognized in prior year was reversed. As of December 31, 2013 and 2014, investments accounted for using equity method amounted to NT$28,157 million and NT$28,060 million (US$888 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. From time to time, we also hold investments in debt securities. We review all of our investments for impairment on a quarterly basis and record an impairment charge when we believe an investment has experienced a significant or prolonged decline in fair value. Determining whether

a significant or prolonged decline in fair 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 fair 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 a significant or prolonged decline in fair 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 fair value of certain privately held investments, publicly traded securities and mutual funds and recorded impairment loss of NT$3,045 million, NT$1,540 million and NT$211 million (US$7 million) in 2012, 2013 and 2014, respectively. While we have recognized all declines that are currently believed to be significant or prolonged 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. As of December 31, 2013 and 2014, available-for-sale financial assets amounted to NT$61,628 million and NT$75,598 million (US$2,392 million), respectively.

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Recognition and Measurement of Defined Benefit Plans. We use the Projected Unit Credit Method for accrued pension costs and the resulting pension expenses under defined benefit pension plans. The discount rate, rate of employee turnover, and long-term average future salary increase are included in actuarial assumptions. The discount rate assumption is determined by reference to yields on government bonds of appropriate duration at the end of the maturity of the pension benefits. We assume the average remaining years of service and rate of increase in compensation levels based on historical data. Due to changing market and economic conditions, the underlying key assumptions may differ from actual developments and may lead to significant changes in pension and defined benefit obligations.

As of December 31, 2013 and 2014, the accrued pension costs were NT$6,802 million and NT$6,568 million (US$208 million), respectively.

Results of Operations

The following table sets forth, for the periods indicated, certain financial data from our consolidated statements of profit or loss and other comprehensive income, expressed in each case as a percentage of net revenue:

	For the year ended December 31,		
	2012	**2013**	**2014**
Net revenue	100.0%	100.0%	100.0%
Cost of revenue	(51.8)%	(52.9)%	(50.5)%
Gross profit	48.2%	47.1%	49.5%
Operating expenses			
Research and development	(8.0)%	(8.0)%	(7.4)%
General and administrative	(3.4)%	(3.1)%	(2.5)%
Marketing	(0.9)%	(0.8)%	(0.7)%
Total operating expenses	(12.3)%	(11.9)%	(10.6)%
Other operating income and expenses, net	(0.1)%	0.0%	(0.1)%
Income from operations	35.8%	35.2%	38.8%
Income before income tax	35.8%	36.2%	39.6%
Income tax expense	(4.4)%	(5.4)%	(6.3)%
Net income	31.4%	30.8%	33.3%
Other comprehensive income for the period, net of income tax	0.9%	2.7%	1.5%
Total comprehensive income for the period	32.3%	33.5%	34.8%
Net income attributable to shareholders of the parent	31.5%	30.8%	33.3%
Net loss attributable to noncontrolling interests	(0.1)%	(0.0)%	(0.0)%

Year to Year Comparisons

Net Revenue and Gross Margin

	For the year ended December 31,					
	2012	**2013**	**% change from 2012**	**2014**		**% Change from 2013**
	NT$	**NT$**		**NT$**	**US$**	

			(in millions, except percentages)			
Net revenue	506,745	597,024	17.8%	762,806	24,139	27.8%
Cost of revenue	(262,592)	(315,642)	20.2%	(385,113)	(12,187)	22.0%
Gross profit before realized (unrealized) gross profit on sales to associates	244,153	281,382	15.2%	377,693	11,952	34.2%
Realized (unrealized) gross profit on sales to associates	(25)	(21)	(16.0)%	29	1	
Gross profit	244,128	281,361	15.3%	377,722	11,953	34.2%
Gross margin percentage	48.2%	47.1%		49.5%	49.5%	

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Net Revenue

Our net revenue in 2014 increased by 27.8% from 2013, which was largely attributed to growth in customer demand, reflected in a 18.7% increase in wafer shipments. We shipped approximately 8.3 million 300mm equivalent wafers in 2014 compared to 7.0 million in 2013. Furthermore, the introduction of 20-nanometer and higher share of 28-nanometer sales contributed to a higher average selling price. 20-nanometer accounted for 9% of our total wafer revenue in 2014, and 28-nanometer accounted for 33% of our total wafer revenue in 2014 compared to 30% in 2013.

Our net revenue in 2013 increased by 17.8% from 2012, which was largely attributable to continuing growth in customer demand, resulting in a 11.5% increase in wafer shipments. We shipped approximately 7.0 million 300mm equivalent wafers in 2013 compared to 6.2 million in 2012. In addition, sales of our 28-nanometer products, which commanded a higher selling price, also increased to 30% of our total wafer revenue in 2013 compared to 12% in 2012.

Gross Margin

Our gross margin fluctuates with the level of capacity utilization, price change and product mix, among other factors. In 2014, our gross margin was 49.5%, up 2.4 percentage points from 2013, mainly reflecting higher capacity utilization, partially offset by the margin dilution associated with the ramping of 20nm in its initial year of production. In 2013, our gross margin was 47.1%, down 1.1 percentage points from 2012, mainly due to lower capacity utilization.

Operating Expenses

	For the year ended December 31,					
	2012	2013	% change from 2012	2014		% Change from 2013
	NT$	NT$		NT$	US$	
	(in millions, except percentages)					
Research and development	40,387	47,952	18.7%	56,829	1,798	18.5%
General and administrative	17,633	18,882	7.1%	18,933	599	0.3%
Marketing	4,497	4,505	0.2%	5,087	161	12.9%
Total operating expenses	62,517	71,339	14.1%	80,849	2,558	13.3%
Percentage of net revenue	12.3%	11.9%		10.6%	10.6%	
Other operating income and expenses, net	(449)	47		(1,002)	(32)	(2,231.9%)
Income from operations	181,162	210,069	16.0%	295,871	9,363	40.8%
Operating Margin	35.8%	35.2%		38.8%	38.8%	

Operating expenses increased by NT$9,510 million in 2014, or 13.3%, from NT$71,339 million in 2013, after an increase in operating expenses of NT$8,822 million in 2013, or 14.1%, from NT$62,517 million in 2012.

Research and Development Expenses

We remain strongly committed to being the leader in advanced process technologies development. We believe that continuing investments in process technologies are essential for us to remain competitive in the markets we serve.

Research and development expenditures increased by NT$8,877 million in 2014, or 18.5%, from $47,952 million in 2013, after an increase of NT$7,565 million in 2013, or 18.7%, from $40,387 million in 2012. The increases in both years were mainly due to higher level of research activities for 16-nanometer and 10-nanometer technologies as we continue to advance to smaller processing nodes, partially offset by fewer research activities for 20-nanometer. In 2014, there was also an increase in employee profit sharing expenses and bonus.

We plan to continue investing a significant amount in research and development in 2015.

General and Administrative and Marketing Expenses

General and administrative, and marketing expenses in 2014 increased by NT$633 million, or 2.7%, from 2013, mainly due to higher employee profit sharing expenses and bonus; partially offset by lower fab opening expenses.

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General and administrative, and marketing expenses in 2013 increased by NT$1,257 million, or 5.7%, from 2012, mainly due to higher opening expenses for ramping up 20-nanometer capacity.

Other operating income and expenses

Net other operating income and expense in 2014 decreased by NT$1,049 million, or 2,231.9 %, from NT$47 million in 2013, mainly due to an impairment loss on noncurrent assets held for sale of NT$735 million and an impairment loss on property, plant and equipment of NT$240 million in 2014. Please see Item 5-Critical Accounting Policies And Judgments-Impairment of Tangible and Intangible Assets Other than Goodwill, and Noncurrent Assets Held for Sale for further details.

Non-Operating Income and Expenses

	For the year ended December 31,					
	2012	2013	% change from 2012	2014		% Change from 2013
	NT$	NT$		NT$	US$	
	(in millions, except percentages)					
Share of profits of associates and joint venture	2,073	3,807	83.6%	3,920	124	3.0%
Other income	1,716	2,342	36.5%	3,380	107	44.3%
Foreign exchange gain, net	582	285	(51.0)%	2,111	67	640.7%
Finance costs	(1,020)	(2,646)	159.4%	(3,236)	(103)	22.3%
Other gains and losses	(2,852)	2,105		28	1	(98.7)%
Net non-operating income	499	5,893	1,081.0%	6,203	196	5.3%

Net non-operating income in 2014 increased by NT$310 million, or 5.3%, from NT$5,893 million in 2013 primarily attributed to higher gain on disposal of VIS shares of NT$2,055 million, higher foreign exchange gain of NT$1,826 million due to NT dollar depreciated against U.S. dollar and higher interest income of NT$895 million. The increases are partially offset by higher loss on financial instruments of NT$2,086 million, absence of settlement income from SMIC of NT$900 million, lower gain on disposal of available-for-sale financial assets of NT$949 million and NT$590 million increase in interest expenses.

Net non-operating income in 2013 increased by NT$5,394 million, or 1,081.0% from NT$499 million in 2012 primarily attributable to a lower impairment loss of NT$3,879 million recognized for financial assets. Please see Item 5- Critical Accounting Policies And Judgments-Impairment assessment on investments accounted for using equity method where the improvement of the financial condition of an invested company allowed us