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TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD Form 20-F
April 17, 2009

# SECURITIES AND EXCHANGE COMMISSION <br> Washington, DC 20549 <br> FORM 20-F 

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

## OR <br> b ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2008
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from $\qquad$ to $\qquad$
OR
o SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report $\qquad$
Commission file number 1-14700
(Exact Name of Registrant as Specified in Its Charter)
Taiwan Semiconductor Manufacturing Company
Limited
(Translation of Registrant s Name Into English)

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
Common Shares, par value NT\$10.00 each

Republic of China
(Jurisdiction of Incorporation or Organization)

No. 8, Li-Hsin Road 6<br>Hsinchu Science Park

Securities registered or to be registered pursuant to Section 12(g) of the Act:
None

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(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, 2008, 25,625,437,256 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 p No o

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

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 $p$ No o

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

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

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

* 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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ARE TRADEMARKS USED BY US.

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## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

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

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance and our actual results of operations, financial condition and liquidity, and the development of the industries in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this annual report. Important factors that could cause those differences include, but are not limited to:
the volatility of the semiconductor and microelectronics industry;
overcapacity in the semiconductor industry;
the increased competition from other companies and our ability to retain and increase our market share;
our ability to develop new technologies successfully and remain a technological leader;
our ability to maintain control over expansion and facility modifications;
our ability to generate growth and profitability;
our ability to hire and retain qualified personnel;
our ability to acquire required equipment and supplies necessary to meet business needs;
our reliance on certain major customers;
the political stability of our local region; and
general local and global economic conditions.
Forward-looking statements include, but are not limited to, statements regarding our strategy and future plans, future business condition and financial results, our capital expenditure plans, our capacity management plans, expectations as to the commercial production using 45-nanometer and more advanced technologies, technological upgrades, investment in research and development, future market demand, future regulatory or other developments in our industry. 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.

## PART I

## ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

## ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

## ITEM 3. KEY INFORMATION

## Selected Financial and Operating Data

The selected income statement data, cash flow data and other financial data for the years ended December 31, 2006, 2007 and 2008, and the selected balance sheet data as of December 31, 2007 and 2008, set forth below, are derived from our audited consolidated financial statements included herein, and should be read in conjunction with, and are qualified in their entirety by reference to, these consolidated financial statements, including the notes thereto. The selected income statement data, cash flow data and other financial data for the years ended December 31, 2004 and 2005 and the selected balance sheet data as of December 31, 2004, 2005 and 2006, set forth below, are derived from our audited consolidated financial statements not included herein. The consolidated financial statements have been prepared and presented in accordance with accounting principles generally accepted ( GAAP or R.O.C. GAAP ) in the Republic of China ( R.O.C. or Taiwan ), which differ in some material respects from accounting principles generally accepted in the United States of America ( U.S. GAAP ) as further explained under note 30 to our consolidated financial statements included herein.
2004

Income Statement
Data:
R.O.C. GAAP
Net sales
Cost of sales
Gross profit
Operating expenses
Income from
operations
Non-operating income
and gains ${ }^{(1)(8)}$
Non-operating expenses and losses ${ }^{(1)}$ (8)

Income before income tax and minority interest
Income tax benefit (expense)
Income before cumulative effect of changes in accounting principles
Cumulative effect of changes in accounting

| 257,213 | 266,565 | 317,407 | 322,630 | 333,158 | 10,170 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $(141,394)$ | $(148,362)$ | $(161,597)$ | $(180,280)$ | $(191,408)$ | $(5,843)$ |
| 115,819 | 118,203 | 155,810 | 142,350 | 141,750 | 4,327 |
| $(27,337)$ | $(27,234)$ | $(28,545)$ | $(30,628)$ | $(37,315)$ | $(1,139)$ |
| 88,482 | 90,969 | 127,265 | 111,722 | 104,435 | 3,188 |
| 8,506 | 9,399 | 9,839 | 11,934 | 10,822 | 330 |
|  |  |  |  |  |  |
| $(5,022)$ | $(6,105)$ | $(3,742)$ | $(2,014)$ | $(3,785)$ | $(116)$ |
|  |  |  |  |  |  |
| 91,966 | 94,263 | 133,362 | 121,642 | 111,472 | 3,402 |
| 363 | $(630)$ | $(7,774)$ | $(11,710)$ | $(10,949)$ | $(334)$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 92,329 | 93,633 | 125,588 | 109,932 | 100,523 | 3,068 |
|  |  | 1,607 |  |  |  |

principles
Income before

| minority interest | 92,329 | 93,633 | 127,195 | 109,932 | 100,523 | 3,068 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Minority interest in <br> loss (income) of <br> subsidiaries | $(13)$ | $(58)$ | $(185)$ | $(755)$ | $(590)$ | $(18)$ |
| Net income <br> attributable to |  |  |  |  |  |  |
| shareholders of the <br> parent | 92,316 | 93,575 | 127,010 | 109,177 | 99,933 | 3,050 |
| Basic earnings per <br> share | 3.43 | 3.48 | 4.72 | 4.06 | 3.86 | 0.12 |
| Diluted earnings per <br> share | 3.43 | 3.48 | 4.72 | 4.06 | 3.83 | 0.12 |
| Basic earnings per <br> ADS equivalent | 17.15 | 17.41 | 2 | 23.61 | 20.32 | 19.28 |

Diluted earnings per
ADS equivalent ${ }^{(2)}$ Basic weighted average shares outstanding $^{(2)} \quad 26,914$
Diluted weighted average shares outstanding ${ }^{(2)}$
U.S. GAAP

Net sales
Cost of sales ${ }^{(3)}$
Operating expenses ${ }^{(3)}$
Income from operations
Income before income tax and minority interest
Income tax expense Cumulative effect of changes in accounting principles
Net income
Income attributable to common shareholders
Basic earnings per share ${ }^{(4)}$
Diluted earnings per share ${ }^{(4)}$
Basic earnings per
ADS equivalent ${ }^{(4)}$
Diluted earnings per
ADS equivalent ${ }^{(4)}$
Basic weighted average shares outstanding ${ }^{(4)}$
Diluted weighted average shares outstanding ${ }^{(4)}$
Balance Sheet Data:
R.O.C. GAAP

Working capital ${ }^{(1)}$
Long-term
investments ${ }^{(1)}$
17.15

26,917
260,035
$(154,785)$
$(32,191)$
73,059

$$
76,838
$$

(508)

76,253
76,253
76,253
3.01
3.01
15.07
15.07

25,292

25,296

25,569
25,905
26,299
25,894
25,894

| 120,574 | 177,179 | 213,457 | 201,116 | 195,812 | 5,977 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 38,058 | 42,383 | 53,895 | 36,461 | 39,982 | 1,220 |

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Properties
$258,911 \quad 244,823$
254,094
260,252
243,645
7,437
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|  | Year ended and as of December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2005 | 2006 | 2007 | 2008 | 2008 |
|  | NT\$ | NT\$ | NT\$ | NT\$ | NT\$ | US\$ |
|  | (in millions, except for percentages, earnings per share and per ADS, and operating data) |  |  |  |  |  |
| Goodwill | 7,116 | 6,011 | 5,985 | 5,988 | 6,044 | 184 |
| Total assets | 499,454 | 519,510 | 587,485 | 570,865 | 558,917 | 17,061 |
| Long term bank |  |  |  |  |  |  |
| borrowing | 1,915 | 663 | 654 | 1,722 | 1,420 | 43 |
| Long-term bonds payable | 19,500 | 19,500 | 12,500 | 12,500 | 4,500 | 137 |
| Guaranty deposit-in and other liabilities ${ }^{(5)}$ | 15,079 | 17,986 | 18,333 | 17,251 | 15,817 | 483 |
| Total liabilities | 100,413 | 73,271 | 78,347 | 80,179 | 78,544 | 2,398 |
| Capital stock | 232,520 | 247,300 | 258,297 | 264,271 | 256,254 | 7,822 |
| Cash dividend on common shares | 12,160 | 46,504 | 61,825 | 77,489 | 76,881 | 2,347 |
| Shareholders equity attributable to shareholders of the parent | 398,965 | 445,631 | 507,981 | 487,092 | 476,377 | 14,541 |
| Minority interest in subsidiaries | 76 | 608 | 1,157 | 3,594 | 3,996 | 122 |
| U.S. GAAP |  |  |  |  |  |  |
| Goodwill | 46,757 | 46,993 | 46,940 | 46,926 | 47,028 | 1,436 |
| Total assets | 536,286 | 558,919 | 626,108 | 610,843 | 599,484 | 18,299 |
| Total liabilities | 108,416 | 80,962 | 92,549 | 94,021 | 84,424 | 2,577 |
| Capital Stock | 232,520 | 247,300 | 258,297 | 264,271 | 256,254 | 7,822 |
| Shareholders equity attributable to common shareholders of the parent | 427,125 | 477,297 | 532,403 | 513,228 | 511,089 | 15,601 |
| Minority interest in subsidiaries | 745 | 660 | 1,156 | 3,594 | 3,971 | 121 |
|  | Year ended and as of December 31, |  |  |  |  |  |
|  | 2004 | 2005 | 2006 | 2007 | 2008 | 2008 |
|  | NT\$ | NT\$ | NT\$ | NT\$ | NT\$ | US\$ |
|  |  | earnings | lions, exc are and p | percenta <br> S, and ope | data) |  |
| Other Financial |  |  |  |  |  |  |
| Data: |  |  |  |  |  |  |
| R.O.C. GAAP |  |  |  |  |  |  |
| Gross margin | 45\% | 44\% | 49\% | 44\% | 42\% | 42\% |
| Operating margin | 34\% | 34\% | 40\% | 35\% | $31 \%$ | 31\% |
| Net margin | 36\% | 35\% | 40\% | 34\% | 30\% | 30\% |
| Capital expenditures | 81,095 | 79,879 | 78,737 | 84,001 | 59,223 | 1,808 |
|  | 69,819 | 75,649 | 73,715 | 80,005 | 81,512 | 2,488 |


| Depreciation and amortization |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash provided by operating activities ${ }^{(1)}$ | 153,523 | 157,225 | 204,997 | 183,766 | 221,494 | 6,761 |
| Cash used in investing activities ${ }^{(1)}$ | $(148,359)$ | $(77,652)$ | $(119,724)$ | $(70,689)$ | $(8,042)$ | (245) |
| Cash used in financing activities | $(32,181)$ | $(57,969)$ | $(63,783)$ | $(135,410)$ | $(115,393)$ | $(3,522)$ |
| Net cash inflow (outflow) | $(28,687)$ | 22,181 | 21,353 | $(22,851)$ | 99,628 | 3,041 |
| Operating Data: Wafer (200mm equivalent) |  |  |  |  |  |  |
| shipment ${ }^{(6)}$ | 5,008 | 5,622 | 7,215 | 8,005 | 8,467 | 8,467 |
| Billing Utilization |  |  |  |  |  |  |
| Rate ${ }^{(7)}$ | 105\% | 94\% | 102\% | 93\% | 88\% | 88\% |
|  |  |  | 4 |  |  |  |

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(1) As a result of the adoption of the R.O.C. Statements of Financial
Accounting Standards No. 34, Financial Instruments:
Recognition and
Measurement
(R.O.C. SFAS

No. 34), and
R.O.C. Statements of Financial
Accounting Standards No. 36, Financial
Instruments:
Disclosure and
Presentation
(R.O.C. SFAS

No. 36), the balances in 2004 and 2005 were reclassified to be consistent with the classification used in our consolidated financial statements for 2006 included herein. Amounts in 2004 reflect the reclassification of NT\$2,565 million gains from non-operating expenses and losses to non-operating income and gains, NT\$44 million from long-term investments to current investments in marketable
financial
instruments, and
NT\$372 million
from cash used in
investing activities
to cash provided by operating activities.
Amounts in 2005
reflect the reclassification of NT\$2,331 million gains from non-operating expenses and losses to non-operating income and gains, NT\$46 million from long-term investments to current investments in marketable financial instruments, and NT\$212 million from cash used in investing activities to cash provided by operating activities.
(2) Retroactively adjusted for all subsequent stock dividends and employee stock bonuses.
(3) Amounts in 2006, 2007 and 2008 include share-based compensation
expenses as a
result of the adoption of U.S.
Statement of
Financial
Accounting

Standards No. 123
(revised 2004),
Share-Based
Payment, effective January 1, 2006.
See note 30.h. to our consolidated financial statements for additional details about this new accounting standard. Amounts in 2004 and 2005 reflect the reclassification of NT\$232 million and
NT\$159 million, respectively, from net non-operating income/expenses to operating expenses.
(4) Retroactively adjusted for all subsequent stock dividends.
(5) Consists of other long term payables and total other liabilities.
(6) In thousands.
(7) Billing Utilization Rate is equal to annual wafer shipment divided by annual capacity. 2007 and 2008 capacity include wafers committed by Vanguard.
(8) The specified 2004, 2005, 2006 and 2007 amounts
for gains/losses on
settlement and
disposal of
financial assets at
fair value through
profit or loss were
reclassified into
valuation
gains/losses on
financial
instruments for
comparison
purposes. Such
reclassification
resulted in a
change of
non-operating
income and gains
from
NT\$8,581 million
and NT\$9,705
million to
NT\$8,506 million
and
NT\$9,839 million
and a change in
non-operating
expenses and
losses from
NT\$5,097 million
and
NT\$3,608 million
to
NT\$5,022 million
and
NT\$3,742 million
for the years ended
December 31, 2004 and 2006, respectively.

## 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 do mean New Taiwan dollars. This annual report contains translations of certain NT dollar amounts into U.S. dollars at specified rates solely for the convenience of the reader. Unless otherwise noted, all translations from NT dollars to U.S. dollars and from U.S. dollars to NT dollars were made at the noon buying rate in The City of New York for cable transfers in NT dollars per U.S. dollar as certified for customs purposes by the Federal Reserve Bank of New York as of December 31, 2008, which was NT\$32.76 to US\$1.00 on that date. On April 10, 2009, the noon buying rate was NT\$33.78 to US\$1.00.

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

|  | NT dollars per U.S. dollar |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Average ${ }^{(1)}$ | High | Low | Period-End |
| 2003 | 34.41 | 34.98 | 33.72 | 33.99 |
| 2004 | 33.37 | 34.16 | 31.74 | 31.74 |
| 2005 | 32.16 | 33.77 | 30.65 | 32.80 |
| 2006 | 32.51 | 33.31 | 31.28 | 32.59 |
| 2007 | 32.82 | 33.41 | 32.26 | 32.43 |
| 2008 | 31.51 | 33.55 | 29.99 | 32.76 |
| October 2008 | 32.70 | 33.50 | 32.14 | 32.97 |
| November 2008 | 33.10 | 33.42 | 32.77 | 33.29 |
| December 2008 | 33.11 | 33.55 | 32.45 | 32.76 |
| January 2009 | 33.37 | 33.70 | 32.82 | 33.70 |
| February 2009 | 34.24 | 35.00 | 33.61 | 35.00 |
| March 2009 | 34.30 | 35.21 | 33.75 | 33.87 |
| April 2009 (through April 10, 2009) | 33.52 | 33.88 | 33.05 | 33.78 |
| (1) Annual averages calculated from month-end rates and monthly averages calculated from daily closing rates. | 5 |  |  |  |

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

## 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

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

The recent systemic economic and financial crisis that has been affecting global business, banking and financial sectors has also been affecting the semiconductor market. The recent turmoil in global markets have resulted in sharp declines in electronic products sales from which we generate our income through our goods and services. There could be a number of knock-on effects from such turmoil on our business, including significant decreases in orders from our customers; insolvency of key suppliers resulting in product delays; inability of customers to obtain credit to finance purchases of our products and/or customer insolvencies; and counterparty failures negatively impacting our treasury operations. We currently expect revenues for the semiconductor industry as a whole to decline around $20 \%$ in 2009 which is subject to change unexpectedly in response to fluctuating global market conditions. If the global economic crisis continues unabated, we anticipate our results of operations may be materially and adversely affected.
Since we are dependent on the highly cyclical semiconductor and microelectronics industries, which have experienced significant and sometimes prolonged periods of downturns and overcapacity, our revenues, earnings and margins may fluctuate significantly.

The semiconductor market and microelectronics industries have historically been cyclical and subject to significant and often rapid increases and decreases in product demand. Our semiconductor foundry business is affected by market conditions in such highly cyclical semiconductor and microelectronics industries. Most of our customers operate in these industries. Variations in order levels from our customers result in volatility in our revenues and earnings. From time to time, the semiconductor and microelectronics industries have experienced significant, and sometimes prolonged periods of downturns and overcapacity. The current global economic crisis has created significant volatility and uncertainty within the semiconductor and microelectronics industries which may disrupt traditional notions of cyclicality within such industries. As such, the nature, extent and scope of such periods of downturns and overcapacity may vary drastically in accordance with increasingly volatile market demand. Because we are, and will continue to be, dependent on the requirements of semiconductor and microelectronics companies for our services, periods of downturns and overcapacity in the general semiconductor and microelectronics industries lead to reduced demand for overall semiconductor foundry services, including our services. If we cannot take appropriate actions such as reducing our costs to sufficiently offset declines in demand, our revenues, margin and earnings will suffer during periods of downturns and overcapacity.
Decreases in demand and average selling prices for products that contain semiconductors may adversely affect demand for our products and may result in a decrease in our revenues and earnings.

A vast majority of our sales revenue is derived from customers who use our services in communication devices, personal computers and consumer electronics products. Any significant decrease in the demand for the products may decrease the demand for overall global semiconductor foundry services, including our services and may adversely affect our revenues. In addition, the historical and current trend of declining average selling prices of end use applications places downward pressure on the prices of the components that go into such applications. If the average selling prices of end use applications continue decreasing, the pricing pressure on components produced by us may

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

The markets for our foundry services are highly competitive both in Taiwan and internationally. We compete with other dedicated foundry service providers, as well as integrated device manufacturers. Some of these companies may have access to more advanced technologies and greater financial and other resources than us, (such as the possibility of receiving direct or indirect government bailout/economic stimulus funds or other incentives that may be unavailable to us). Our competition may, from time to time, also decide to undertake aggressive pricing initiatives in one or more technology nodes. Competitive activities may decrease our customer base, or our average selling prices, or both.
If we are unable to remain a technological leader in the semiconductor industry, we may become less competitive.
The semiconductor industry and its technologies are constantly changing. We compete by developing process technologies using increasingly smaller nodes and on manufacturing products with multiple or more advanced functions. We also develop technologies for our mainstream operations. If we do not anticipate these changes in technologies and rapidly develop new and innovative technologies or our competitors unforeseeably gain sudden access additional mainstream or more advanced technologies, we may not be able to provide foundry services on competitive terms. Although we have concentrated on maintaining a competitive edge in research and development, if we fail to achieve advances in technology or processes, or to obtain access to advanced technologies or processes developed by others, we may become less competitive.

## If we are unable to manage our capacity and the streamlining of our production facilities effectively, our

 competitiveness may be weakened.We perform periodic long term market demand forecasts to estimate market and general economic conditions for our products and services. Based upon these estimates, we manage our overall capacity which may increase or decrease in accordance with market demand. Because market condition may vary significantly and unexpectedly, our market demand forecast may change significantly at any time. Further, some of our facilities shut down during periods of decreased demand may not be able to ramp up in a timely manner during periods of increased demand. During periods of continued decline in demand, our operating facilities may not be able to absorb and complete in a timely manner outstanding orders re-directed from other facilities ordered to be shut down. Based on current demand forecasts, we have been adding capacity to our 300 mm wafer fabs in the Hsinchu Science Park and Tainan Science Park, respectively, since 2004. In 2008, the capacity of our 300 mm wafer fabs increased from 130,700 wafer per month in 2007 to 154,300 wafer per month. Expansion and modification of our production facilities will, among other factors, increase our costs. For example, we will need to purchase additional equipment, train personnel to operate the new equipment or hire additional personnel. If we do not increase our net sales accordingly in order to offset these higher costs, our financial performance may be adversely affected. See Item 4. Information on the Company Capacity Management and Technology Upgrade Plans for further discussion.
We may not be able to implement our planned growth or development if we are unable to accurately forecast and sufficiently meet our future capital requirements.

Capital requirements are difficult to plan in the highly dynamic, cyclical and rapidly changing semiconductor industry. From time to time, we will continue to need significant capital to fund our operations and manage our capacity in accordance with market demand. Although we currently have adequate financial resources and excellent relations with financial institutions, our continued ability to obtain sufficient external financing is subject to a variety of uncertainties, including:
our future financial condition, results of operations and cash flow;
general market conditions for financing activities;
market conditions for financing activities of semiconductor companies; and
social, economic, financial, political and other conditions in Taiwan and elsewhere.

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Sufficient external financing may not be available to us on a timely basis, on reasonable market terms, or at all. As a result, we may be forced to curtail our expansion and modification plans or delay the deployment of new or expanded services until we obtain such financing.
We may not be able to implement our planned growth, development or maintain our leading position if we are unable to recruit and retain qualified executives, managers and skilled technical and service personnel or suffer production disruptions caused by labor disputes.

We depend on the continued services and contributions of our executive officers and skilled technical and other personnel. Our business could suffer if we lose, for whatever reasons, the services and contributions of some of these personnel and we cannot adequately replace them or if we suffer disruptions to our production operations arising from labor or industrial disputes. We may be required to increase or reduce the number of employees in connection with any business expansion or contraction, in accordance with market demand for our products and services. Since there is intense competition for the recruitment of these personnel, we cannot ensure that we will be able to fulfill our personnel requirements or during an economic upturn, rehire such reduced personnel on comparable terms in a timely manner.

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

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

Our production operations require that we obtain adequate supplies of raw materials, such as silicon wafers, gases, chemicals, and photoresist, on a timely basis. Shortages in the supply of some materials experienced by specific vendors or by the semiconductor industry generally have in the past resulted in occasional industry-wide price adjustments and delivery delays. Also, since we procure some of our raw materials from sole-source suppliers, there is a risk that our need for such raw materials may not be timely met. Due to the current global economic crisis, there is an increased likelihood that some of our suppliers may experience severe financial hardships. Our revenue and earnings could decline if we are unable to obtain adequate supplies of the necessary raw materials in a timely manner or if there are significant increases in the costs of raw materials that we cannot pass on to our customers.
If the Ministry of Economic Affairs uses a substantial portion of our production capacity, we will not be able to service our other customers.

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

## Any inability to obtain, preserve and defend our technologies and intellectual property rights could harm our

 competitive position.Our ability to compete successfully and to achieve future growth will depend in part on the continued strength of our intellectual property portfolio. While we actively enforce and protect our intellectual property rights, there can be no assurance that our efforts will be adequate to prevent the misappropriation or improper use of our proprietary technology, trade secrets, software or know-how. Also, we cannot assure you that, as our business or business models
expand into new areas, we will be able to develop independently the technology, trade secrets, software or know-how necessary to conduct our business or that we can do so without infringing the intellectual property rights of others. As a result, we may have to rely increasingly on licensed technology 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.

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We have received, from time-to-time, communications from third parties asserting that our technologies, manufacturing processes, the design of the integrated circuits made by us or the use by our customers of semiconductors made by us may infringe their patents or other intellectual property rights. And, because of the nature of the industry, we may continue to receive such communications in the future. In some instances, these disputes have resulted in litigation. Recently, there has been a notable increase in the number of frivolous lawsuits or claims initiated by professional intellectual property plaintiffs that aim to extort large settlements, often quickly, by threatening to disrupt the legitimate business operations of profitable enterprises, especially high-profile ones. Such lawsuits or claims, though not well founded, may nevertheless increase our cost of doing business and may potentially be extremely disruptive if the plaintiffs succeed in blocking the trade of our products and services. If we fail to obtain or maintain certain government, technology or intellectual property licenses and, if litigation relating to alleged intellectual property matters occurs, it could prevent us from manufacturing or selling particular products or applying particular technologies, which could reduce our opportunities to generate revenues. See Item 8. Financial Information Legal Proceedings for a further discussion.

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

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

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

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

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

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

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

While we generate revenue from hundreds of customers worldwide, our ten largest customers accounted for approximately $51 \%$ and $53 \%$ of our net sales in 2007 and 2008, respectively, and our largest customer accounted for approximately $11 \%$ and $14 \%$ of our net sales in 2007 and 2008, respectively. The loss of, or significant curtailment of purchases by, one or more of our top customers, including curtailments due to increased competitive pressures, a change in the design, or manufacturing sourcing policies or practices of these customers, or the timing of customer or distributor inventory adjustments, may adversely affect our results of operations and financial condition.

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

Effective internal controls are necessary for us to provide reasonable assurance with respect to our financial reports and to effectively prevent fraud. If we cannot provide reasonable assurance with respect to our financial reports and effectively prevent fraud, our reputation and results of operations could be harmed.

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

Internal controls may not prevent or detect misstatements because of their inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. Therefore, even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. In addition, projections of any evaluation of effectiveness of internal controls to future periods are subject to the risk that the internal controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. If we fail to maintain the adequacy of our internal controls, including any failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business and operating results could be harmed, we could fail to meet our reporting obligations, and there could be a material adverse effect on the market price of our common shares and ADSs. Our global manufacturing, design and sales activities subject us to risks associated with legal, political, economic or other conditions or developments in various jurisdictions, including in particular the Republic of China ( R.O.C. ), which could negatively affect our business and financial status and therefore the market value of your investment.

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

For example, even though the R.O.C. and the People s Republic of China ( PRC ) have co-existed for the past 60 years and significant economic and cultural relations have been established during that time, the financial markets have viewed certain past developments in relations between the two sides as occasions to depress general market prices of the securities of Taiwanese companies, including our own. In addition, the R.O.C. government currently restricts transfer by Taiwanese companies of certain technologies to and certain types of investments by Taiwanese companies in Mainland China.

## Our results of operations could be materially adversely affected by natural disasters or interruptions in the supply

 of utilities (such as water or electricity) in the locations in which we, our customers or suppliers operate.We have manufacturing and other operations in locations subject to natural disasters such as severe weather and earthquakes as well as interruptions or shortages in the supply of utilities (such as water and electricity) that could disrupt operations. In addition, our suppliers and customers also have operations in such locations. For example, most of our production facilities, as well as many of our suppliers and customers and upstream providers of complementary semiconductor manufacturing services, are located in Taiwan, which is susceptible to earthquakes, typhoons, and has experienced droughts from time to time. In addition, we have sometimes suffered power outages caused by our major electricity supplier, the Taiwan Power Company, or other power consumers on the same power grid, which have caused interruptions in our production schedule. A natural disaster or interruptions in the supply of utilities that results
in a prolonged disruption to our operations, or the operations of our customers or suppliers, may adversely affect our results of operations and financial condition.

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## Fluctuations in exchange rates could result in foreign exchange losses.

Over half of our capital expenditures and manufacturing costs are denominated in currencies other than NT dollars, primarily in U.S. dollars, Japanese yen and Euros. More than $90 \%$ of our sales are denominated in U.S. dollars and currencies other than NT dollars. Therefore, any significant fluctuation to our disadvantage in such exchange rates would have an adverse effect on our financial condition. The current global economic crisis may cause increased volatility in such exchange rates. For example, during the period from January 1, 2008 to March 31, 2008, the U.S. dollar has depreciated $6.3 \%$ against the NT dollar, which had a negative impact on our results of operations. In addition, fluctuations in the exchange rate between the U.S. dollar and the NT dollar may affect the U.S. dollar value of our common shares and the market price of the ADSs and of any cash dividends paid in NT dollars on our common shares represented by ADSs. Please see Item 5. Operating and Financial Review and Prospects Inflation and Item 11. Quantitative and Qualitative Disclosures About Market Risk for a further discussion on the possible impact of other market factors on our results of operations.
Fluctuations in inflationary and deflationary market expectations could negatively affect demand for our products and services, which may harm our financial results.

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

## Risks Relating to Ownership of ADSs

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

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

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

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

Item 10. Additional Information Foreign Investment in the R.O.C. and Item 10. Additional Information Exchange Controls in the R.O.C. . Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

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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 who owned $6.4 \%$ of TSMC s outstanding shares as of February 28, 2009, has sold our shares in the form of ADSs in several transactions during the period between 1997 and 2005. On August 14, 2008, Philips, which was then a major shareholder, completed its exit of shareholding in TSMC through a block trade to long-term financial investors mutually agreed by Philips and us. We and Philips implemented a multi-phase plan for this exit in a way that minimized any adverse impact on us and the market price of our ADSs and common shares.

We cannot predict the effect, if any, that future sales of ADSs or common shares, or the availability of ADSs or common shares for future sale, will have on the market price of ADSs or common shares prevailing from time to time. Sales of substantial amounts of ADSs or common shares in the public market, or the perception that such sales may occur, could depress the prevailing market price of our ADSs or common shares.
The market value of our shares may fluctuate due to the volatility of, and government intervention in, the R.O.C. securities market.

Because the Taiwan Stock Exchange experiences from time to time substantial fluctuations in the prices and volumes of sales of listed securities, there are currently limits on the range of daily price movements on the Taiwan Stock Exchange. In response to past declines and volatility in the securities markets in Taiwan, and in line with similar activities by other countries in Asia, the government of the R.O.C. formed the Stabilization Fund, which has purchased and may from time to time purchase shares of Taiwan companies to support these markets. In addition, other funds associated with the R.O.C. government have in the past purchased, and may from time to time purchase, shares of Taiwan companies on the Taiwan Stock Exchange or other markets. In the future, market activity by government entities, or the perception that such activity is taking place, may take place or has ceased, may cause fluctuations in the market prices of our ADSs and common shares.

## ITEM 4. INFORMATION ON THE COMPANY

## Our History and Structure

We believe we are currently the world s largest dedicated foundry in the semiconductor industry. We were founded in 1987 as a joint venture among the R.O.C. government, Philips and other private investors and were incorporated in the R.O.C. on February 21, 1987. Our common shares have been listed on the Taiwan Stock Exchange since September 5, 1994, and our ADSs have been listed on the New York Stock Exchange since October 8, 1997.

Beginning March 1, 2008, we re-structured our business unit organization by forming the new Advanced Technology Business Organization and Mainstream Technology Business Organization. These two new organizations respectively take responsibility for formulation, development, and execution of advanced technology and mainstream technology business objectives.

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## Our Principal Office

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

## Business Overview of the Company

As a foundry, we manufacture semiconductors using our advanced or mainstream manufacturing processes for our customers based on their own or third parties proprietary integrated circuit designs. We offer a comprehensive range of leading edge wafer fabrication processes, including processes to manufacture CMOS logic, mixed-signal, radio frequency, embedded memory, BiCMOS mixed-signal and other semiconductors. We estimate that our revenue market segment share among dedicated foundries worldwide was $51 \%$ in 2008. We also offer design, mask making, probing, testing and assembly services.

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

We count among our customers many of the world $s$ leading semiconductor companies, ranging from fabless semiconductor and systems companies such as Altera Corporation, Broadcom Corporation, Marvell Semiconductor Inc., Microsoft Corporation, nVidia Corporation and Qualcomm Incorporated, to integrated device manufacturers such as Advanced Micro Devices, Inc., Analog Devices, Inc., Freescale Semiconductor Inc. and STMicroelectronics. Fabless semiconductor and system companies accounted for approximately $71 \%$, and integrated device manufacturers accounted for approximately $29 \%$, of our net sales in 2008.

## Our Facilities

After combining the operations at two of our 200 mm fabs in 2001 and the decommissioning of one of our 150 mm wafer fabs (Fab 1) in March 2002 and one of our 200 mm fabs (Fab 7) in 2006, we currently operate one 150 mm wafer fab, six 200 mm wafer fabs and two 300 mm wafer fabs. Our corporate headquarters and five of our fabs are located in the Hsinchu Science Park, two fabs are located in the Tainan Science Park, one fab is located in the United States, and one fab is located in Shanghai. Our corporate headquarters and our five fabs in Hsinchu occupy approximately 419,000 square meters of land. We lease all of this land from the Hsinchu Science Park Administration in Hsinchu under agreements that will be up for renewal in December 2027. We have leased from the Southern Taiwan Science Park Development Office 393,000 square meters of land for our fabs in the Tainan Science Park under agreements that will be up for renewal between August 2018 and December 2025. WaferTech owns 1,052,181 square meters of land in the State of Washington in the United States, where the WaferTech fab and related offices are located. TSMC China owns 420,000 square meters of land in Shanghai, where Fab 10 and related offices are located. Other than certain equipment under leases located at testing areas, we own all of the buildings and equipment for our fabs. We are expanding our 300 mm fabrication capacity and research and development through Fab 12 in the Hsinchu Science Park and Fab 14 in the Tainan Science Park. Total monthly capacity for 300 mm fabs was increased from 130,700 wafers in 2007 to 154,300 wafers in 2008 . We will continuously evaluate our 300 mm capacity in light of prevailing market conditions.

## Manufacturing Capacity and Technology

We manufacture semiconductors on silicon wafers based on proprietary circuitry designs provided by our customers or third party designers. Two key factors that characterize a foundry s manufacturing capabilities are output capacity and fabrication process technologies. Since our establishment, we have possessed the largest capacity among the world s dedicated foundries. We also believe that we are the technology leader among the dedicated foundries in terms of our net sales of advanced semiconductors with a resolution of 0.13 micron and below, and are one of the leaders in the semiconductor manufacturing industry generally. We are the first semiconductor foundry with proven low-k interconnect technology in commercial production from the 0.13 micron node down to 40 -nanometer node. Following our commercial production based on 65 -nanometer Nexsys SM process technology in 2006, we also unveiled 55 -naometer Nexsys SM process technology in 2007. Our 65 -nanometer and 55 -nanometer Nexsys SM technologies are the third-generation proprietary processes that employ low-k dielectrics. In 2008, we also qualified our 45 and 40 nanometer process technology with ultra low-k dielectrics and advanced immersion lithography. We
have begun certain small-scale production of 45 -nanometer products in 2008, and we expect to commence its commercial production in 2009.

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

|  | Current most advanced technology for volume of |  |  | ly capac |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fab ${ }^{(1)}$ | commencementroduction ${ }^{(2)}$ | 2004 | 2005 | 2006 | 2007 | 2008 |
| 2 | 1990 0.45 | 47,584 | 47,584 | 50,506 | 51,685 | 51,609 |
| $3^{(5)}$ | 1995 0.15 | 83,300 | 83,300 | 89,900 | 90,500 | 92,400 |
| 5 | 1997 0.15 | 42,500 | 42,500 | 51,500 | 55,800 | 54,200 |
| 6 | 2000 0.11 | 73,000 | 73,000 | 83,400 | 94,000 | 95,100 |
| $7{ }^{(7)}$ | 1995 0.35 | 13,400 | 13,400 |  |  |  |
| 8 | 1998 0.15 | 76,500 | 76,500 | 83,500 | 89,400 | 91,600 |
| 10 | 2004 0.18 | 500 | 15,600 | 32,000 | 31,000 | 43,000 |
| 11 | 1998 0.15 | 32,500 | 33,500 | 35,500 | 35,500 | 35,500 |
| 12 | 20010.040 | 60,300 | 106,875 | 131,175 | 160,755 | 167,910 |
| 14 | 20040.055 | 6,750 | 46,125 | 79,650 | 133,279 | 179,258 |
| SSMC ${ }^{(6)}$ | 2000 0.15 | 13,400 | 16,700 | 17,700 | 20,700 | 24,600 |
| Total |  | 449,734 | 555,084 | 654,831 | 762,619 | 835,177 |

(1) Fab 2 produces

150 mm wafers.
Fabs 3, 5, 6, 8,
10, Fab 11
(WaferTech) and
SSMC produce
200 mm wafers.
Fab 12 and Fab
14 produce
300 mm wafers.
Fabs 2, 3, 5, 8
and 12 are
located in
Hsinchu Science
Park. Fab 6 and
Fab 14 are
located in the
Tainan Science
Park. WaferTech
is located in the
United States,
SSMC is located in Singapore and Fab 10 is located in Shanghai.
(2) In microns, as of year-end.
(3) Estimated
capacity in 200 mm equivalent wafers as of year-end for the total technology range available for production.
Actual capacity during each year will be lower as new production capacity is phased in during the course of the year.
(4) Under an agreement with Vanguard, TSMC is required to use its best commercial efforts to maintain utilization of a fixed amount of reserved capacity and will not increase or decrease the stipulated quantity by more than 5,000
wafers per month. Please see Item 7. Major Shareholders and Related Party
Transaction
Related Party
Transactions
Vanguard
International
Semiconductor
Corporation for a
discussion of certain of the Vanguard contract terms.
The amounts to be used at Vanguard are not included in our monthly capacity figures.
(5) Fab 4, which commenced operation in 1999 with initial technology of 0.5 micron, was consolidated into Fab 3 during the fourth quarter of 2001.
(6) Represents that portion of the total capacity that we had the option to utilize as of
December 31, 2004,
December 31, 2005,
December 31, 2006,
December 31, 2007 and December 31, 2008. This fab commenced production in
September 2000.
(7) Fab 7 was decommissioned in June 2006 as we integrated its manufacturing facility as a part
of Fab 12 s operation.

As of December 31, 2008, our monthly capacity (in 200 mm equivalent wafers) was 835,177 wafers, compared to 762,619 wafers at the end of 2007 . This increase was primarily due to the expansion of our $0.15 / 0.18$ micron mainstream technologies and our 45/65-nanometer advanced technologies. Our semiconductor manufacturing facilities require substantial investment to construct and are largely fixed-cost assets once they are in operation. Because we own most of our manufacturing capacity, a significant portion of our operating costs is fixed. In general, these costs do not decline when customer demand or our capacity utilization rates drop, and thus declines in customer demand, among other factors, may significantly decrease our margins. Conversely, as product demand rises and factory utilization increases, the fixed costs are spread over increased output, which can improve our margins.

## Capacity Management and Technology Upgrade Plans

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

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Our capital expenditures in 2006, 2007 and 2008 were NT $\$ 78,737$ million, NT $\$ 84,001$ million and NT $\$ 59,223$ million (US $\$ 1,886$ million) ${ }^{(1)}$, respectively. In view of the current global economic downturn, we are still in the process of evaluating and determining our capital expenditures for 2009. However, our preliminary estimate is that it will be lower than the capital expenditures for 2008. In 2009, we anticipate our capital expenditures to focus primarily on the following:
adding capacity to our 300 mm wafer fabs;
Fab 12 facilities; and
development of process technologies in 32-nanometer nodes and below and other research and development projects.
These investment plans are still preliminary and may change per market conditions.
(1) Translated from
weighted
average
exchange rate of
NT\$31.406 to
US\$1.

## Markets and Customers

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

| Customer Type | 2006 |  | Year ended December 31, 2007 |  | 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Sales | Percentage | Net Sales millions, ex | Percentage t percentages | Net Sales | Percentage |
| Fabless semiconductor companies/systems companies | NT\$229,168 | 72.2\% | NT\$215,662 | 66.8\% | NT\$236,542 | 71.0\% |
| Integrated device manufacturers | 88,239 | 27.8\% | 106,968 | 33.2\% | 96,616 | 29.0\% |
| Total | NT\$317,407 | 100.0\% | NT\$322,630 | 100.0\% | NT\$333,158 | 100.0\% |

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

| Region | Year ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Sales | Percentage | Net Sales | Percentage | Net Sales | Percentage |
|  | (in millions, except percentages) |  |  |  |  |  |
| North America | NT\$ 247,895 | 78.1\% | NT\$ 247,832 | 76.8\% | NT\$ 246,537 | 74.0\% |
| Asia | 43,167 | 13.6\% | 45,128 | 14.0\% | 52,472 | 15.7\% |
| Europe | 26,345 | 8.3\% | 29,670 | 9.2\% | 34,149 | 10.3\% |
| Total | NT\$317,407 | 100.0\% | NT\$322,630 | 100.0\% | NT\$333,158 | 100.0\% |
| A significant our ten largest c customer accou | of our net sa accounted approximate | e attributabl proximately \% and $14 \%$ | to a relatively $1 \%$ and $53 \%$ our net sales, | 11 number of ur net sales, r ectively. | ustomers. In sectively, an | 7 and 2008, <br> r largest |

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

We provide customer support in six regions around the world. The office in Hsinchu serves Asian (excluding Japanese and Mainland Chinese but including South Korean) customers. Wholly-owned subsidiaries in the United States, Japan, Mainland China, the Netherlands, South Korea and India serve North American, Japanese, Mainland Chinese, European, South Korean and Indian customers, respectively. Foundry services, which are both technologically and logistically intensive, involve frequent and in-depth interaction with customers. We believe that the most effective means of providing foundry services is by developing direct and close relationships with our customers. Our customer service managers work closely with the sales force to offer integrated services to customers.

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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.

Several of our customers have entered into arrangements with us to ensure that they have access to specified capacity at our fabs. These arrangements are primarily in the form of deposit agreements. In a deposit agreement, the customer makes an advance cash deposit for an option on a specified capacity at our fabs. Deposits are generally refunded as shipments are made. As of December 31, 2008, our customers had on deposit an aggregate of approximately US $\$ 43$ million 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 wafer is then tested, cut into dice, and assembled into packages that are then individually retested. Our focus is on wafer fabrication although we also provide all other services either directly or through outsourcing arrangements.

## Our Foundry Services

Range of Services. Because of our ability to provide a full array of services, we are able to accommodate customers with a variety of needs at every stage of the overall foundry process. The flexibility in input stages allows us to cater to a variety of customers with different in-house capabilities and thus to service a wider class of customers as compared to a foundry that cannot offer design or mask making services, for example.

Fabrication Processes. We manufacture semiconductors using the complementary metal oxide silicon, CMOS and BiCMOS processes. The CMOS process is currently the dominant semiconductor manufacturing process. The BiCMOS process combines the high speed of the bipolar circuitry and the low power consumption and high density of the CMOS circuitry. We use the CMOS process to manufacture logic semiconductors, memory semiconductors including static random access memory ( SRAM ), flash memory, mixed-signal/ radio frequency ( RF ) semiconductors, which combine analog and digital circuitry in a single semiconductor, micro-electro-mechanical-system ( MEMS ), which combines micrometer featured mechanical parts, analog and digital circuitry in a single semiconductor, and embedded memory semiconductors, which combine logic and memory in a single semiconductor. The BiCMOS process is used to make high-end mixed-signal and other types of semiconductors.

Types of Semiconductors We Manufacture. We manufacture different types of semiconductors with different specific functions by changing the number and the combinations of conducting, insulating and semiconducting layers and by defining different patterns in which such layers are applied on the wafer. At any given point in time, there are over a hundred different products in various stages of fabrication at our fabs. We believe that the keys to maintaining high production quality and utilization rates are our effective management and control of the manufacturing process technologies which comes from our extensive experience as the longest existing dedicated foundry and our dedication to quality control and process improvements.

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

Logic Semiconductors. Logic semiconductors process digital data to control the operation of electronic systems. The largest segment of the logic market, standard logic devices, includes microprocessors, microcontrollers, digital signal processors ( DSP ), graphic chips and chip sets.

Mixed-Signal/RF Semiconductors. Analog/digital semiconductors combine analog and digital devices on a single semiconductor to process both analog and digital data. We make mixed-signal/RF semiconductors using both the CMOS and BiCMOS processes. We currently offer CMOS mixed-signal process down to the 45 -nanometer Nexsys SM 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.

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

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

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

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

| Semiconductor Type | 2006 |  | Year ended December 31, 2007 |  | 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (in millions, except percentages) |  |  |  |  |  |
| CMOS |  |  |  |  |  |  |
| Logic | NT\$240,278 | 75.7\% | NT\$ 234,354 | 72.6\% | NT\$243,884 | 73.2\% |
| Memory | 3,174 | 1.0\% | 5,156 | 1.6\% | 1,839 | 0.6\% |
| Mixed-Signal ${ }^{(1)}$ | 71,734 | 22.6\% | 80,247 | 24.9\% | 84,648 | 25.4\% |
| BiCMOS ${ }^{(2)}$ | 1,904 | 0.6\% | 2,517 | 0.8\% | 2,460 | 0.7\% |
| Others | 317 | 0.1\% | 356 | 0.1\% | 327 | 0.1\% |
| Total | NT\$317,407 | 100.0\% | NT\$322,630 | 100.0\% | NT\$333,158 | 100.0\% |

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

## Design and Technology Platforms.

We offer a wide range of design enablement activities, from providing fundamental technology files, libraries and other silicon intellectual property to customization and chip implementation services.

To facilitate our customers semiconductor designs, we provide a set of technology files for the process technologies we offer. The technology files include the necessary information to support design activities in physical layout, verification and circuit simulation. We can also provide complete process design kits, or PDKs, to support our customers circuit design environment.

To accelerate the time-to-market for our customers, we provide a set of foundation library and selected silicon intellectual property to help designers expedite their design process. Our library and silicon intellectual property portfolio includes standard logic cells, input/output interface cells, and memory/analog blocks. Each library and silicon intellectual property portfolio is designed to maximize performance while minimizing area and power consumption. We also enter into arrangements with third-party providers to provide to our customers a broader range
of library and silicon intellectual property offerings.
Nano-meter technologies involve relatively more complex designs and the margin of error is significantly reduced. As such, fabless designers are required to work closely with a foundry to ensure that their designs are suitable for commercial manufacturing and can quickly be transferred to large volume manufacturing. For these purposes, we create design for manufacturing models or DFM models for advanced design flows that we co-developed with major design automation companies.

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In the beginning of 2008, we unveiled the Open Innovation Platform . The Open Innovation Platform promotes the speedy implementation of innovation amongst the semiconductor design community and its ecosystem partners with our intellectual property, design methodology, design implementation and DFM capabilities, process technology and backend services. A key element of the Open Innovation Platform is a set of ecosystem interfaces and collaborative components initiated and supported by us that efficiently empowers innovation throughout the supply chain. Our Active Accuracy Assurance ( AAA ) initiative is also a key element of the Open Innovation Platform , providing the accuracy and quality required by the ecosystem interfaces and collaborative components.

In 2008, we also extended our design enablement effort to mainstream technologies. In mainstream technologies, the design support on PDK, foundation libraries, and silicon intellectual property for derivative technologies, such as power IC, high-voltage, and analog was strengthened. The strengthening of our design enablement effort will continue in accordance with TSMC s development and management of its mainstream technology business.

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

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

## Customer Service

We believe that our devotion to customer service has been an indispensable factor in attracting new customers, helping to ensure the satisfaction of existing customers, and building a mutually beneficial partnership with our customers. The key elements are our:
customer-oriented culture through multi-level interaction with customers;
ability to deliver wafers of consistent quality, competitive ramp-up speed and efficient yield improvement;
responsiveness to customer s issues and requirements, such as engineering change orders and special wafer handling;
flexibility in manufacturing processes, supported by our competitive technical capability and efficient production planning;
dedication to help reduce customer costs through collaboration and services, such as our multi-project wafer program, which combines multiple designs on a single mask set for increased cost-saving;
availability of eFoundry , the online service which provides in real-time necessary information in design, engineering, and logistics throughout customers product life cycle; and
provision of Virtual fab , designed to provide transparent information and seamless services to our customers such as the availability of key information, management of on-time delivery and flexibility in scheduling and capacity.

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## Research and Development

The semiconductor industry is characterized by rapid changes in technology, frequently resulting in the introduction of new technologies to meet customers demands and in the obsolescence of recently introduced technology and products. We believe that, in order to stay technologically ahead of our competitors and maintain our market position in the foundry segment of the semiconductor industry, we need to maintain our position as a technology leader not only in the foundry segment but in the semiconductor industry in general. We spent NT\$16,076 million, NT\$17,946 million and NT\$21,481 million (US\$656 million) in 2006, 2007 and 2008, respectively, on research and development, which represented $5.1 \%, 5.5 \%$ and $6.5 \%$, respectively, of our net sales for these periods. We plan to continue to invest significant amounts on research and development in 2009, with the goal of maintaining a leading position in the development of advanced process technologies. Our research and development efforts have recently allowed us to provide our customers access to certain advanced process technologies, such as 90 -nanometer, 80 -nanometer, 65 -nanometer, 55 -nanometer, 45 -namometer and 40 -nanometer Nexsys SM 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 $32 / 28$-nanometer and below in the coming years to maintain our technology leadership. We will also continue to invest in research and development for our mainstream technology offerings to provide function-rich process capabilities to our customers.

Our research and development efforts are divided into centralized research and development activities and research and development activities undertaken by each of our fabs. Our centralized research and development activities are principally directed toward developing new Logic, system-on-chip ( SOC ), derivatives and package/system-in-package ( SIP ) technologies. Fab related research and development activities mostly focus on upgrading the manufacturing process technologies.

We use internally developed process technologies and process technologies licensed from our customers and third parties. In continuing to advance our process technologies, we intend to rely primarily on our internal engineering capability and know-how and our research and development efforts, including collaboration with our customers, equipment vendors and $R \& D$ consortia.

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

## Equipment

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

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

## Raw Materials

Our manufacturing processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious metals. Raw materials costs constituted $13.9 \%$ of our net sales in 2007 and $11.1 \%$ of our net sales in 2008. Most of our raw materials generally are available from several suppliers. Our raw material procurement policy is to select only those vendors who have demonstrated quality control and reliability on delivery time and to maintain multiple sources for each raw material so that a quality or delivery problem with any one vendor will not adversely affect our operations. The quality and delivery performance of each vendor is evaluated monthly or quarterly and quantity allocations are adjusted for subsequent periods based on the evaluation.

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The most important raw material used in our production is silicon wafers, which is the basic raw material from which integrated circuits are made. The principal suppliers for our wafers are Shin-Etsu Handotai and SUMCO Corporation of Japan, MEMC Electronic Materials, Inc. of the United States and Siltronic AG of Germany. Together they supplied approximately $91.6 \%$ and $91.9 \%$ of our total wafer needs in 2007 and 2008, respectively. We have in the past obtained, and believe we will continue to be able to obtain, a sufficient supply of $150 \mathrm{~mm}, 200 \mathrm{~mm}$ and 300 mm wafers. The price of silicon wafers decreased during 2007 and 2008. We expect silicon wafer prices to continue to decrease in 2009.

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

## Competition

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

## Environmental Regulation

The semiconductor production process generates gaseous chemical wastes, liquid wastes, wastewater and other industrial wastes in various stages of the manufacturing process. We have installed various types of pollution control equipment for the treatment of gaseous chemical wastes and wastewater and equipment for the recycling of treated water in our fabs. Our operations at our fabs are subject to regulation and periodic monitoring by the R.O.C. Environmental Protection Administration, U.S. Environmental Protection Agency or State Environmental Protection Administration of mainland China, and local environmental protection authorities, including the Science Park Administration, the Washington State Department of Ecology or the Shanghai Environmental Protection Bureau.

We have adopted pollution control measures that are expected to result in the effective maintenance of environmental protection standards consistent with the practice of the semiconductor industry in Taiwan, the U.S. and mainland China. We conduct an annual environmental audit to ensure that we are in compliance in all material respects with, and we believe that we are in compliance in all material respects with, applicable environmental laws and regulations. Our waste reduction steps also comply with Taiwan regulatory requirements.

We received ISO14001 certification in August 1996 and QC 080000 IECQ HSPM, a certification for having a hazardous substance process management system that meets the European environmental regulation RoHS (Restriction of Hazardous Substance) Directive, in July 2006. We have continued to implement improvement programs in connection with these certifications. For example, all of our manufacturing sites in Taiwan were ISO14001 certified in 2005 and QC 080000 certified in 2007. Fab 10, our manufacturing site in mainland China, also received ISO 14001 certification in 2005 and QC 080000 certification in 2007. In addition, WaferTech obtained ISO 14001 certification in 2001 and QC 080000 certification in 2006. In 2008, we received the Excellence in Voluntary Greenhouse Gases Emission Reduction Award from the Ministry of Economic Affairs, Executive Yuan, R.O.C., The Annual Enterprises Environmental Protection Award from the Environmental Protection Administration, Executive Yuan, R.O.C. and Low Carbon Enterprise Award from the Science Park Administration, the Golden Award for Leadership in Energy and Environmental Design of New Construction (LEED-NC) from the U.S. Green Building Council and Diamond Class Ecology, Energy Saving, Waste Reduction, and Health (EEWH) Certification from Architecture and Building Research Institute, Ministry of the Interior. WaferTech has also been a member of the U.S. Environmental Protection Agency s Performance Track Program since 2004.

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

## Electricity and Water

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

## Risk Management

We employ an enterprise risk management system to integrate the prevention and control of TSMC and our subsidiaries risks. We have also prepared emergency plans to respond to natural disaster and other disruptive events that could disrupt the operation of our business. These emergency plans are developed to prevent or minimize loss of personnel and damage to our facilities, equipment and machinery caused by natural disaster and other disruptive events. We also maintain insurance with respect to our facilities, equipment and inventories. The insurance for the fabs and their equipment covers, subject to some limitations, various risks including fire, typhoon, earthquake and some other risks generally up to the respective policy limits for their replacement values and lost profits due to business interruption. In addition, we have insurance policies covering losses in respect of the construction and erection of all our fabs. Equipment and inventories in transit are also insured. No assurance can be given, however, that insurance will fully cover any losses and our emergency response plans will be effective in preventing or minimizing losses in the future.

## Our Subsidiaries and Affiliates

Vanguard International Semiconductor Corporation ( VIS ). In 1994, we, the R.O.C. Ministry of Economic Affairs and other investors established Vanguard, then an integrated dynamic random access memory ( DRAM ) manufacturer. Vanguard commenced volume commercial production in 1995 and listed its shares on the Over-the-Counter (GreTai) Securities Market in March 1998. In 2004, Vanguard completely terminated its DRAM production and became a pure foundry company. As of February 28, 2009, we owned $37.5 \%$ of Vanguard. Please see Item 7. Major Shareholders and Related Party Transactions for a further discussion.
WaferTech in the United States. In 1996, we entered into a joint venture called WaferTech (of which the manufacturing entity is Fab 11) with several U.S.-based investors to construct and operate a US $\$ 1.2$ billion foundry in the United States. Initial trial production at WaferTech commenced in July 1998 and commercial production commenced in October 1998. In December 1998, we increased the percentage of our ownership interest in WaferTech to $68 \%$. By the end of the first quarter of 2001, we had increased the percentage of our ownership interest in WaferTech to approximately $99 \%$ by purchasing all of the remaining interest of all of the other joint venture partners. As of February 28, 2009, we owned approximately $100 \%$ equity interest in WaferTech.

Systems on Silicon Manufacturing Company Pte. Ltd. ( SSMC ). In March 1999, we entered into an agreement with Philips and EDB Investment Pte. Ltd. to found a joint venture, SSMC, to build a fab in Singapore. The SSMC fab commenced production in December 2000. As of February 28, 2009, we owned an approximately $38.8 \%$ 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. We owned an approximately $35.9 \%$ equity interest in GUC as of February 28, 2009.

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Operations in Mainland China. In August 2003, we established TSMC China (of which the manufacturing entity is Fab 10), a wholly-owned subsidiary primarily engaged in the manufacturing and selling of integrated circuits. We have achieved commercial production with 0.35 micron, 0.25 micron and 0.18 micron process technologies in Fab 10, our 200 mm wafer fab in Shanghai, where we commenced production in late 2004. As of February 28, 2009, we owned a $100 \%$ equity interest in TSMC China.

VisEra Technologies Company, Ltd. ( VisEra ). In October 2003, we and OmniVision Technologies Inc., entered into a shareholders agreement to form VisEra Technologies Company, Ltd., a joint venture in Taiwan, for the purpose of providing back-end manufacturing service. As of February 28, 2009, we owned a $43.6 \%$ equity interest in VisEra Technologies Company Ltd. Please see Item 7. Major Shareholders and Related Party Transactions for a further discussion.

Xintec, Inc. ( Xintec ). In January 2007, we acquired a $51.2 \%$ equity interest in XinTec, a supplier of wafer level packaging service, that we perceive would support our complementary metal oxide silicon (CMOS ) image sensor manufacturing business. As of February 28, 2009, we owned a $49.6 \%$ combined equity interest in Xintec.

## 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 now commonly called a dedicated semiconductor foundry. The foundry segment of the semiconductor industry as a whole experienced rapid growth over the last 22 years since our inception. As the leader of the foundry segment of the semiconductor industry, our net sales and net income were NT\$317,407 million and NT\$127,010 million in 2006, NT\$322,630 million and NT\$109,177 million in 2007 and NT\$333,158 million (US $\$ 10,170$ million) and NT\$99,933 million (US $\$ 3,050$ million) in 2008, respectively. The sales increase in 2007 and 2008 was primarily attributed to the continued growth in the semiconductor industry and customer demand, offset in part by the decline in average selling price resulting principally from pricing pressures in our customers end markets and increase in competition.

The principal source of our revenue is wafer fabrication, which accounted for approximately $89 \%$ of our net sales in 2008. The rest of our net sales is derived from design, mask making, probing, and testing and assembly services. Factors that significantly impact our revenue include:
the worldwide demand for semiconductor products;
pricing;
the worldwide semiconductor production capacity as well as our production capacity;
capacity utilization;
technology migration; and
fluctuation in foreign currency exchange rate.
Though equally important, three of the above factors are discussed as follows.
Pricing. We usually establish pricing levels for a specific period with our customers, subject to adjustment during the course of that period to take into account market developments and other factors. We believe that our large capacity, flexible manufacturing capabilities, focus on customer service and ability to deliver high yields in a predictable and timely manner have contributed to our ability to obtain premium pricing for our wafer production.

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Production Capacity. Our production capacity affects our business several ways as follows.
Our large production capacity allows us to meet increased customer orders thereby allowing us to capture greater market-driven opportunities and generate sales. We currently own and operate our semiconductor manufacturing facilities, the aggregate production capacity for which had been expanded from $654,831200 \mathrm{~mm}$ equivalent wafers per month as of year-end 2006 to $835,177200 \mathrm{~mm}$ equivalent wafers per month as of year-end 2008. Our annual sales volume increased in line with such expansion in our production capacity. For example, our annual sales volume grew from approximately $7,215,000200 \mathrm{~mm}$ equivalent wafers in 2006 to approximately $8,467,000200 \mathrm{~mm}$ equivalent wafers in 2008.

A significant amount of our operating costs are fixed because our extensive manufacturing facilities (which provide us such increased production capacity) require substantial investment to construct and are largely fixed-cost assets once they become operational. As such, declines in customer demand, among other factors, may significantly decrease our gross margin. Conversely, as product demand rises and factory utilization increases, these fixed costs are spread over the increased output, thereby improving our gross margin.

In 2008, while our operations ran at full capacity on average in the first three quarters, our capacity utilization rate began to decline in the beginning of the fourth quarter, and decreased to a level significantly below our full capacity as a result of a sharp decline in customers demand and inventory correction by the end of 2008.
Technology Migration.
The table below presents a percentage breakdown of wafer sales by circuit resolution during the last three years:

|  | Resolution | Year ended December 31, |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2006 | 2007 | 2008 |
|  |  | Percentage of | Percentage of | Percentage of |
|  |  | total wafer revenue ${ }^{(1)}$ | total wafer revenue ${ }^{(1)}$ | total wafer revenue ${ }^{(1)}$ |
| £ 65 nanometer |  |  | 6\% | 21\% |
| 90 nanometer |  | 23\% | 26\% | 26\% |
| 0.13 micron |  | 26\% | 23\% | 17\% |
| 0.15 micron |  | 10\% | 9\% | 6\% |
| 0.18 micron |  | 22\% | 20\% | 17\% |
| 0.25 micron |  | 8\% | 7\% | 5\% |
| 0.35 micron |  | 6\% | 5\% | 5\% |
| ${ }^{3} 0.5$ micron |  | 5\% | 4\% | 3\% |
| Total |  | 100\% | 100\% | 100\% |

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

## Critical Accounting Policies

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

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

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As of December 31, 2006, 2007 and 2008, the amount recorded as sales returns and allowances in the accompanying consolidated statements of income was NT\$5,382 million, NT\$5,773 million and NT8,826 million (US\$269 million), respectively, representing $1.7 \%, 1.8 \%$ and $2.6 \%$ of our gross sales for the years ended December 31, 2006, 2007 and 2008. In 2006 and 2007, no additional provision was recorded subsequent to year-end. As of February 28, 2009, we did not need to record any additional provisions for 2008.

Allowances for Doubtful Accounts. We record provisions for doubtful accounts based on a percentage of accounts receivables due from our customers. We determine this percentage by examining our historical collection experience and current trends in the credit quality of our customers as well as our internal credit policies. If the financial condition of our customers, or economic conditions in general, were to deteriorate, additional allowances may be required in the future and such additional allowances would increase our operating expenses and therefore reduce our operating income and net income.

As of December 31, 2006, 2007 and 2008, the allowance set aside for doubtful receivables was NT\$750 million, NT\$702 million and NT\$456 million (US\$14 million), respectively, representing $2.1 \%, 1.5 \%$ and $1.8 \%$ of our gross notes and accounts receivables as of those dates. For the years ended December 31, 2006 and 2007, we did not need to record any additional allowances subsequent to year-end. As of February 28, 2009, we did not need to record any additional allowances for 2008.

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

As of December 31, 2006, 2007 and 2008, we recorded inventory valuation allowances in the aggregate amount of NT\$1,005 million, NT\$931 million and NT\$2,301 million (US\$70 million), respectively. Our inventory valuation allowance was primarily for estimated scraps and slow-moving items, including certain work-in-progress and finished goods. For the years ended December 31, 2006 and 2007, we did not need to record any additional allowances subsequent to year-end. As of February 28, 2009, we did not need to record any additional allowances for 2008.

Valuation allowance for deferred tax assets. When we have net operating loss carry forwards, investment tax credits or temporary differences in the amount of tax recorded for tax purposes and accounting purposes, we may be able to reduce the amount of tax that we would otherwise be required to pay in future periods. We recognize all existing future tax benefits arising from these tax attributes as deferred tax assets and then establish a valuation allowance equal to the extent, if any, that it is more likely than not that deferred tax assets will not be realized. We record an income tax benefit or expense when there is a net change in our total deferred tax assets and liabilities in a period. The ultimate realization of the deferred tax assets depends upon the generation of future taxable income during the periods in which the net operating losses and temporary differences become deductible or the investment tax credits may be utilized. Specifically, our valuation allowances are impacted by our expected future revenue growth and profitability, tax holidays, alternative minimum tax, and the amount of tax credits that can be utilized within the statutory period. In determining the amount of valuation allowance for deferred tax assets as of December 31, 2008, we considered past performance, the general outlook of the semiconductor industry, business conditions caused by the global economic downturn, future taxable income and prudent and feasible tax planning strategies.

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

As of December 31, 2006, 2007 and 2008, the ending balance for valuation allowances under R.O.C. GAAP were NT\$8,127 million, NT\$4,162 million and NT\$7,109 million (US\$217 million), respectively, representing 37.0\%, $24.4 \%$ and $40.1 \%$ of net deferred tax assets as of those dates.

Valuation of long-lived assets and intangible assets. We assess the impairment of long-lived assets and intangible assets whenever triggering events or changes in circumstances indicate that the asset may be impaired and carrying value may not be recoverable. Our long-lived assets subject to this evaluation include property, plant and equipment and amortizable intangible assets. Factors we consider important which could trigger an impairment review include, but are not limited to, the following:
significant under performance relative to historical or projected future operating results;
significant changes in the manner of our use of the acquired assets or our overall business strategy; and
significant unfavorable industry or economic trends.
When we determine that the carrying value of intangible assets and other long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment for long-lived assets based on a projected future cash flow. If the long-lived or intangible assets that are determined to be impaired are to be held and used, we recognize an impairment loss through a charge to our operating results to the extent the present value of discounted cash flows attributable to the assets are less than their carrying value. We also perform periodic review to identify the assets that are no longer used and are not expected to be used in future periods. An impairment charge is recorded to the extent, if any, that the carrying amount of the idle assets exceeds their fair value. Under R.O.C. GAAP, if the recoverable amount increases in a future period, the amount previously recognized as impairment will be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, as if no impairment loss had been recognized.

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

Under R.O.C. GAAP, for purposes of evaluating the recoverability of long-lived assets, assets purchased for use in the business but subsequently determined to have no future economic benefits are written down to their fair value and recorded as either idle assets or assets held for disposition. However, prior to 2005, R.O.C. GAAP did not provide guidelines for impairment of assets that could still be used in the business. Therefore prior to 2005, long-lived assets that could still be used in the business and were impaired under U.S. GAAP continued to be depreciated for R.O.C. GAAP purposes. In 2000, WaferTech recorded approximately US\$330 million as impairment under U.S. GAAP. In the years subsequent to 2000 , as the value determined based on discounted cash flow or comparable market prices was higher than the carrying value of the long-lived assets, no additional impairment was recorded, except a loss on impairment of idle assets of NT\$210 million (US\$6 million) in 2008.

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As of December 31, 2006, 2007, and 2008, net long-lived assets and intangible assets amounted to NT $\$ 260,031$ million, $\mathrm{NT} \$ 268,176$ million, and $\mathrm{NT} \$ 250,771$ million (US $\$ 7,655$ million), respectively, under R.O.C. GAAP.

Goodwill. Goodwill is recorded when the purchase price paid for an acquisition exceeds the estimated fair value of the net identified tangible and intangible assets acquired. Under U.S. GAAP, and effective on January 1, 2005 under R.O.C. GAAP, we assess the impairment of goodwill on an annual basis, or more frequently whenever triggering events or changes in circumstances indicate that goodwill may be impaired and carrying value may not be recoverable. Moreover, effective on January 1, 2006, goodwill is no longer amortizable under R.O.C. GAAP. Factors we consider important which could trigger an impairment review include, without limitation, the following:
significant decline in our stock price for a sustained period; and
significant decline in our market capitalization relative to net book value.
Application of the goodwill impairment test is also highly subjective and requires significant judgment, including the identification of cash generating units, assigning assets and liabilities to the relevant cash generating units, assigning goodwill to the relevant cash generating units, and determining the fair value of the relevant cash generating units. Under R.O.C. GAAP, the fair value of the cash generating units is compared to the associated carrying value including goodwill. On the other hand, under U.S. GAAP, the fair value of the reporting units is compared to the associated carrying value including goodwill.

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

As of December 31, 2006, 2007, and 2008, goodwill amounted to NT\$5,985 million, NT\$5,988 million, and NT\$6,044 million (US\$184 million), respectively, under R.O.C. GAAP.

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

As of December 31, 2006, 2007, and 2008, no impairment loss was recorded as the value determined based on the discounted cash flow of the investees was higher than the carrying value of the investments accounted for using the equity method.

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

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We have experienced declines in the value of certain privately held investments and publicly traded securities and recorded impairment loss of NT\$280 million, NT\$54 million and NT\$1,560 million (US\$48 million) in 2006, 2007 and 2008 , respectively. While we have recognized all declines that are currently believed to be other-than-temporary as a charge to income, adverse changes in market conditions or poor operating results of underlying investments could result in further losses in future periods.

## Results of Operations

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

Net sales
Cost of sales
Gross profit
Operating expenses
General and administrative
Sales and marketing
Research and development
Total operating expenses
Income from operations
Non-operating income and gains
Non-operating expenses and losses
Income before income tax and minority interest
Income tax expense
Income before cumulative effect of changes in accounting principles
Cumulative effect of changes in accounting principles
Income before minority interest
Minority interest in income of subsidiaries
Net income
Year to Year Comparisons
Net Sales and Gross Margin

| For the year ended December 31, |  |  |
| :---: | :---: | :---: |
| 2006 | 2007 | $\mathbf{2 0 0 8}$ |


| $100.0 \%$ | $100.0 \%$ | $100 \%$ |
| :---: | :---: | :---: |
| $(50.9) \%$ | $(55.9) \%$ | $(57.5) \%$ |
| $49.1 \%$ | $44.1 \%$ | $42.5 \%$ |


| $(2.7) \%$ | $(2.8) \%$ | $(3.3) \%$ |
| :---: | :---: | :---: |
| $(1.2) \%$ | $(1.2) \%$ | $(1.4) \%$ |
| $(5.1) \%$ | $(5.5) \%$ | $(6.4) \%$ |
| $(9.0) \%$ | $(9.5) \%$ | $(11.1) \%$ |
| $40.1 \%$ | $34.6 \%$ | $31.4 \%$ |
| $3.1 \%$ | $3.7 \%$ | $3.2 \%$ |
| $(1.2) \%$ | $(0.6) \%$ | $(1.1) \%$ |
| $42.0 \%$ | $37.7 \%$ | $33.5 \%$ |
| $(2.4) \%$ | $(3.6) \%$ | $(3.3) \%$ |
|  |  |  |
| $39.6 \%$ | $34.1 \%$ | $30.2 \%$ |
| $0.5 \%$ |  |  |
| $40.1 \%$ | $34.1 \%$ | $30.2 \%$ |
| $(0.1) \%$ | $(0.3) \%$ | $(0.2) \%$ |
| $40.0 \%$ | $33.8 \%$ | $30.0 \%$ |

For the year ended December 31,

| 2006 | 2007 | \% Change <br> from 2006 | 2008 |  | \% Change <br> from 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NT\$ | NT\$ |  | NT\$ | US\$ |  |
| (in millions) |  |  | (in millions) |  |  |


| Net sales | 317,407 | 322,630 | $1.6 \%$ | 333,158 | 10,170 | $3.3 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| Cost of sales | $(161,597)$ | $(180,280)$ | $11.6 \%$ | $(191,408)$ | $(5,843)$ | $6.2 \%$ |
| Gross profit | 155,810 | 142,350 | $(8.6) \%$ | 141,750 | 4,327 | $(0.4) \%$ |
|  |  |  |  |  |  |  |
| Gross margin <br> percentage | $49.1 \%$ | $44.1 \%$ |  | $42.5 \%$ | $42.5 \%$ |  |

Net Sales
Our net sales in 2008 increased by $3.3 \%$ from 2007. The increase in our net sales in 2008 was largely attributable to a continued increase in customer demand in the first three quarters of 2008, offset in part by a sharp decline in customer demand in the fourth quarter of 2008. This resulted in an overall increase of $5.8 \%$ in wafer shipment for the
year 2008, from 8,005 thousand 200 mm equivalent wafers in 2007 to 8,467 thousand 200 mm equivalent wafers in 2008. In addition, our net sales in 2008 were negatively impacted by a stronger NT dollar against U.S. dollar, which appreciated against the U.S. dollar by $4.3 \%$, as a significant portion of our sales are denominated in U.S dollars. As a result of the global economic downturn, we currently expect our net sales for the first quarter of 2009 to be around NT $\$ 39.5$ billion, a decrease of $54.8 \%$ compared to the same period in 2008.

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Our net sales in 2007 increased by $1.6 \%$ from 2006. The increase in our net sales in 2007 was largely attributable to increase in customer demand, which resulted in a $10.9 \%$ increase in wafer shipment in 2007, from 7,215 thousand 200 mm equivalent wafers in 2006 to 8,005 thousand 200 mm equivalent wafers in 2007. The increase in sales volume was partially offset by a $11.5 \%$ decrease in the average selling price of our wafers in U.S. dollar terms in 2007. The decrease in the average selling price of our wafers in U.S. dollar terms was primarily the result of a decline in pricing for the same product or technology resulting primarily from pricing pressures in customers end market and an increase in competition, partially offset by a more favorable product mix as we saw a continued shift toward higher priced products using more advanced technologies. Our net sales in 2007 were also positively impacted by the fact that the average exchange rate for the NT dollar against the U.S. dollar depreciated by $1.0 \%$ in 2007 compared to 2006, as a significant portion of our sales are denominated in U.S. dollars.

## Gross Margin

Our gross margin fluctuates, depending on the level of capacity utilization, wafer shipments, price change and product mix, among other factors. Our gross margin decreased to $42.5 \%$ of net sales in 2008 from $44.1 \%$ of net sales in 2007. The lower margin in 2008 was primarily driven by price declines, resulting primarily from pricing pressure in customers end markets and an increase in price competition, which negatively impacted our gross margin by 5.6 percentage points. In addition, expensing of employee profit sharing, lower capacity utilization in the fourth quarter of 2008 and a stronger average exchange rate of the NT dollar against the U.S. dollar, which respectively contributed to 2.3, 1.4 and 1.2 percentage points decrease in the gross margin for the year, offset in part by the favorable impact on gross margin of higher wafer shipments, the improvement in overall product mix, favorable cost reduction, which contributed 8.9 percentage points to the increase in gross margin for the year. Depreciation and amortization expenses in cost of sales increased from NT\$74,921 million in 2007 to NT\$76,541 million (US $\$ 2,336$ million) in 2008. The increase in depreciation and amortization expenses in 2008 reflected the increase in depreciation from our advanced technology fabs, partially offset by the benefits received from the reduced depreciation of facilities and equipment in 200 mm wafer fabs, and lower amortization of deferred charges. In 2008, while our operations ran at full capacity on average in the first three quarters, our capacity utilization rate began to decline sharply in the beginning of the fourth quarter of 2008, and decreased to a level significantly below our full capacity as a result of a sharp decline in customer demand by the end of 2008. As a result of the global economic downturn, we currently expect our gross margin for the first quarter of 2009 to be between $14 \%$ and $16 \%$. Our depreciation and amortization expenses for 2009 in cost of sales are expected to be comparable to 2008.

Our gross margin decreased to $44.1 \%$ of net sales in 2007 from $49.1 \%$ of net sales in 2006. The lower margin in 2007 was primarily driven by price declines, resulting primarily from pricing pressure in customers end market and an increase in competition, which negatively impacted the gross margin by 6.1 percentage points. In addition, lower capacity utilization, which made 3.7 percentage points decrease in the gross margin, offset in part the favorable impact on gross margin of higher wafer shipments, the improvement in overall product mix, favorable cost reduction, which contributed 4.2 percentage points to the increase in gross margin, and a weaker average exchange rate of the NT dollar against the U.S. dollar, which contributed 0.6 percentage points to the increase in the gross margin. Depreciation and amortization expenses in cost of sales increased from NT\$69,123 million in 2006 to NT $\$ 74,921$ million (US $\$ 2,310$ million) in 2007. The increase in depreciation and amortization expenses in 2007 reflected the increase in depreciation from our advanced technology fabs, partially offset by the benefits received from the reduced depreciation of facilities and equipment in 200 mm fabs, and lower amortization of deferred charges. In 2007, while our operations in the first quarter ran at a level significantly below the average for the year, our capacity utilization rate started to rise from the second quarter and increased further in the last quarter, due to the recovery of customer demand.

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Operating Expenses


| Research and development | 16,076 | 17,946 | 11.6\% | 21,481 | 656 | 19.7\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General and administrative | 8717 | 8.964 | 2.8\% | 11,097 | 339 | 23.8\% |
| Sales and marketing | 3,752 | 3,718 | (0.9)\% | 4,737 | 144 | 27.4\% |
| Total operating expenses | 28,545 | 30,628 | 7.3\% | 37,315 | 1,139 | 21.8\% |
| Percentage of net sales | 9.0\% | 9.5\% |  | 11.1\% | 11.1\% |  |
| Income from operations | 127,265 | 111,722 | (12.2)\% | 104,435 | 3,188 | (6.5)\% |
| Operating Margin | 40.1\% | 34.6\% |  | 31.4\% | 31.4\% |  |

Operating expenses increased by NT $\$ 6,687$ in 2008 or $21.8 \%$ from NT $\$ 30,628$ million in 2007, after an increase in operating expenses of NT\$2,083 million in 2007, or $7.3 \%$, from 2006.

Research and Development Expenses
We remain committed to being the leader in developing advanced process technology. We believe that continued investments in process technologies are essential for us to remain competitive in the markets we serve. Research and development expenditures increased by NT\$3,535 million in 2008, or $19.7 \%$, from 2007. The increase mainly reflected the impact from expensing of employee profit sharing in 2008. We plan to continue to invest significant amounts in research and development in 2009.

Research and development expenditures increased by NT $\$ 1,870$ million in 2007 , or $11.6 \%$, from 2006. Research and development expenses were higher in 2007 than in 2006 primarily due to the increase in development activities in 32/45 nanometer technologies.

General and Administrative, Sales and Marketing Expenses
General and administrative, sales and marketing expenses increased by NT $\$ 3,152$ million in 2008, or $24.8 \%$, from 2007, due to an increase of general and administrative expenses by NT $\$ 2,133$ million, or $23.8 \%$, and an increase in sales and marketing expenses by NT $\$ 1,019$ million, or $27.4 \%$. The increase mainly reflected the impact from expensing of employee profit sharing in 2008, partially offset by lower legal fees. The operating margin in 2008 was $31.4 \%$, lower than $34.6 \%$ in 2007 . As a result of the global economic downturn, we currently expect our operating margin for the first quarter of 2009 to be between negative $2 \%$ and $0 \%$.

General and administrative, sales and marketing expenses increased by NT\$213 million in 2007, or $1.7 \%$, from 2006, due to an increase of general and administrative expenses by NT $\$ 247$ million, or $2.8 \%$, and a decrease in sales and marketing expenses by NT $\$ 34$ million, or $0.9 \%$. The increase in general and administrative expenses was primarily due to higher legal fees, partially offset by lower depreciation and amortization expenses. The decrease in sales and marketing expenses was primarily due to a reversal of 2006 accrued expense in 2007, partially offset by an increase in labor cost due to an increase in headcounts. The operating margin in 2007 was $34.6 \%$, lower than $40.1 \%$ in 2006.

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Non-Operating Income and Expenses

|  | For the Year Ended December 31 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2006{ }^{(1)}$ | 2007 ${ }^{(1)}$ | \% Change from 2006 |  |  | \% Change <br> from 2007 |
|  | NT\$ | NT\$ |  | NT\$ | US\$ |  |
|  | (in millions) |  | (in millions) |  |  |  |
| Non-operating income and gains | 9,839 | 11,934 | 21.3\% | 10,822 | 330 | (9.3)\% |
| Non-operating expenses and losses | $(3,742)$ | $(2,014)$ | (46.2)\% | $(3,785)$ | (116) | 87.9\% |
| Net non-operating income (expenses) | 6,097 | 9,920 | 62.7\% | 7,037 | 214 | (29.1)\% |
| (1) The 2006 and |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 2007 amounts for |  |  |  |  |  | gains/losses on |
| settlement and |  |  |  |  |  |  |
| disposal of |  |  |  |  |  |  |
| financial assets at |  |  |  |  |  |  |
| fair value through |  |  |  |  |  |  |
| profit or loss were |  |  |  |  |  |  |
| reclassified into |  |  |  |  |  |  |
| valuation |  |  |  |  |  |  |
| gains/losses on |  |  |  |  |  |  |
| financial |  |  |  |  |  |  |
| instruments for |  |  |  |  |  |  |
| comparison |  |  |  |  |  |  |
| purposes. Such |  |  |  |  |  |  |
| reclassification |  |  |  |  |  |  |
| resulted in a |  |  |  |  |  |  |
| change of |  |  |  |  |  |  |
| non-operating |  |  |  |  |  |  |
| income and gains |  |  |  |  |  |  |
| from |  |  |  |  |  |  |
| NT\$9,705 million |  |  |  |  |  |  |
| to |  |  |  |  |  |  |
| NT\$9,839 million |  |  |  |  |  |  |
| and a change in |  |  |  |  |  |  |
| non-operating |  |  |  |  |  |  |
| expenses and |  |  |  |  |  |  |
| losses from |  |  |  |  |  |  |
| NT\$3,608 million |  |  |  |  |  |  |
| to |  |  |  |  |  |  |
| NT\$3,742 million |  |  |  |  |  |  |
| for the year ended |  |  |  |  |  |  |
| December 31, |  |  |  |  |  |  |

2006. 

Net non-operating income decreased by NT\$2,883 million in 2008, or $29.1 \%$, from NT\$9,920 million in 2007 primarily due to a NT $\$ 1,806$ million decrease in equity in earnings of equity method investees, a NT $\$ 1,506$ million increase in loss on impairment of financial assets, and a change from NT\$63 million net valuation gain on financial instruments in 2007 to NT $\$ 1,081$ million net valuation loss on financial instruments in 2008, partially offset by a NT\$1,147 million increase in net foreign exchange gain and a NT\$592 million increase in technical service income. Equity in earnings generated from equity method investees decreased significantly, primarily due to weakened operating performance of such equity method investees in 2008. The increase in loss on impairment of financial assets was mainly due to higher loss from impairment charge recognized for other-than-temporary decline in value of financial assets resulted from the turmoil in the global financial market in 2008. The change from NT $\$ 63$ million net valuation gain on financial instruments in 2007 to NT\$1,081 million net valuation loss on financial instruments in 2008 was primarily due to a decline in the market value of marketable financial instruments in 2008. The increase in net foreign exchange gain was mainly due to the depreciation of the NT dollar against the U.S. dollar in 2008, as compared to a very moderate appreciation of the NT dollar against the U.S. dollar in 2007. In 2008, our technical service income increased due to a non-recurring technology transfer agreement.

Net non-operating income increased by NT\$3,823 million in 2007, or 62.7\%, from NT\$6,097 million in 2006 primarily due to a change from NT $\$ 1,745$ million net valuation loss on financial instruments in 2006 to NT\$63 million net valuation gain on financial instruments in 2007, a NT $\$ 1,110$ million increase in interest income, a NT\$741 million increase in net gain on settlement and disposal of financial instruments, and a change from NT\$401 million net foreign exchange loss in 2006 to a net foreign exchange gain of NT\$81 million in 2007, partially offset by provision for litigation loss of NT $\$ 1,009$ million in 2007. The change from NT $\$ 799$ million net loss on settlement and disposal of financial instruments in 2006 to NT\$633 million net gain on settlement and disposal of financial instruments in 2007 was primarily due to lower hedging costs as a result of a lower level of monetary assets and liabilities denominated in foreign currencies in 2007, which we needed to manage exposure due to fluctuation of foreign exchange rates. The change from NT $\$ 1,745$ million net valuation loss on financial instruments in 2006 to NT\$63 million net valuation gain on financial instruments in 2007 was primarily due to a change from a decline in the market value of marketable financial instruments in 2006 to an increase in the market value of marketable financial instruments in 2007. The increase in interest income was primarily the result of a higher level of cash holding and other interest bearing treasury assets. The change from NT $\$ 401$ million net foreign exchange loss in 2006 to a net foreign exchange gain of NT $\$ 81$ million in 2007 was primarily due to an appreciation of the NT dollar against the U.S. dollar in 2006 compared to a very moderate appreciation of the NT dollar against the U.S. dollar on spot rate basis in 2007. The provision for litigation loss of NT $\$ 1,009$ million in 2007 was related to a lawsuit with UniRAM Technology, Inc.

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Income Tax Benefit (Expense)


## Liquidity and Capital Resources

Our cash, cash equivalents and current investments in marketable financial instruments amounted to NT $\$ 211,450$ million (US $\$ 6,455$ million) as of December 31, 2008, up from NT\$174,834 million as of December 31, 2007. Our current investments in marketable financial instruments primarily consist of agency bonds, corporate bonds, asset-backed securities, government bonds, publicly-traded stocks and a variety of money market funds. Cash and cash equivalents increased by NT $\$ 99,628$ million in 2008, or $104.9 \%$, from 2007, following a decrease of NT $\$ 22,851$ million in 2007 , or $19.4 \%$, from 2006.

Net cash provided by operating activities
Net cash used in investing activities
Net cash used in financing activities
Net increase/(decrease) in cash
For the year ended December 31,

| $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |  |
| :---: | :---: | :---: | :---: |
| NT\$ | NT\$ | NT\$ | US\$ |
| (in millions) | (in millions) | (in millions) |  |
| 204,997 | 183,766 | 221,494 | 6,761 |
| $(119,724)$ | $(70,689)$ | $(8,042)$ | $(245)$ |
| $(63,783)$ | $(135,410)$ | $(115,393)$ | $(3,522)$ |
| 21,353 | $(22,851)$ | 99,628 | 3,041 |

## Operating Activities

In 2008, we generated NT $\$ 221,494$ million (US $\$ 6,761$ million) net cash from operating activities, as compared to NT\$183,766 million and NT\$204,997 million in 2007 and 2006, respectively. In 2008, net cash generated from operating activities increased primarily due to a NT $\$ 23,917$ million decrease in notes and accounts receivable and a NT\$8,986 million decrease in inventories due to a sharp decline in our sales resulting from lower customer demand in
the fourth quarter of 2008. In 2007, net cash generated from operating activities decreased primarily due to a NT $\$ 17,833$ million decrease in net income and a NT $\$ 12,134$ million increase in notes and accounts receivable, partially offset by a NT\$6,290 million increase in non-cash depreciation and amortization expenses.

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In 2008, depreciation and amortization expenses were NT $\$ 81,512$ million (US $\$ 2,488$ million), as compared to NT $\$ 80,005$ million and NT $\$ 73,715$ million in 2007 and 2006, respectively. In 2008, the increase in depreciation and amortization expenses was primarily attributed to the ramp-up of Fab 12 (Phase III), Fab 14 (Phases II and III), and Fab 10. In 2007, the increase in depreciation and amortization expenses was primarily due to the ramp-up of Fab 12 (Phases II and III), Fab 14 (Phase II), and Fab 10. We expect the depreciation and amortization expenses for 2009 to be comparable to 2008.

## Investing Activities

In 2008, net cash used in investing activities was NT $\$ 8,042$ million (US $\$ 245$ million), as compared to NT\$70,689 million and NT\$119,724 million in 2007 and 2006 respectively. In 2008, decrease in net cash used in investing activities was the result of more cash received from disposals or redemption of investments in financial assets, and lower spending on capital expenditures during the year. In 2007, the amount of net cash used in investing activities decreased because of: (a) decreased investments made in financial assets; and (b) increased cash received from disposition or redemption of financial assets. The foregoing was partially offset by increased spending on capital expenditures, and increased deferred charges and refundable deposits.

Capital expenditures in 2008 were primarily related to:
adding production capacity to Fab 12 (Phase III), Fab 14 (Phases II and III) and Fab 10;
Fab 12 and Fab 14 facilities;
capacity expansion for mask and backend operations;
developing process technologies which include 45 -nanometer nodes and below; and
other research and development projects.
We expect our capital expenditures for 2009 to be spent primarily on adding capacity to our 300 mm wafer fabs; Fab 12 facilities; new technology development for mask operations; development of process technologies in 32 -nanometer nodes and below and other research and development projects. For the past few years, our capital expenditures were funded from our operating cash flow. Despite the current global economic downturn, the capital expenditures for 2009 are also expected to be funded from our operating cash flow. See Item 4. Information on the Company Capacity Management and Technology Upgrade Plans for a discussion of our capacity management and capital expenditures.

## Financing Activities

In 2008, net cash used in financing activities was NT $\$ 115,393$ million (US $\$ 3,522$ million), as compared to NT $\$ 135,410$ and NT $\$ 63,783$ million in 2007 and 2006, respectively. In 2008, net cash used in financing activities decreased primarily because of: (a) a decrease in the amount of repurchasing common shares totaling NT\$11,932 million; and (b) an absence of repayment obligations for corporate bonds during the year. In 2007, net cash used in financing activities increased primarily because of: (a) an incurrence of NT\$45,413 million to repurchase common shares during the year; (b) an increase in the amount of dividends paid-out totaling NT\$15,645 million; and (c) repayment of corporate bonds amounting to NT $\$ 7,000$ million.

As of December 31, 2008, we had no short-term debt, and the current portion of our long-term debt was NT\$8,222 million (US $\$ 251$ million) and our aggregate long-term debt was NT $\$ 14,143$ million (US $\$ 432$ million). NT\$659 million (US $\$ 20$ million) of the long-term debt were denominated in U.S. dollars. To protect against reductions in value and the volatility of asset value caused by changes in foreign exchange rates, we utilized derivative financial instruments, including currency forward contracts and cross currency swaps, to hedge our currency exposure. See Item 11. Quantitative and Qualitative Disclosures About Market Risk for a discussion of the hedging instruments used. NT\$659 million of the long-term bank loans had floating interest rates based on the London interbank offer rate, or LIBOR. NT $\$ 12,500$ million of the long-term bonds had fixed interest rates ranging from $2.75 \%$ to $3.00 \%$. As of December 31, 2008, we had an aggregate of approximately NT\$37,428 million (US $\$ 1,142$ million) in unused short-term credit lines and an aggregate of approximately NT\$2,271 million (US\$69 million) in unused long-term credit lines.

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The loan agreements and credit facilities for the obligations of our consolidated subsidiaries contain covenants which, if violated, could result in our obligations under these agreements becoming due prior to the originally scheduled maturity dates. As of February 28, 2009, we were in compliance with the financial covenants.

Cash Requirements
The following table sets forth the maturity of our long-term debt (bank loans and bonds) outstanding as of December 31, 2008
\(\left.\begin{array}{lr}Long-term <br>
debt <br>

NT\$\end{array}\right]\)| (in millions) |
| :---: |
| During 2009 |
| During 2010 |
| During 2011 |
| During 2012 |
| During 2013 and thereafter |
| $\quad$ The following table sets forth information on our material contractually obligated payments for the periods |
| indicated as of December 31, 2008 |

Payments Due by Period

| Contractual Obligations | Total | Less than 1 Year | 1-3 Years (in NT\$ millions) | 4-5 Years | More than 5 Years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Long-Term $\operatorname{Debt}^{(1)}$ | 14,143 | 8,222 | 1,129 | 4,792 |  |
| Capital Lease Obligations ${ }^{(2)}$ | 804 | 50 | 92 | 662 |  |
| Operating Leases ${ }^{(3)}$ | 4,906 | 557 | 919 | 815 | 2,615 |
| Other Payments ${ }^{(4)}$ | 10,675 | 1,127 | 968 | 8,580 |  |
| Capital Purchase or other Purchase |  |  |  |  |  |
| Obligations ${ }^{(5)}$ | 11,647 | 10,985 | 544 |  | 118 |
| Total Contractual Cash Obligations ${ }^{(6)}$ | 42,175 | 20,941 | 3,652 | 14,849 | 2,733 |
| (1) Includes loan payable and bond payable but excludes relevant interest payments which are not expected to be material in any given period in the future. See notes 15 and 16 to our consolidated financial statements for further information |  |  |  |  |  |

regarding
interest rates and
future
repayment of
long-term debts.
(2) Capital lease
obligations
represent our commitment for leases of property, which are described in note 13 to our consolidated financial statements.
(3) Operating lease obligations are described in note 27 to our consolidated financial statements.
(4) Includes royalty and license payments, as well as payables for acquisition of property, plant and equipment, but excludes payments that vary based upon our net sales of certain products and our sales volume of certain other products.
(5) Represents commitments for construction or purchase of equipment, raw material and other property or
services. These
commitments
are not recorded
on our balance
sheet as of
December 31, 2008, as we have not
received related goods or taken title of the property.
(6) Minimum pension funding requirement is not included since such amounts have not been determined. We made pension contributions of approximately NT\$207 million in 2008 and we estimate that we will contribute approximately NT\$198 million to the pension fund in 2009. See note 18 to our consolidated financial statements for additional details regarding our pension plan.
During 2008, we entered into derivative financial instruments transactions to manage exposures related to foreign-currency denominated receivables or payables. As of December 31, 2008, our cash requirements in 2009 for outstanding forward exchange agreements and cross currency swaps contracts were approximately US $\$ 454.0$ million and EUR $\$ 1.5$ million with our expected cash receipts of approximately NT $\$ 14,988.2$ million. See Item 11. Quantitative and Qualitative Disclosures about Market Risk for more information regarding our derivative financial instruments transactions. See also note 2 to the consolidated financial statements for our accounting policy of derivative financial instruments and note 24 to the consolidated financial statements for additional details regarding our derivative financial instruments transactions.

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

We require significant amounts of capital to build, expand, upgrade and maintain our production facilities and equipment. We incurred capital expenditures of NT\$78,737 million, NT\$84,001 million and NT\$59,223 million (US $\$ 1,886$ million) ${ }^{(1)}$ in 2006, 2007 and 2008, respectively. We currently expect that our plans for adding capacity to our 300 mm wafer fabs; Fab 12 facilities; new technology development for mask operations; development of process technologies in 32-nanometer nodes and below and other research and development projects will require lower capital expenditures in 2009 as compared to 2008.

We expect to fund our expansion projects and other cash requirements primarily with internally generated funds. We have historically maintained a high level of liquid assets. Management estimates that our cash, cash equivalents and current investments in marketable financial instruments amounting to NT $\$ 211,450$ million (US $\$ 6,455$ million) as of December 31, 2008, together with our available credit facilities, cash flow from operations, and funds available from long-term debt financings will be sufficient to satisfy our future working capital needs, dividend payment, planned capital expenditures, research and development, and debt service requirements.
(1) Translated from
weighted
average
exchange rate of
NT\$31.406 to
US\$1.

## U.S. GAAP Reconciliation

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

| 2006 | For the year ended December 31, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2007 |  |  |
| NT\$ | NT\$ (in N | $\begin{aligned} & \text { NT\$ } \\ & \text { ons) } \end{aligned}$ | US\$ |
| 127,010 | 109,177 | 99,933 | 3,050 |
| 95,711 | 71,658 | 81,473 | 2,487 |
| 507,981 | 487,092 | 476,377 | 14,541 |
| 532,403 | 513,228 | 511,089 | 15,601 |

Net income in accordance with:

| R.O.C. GAAP | 127,010 | 109,177 | 99,933 | 3,050 |
| :--- | ---: | ---: | ---: | ---: |
| U.S. GAAP | 95,711 | 71,658 | 81,473 | 2,487 |
| Shareholders equity attributable to the |  |  |  |  |
| shareholders of the parent in accordance with: |  |  |  |  |
| R.O.C. GAAP | 507,981 | 487,092 | 476,377 | 14,541 |
| U.S. GAAP | 532,403 | 513,228 | 511,089 | 15,601 |

Note 30 to the consolidated financial statements provides a description of the principal differences between R.O.C. GAAP and U.S. GAAP as they relate to us, and a reconciliation to U.S. GAAP of certain items, including net income and shareholders equity. Differences between R.O.C. GAAP and U.S. GAAP that have material effect on our net income as reported under R.O.C. GAAP include compensation expense pertaining to stock bonuses to employees, marketable securities, impairment charges for long-lived assets, recognition of goodwill, and $10 \%$ tax imposed on unappropriated earnings.

In August 2008, we distributed an aggregate bonus of NT $\$ 7,880$ million, or $8 \%$ of our 2007 distributable net income, to our employees, $50 \%$ of which was paid in cash and $50 \%$ of which was paid in the form of common shares. Prior to January 1, 2008, under R.O.C. GAAP, the number of common shares distributed as part of employee bonuses was obtained by dividing the total nominal NT dollar amount of the bonus to be paid in the form of common shares by the par value of the common shares, at NT\$10 per share, rather than their market value, which had generally been substantially higher than the par value. In addition, the distribution of employee bonus shares was treated as an
allocation from retained earnings, and we were not required to, and did not, charge the value of the employee bonus shares against income. Under U.S. GAAP, however, we are required to charge the market value of the employee bonus shares as employee compensation expense, which reduces our net income and income per share calculated in accordance with U.S. GAAP. Since the amount and the form of the payment of the compensation is subject to shareholder approval and only determinable at the annual shareholders meeting, which is generally held after the issuance of our financial statements, under U.S. GAAP, the compensation expense is initially accrued at the nominal NT dollar amount of the aggregate bonus in the period to which it relates as if it were to be paid entirely in cash. The difference between the amount initially accrued and the market value of the common shares and cash issued as payment of all or any part of the bonus is recorded as employee compensation expense in the year in which shareholder approval is obtained. Therefore, net income and income per share amounts calculated in accordance with R.O.C. GAAP and U.S. GAAP differ accordingly. Beginning in 2008, we adopted R.O.C. Interpretation 2007-052,

Accounting for Bonuses to Employees, Directors and Supervisors issued in March 2007 by the Accounting Research and Development Foundation (ARDF ) of the R.O.C. This interpretation requires us to record bonuses paid to employees, directors and supervisors as an expense rather than as an appropriation of earnings. The amount of compensation expense related to our stock bonuses is determined based on the market value of the common shares one day before our shareholders meeting. For a more detailed discussion, please refer to note 30.f. to the consolidated financial statements.

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Prior to 2006, under R.O.C. GAAP, investments in marketable securities were stated at the lower of aggregate cost or market value, with the market value determined using the average-closing price during the last month of the period. Investments in debt securities were carried at amortized cost. An allowance was recognized for any temporary decline in the market value of investments with readily ascertainable fair market value with the corresponding amount recorded as an unrealized loss presented as a separate item in shareholders equity. The carrying values of investments whose fair market values were not readily determinable were reduced to reflect an other-than-temporary decline in their values, with the related impairment loss charged to income. Under U.S. GAAP, debt and equity securities that have readily determinable fair market values are classified as either trading, available-for-sale or held-to-maturity securities. Trading securities are reported at fair value, with unrealized gains and losses included in the accompanying statements of income. Available-for-sale securities are also reported at fair value, with unrealized gains and losses reported as a separate component of shareholders equity. Additionally, under U.S. GAAP, fair market value of listed stocks is determined using the closing price of the listed stock on the last trading day for the period. Beginning from 2006, we adopted the R.O.C. SFAS No. 34, Financial Instruments: Recognition and Measurement , and No. 36,
Financial Instruments: Disclosure and Presentation. Under these new R.O.C. accounting pronouncements, financial instruments, which include debt and equity securities, are categorized as either financial assets or liabilities at fair value through profit or loss , available-for-sale , or held-to-maturity securities. Financial assets or liabilities at fair value through profit or loss are divided into two sub-categories, financial assets designated on initial recognition as one to be measured at fair value and those that are classified as held for trading, which are also measured at fair value with fair value changes recognized in profit and loss. Thus, the classifications and valuation methodology for debt and equity securities under these new R.O.C. accounting pronouncements are similar to those required by U.S. SFAS No. 115,
Accounting for Certain Investments in Debt and Equity Securities. As a result of adopting R.O.C. SFAS No. 34, a favorable impact of NT $\$ 1,607$ million was recorded as cumulative effect of changes in accounting principles in 2006 under R.O.C. GAAP to adjust the carrying basis of trading securities, which were previously recorded at the lower of aggregate cost or market value, to fair market value, which is a one-time reconciling adjustment between R.O.C. and U.S. GAAP in 2006.

For purposes of U.S. GAAP, we are required to periodically evaluate the recoverability of the carrying amount of our long-lived assets. Whenever events or changes in circumstances indicate that the carrying amounts of those assets may not be recoverable, we are required to compare undiscounted net cash flows estimated to be generated by those assets to the carrying value of those assets. To the extent that cash flows are less than the carrying value of the assets, we are required to record impairment losses for the difference between the carrying value and the fair value of the assets. Prior to 2005, under R.O.C. GAAP, we were not required to record impairment losses of assets that could still be used in the business but were required to evaluate the impairment losses of idle assets which were purchased for use in the business but subsequently determined to have no use. Beginning from 2005, under R.O.C. GAAP, when an indication of impairment is identified, any excess of the carrying amount of an asset over its recoverable amount is recognized as a loss. If the recoverable amount increases in a future period, the amount previously recognized as impairment would be reversed and recognized as a gain, to the extent of the carrying amount that would have been determined, net of depreciation, as if no impairment loss had been recognized. Please see note 30.c. to the consolidated financial statements for a more detailed discussion of the impairment of long-lived assets and U.S. SFAS No. 144.

As for our acquisition of TSMC-Acer, goodwill from the 1999 acquisition of the initial $32 \%$ equity interest in TSMC-Acer was recognized for R.O.C. GAAP purposes since the goodwill was from an acquisition paid in cash. However, goodwill from the 2000 acquisition of the remaining $68 \%$ equity interest in TSMC-Acer was not recognized under R.O.C. GAAP. Rather it was netted against capital surplus since the goodwill was from a business combination in the form of a share exchange. Under U.S. GAAP, goodwill from both acquisitions was recognized.

In R.O.C., a $10 \%$ tax is imposed on any unappropriated earnings. For R.O.C. GAAP purposes, we record the $10 \%$ tax on unappropriated earnings in the year of shareholders approval. Under U.S. GAAP, the $10 \%$ tax on unappropriated earnings should be accrued during the period the earnings arise and adjusted to the extent that distributions are approved by the shareholders in the following year. An expense is recognized in the year in which earnings are recorded under U.S. GAAP, which may be offset by available tax credits.

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## Taxation

We are eligible for five-year tax holidays for income generated from construction and capacity expansions of production facilities according to the regulation for Science Park Administration and the Statute for Upgrading Industries of the R.O.C., respectively. The exemption period may begin at any time within five years, as applicable, following the completion of a construction or expansion. The aggregate tax benefits of such exemption periods in 2006, 2007 and 2008 were NT\$12,281, NT\$7,668 and NT\$9,671 million (US $\$ 295$ million), respectively. We commenced the exemption period for part of Fab 14 (Phase I) in 2006, part of Fab 14 (Phase I), and part of Fab 12 (Phase II) in 2007, and part of Fab 14 (Phase II), part of Fab 12 (Phase II) and others in 2008. The Statute for Upgrading Industries will expire at the end of 2009. However, under the Grandfather Clause, we can continue to enjoy five-year tax holidays if the relevant investment plans are approved by R.O.C. tax authority before the expiration of the Statute.

Under regulations promulgated under the R.O.C. Statute for Upgrading Industries, we are entitled to a tax credit for specified percentages of purchases of equipment used in manufacturing processes and research and development expenditures. The tax credit rates of equipment purchased and research and development expenditures are $7 \%$ and $30 \%$ respectively in the period from 2006 to 2009.

The R.O.C. government enacted the R.O.C. Alternative Minimum Tax Act ( AMT Act ) which became effective on January 1, 2006. The alternative minimum tax ( AMT ) imposed under the R.O.C. AMT Act is a supplemental tax which is payable if the income tax payable pursuant to the R.O.C. Income Tax Act is below the minimum amount prescribed under the R.O.C. AMT Act. The taxable income for calculating the AMT includes most income that is exempted from income tax under various legislations, such as tax holidays and investment tax credits. The AMT rate for business entities is $10 \%$. However, the R.O.C. AMT Act grandfathered certain tax exemptions and tax credits granted prior to the enactment of the R.O.C. AMT. We currently expect the AMT to have a minimal effect on our income tax expense in 2009.

## Off-Balance Sheet Arrangements

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

## Inflation \& Deflation

Our most significant export market is North America and we do not believe that inflation or deflation in the R.O.C. or North America had a material impact on our results of operations in 2008. However, we cannot provide assurance that there will be no significant variations in the nature, extent or scope of inflation or deflation within any of our key markets in the future or any such variation or whether deflation possibly arising from the global economic crisis would not have a material impact on our results of operations.

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## Recent Accounting Pronouncements

On January 1, 2008 we adopted U.S. SFAS No. 157, Fair Value Measurements (U.S. SFAS No. 157), which defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. U.S. SFAS No. 157 does not require any new fair value measurements, but provides guidance on how to measure fair value by providing a hierarchy used to classify the source of the information. The adoption of U.S. SFAS No. 157 did not have material impact on our results of operations and financial position.

In February 2008, the FASB issued FASB Staff Position 157-2, Effective Date of FASB Statement No. 157 , which delays the effective date of SFAS No. 157 to January 1, 2009, for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). We believe that the adoption of the delayed items of SFAS No. 157 will not materially impact our results of operations and financial position.

In November 2007, the ARDF revised Statement of Financial Accounting Standards No. 10, Accounting for Inventories (SFAS No. 10), which requires inventories to be stated at the lower of cost or net realizable value item by item. Inventories are recorded by the specific identification method, first-in, first-out method or weighted average method. The last-in, first-out method is no longer permitted. The revised SFAS No. 10 shall be applied to financial statements for the fiscal years beginning on or after January 1, 2009. Based on management s estimate, we do not believe the adoption of this standard will have any material impact on our results of operations and financial position.

Except for the accounting pronouncements mentioned above, we do not expect the recent accounting pronouncements relating to R.O.C. GAAP and U.S. GAAP to have any material effect on our consolidated financial statements. For further details, please refer to notes 2 and 31.a. to the consolidated financial statements for a discussion of recent accounting pronouncements relating to R.O.C. GAAP and U.S. GAAP, respectively.

## ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES Directors and Executive Officers

## MANAGEMENT

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

In order to strengthen corporate governance of companies in Taiwan, effective January 1, 2007, the R.O.C. Securities and Exchange Law authorized the R.O.C. Financial Supervisory Commission, after considering the scale, shareholding structure and business nature of a public company, to require a public company to have at least two independent directors but no less than one fifth of the total number of directors. Under this authorization, the R.O.C. Financial Supervisory Commission promulgated guidelines requiring, among others, listed companies with a paid-in capital of NT\$50 billion or more to have independent directors on the board. Of our current eight directors, four are independent directors.

Also, pursuant to R.O.C. Securities and Exchange Law, effective from January 1, 2007, a public company is required to either establish an audit committee or to have supervisors, provided that the R.O.C. Financial Supervisory Commission may, after considering the scale, shareholding structure and business nature of a public company, require the company to set up an audit committee to replace its supervisors. So far, the R.O.C. Financial Supervisory Commission has not yet mandated any public company to set up an audit committee to replace supervisors. A public company s audit committee should be composed of all of its independent directors but not less than three, of which at least one member should have accounting or related financial management expertise, and the relevant provisions under the R.O.C. Securities and Exchange Law, the R.O.C. Company Law and other laws applicable to the supervisors are also applicable to the audit committee.

Prior to January 1, 2007, we had two supervisors. In accordance with the R.O.C. Company Law, supervisors were elected by our shareholders and could not concurrently serve as our directors, executive officers or other staff members. The supervisors major duties and powers included, but were not limited to (i) investigation of our financial condition; (ii) inspection of corporate records; (iii) giving reports in connection with the company s financial statements at shareholders meetings.

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However, according to our amended articles of incorporation, beginning from January 1, 2007, the duties and powers of our supervisors are being exercised by our Audit Committee, which is composed of all of our four independent directors.

Pursuant to the R.O.C. Company Law, a person may serve as our director in his personal capacity or as the representative of another legal entity. A director who serves as the representative of a legal entity may be removed or replaced at any time at the discretion of that legal entity, and the replacement director may serve the remainder of the term of office of the replaced director. One of our eight directors is the National Development Fund which appoints a representative to act on its behalf in discharging its directorial duties. The former representative of the National Development Fund, Mr. Chintay Shih, resigned on November 10, 2008. As of the date of this filing, the National Development Fund is still in the process of selecting a new representative to replace Mr. Chintay Shih.

The following table sets forth the name of each director and executive officer, their positions, the year in which their term expires and the number of years they have been with us as of February 28, 2009. The business address for each of our directors and executive officers is No. 8, Li Hsin Road 6, Hsinchu Science Park, Hsinchu, Taiwan, Republic of China.

| Name | Position with our company | Term Expires | Years with our company |
| :---: | :---: | :---: | :---: |
| Morris Chang | Chairman | 2009 | 22 |
| F.C. Tseng | Vice Chairman | 2009 | 22 |
| Stan Shih | Director | 2009 | 9 |
| National Development | Director |  |  |
| Fund ${ }^{(1)}$ |  | 2009 | 22 |
| Sir Peter Leahy Bonfield | Director | 2009 | 7 |
| Lester Carl Thurow | Director | 2009 | 7 |
| Carleton (Carly) S. Fiorina | Director | 2009 | 3 |
| Rick Tsai | Director, President \& Chief Executive Officer | 2009 | 19 |
| Stephen Tso | Senior Vice President \& Chief Information Officer |  | 12 |
| Mark Liu | Senior Vice President of Advanced Technology |  |  |
|  | Business |  | 15 |
| C.C. Wei | Senior Vice President of Mainstream Technology |  |  |
|  | Business |  | 11 |
| M.C. Tzeng | Vice President of Mainstream Technology Business |  | 22 |
| Richard Thurston | Vice President \& General Counsel |  | 7 |
| Lora Ho | Vice President, Chief Financial Officer and |  |  |
|  | Spokesperson |  | 10 |
| P.H. Chang | Vice President of Corporate Human Resources |  | 9 |
| W.J. Lo | Vice President of Research and Development |  | 5 |
| Jason Chen | Vice President of Worldwide Sales and Marketing |  | 4 |
| Fu-Chieh Hsu | Vice President of Design and Technology Platform |  | 3 |
| Jack Sun | Vice President of Research and Development |  | 12 |
| Y.P. Chin | Vice President of Advanced Technology Business |  | 22 |
| N.S. Tsai | Vice President of Quality and Reliability |  | 20 |
| Rick Cassidy | Vice President \& President of TSMC North |  |  |
|  | America |  | 12 |

[^0]Shih resigned
on
November 10, 2008 and as of the date of this filing, the National Development Fund is still in the process of selecting a new representative to
replace
Mr. Chintay
Shih.
Morris Chang has been the Chairman of our board of directors since our establishment and was our Chief Executive Officer until June 2005. From 1985 to 1994, he was President and then Chairman of the board of directors of ITRI. Prior to that, Mr. Chang was President and Chief Operating Officer of General Instrument Corporation; Corporate Group and Senior Vice-President for Texas Instruments. He holds a bachelor s degree and a master s degree in mechanical engineering from the Massachusetts Institute of Technology and a Ph.D. in electrical engineering from Stanford University and has been active in the semiconductor industry for 54 years.
F.C. Tseng is a director. He has been our Vice Chairman since July 2005. He was Deputy Chief Executive Officer from August 2001 to June 2005. He is the Chairman of Global Unichip Corp. and also a director of Prosperity Venture Capital Corp., Digimax, Inc. and Allegro Manufacturing Pte. Ltd. He formerly served as the President of Vanguard from 1996 to 1998 and our President from May 1998 to August 2001. Prior to his presidency at Vanguard, Mr. Tseng served as our Senior Vice President of operations. Mr. Tseng holds a Ph.D. in electrical engineering from National Cheng-Kung University and has been active in the semiconductor industry for over 38 years.

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

Sir Peter Leahy Bonfield is an independent director. Sir Peter Bonfield was the Chief Executive Officer and Chairman of the Executive Committee of British Telecommunications from January 2, 1996 to January 31, 2002. He currently is a director of L. M. Ericsson, Mentor Graphics Corporation Inc. and Sony Corporation (Japan). He is also the Vice President of the British Quality Foundation and a member of the Citigroup International Advisory Board and the Sony Corporation Advisory Board. Furthermore, Sir Peter Bonfield is a director of Actis Capital LLP Supervisory Board, as well as a director of Dubai International Capital. He is also the Chairman of Supervisory Board of NXP. B.V. He holds an honors degree in engineering from Longhborough University.

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

Carleton (Carly) S. Fiorina is an independent director. She was the Chairman and Chief Executive Officer of Hewlett-Packard from July 1999 to February 2005. Prior to joining Hewlett-Packard, she spent nearly 20 years at AT\&T and Lucent Technologies, where she held a number of senior leadership positions and directed Lucent s initial public offering and subsequent spin-off from AT\&T. She has previously served on the boards of Cisco Systems, Kellogg Company and Merck \& Company. She currently serves on the boards of Revolution Healthcare Group and MIT Corporation Board of Trustees. She holds a bachelor degree in Medieval history and philosophy from Stanford University, a master degree in business administration from the Robert H. Smith School of Business at the University of Maryland at College Park, Md., and a master of science degree from MIT s Sloan School.

Rick Tsai is a director. He has been President since August 2001 and Chief Executive Officer since July 2005. He was Chief Operating Officer from August 2001 to June 2005. He was Executive Vice President of Worldwide Marketing and Sales from September 2000 to August 2001. Prior to that, he served as our Executive Vice President of Operations. He also served as the President of Vanguard from 1999 to 2000. He joined us in 1989 as Deputy Director of our Fab 2 operations. He holds a Ph.D. in material science from Cornell University and has been active in the semiconductor industry for over 27 years.

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

Mark Liu has been Senior Vice President of Operations II since December 2005 and is now Senior Vice President of Advanced Technology Business. Prior to that, he was Vice President of Operations II from January 2002, Vice President of our Fab 8 and Fab 12 Sites Operations from July 2000 and Vice President of South Sites Operations from 1999 to July 2000. He joined us in 1993 and has held the positions as Director of Fab 3 Operations and Senior Director of South Sites Operations. He holds a Ph.D. in electrical engineering and computer science from University of California, Berkeley, and has been active in the semiconductor industry for over 22 years.
C.C. Wei has been Senior Vice President for Operations I since December 2005 and is now Senior Vice President of Mainstream Technology Business. Prior to that, he was Vice President of Operations I from January 2002, Vice President of South Sites Operations from April 2000 and Vice President of North Sites Operations from February 1998 to April 2000. Prior to that, he was Senior Vice President at Chartered Semiconductor Manufacturing Ltd. in Singapore starting from 1993. He holds a Ph.D. in electrical engineering from Yale University.

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

Richard Thurston became Vice President and General Counsel in January 2002. Prior to that, he was a partner with Kelt Capital Partners, LP, in Addison, Texas, and a senior partner with the Dallas Texas-based law firm of Haynes and Boone. Mr. Thurston was also Vice President and Assistant General Counsel, and the Asia Pacific Regional Counsel for Texas Instruments from 1984 to 1996. Mr. Thurston holds a Ph.D. in East Asian Studies from University of Virginia and a J.D. from Rutgers School of Law.

Lora Ho has been Vice President, Chief Financial Officer and Spokesperson since September 2003. Prior to joining us in 1999 as controller, she had served as Vice President of Finance and Chief Financial Officer at Acer Semiconductor Manufacturing Inc. since 1990. Ms. Ho received an MBA from National Taiwan University in 2003 and a B.A. degree from National Chengchi University in 1978.
P.H. Chang had been Senior Director of Material Management since we acquired Worldwide Semiconductor Manufacturing Company in July 2000 and was promoted as Vice President of Human Resources in February 2004. Prior to that, he was Vice President of Worldwide Semiconductor Manufacturing Company. He holds a Ph.D. in material science from Purdue University.
W.J. Lo joined us as Vice President of Operations II in July 2004. Prior to that, he was Director in charge of advanced technology development with Intel Corporation. Mr. Lo holds a Ph.D. in solid state physics \& surface chemistry from University of California, Berkeley.

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

Fu-Chieh Hsu has served as Vice President of Design and Technology Platform since April 2006. Mr. Hsu founded Monolithic System Technology Inc. ( MoSys ) in 1991 and served as its Chairman and Chief Executive Officer until retiring at the end of 2004. He was Chairman and President of Myson Technology Inc. (now Myson Century Inc.) from 1990 to 1991. Prior to that, Mr. Hsu worked at Integrated Device Technology Inc. as Chief Technology Officer and Vice President as well as other senior positions. Mr. Hsu also served at Hewlett-Packard Laboratories. Mr. Hus holds a Ph.D. in electrical engineering and computer sciences from University of California, Berkeley.

Jack Sun joined us in 1997 as Director of Advanced Module Technology Division before taking the position of Director, Logic Technology Development Division. Mr. Sun was promoted to Senior Director in 2000 and later the Vice President of R\&D in 2006. Mr. Sun holds a Ph.D. in electrical engineering from University of Illinois at Urbana-Champaign. Prior to joining us, he served at International Business Machines for 14 years in R\&D.
Y.P. Chin has been Vice President of Advanced Technology Business since February 2008. Prior to that, he was Senior Director of Operations II since 2006, and Senior Director of Product Engineering \& Services from 2000 to 2006. He joined us in 1987 and has held various positions in product and engineering functions. He holds a master degree in electrical engineering from National Cheng Kung University.
N.S. Tsai has been Vice President of Quality \& Reliability since February 2008. Prior to that, he was Senior Director of Quality \& Reliability since 2004, Senior Director of Assembly Test Technology \& Service from 2002 to 2004. He also served as a Vice President of Vanguard from 1997 to 2000. He joined us in 1989 and has held various positions in R\&D and manufacturing functions. He holds a Ph.D. degree in material science from Massachusetts Institute of Technology.

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

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

## Share Ownership

The following table sets forth certain information as of February 28, 2009 with respect to our common shares owned by our directors and executive officers.

|  |  | Percentage of Total | Number of |
| :---: | :---: | :---: | :---: |
|  | Number of | Outstanding | Common Shares |
|  | Common | Common | Underlying Stock |
| Name of Shareholders |  | Shares | Options ${ }^{(3)}$ |
| Morris Chang, Chairman | 118,047,697 | 0.46\% |  |
| F.C. Tseng, Vice Chairman | 36,234,509 | 0.14\% |  |
| Stan Shih, Director | 1,472,922 | 0.01\% |  |
| National Development Fund, Director ${ }^{(1)}$ | 1,645,482,861 | 6.42\% |  |
| Lester Carl Thurow, Director |  |  |  |
| Sir Peter Leahy Bonfield, Director |  |  |  |
| Carleton (Carly) S. Fiorina, Director |  |  |  |
| Rick Tsai, Director, President \& CEO | 34,018,636 | 0.13\% | 822,429 |
| Stephen Tso, Senior Vice President \& Chief Information |  |  |  |
| Officer | 15,264,895 | 0.06\% | 417,285 |
| Mark Liu, Senior Vice President | 13,382,351 | 0.05\% | 822,429 |
| C.C. Wei, Senior Vice President | 9,027,433 | 0.04\% | 275,505 |
| M.C. Tzeng, Vice President | 7,446,038 | 0.03\% |  |
| Richard Thurston, Vice President \& General Counsel | 2,648,215 | 0.01\% | 87,274 |
| Lora Ho, Vice President \& CFO \& Spokesperson | 6,264,160 | 0.02\% |  |
| P.H. Chang, Vice President | 4,734,391 | 0.02\% |  |
| W.J. Lo, Vice President | 3,000,337 | 0.01\% |  |
| Jason Chen, Vice President | 2,274,970 | 0.01\% |  |
| Fu-Chieh Hsu, Vice President | 2,079,727 | 0.01\% |  |
| Jack Sun, Vice President | 5,498,216 | 0.02\% | 127,101 |
| Y.P. Chin, Vice President | 6,970,076 | 0.03\% |  |
| N.S. Tsai, Vice President | 1,829,088 | 0.01\% |  |
| Rick Cassidy, Vice President |  |  | 1,448,664 |
|  |  |  |  |
| (1) Represents |  |  |  |
| shares held by |  |  |  |
| the National |  |  |  |
| Development |  |  |  |
| Fund of the |  |  |  |
| Executive Yuan. |  |  |  |
| The former |  |  |  |

representative of
the National
Development
Fund,
Mr. Chintay
Shih, resigned
on November
10, 2008. As of
the date of this
filing, the
National
Development
Fund is still in the process of selecting a new representative to replace
Mr. Chintay
Shih.
(2) Except for the number of shares held by the National
Development
Fund of the
Executive Yuan, the disclosed
number of
shares owned by the directors and executive officers does not include any common shares held in ADS form by such individuals as such individual ownership of ADSs has not been disclosed to shareholders or otherwise made public and each of these individuals owns less than one percent of all common shares
outstanding as
of February 28, 2009.
(3) The numbers of the common
shares
underlying the
stock options
were adjusted
for the stock
dividends
distributed in
2004, 2005, 2006, 2007 and
2008, according
to the terms of the 2002
Employee Stock
Option Plan.
The options
were granted to
certain of our
officers except
Rick Cassidy as
a result of their
voluntary
selection to exchange part of their profit sharing to stock options..

## Compensation

The aggregate compensation paid and benefits in kind granted to our directors and executive officers in 2008, which included a cash bonus to the directors, was NT\$1,498million (US\$46million). According to our Articles of Incorporation, not more than 0.3 percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as bonuses to our directors and at least one percent of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) is distributed as a bonus to employees, including executive officers. Bonuses to directors are always paid in cash, while bonuses to our executive officers may be granted in cash, stock, or stock options or the combination of all these three. Individual awards are based on each individual s responsibility, contribution and performance. See note 21 to our consolidated financial statements. Under our Articles of Incorporation, directors who also serve as executive officers are not entitled to any director bonuses.

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## Board Practices

## General

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

## Audit Committee

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

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

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

The Audit Committee convened four regular meetings and three special meetings in 2008.

## Compensation Committee

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

The Compensation Committee, by its charter, shall consist of no fewer than three members of the Board. As of February 28, 2009, five members comprised the Compensation Committee: four of whom are independent directors serving as voting members of the Compensation Committee, and the Chairman of the board of directors is a non-voting member on this committee. The current members of the Compensation Committee are Mr. Stan Shih (who is the Chairman of the Compensation Committee), Sir Peter Bonfield, Professor Lester Thurow, Ms. Carleton (Carly) S. Fiorina, and Mr. Morris Chang.

The Compensation Committee convened four regular meetings in 2008.

## Employees

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

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|  | As of December 31, |  |  |
| :--- | ---: | :---: | ---: |
| Function | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| Managers | 2,313 | 2,520 | 2,618 |
| Professionals | 8,222 | 8,814 | 8,830 |
| Assistant Engineers/Clericals | 893 | 844 | 824 |
| Technicians | 10,818 | 10,842 | 10,571 |
| Total | 22,246 | 23,020 | 22,843 |

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

|  | As of December 31, |  |  |
| :--- | ---: | ---: | ---: |
| Location of Facility and Principal Offices | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| Hsinchu Science Park, Taiwan | 14,772 | 14,892 | 14,635 |
| Tainan Science Park, Taiwan | 5,035 | 5,360 | 5,500 |
| China | 1,180 | 1,457 | 1,397 |
| North America | 1,204 | 1,255 | 1,252 |
| Europe | 26 | 27 | 28 |
| Japan | 28 | 27 | 29 |
| Korea | 1 | 2 | 2 |
| Total | 22,246 | 23,020 | 22,843 |

As of December 31, 2008, our total employee population was 22,843 with an educational makeup of $3.1 \% \mathrm{Ph} . \mathrm{Ds}$, $30.6 \%$ masters, $20.2 \%$ university bachelors, $18.2 \%$ college degrees and $27.9 \%$ others. Among this employee population, $50.1 \%$ were at a managerial or professional level. Continuous learning is the cornerstone of our employee development strategy. Individual development plans for each employee are customized and tailored to their individual development needs. Employee development is further supported and enforced by a comprehensive and integrated network of resources including on-the-job training, coaching, mentoring, job rotation, on-site courses, e-learning and external learning opportunities.

Pursuant to our Articles of Incorporation, our employees participate in our profits by way of a bonus. Employees in the aggregate are entitled to not less than $1 \%$ of our net income after the deduction for prior years losses and contributions to legal and special reserves. Our practice in the past has been to determine the amount of the bonus based on our operating results and industry practice in the R.O.C. In August 2008, we distributed an aggregate bonus to our employees of NT $\$ 7,880$ million, or $8 \%$ of our 2007 distributable net income, $50 \%$ of which was distributed in cash and $50 \%$ of which was distributed in the form of common shares. The number of common shares issued as profit sharing is calculated by valuing the common shares at their par value, or NT $\$ 10$, rather than their market value.

In June 2002, we adopted the 2002 Employee Stock Option Plan that authorizes the grant of options exercisable for up to 100 million common shares (approximately $0.5 \%$ of our total then outstanding common shares). These options vested between two and four years after the date of grant, with $50 \%$ of the option granted being exercisable two years after the grant, $75 \%$ exercisable three years after the grant and $100 \%$ exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2002 Employee Stock Option Plan, a total of $48,137,264$ options were granted, of which $2,726,796$ options were originally granted to certain of our officers as a result of their voluntary election to exchange part of their profit sharing for stock options. The remaining balance of options under the 2002 Employee Stock Option Plan expired on June 25, 2003. As of December 31, 2008, 25,632,847 options were outstanding under the 2002 Employee Stock Option Plan.

In September 2003, we adopted the 2003 Employee Stock Option Plan that authorizes the grant of the options exercisable for up to 120 million common shares (approximately $0.6 \%$ of our total then outstanding common shares) in one or more tranches before October 29, 2004, when the 2003 Employee Stock Option Plan expired. These options vested between two and four years after the date of grant, with $50 \%$ of the options granted being exercisable two years after the grant, $75 \%$ exercisable three years after the grant and $100 \%$ exercisable four years after the grant. Any

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options granted will expire ten years after the date of grant. Under the 2003 Employee Stock Option Plan, a total of $12,055,735$ options have been granted. The remaining balance under the 2003 Employee Stock Option Plan expired on October 29, 2004. As of December 31, 2008, 4,850,719 options were outstanding under the 2003 Employee Stock Option Plan.

In November 2004, we adopted the 2004 Employee Stock Option Plan that authorizes the grant of options exercisable for up to 11 million common shares (approximately $0.05 \%$ of our total then outstanding common shares) in one or more tranches before January 6, 2006, when the 2004 Employee Stock Option Plan expired. These options will vest between two and four years after the date of grant, with $50 \%$ of the options granted being exercisable two years after the grant, $75 \%$ exercisable three years after the grant and $100 \%$ exercisable four years after the grant. Any options granted will expire ten years after the date of grant. Under the 2004 Employee Stock Option Plan, a total of $10,374,550$ options have been granted. The remaining balance under the 2004 Employee Stock Option Plan expired on January 6, 2006. As of December 31, 2008, 5,750,281options were outstanding under the 2004 Employee Stock Option Plan.

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The following table provides information with respect to outstanding stock options held by our current officers as of December 31, 2008 under the 2002 Employee Stock Option Plan. The numbers of the common shares underlying the stock options and the exercise prices were adjusted for the cash and stock dividends distributed in 2004, 2005, 2006, 2007 and 2008, according to the terms of the 2002 Employee Stock Option Plan.

# Outstanding Stock Options under the 2002 Employee Stock Option Plan Number of Common Shares <br> Underlying 

|  | Name | Grant Date | Options <br> $(\#)$ | Price <br> (NT\$) |
| :--- | :---: | :---: | :---: | :---: | | Expiration Date |
| :---: |

In order to attract qualified senior management, we maintain a sign-on bonus plan, under which selected newly hired senior employees, upon approval by our senior management, may be granted cash or, in exceptional circumstances, a specific number of our common shares, as a hiring bonus with the general condition of staying in our employment for at least two years. In the exceptional case of a sign-on bonus in the form of common shares, $50 \%$ of the common shares subject to such sign-on bonus will generally be distributed to such employees in the first year of employment. The remaining $50 \%$ of the hiring bonus shares are generally distributed to such employees on the second anniversary of the date of commencement of the employment with us. In 2008, a total of 380,000 shares, representing $0.0015 \%$ of the total of our common shares outstanding as of December 31, 2008, were distributed under our sign-on bonus plan.

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

## ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

Major Shareholders
The following table sets forth certain information as of February 28, 2009 with respect to our common shares owned by (i) each person who, according to our records, beneficially owned five percent or more of our common shares and by (ii) all directors and executive officers as a group.

|  | Percentage of <br> Total |  |
| :--- | :---: | :---: |
| Names of Shareholders | Number of <br> Common | Outstanding <br> Common |
|  | Shares Owned | Shares |
| National Development Fund ${ }^{(1)}$ | $1,645,482,861$ | 6.4 |
| Capital Research Global Investors ${ }^{(2)}$ | $1,814,720,550$ | 7.1 |
| Directors and executive officers as a group ${ }^{(3)}$ | $270,193,661$ | 1.1 |

(1) Excludes any common shares that may be owned by other funds controlled by the R.O.C. government.
The National
Development
Fund was
previously
named
Development
Fund. The
former
representative of
the National
Development
Fund,
Mr. Chintay
Shih, resigned
on
November 10,
2008. As of the date of this
filing, the
National
Development
Fund is still in the process of selecting a new representative to replace
Mr. Chintay
Shih.

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(2) According to the

Schedule 13G/A
of Capital
Research Global
Investors ( CRGI )
filed with the
Securities and
Exchange
Commission on
February 17, 2009, CRGI beneficially owned 1,814,720,550 common shares as of February 9, 2009. We do not have further information with respect to CRGI s ownership in us subsequent to CRGI s
Schedule 13G
filed on
February 17, 2009.
(3) Excludes ownership of the National
Development
Fund.
As of February 28, 2009, a total of $25,625,913,370$ common shares were outstanding. With certain limited exceptions, holders of common shares that are not R.O.C. persons are required to hold their common shares through a brokerage account in the R.O.C. As of February 28, 2009, 5,460,265,037 common shares were registered in the name of a nominee of Citibank, N.A., the depositary under our ADS deposit agreement. Citibank, N.A., has advised us that, as of February $28,2009,1,092,053,004$ ADSs, representing $5,460,265,037$ common shares, were held of record by Cede \& Co. and 283 other registered shareholders domiciled in and outside of the United States. We have no further information as to common shares held, or beneficially owned, by U.S. persons.

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

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

## Related Party Transactions

## Industrial Technology Research Institute

ITRI is a government-sponsored organization in the R.O.C. engaging in applied research to accelerate industrial technology development and promote industrial growth. ITRI has, and will continue to have, contractual relationships with us. As of October 15, 2006, ITRI ceased to be one of our related parties. Our principal relationships with ITRI in the period from January 1, 2004 until October 15, 2006 include the following:

A technical cooperation agreement signed in 1987 between ITRI and TSMC whereby ITRI granted TSMC the license to use its metal-oxide-semiconductor technology and related patents and copyrights to manufacture silicon MOS wafers and agreed to provide certain associated assets and relevant technical assistance and information to us, in exchange for a limited license from us for certain improvements and refinements related to earlier research and development projects. The agreement also provides that the R.O.C. Ministry of Economic Affairs, or the entity designated by the R.O.C. Ministry of Economic Affairs, has an option to purchase up to $35 \%$ of certain of our capacity as agreed in the agreement on favorable terms and conditions, provided that the exercise of such option would not prejudice TSMC s outstanding customer commitments. The original term of this agreement was for five years beginning January 1,1987 , is to be automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice. The agreement was automatically renewed in 1992, 1997, 2002, and on January 1, 2007.

A patent license agreement dated September 29, 2005 exists between ITRI and TSMC whereby ITRI grants TSMC the exclusive license to use certain patents in connection with semiconductor technology in exchange for a fixed royalty payment. The term of this agreement is from the effectiveness of the agreement to the end of the patent term for each of the patents concerned.

From time to time, we provide foundry services to ITRI. In 2005 and 2006, we had total sales to ITRI of NT\$90 million and NT\$42 million, respectively, representing less than $1 \%$ of our net sales in each year.
Koninklijke Philips Electronics N.V. and its Affiliates ( Philips )
On June 20, 2004, we and Philips (Philips parted with its semiconductor company which was renamed as NXP B.V. in September 2006) amended and restated the Technical Cooperation Agreement. The amended Technology Cooperation Agreement was for five years beginning from January 1, 2004 and has expired now by its terms and will not be automatically renewed. However, the patent cross license arrangement between us and Philips (now NXP B.V.) will survive the expiration of the amended Technology Cooperation Agreement.

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In 2005 and 2006, we had total sales to Philips and its affiliates of NT\$3,299 million and NT\$4,025 million, representing $1.2 \%$ and $1.3 \%$ of our total net sales in 2005 and 2006, respectively. Subsequent to the sale by Philips in September 2006 of an $80.1 \%$ equity interest in Philips Semiconductors to a consortium of private equity investors, Philips Semiconductors was renamed as NXP and ceased to be a related party of us.

## Vanguard International Semiconductor Corporation

In 1994, we, the R.O.C. Ministry of Economic Affairs and other investors established Vanguard, then an integrated DRAM manufacturer. Vanguard commenced volume commercial production in 1995 and listed its shares on the Over-the-Counter (GreTai) Securities Market in March 1998. In 2004, Vanguard completely terminated its DRAM production and became a pure-play foundry company. As of February 28, 2009, we owned $37.5 \%$ of Vanguard.

On April 1, 2004, we entered into an agreement with Vanguard. During the two-year term of this agreement, Vanguard is obligated to use its best commercial efforts to manufacture wafers at specified yield rates for us up to a fixed amount of reserved capacity per month, and TSMC is required to use its best commercial efforts to maintain utilization of such reserved capacity within a specified range of wafers per month. Pursuant to its terms, upon expiration of its initial two-year term, this agreement is to be automatically renewed for additional one year periods unless earlier terminated by the parties. This Agreement has been so renewed per its terms. We pay Vanguard at a fixed discount to the actual selling price as mutually agreed between the parties in respect of each purchase order. We also agreed to license Vanguard certain of our process technologies and transfer certain technical know-how and information. TSMC receives from Vanguard certain royalty payments for granting such licenses. In 2006, 2007 and 2008, we had total purchases of NT\$3,920 million, NT\$4,208 million and NT\$ 3,260 million (US\$100 million) from Vanguard, representing $2.4 \%, 2.3 \%$ and $1.7 \%$ of our total cost of sales, respectively.

Systems on Silicon Manufacturing Company Pte. Ltd. ( SSMC )
SSMC is a joint venture in Singapore that we established with Philips and EDB Investment Pte. Ltd. to produce integrated circuits by means of advanced submicron manufacturing processes. These integrated circuits were made pursuant to the product design specifications provided primarily by us and Philips under an agreement with Philips, and EDB Investment Pte. Ltd (the SSMC Shareholders Agreement ) in March 1999 and, primarily by us and NXP, subsequent to the assignment by Philips of its rights to NXP and NXP s assumption of Philips obligations under the SSMC Shareholders Agreement pursuant to the Assignment and Assumption Agreement effective September 25, 2006. SSMC s business is limited to manufacturing wafers for us, our subsidiaries, NXP and NXP s subsidiaries. In November 15, 2006, we and NXP exercised our option rights under the SSMC Shareholders Agreement to purchase all of the SSMC shares owned by EDB Investment Pte. Ltd. As a result, we owned $38.8 \%$, and NXP owned $61.2 \%$ of SSMC. While we, together with NXP, have the right to purchase up to $100 \%$ of SSMC s annual capacity, we and NXP are required to purchase, in the aggregate, at least $70 \%$ of SSMC s full capacity; we, alone, are required to purchase up to $28 \%$ of the annual installed capacity. As of February 28, 2009, we owned an approximately $38.8 \%$ equity interest in SSMC. See below for a detailed discussion of the contract terms we entered into with SSMC.

We entered into a technology cooperation agreement with SSMC effective March 30, 1999 in which SSMC agreed to base at least a major part of its production activities on processes compatible to those in use in our MOS integrated circuits wafer volume production fabs. In return, we have agreed to provide SSMC with access to and benefit of the technical knowledge and experience relating to certain processes in use in our MOS integrated circuits wafer volume production fabs and to assist SSMC by rendering certain technical services in connection with its production activities. In addition, we granted to SSMC limited licenses of related intellectual property rights owned or controlled by us for the purpose of MOS integrated circuit production for the sole use in manufacturing products for us. SSMC pays to us during, and up to three years after, the term of this agreement a remuneration of a fixed percentage of the net selling price of all products manufactured by SSMC. In 2006, 2007 and 2008, we had total purchases of NT\$6,821 million, NT $\$ 5,468$ million and NT\$4,442 million (US $\$ 136$ million) from SSMC, representing $4.2 \%, 3.0 \%$ and $2.3 \%$ of our total cost of sales, respectively.

## VisEra Technologies Company, Ltd.

In October 2003, we and OmniVision Technologies Inc., ( OVT ) entered into a shareholders agreement (the VisEra Agreement ) to form VisEra Technologies Company, Ltd. ( VisEra ), a joint venture in Taiwan, for the purpose of providing back-end manufacturing service. In connection with the formation of VisEra, we and OVT each entered into
separate nonexclusive license agreements with VisEra pursuant to which each party licenses certain intellectual property to VisEra relating to the manufacturing services. As of February 28, 2009, we owned a $43.6 \%$ equity interest in VisEra Technologies Company Ltd.

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In August 2005, we entered into the first amendment to the VisEra Agreement (the Amended VisEra Agreement ) with OVT, VisEra, and VisEra Cayman, pursuant to which VisEra became a subsidiary of VisEra Cayman. In accordance with the Amended VisEra Agreement, VisEra purchased color filter processing equipment and related assets from us for an aggregate price equivalent to US $\$ 16.1$ million. In January 2007, we signed the second amendment and agreed to an expansion in VisEra s manufacturing capacity. For the capacity expansion, we and OVT each agreed to make an additional US $\$ 27$ million investment to VisEra. There were no significant sales to or purchases from VisEra in 2007 and 2008.

## ITEM 8. FINANCIAL INFORMATION

## Consolidated Financial Statements and Other Financial Information

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

## Legal Proceedings

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

In December 2003, we commenced legal action in several forums against SMIC and certain of its subsidiaries for several causes of action including but not limited to patent infringement and trade secret misappropriation. The dispute with SMIC was settled under a settlement agreement entered into in January 2005 and pursuant to which SMIC is paying us US $\$ 175$ million in installments over six years. Under its terms, we agreed not to sue SMIC for itemized acts of alleged trade secret misappropriation except in the event of breach. In addition, TSMC and SMIC agreed to cross license each other s certain patents through December 2010. The settlement agreement also provided for the dismissal without prejudice of all pending legal actions between the two companies, including matters pending in the U.S. District Court for the Northern District of California, Superior Court of California for Alameda County, the U.S. International Trade Commission and Hsinchu District Court in Taiwan. The settlement does not grant a license to SMIC to use any of our trade secrets nor does it result in TSMC transferring any technology or providing any technical assistance to SMIC. In August 2006, we filed a lawsuit against SMIC in the Superior Court of California for Alameda County for breach of the aforementioned settlement agreement, breach of promissory notes and trade secret misappropriation seeking injunctive relief and monetary damages. In September 2006, SMIC filed a cross-complaint against us in the same court alleging breach of settlement agreement, implied covenant of good faith and fair dealing. SMIC also filed a civil action against us in November 2006 with the Beijing People s High Court alleging defamation and breach of good faith. In September 2007, the Superior Court of California for Alameda County issued an order based on our pre-trial motion and ordered that SMIC must provide advance notice and an opportunity for us to object before disclosing certain items to SMIC s third party partners. In January 2009, the court in the California action held a four-day bench trial to determine whether a Settlement Agreement existed between the parties, and if there were an agreement, the interpretation of certain terms. SMIC contended that there was no binding Settlement Agreement, and TSMC contended that the Settlement Agreement signed on January 30, 2005 and finalized shortly thereafter and repeatedly ratified bound the parties. On March 10, 2009, the Court issued its Statement of Decision. The Court rejected SMIC s contention, and found that the parties were bound by the Settlement Agreement identified by TSMC. The Court also interpreted the meaning of certain provisions within the Settlement Agreement.

The matters are pending in both courts. The specific outcome of the litigation matters cannot be determined at this time.

In April 2004, UniRAM Technology, Inc. ( UniRAM ) filed an action against MoSys Inc., TSMC and TSMC North America in the U.S. District Court for the Northern District of California, alleging patent infringement and trade secret misappropriation and seeking injunctive relief and damages. TSMC appealed after the United States District Court for the Northern District of California rendered judgment in favor of UniRAM in May 2008. In the third quarter of 2008, TSMC and TSMC North America had reached agreement with UniRAM to settle the dispute. In accordance with the
settlement, the judgment has been vacated and the claims asserted by UniRAM are fully and finally settled. As of December 31, 2008, TSMC had accounted for the result of the settlement in accordance with the terms of the settlement agreement. Other than the matters described above, we were not involved in any other material litigation in 2008 and are not currently involved in any material litigation.

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## Dividends and Dividend Policy

The following table sets forth the stock dividends per share paid during each of the years indicated in respect of common shares outstanding on the record date applicable to the payment of those dividends. During the period from 1995 to 2003, we did not pay any cash dividends. We paid a portion of the dividend in 2004, 2005, 2006, 2007 and 2008 in cash in the amounts of NT\$12,159,971,390, NT\$46,504,096,864, NT\$61,825,061,618, NT\$77,489,063,538 and NT\$76,881, 311,145 (US\$2,346,804,370), respectively.

|  | Cash <br> Dividends <br> Per Share <br> NT\$ | Stock <br> dividends <br> Per 100 <br> shares | Total shares issued <br> as | Outstanding <br> common |
| :--- | :---: | :---: | :---: | :---: |
| stock dividends | shares at year end |  |  |  |
| 2004 | 0.6037 | 14.08668 | $2,837,326,658$ | $23,251,963,693$ |
| 2005 | 1.9998 | 4.99971 | $1,162,602,422$ | $24,730,024,647$ |
| 2006 | 2.4991 | $2.99903_{(1)}$ | $741,900,740_{(1)}$ | $25,829,687,846$ |
| 2007 | 2.9995 | $0.49991_{(2)}$ | $129,148,440_{(2)}$ | $25,627,103,715$ |
| 2008 | 3.0251 | $0.50417_{(3)}$ | $128,135,520_{(3)}$ | $25,625,437,256$ |

(1) $50 \%$ of the
stock dividends were paid out of retained earnings and $50 \%$ were from capitalization of capital surplus.
(2) $40 \%$ of the stock dividends were paid out of retained earnings and $60 \%$ were from capitalization of capital surplus.
(3) $40 \%$ of the stock dividends were paid out of retained earnings and $60 \%$ were from capitalization of capital surplus.
Our dividend policy is set forth in our articles of incorporation. Except as otherwise specified in the articles of incorporation, we will not pay dividends when there is no profit or retained earnings. Our profits may be distributed by way of cash dividend, stock dividend, or a combination of cash and stock. Historically, our profit distribution generally had been made by way of stock dividend. On December 21, 2004, our shareholders approved amendments
to our articles of incorporations pursuant to which distributions of profits shall be made preferably by way of cash dividend. In addition, pursuant to the amendments, the ratio for stock dividends shall not exceed $50 \%$ of the total distribution.

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

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

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

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

## ITEM 9. THE OFFER AND LISTING

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

commenced on
October 8, 1997
on the New
York Stock
Exchange. Each
ADS represents
the right to receive five
common shares.
(2) As adjusted for
a NT\$0.6037
cash dividend
per share and a
$14.08668 \%$
stock dividend
in July 2004 , a NT\$1.9998 cash
dividend per
share and a
$4.99971 \%$ stock
dividend in July
2005 , a
NT\$2.4991 cash
dividend per
share and a
$2.99903 \%$ stock
dividend in
July 2006 , a
NT\$2.9995 cash
dividend per
share and a $0.49991 \%$ stock
dividend in
July 2007 and a
NT\$3.0251 cash
dividend per
share and a
$0.50417 \%$ stock
dividend in
July 2008 .
In 2008, Chi-Cherng Investment Co., Ltd. was merged into Hsin-Ruey Investment Co., Ltd., the surviving company. Prior to this merger, both of these entities were our indirect wholly-owned subsidiaries. Hsin-Ruey Investment Co., Ltd. was then merged into TSMC. As a result of the merger, 34,267,815 of our shares previously held by Chi Cherng and Hsin Ruey Investment Co., Ltd. were cancelled upon the merger with TSMC.
ITEM 10. ADDITIONAL INFORMATION
Description of Common Shares

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

## General

Our authorized share capital is NT $\$ 280,500,000,000$, divided into $28,050,000,000$ common shares of which $500,000,000$ common shares are reserved for the issuance for our employee stock options and among which $25,625,437,256$ common shares were issued and outstanding and in registered form as of December 31, 2008.

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

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

## Dividends and Distributions

An R.O.C. company is generally not permitted to distribute dividends or to make any other distributions to shareholders in respect of any year for which it did not have either earnings or retained earnings (excluding reserves). In addition, before distributing a dividend to shareholders following the end of a fiscal year, the company must recover any past losses, pay all outstanding taxes and set aside in a legal reserve, until such time as its legal reserve equals its paid-in capital, $10 \%$ of its net income for that fiscal year (less any past losses and outstanding tax), and may set aside a special reserve. Our articles of incorporation provide that at least one percent of the net distributable income for that fiscal year be distributed as a bonus to employees and that not more than 0.3 percent of the net distributable income for that fiscal year may be distributed as a bonus to directors. Under our articles of incorporation, directors who also serve as executive officers are not entitled to any director bonuses. Prior to 2004, it has been our practice in each of the past years to pay all of employee bonuses in the form of stock. In 2004, we paid $20 \%$ of the bonus in the form of cash, and in 2005, 2006 and 2007 and 2008, we paid $50 \%$ of the bonus in the form of cash. The number of common shares issued as a bonus is obtained by dividing the cash value of the stock portion of the bonus by the par value of the common shares, i.e., NT\$10 per share. Because the market value of our common shares has generally been well in excess of par value, the market value of a stock bonus has also been in excess of the amount the employee would have received if the bonus had been paid exclusively in cash. Subject to compliance with these requirements, a company may pay dividends or make other distributions from its accumulated earnings or reserves as permitted by the R.O.C. Company Law as set forth below.

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

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

For information as to R.O.C. taxes on dividends and distributions, see Taxation R.O.C. Taxation .

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## Preemptive Rights and Issues of Additional Common Shares

Under the R.O.C. Company Law, when a public company such as us issues new shares of common stock for cash, $10 \%$ to $15 \%$ of the issue must be offered to its employees. The remaining new shares must be offered to existing shareholders in a preemptive rights offering, subject to a requirement under the R.O.C. Securities and Exchange Law that at least $10 \%$ of these issuances must be offered to the public. This percentage can be increased by a resolution passed at a shareholders meeting, thereby limiting or waiving the preemptive rights of existing shareholders. The preemptive rights provisions do not apply to:
offerings by shareholders of outstanding shares; and
offerings of new shares through a private placement approved at a shareholders meeting.
Authorized but unissued shares of any class may be issued at such times and, subject to the above mentioned provisions of the R.O.C. Company Law and the R.O.C. Securities and Exchange Law, upon such terms as the board of directors may determine. The shares with respect to which preemptive rights have been waived may be freely offered, subject to compliance with applicable R.O.C. law.

## Meetings of Shareholders

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

## Voting Rights

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

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

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

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

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## Other Rights of Shareholders

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

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

## Register of Shareholders and Record Dates

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

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

## Annual Financial Statements

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

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## Acquisition of Common Shares by Us

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

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

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

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

## Liquidation Rights

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

## Transaction Restrictions

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

## Material Contracts

In October 2007, we signed a contract with Atmel Corporation to purchase Atmel s eight-inch wafer fabrication equipment from its fab in North Tyneside, United Kingdom. The deal totaled US $\$ 82$ million which was paid in 2007. Both Atmel and us have agreed not to disclose other terms of this contract.

We are not currently, and have not been in the last two years, party to any other material contract, other than contracts entered into in the ordinary course of our business. Please see Item 7. Major Shareholders and Related Party Transactions Related Party Transactions for a summary of contracts with certain of our related parties and note 4 to our consolidated financial statements regarding certain of our significant commitments and contingencies.

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

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

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

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

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

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

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

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

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

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

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

We, or the foreign depositary bank, may not increase the number of depositary receipts by depositing shares in a depositary receipt facility or issuing additional depositary receipts against these deposits without specific R.O.C. Financial Supervisory Commission approval, except in limited circumstances. These circumstances include issuances of additional depositary receipts in connection with:
dividends on or free distributions of shares;
the exercise by holders of existing depositary receipts of their pre-emptive rights in connection with capital increases for cash; or
if permitted under the deposit agreement and custody agreement, the deposit of common shares purchased by any person directly or through a depositary bank on the Taiwan Stock Exchange or the Over-the-Counter (GreTai) Securities Market (as applicable) or held by such person for deposit in the depositary receipt facility.
However, the total number of deposited shares outstanding after an issuance under the circumstances described in the third clause above may not exceed the number of deposited shares previously approved by the R.O.C. Financial Supervisory Commission plus any depositary receipts created under the circumstances described in the first two clauses above. Issuances of additional depositary receipts under the circumstances described in the third clause above will be permitted to the extent that previously issued depositary receipts have been canceled and the underlying shares have been withdrawn from the depositary receipt facility.

Under current R.O.C. law, a non-R.O.C. holder of ADSs who withdraws and holds the underlying shares must register with the Taiwan Stock Exchange and appoint an eligible local agent to: open a securities trading account with a local securities brokerage firm;
remit funds; and
exercise rights on securities and perform other matters as may be designated by the holder.
Under existing R.O.C. laws and regulations, without this account, holders of ADSs that withdraw and hold the common shares represented by the ADSs would not be able to hold or subsequently transfer the common shares, whether on the Taiwan Stock Exchange or otherwise. In addition, a withdrawing non-R.O.C. holder must appoint a local bank to act as custodian for handling confirmation and settlement of trades, safekeeping of securities and cash proceeds and reporting of information.

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

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

## Direct Share Offerings

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

## Overseas Corporate Bonds

Since 1989, the R.O.C. Financial Supervisory Commission has approved a series of overseas bonds issued by R.O.C. companies listed on the Taiwan Stock Exchange or the Over-the-Counter (GreTai) Securities Market in offerings outside the R.O.C. Under current R.O.C. law, these overseas corporate bonds can be:
converted by bondholders, other than citizens of the PRC and entities organized under the laws of the PRC, into shares of R.O.C. companies; or
subject to R.O.C. Financial Supervisory Commission approval, converted into depositary receipts issued by the same R.O.C. company or by the issuing company of the exchange shares, in the case of exchangeable bonds.
The relevant regulations also permit public issuing companies to issue corporate debt in offerings outside the R.O.C. Proceeds from the sale of the shares converted from overseas convertible bonds may be used for reinvestment in securities listed on the Taiwan Stock Exchange or traded on the Over-the-Counter (GreTai) Securities Market, subject to registering with the Taiwan Stock Exchange.
Exchange Controls in the R.O.C.
The Foreign Exchange Control Statute and regulations provide that all foreign exchange transactions must be executed by banks designated to handle such business by the R.O.C. Financial Supervisory Commission and by the Central Bank of the Republic of China (Taiwan). Current regulations favor trade-related foreign exchange transactions. Consequently, foreign currency earned from exports of merchandise and services may now be retained and used freely by exporters, and all foreign currency needed for the importation of merchandise and services may be purchased freely from the designated foreign exchange banks.

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

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

## Voting of Deposited Securities

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

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

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

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

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

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

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

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

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

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

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## Taxation

## R.O.C. Taxation

The following is a general summary of the principal R.O.C. tax consequences of the ownership and disposition of ADSs representing common shares to a non-resident individual or entity. It applies only to a holder that is:
an individual who is not an R.O.C. citizen, who owns ADSs and who is not physically present in the R.O.C. for 183 days or more during any calendar year; or
a corporation or a non-corporate body that is organized under the laws of a jurisdiction other than the R.O.C. for profit-making purposes and has no fixed place of business or other permanent establishment in the R.O.C.
Holders of ADSs are urged to consult their own tax advisors as to the particular R.O.C. tax consequences of owning the ADSs which may affect them.

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

Distribution of common shares declared by us out of our capital reserves is not subject to R.O.C. withholding tax.
Capital Gains. Under R.O.C. law, capital gains on transactions in the common shares are currently exempt from income tax. In addition, transfers of ADSs are not regarded as a sale of an R.O.C. security and, as a result, any gains on such transactions are not subject to R.O.C. income tax.

Subscription Rights. Distributions of statutory subscription rights for common shares in compliance with R.O.C. law are not subject to any R.O.C. tax. Proceeds derived from sales of statutory subscription rights evidenced by securities are exempted from income tax but are subject to securities transaction tax at the rate of $0.3 \%$ of the gross amount received. Proceeds derived from sales of statutory subscription rights that are not evidenced by securities are subject to capital gains tax at the rate of $20 \%$.

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

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

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

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

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## United States Federal Income Taxation

This section discusses the material United States federal income tax consequences to U.S. holders (as defined below) of owning and disposing of our common shares or ADSs. It applies to you only if you hold your common shares or ADSs as capital assets for tax purposes. This section does not apply to you if you are a member of a special class of holders subject to special rules, including:
dealers in securities;
traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
tax-exempt organizations;
life insurance companies;
persons liable for alternative minimum tax;
persons that actually or constructively own $10 \%$ or more of our voting stock;
persons that hold common shares or ADSs as part of a straddle or a hedging or conversion transaction; or
persons whose functional currency is not the U.S. dollar.
This section is based on the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations, published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis. In addition, this section is based in part upon the representations of the depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms. In general, for United States federal income tax purposes, if you hold ADRs evidencing ADSs, you will be treated as the owner of the shares represented by those ADSs. Exchanges of shares for ADRs, and ADRs for shares, generally will not be subject to United States federal income tax.

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

You are a U.S. holder if you are a beneficial owner of common shares or ADSs and you are: a citizen or resident of the United States;
a domestic corporation, or other entity subject to United States federal income tax as a domestic corporation;
an estate whose income is subject to United States federal income tax regardless of its source; or
a trust if a United States court can exercise primary supervision over the trust s administration and one or more United States persons are authorized to control all substantial decisions of the trust.
If a partnership (including for this purpose any entity treated as a partnership for United States federal income tax purposes) is a beneficial owner of the common shares or ADSs, the United States tax treatment of a partner in the partnership generally will depend on the status of the partner and the activities of the partnership. A holder of the common shares or ADSs that is a partnership and partners in such a partnership should consult their own tax advisors concerning the United States federal income tax consequences of purchasing, owning and disposing of common shares or ADSs.

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

Subject to the passive foreign investment company, or PFIC, rules discussed below, if you are a U.S. holder, the gross amount of any dividend we pay in respect of your common shares or ADSs out of our current or accumulated earnings and profits (as determined for United States federal income tax purposes) including the amount of any R.O.C. tax withheld reduced by any credit against such withholding tax on account of the $10 \%$ retained earnings tax imposed on us, is subject to United States federal income taxation. If you are a noncorporate U.S. holder, under existing law any dividends paid to you in taxable years beginning before January 1, 2011 that constitute qualified dividend income will be taxable to you at a maximum tax rate of $15 \%$ provided that you hold the common shares or ADSs for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meet other holding period requirements. Dividends we pay with respect to the common shares or ADSs will be qualified dividend income provided that, in the year that you receive the dividend, the common shares or ADSs are readily tradable on an established securities market in the United States. The dividend is taxable to you when you, in the case of common shares, or the Depositary, in the case of ADSs, receives the dividend actually or constructively. The dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations in respect of dividends received from other United States corporations. The amount of the dividend distribution that you must include in your income as a U.S. holder will be the U.S. dollar value of the NT Dollar payments made, determined at the spot NT Dollar/U.S. dollar rate on the date the dividend distribution is includible in your income, regardless of whether the payment is in fact converted into U.S. dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date you include the dividend payment in income to the date you convert the payment into U.S. dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes. Distributions in excess of current and accumulated earnings and profits, as determined for United States federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the common shares or ADSs and thereafter as capital gain.

Subject to generally applicable limitations and restrictions, the R.O.C. taxes withheld from dividend distributions and paid over to the R.O.C. (reduced by any credit against such withholding tax on account of the $10 \%$ retained earnings tax) will be eligible for credit against your U.S. federal income tax liabilities. Special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the maximum $15 \%$ tax rate. Dividends will be income from sources outside the United States. Dividends paid in taxable years beginning after December 31, 2006 will, depending on your circumstances, be passive or general income which, in either case, is treated separately from other types of income for purposes of computing the foreign tax credit allowable to you. The rules applicable to the United States foreign tax credit are complex, and we urge you to consult your own tax adviser concerning the availability of the credit in your particular circumstances.

Pro rata distributions of common shares by us to holders of common shares or ADSs will generally not be subject to U.S. federal income tax. Accordingly, such distributions will generally not give rise to U.S. federal income against which the R.O.C. tax imposed on such distributions may be credited. Any such R.O.C. tax will generally only be creditable against a U.S. holder s U.S. federal income tax liability with respect to general limitation income and not against passive income, in the case of taxable years beginning after December 31, 2006.

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

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## Taxation of Capital Gains

Subject to the PFIC rules discussed below, if you are a U.S. holder and you sell or otherwise dispose of your common shares or ADSs, you will recognize capital gain or loss for United States federal income tax purposes equal to the difference between the U.S. dollar value of the amount that you realize and your tax basis, determined in U.S. dollars, in your common shares or ADSs. Capital gain of a noncorporate U.S. holder that is recognized in taxable years beginning before January 1, 2011 is generally taxed under existing law at a maximum rate of $15 \%$ where the property is held more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes.

## Passive Foreign Investment Company Rules

We believe that common shares and ADSs should not be treated as stock of a PFIC for United States federal income tax purposes for the current taxable year and for future taxable years, but this conclusion is a factual determination that is made annually, based on our assets and income for each year, and thus may be subject to change. Accordingly, no assurance can be given that the Company will not be considered a PFIC in the current or future years.

In general, if you are a U.S. holder, we will be a PFIC with respect to you if for any taxable year in which you held our common shares or ADSs:
at least $75 \%$ of our gross income for the taxable year is passive income; or
at least $50 \%$ of the value, determined on the basis of a quarterly average, of our assets is attributable to assets that produce or are held for the production of passive income.
Passive income generally includes dividends, interest, royalties, rents (other than certain rents and royalties derived in the active conduct of a trade or business), annuities and gains from assets that produce passive income. If a foreign corporation owns directly or indirectly at least $25 \%$ by value of the stock of another corporation, the foreign corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation, and as receiving directly its proportionate share of the other corporation s income.

If we are treated as a PFIC, and you are a U.S. holder that does not make a mark-to-market election, as described below, you will be subject to special rules with respect to:
any gain you realize on the sale or other disposition of your common shares or ADSs; and
any excess distribution that we make to you (generally, any distributions to you during a single taxable year that are greater than $125 \%$ of the average annual distributions received by you in respect of the common shares or ADSs during the three preceding taxable years or, if shorter, your holding period for the common shares or ADSs).
Under these rules:
the gain or excess distribution will be allocated ratably over your holding period for the common shares or ADSs,
the amount allocated to the taxable year in which you realized the gain or excess distribution will be taxed as ordinary income,
the amount allocated to each prior year, with certain exceptions, will be taxed at the highest tax rate in effect for that year, and
the interest charge generally applicable to underpayments of tax will be imposed in respect of the tax attributable to each such year.

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

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

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

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

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

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

## Non-U.S. Holders

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

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## Information reporting and backup withholding

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

## Documents on Display

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

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

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

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

The table below presents annual principal amounts due and related weighted average implied forward interest rates by year of maturity for our debt obligations outstanding as of December 31, 2008.


## ge interest

$2.75 \% \quad 3.00 \% \quad 2.84 \%^{(2)} \quad 2.84 \%^{(2)}$
(1) Represents the present value of expected cash flow discounted using the interest rate TSMC may obtain for similar long-term debts.
(2) Average interest rates under Total are the weighted average of the average interest rates of each year for loan outstanding.

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Foreign Currency Risk: Substantial portions of our revenues and expenses are denominated in currencies other than the NT dollar. As of December 31, 2008, more than $71 \%$ of our accounts payable and payables for purchases of capital goods were denominated in currencies other than the NT dollar, primarily in U.S. dollars, Japanese yen and Euros. More than $99 \%$ of our accounts receivable and receivables from related parties were denominated in non-NT dollars, mainly in U.S. dollars. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we utilize derivative financial instruments, including currency forward contracts and cross currency swaps, to hedge our currency exposure. These hedging transactions help to reduce, but do not eliminate, the impact of foreign currency exchange rate movements. Our policy is to account for the unrealized gains or losses of these contracts on a mark-to-market rate basis and to realize the gains or losses of these contracts when the contracts matured. Effective January 1, 2006, these derivative financial instruments are required under R.O.C. Statement of Financial Accounting Standards No. 34 Financial Instruments: Recognition and Measurement to be recognized at fair market value on the balance sheet. Please see note 24 of our consolidated financial statements for information on the net assets, liabilities and purchase commitments that have been hedged by these derivative transactions.

The table below presents our outstanding financial derivative transactions as of December 31, 2008. These contracts all have a maturity date of not more than 12 months.

amount
Average contractual
exchange rate
(against NT\$ dollars)

$$
6.88
$$

6.88

As of December 31, 2008
Expected Maturity Dates

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

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Other Market Risk. In addition to our interests in SSMC, Vanguard and VisEra Holding Company, we have made investments in equity securities including convertible bonds, issued by private companies related to semiconductor and other technology industries mostly through a number of investment funds. As of December 31, 2008, the aggregate carrying value of these investments on our balance sheet was NT\$3,650 million (US $\$ 111$ million). As of December 31, 2008, approximately NT\$3,293 million (US\$101 million) of this amount in venture capital investments was made through InveStar Semiconductor Development Fund, and InveStar Semiconductor Development Fund (II), our two $97.1 \%$ owned subsidiaries, Emerging Alliance Fund L.P., VentureTech Alliance Fund II, and VentureTech Alliance Fund III, our $99.5 \%, 98.0 \%$ and $98.0 \%$ respectively owned subsidiaries. The carrying value of these investments in private companies and in the investment funds are subject to fluctuation based on many factors such as prevailing market conditions. Moreover, because these are investments in unlisted securities, the fair market value may be significantly different from our carrying value. Upon any subsequent sale of our investments, we may not be able to realize our carrying value as of December 31, 2008 or any subsequent date. As of December 31, 2008, we also had investments in the amount of NT $\$ 34,239$ million (US $\$ 1,045$ million), including agency bonds, corporate bond, asset-backed securities, government bond, public-traded stock, money market fund and structured deposits, of which, NT $\$ 12,931$ million (US $\$ 395$ million) were classified as available-for-sales and NT $\$ 21,308$ million (US $\$ 650$ million) were classified as held-to-maturity. We have experienced declines in the value of certain privately held investments and publicly traded securities and recorded impairment loss of NT\$1,560 million (US\$48 million) in 2008. As of December 31, 2008, our net unrealized losses of NT\$384 million (US $\$ 11.7$ million) related to bonds and asset-backed securities were mainly due to fair value fluctuations in an unstable United States credit environment. Subsequently after the end of 2008, we have disposed of a substantial portion of such bonds and asset-backed securities. In addition, NT\$13 million (US\$0.4 million) of our investments were classified as trading financial assets.

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

## ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

## PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES
None.

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

None.

## ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures. Pursuant to Rule 13a-15(b) of the Securities Exchange Act of 1934, an evaluation was carried out under the supervision and with the participation of our principal executive and principal financial officers of the effectiveness of our disclosure controls and procedures. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of December 31, 2008.

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

As of the end of 2008, management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO ). Based on this assessment, management has determined that our internal control over financial reporting as of December 31, 2008 is effective.

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

Changes in Internal Control Over Financial Reporting. During 2008, no change to our internal control over financial reporting occurred that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## Attestation Report of the Registered Public Accounting Firm. REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Taiwan Semiconductor Manufacturing Company Limited
We have audited the internal control over financial reporting of Taiwan Semiconductor Manufacturing Company Limited and subsidiaries (the Company ) as of December 31, 2008, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management s Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company s internal control over financial reporting based on our audit.
We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.
A company s internal control over financial reporting is a process designed by, or under the supervision of, the company s principal executive and principal financial officers, or persons performing similar functions, and effected by the company s board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations
of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company $s$ assets that could have a material effect on the financial statements.

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Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.
In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.
We have also audited, in accordance with auditing standards generally accepted in the Republic of China and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2008 of the Company and our report dated April 6, 2009 expressed an unqualified opinion on those financial statements and included explanatory paragraphs regarding i) the Company s adoption of Interpretation 2007-052, Accounting for Bonuses to Employees, Directors and Supervisors, issued by the Accounting Research and Development Foundation of the Republic of China; ii) the reconciliation to accounting principles generally accepted in the United States of America; and iii) the convenience translation of New Taiwan dollar amounts into U.S. dollar amounts).
/s/DELOITTE \& TOUCHE
DELOITTE \& TOUCHE
Taipei, Taiwan
The Republic of China
April 6, 2009

## ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

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

## ITEM 16B. CODE OF ETHICS

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

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

## ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The table below summarizes the fees that we paid for services provided by Deloitte \& Touche and its affiliated firms (the Deloitte Entities ) for the years ended December 31, 2007 and 2008.

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|  | 2007 | 2008 |
| :---: | :---: | :---: |
|  | NT\$ | NT\$ |
|  | (In | nds) |
| Audit Fees | 82,399 | 82,412 |
| Audit Related Fees | 811 | 1,023 |
| Tax Fees |  | 160 |
| Total | 83,210 | 83,595 |

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

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

Tax Fees. This category consists of professional services rendered by the Deloitte Entities for tax compliance and tax advice.

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

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

Not applicable.
ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS
On May 13 and August 12, 2008, we announced share repurchase programs to repurchase up to 500 million and 283 million of our common shares at prices between NT $\$ 48.25$ to NT $\$ 100.50$ and NT $\$ 42.85$ to NT $\$ 86.20$ per share during the period from May 14, 2008 to July 13, 2008 and from August 13, 2008 to October 12, 2008, respectively. The share repurchase program concluded on June 30, 2008 and September 2, 2008, when a total of 217 million and 279 million respectively of our common shares had been repurchased pursuant to the program. The table below sets forth certain information about the repurchase of our common shares under the share repurchase program.

## Issuer Purchases of Equity Securities

## Period

| (a) Total | (b) |
| :---: | :---: |
| Number of | Average <br> Price Paid <br> per |
| Common | Common <br> Shares <br> Purchased |
| Share |  |

(c) Total Number of Common Shares

Purchased
as Part of Publicly
Announced Plans or Programs
(d) Maximum

Number (or
Approximate Dollar Value)
of Common
Shares
that May Yet Be

Purchased
Under the Plans or Programs

May, 2008 (from May 14, 2008 to May 31,2008 )
June, 2008 (from June 1, 2008 to June 30, 2008)

Total
August, 2008 (from Aug. 13, 2008 to Aug. 31, 2008)
September, 2008 (from Sep. 1, 2008
to Sep. 2, 2008)
Total

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

Not applicable.

## ITEM 16G. CORPORATE GOVERNANCE

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

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

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

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

NYSE Standards for US Companies under Listed Company Manual Section 303A
NYSE Section 303A. 01 requires a NYSE-listed company to have a majority of independent directors on its board of directors.

## TSMC Corporate Practices

Taiwan law does not require a board of directors of publicly traded companies to consist of a majority of independent directors. Taiwan law requires public companies meeting certain criteria to have at least two independent directors but no less than one fifth of the total number of directors on its board of directors. In addition, Taiwan law requires public companies to disclose

NYSE Standards for US Companies under Listed Company Manual Section 303A

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

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

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

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

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

## TSMC Corporate Practices

information pertaining to their directors, including their independence status. Please see TSMC s annual report for the relevant year filed with the Taiwan authorities and the U.S. SEC (both of which are available online at www.tsmc.com) for information on the total number of TSMC directors and directors who would be considered independent under NYSE Section 303A. 02 and Taiwan law.

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

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

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

Taiwan law does not require the board of directors to establish a compensation committee. Nevertheless, TSMC has established a compensation committee. Please see TSMC s annual report for the relevant year filed with the Taiwan authorities and the U.S. SEC (both of which are available online at www.tsmc.com) for further information regarding the composition and functions of its compensation committee.

Taiwan law does not contain such a requirement. Nevertheless, TSMC s compensation committee charter contains the same responsibilities as those provided under NYSE Section 303A.05(b)(i) and mandates the committee to review the adequacy of its charter annually.

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

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

## NYSE Standards for US Companies under Listed Company Manual

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

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

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

NYSE Section 303A.07(c) requires an audit committee to have a written charter establishing the duties and responsibilities of its members, including the duties and responsibilities required, at a minimum, by Section 10A-3(b)(1) of the Exchange Act.

NYSE Section 303A.07(c)(iii)(B) and (C) establishes audit committee objectives: (i) to discuss the annual audited financial statements and the quarterly financial statements of the company with management and the independent auditor, including the information disclosed under the heading Management s Discussion and Analysis of Financial Condition and Results of Operations ; and (ii) to discuss the company s press releases relating

## TSMC Corporate Practices

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

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

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

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

TSMC s written audit committee charter establishes the same audit committee objectives.
to its earnings as well as the financial information and guidelines relating to its earnings that are supplied to analysts and rating agencies.

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

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

Taiwan law does not contain such requirement. But, consistent with the Sarbanes-Oxley Act of 2002, TSMC s written audit committee charter contains such requirement.

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

## NYSE Standards for US Companies under Listed Company Manual Section 303A

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

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

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

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

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

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

## TSMC Corporate Practices

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

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

Taiwan law does not contain such requirement.

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

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

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

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

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

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## PART III

## ITEM 17. FINANCIAL STATEMENTS

The Company has elected to provide the financial statements and related information specified in Item 18 in lieu of Item 17.
ITEM 18. FINANCIAL STATEMENTS
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Consolidated Financial Statements of Taiwan Semiconductor Manufacturing Company Limited andSubsidiaries
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## Edgar Filing: TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD - Form 20-F

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## ITEM 19. EXHIBITS

(a) See Item 18 for a list of the financial statements filed as part of this annual report.
(b) Exhibits to this Annual Report:
1.1 $1^{(1)}$ Articles of Incorporation of Taiwan Semiconductor Manufacturing Company Limited, as amended

2b. 1 The Company hereby agrees to furnish to the Securities and Exchange Commission, upon request, copies of instruments defining the rights of holders of long-term debt of the Company and its subsidiaries.
3.1 ${ }^{(1)} \quad$ Rules for Election of Directors, as amended and restated on May 7, 2007.
3.2 Rules and Procedures of Board of Directors Meetings, as adopted on June 13, 2008
3.3 ${ }^{(3)} \quad$ Rules and Procedures of Shareholders Meetings, as amended and restated on May 7, 2002.
4.1 ${ }^{(3)} \quad$ Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park Administration) relating to the fabs located in Tainan Science Park (effective August 1, 1997 to July 31, 2017) (in Chinese with English summary).
$\begin{array}{ll}\text { 4.2 }{ }^{(4)} & \begin{array}{l}\text { Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park } \\ \text { Administration) relating to the fabs located in Tainan Science Park (effective May 1, } 1998 \text { to } \\ \text { April 30, 2018) (in Chinese with English summary). }\end{array} \\ 4.3^{(4)} \quad \begin{array}{l}\text { Land Lease with Southern Taiwan Science Park Administration (formerly Tainan Science Park } \\ \text { Administration) relating to the fabs located in Tainan Science Park (effective November 1, } 1999 \text { to } \\ \text { October 31, 2019) (in Chinese with English summary). }\end{array}\end{array}$
4.4 Land Lease with Hsinchu Science Park Administration relating to Fab 7 (effective December 4, 1989 to December 3, 2009) (in Chinese with English summary).
4.5 ${ }^{(3)} \quad$ Land Lease with Hsinchu Science Park Administration relating to the Fab 7 (effective July 1, 1995 to June 30, 2015) (in Chinese with English summary).
4.6 ${ }^{(3)} \quad$ Land Lease with Hsinchu Science Park Administration relating to Fab 8 (effective March 15, 1997 to March 14, 2017) (in Chinese with English summary).
4.7 $7^{(4)} \quad$ Land Lease with Hsinchu Science Park Administration relating to Fab 12 (Phase I) (effective December 1, 1999 to November 30, 2019) (in Chinese with English summary).
$+4.8 a^{(2)}$ Technology Cooperation Agreement between Taiwan Semiconductor Manufacturing Company Ltd. and Philips Electronics N.V., as amended and restated on June 20, 2004.
4.9a ${ }^{(5)} \quad$ Taiwan Semiconductor Manufacturing Company Limited 2002 Employee Stock Option Plan, as revised by the board of directors on March 4, 2003.
4.9aa ${ }^{(6)}$ Taiwan Semiconductor Manufacturing Company Limited 2003 Employee Stock Option Plan.

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TSMC on
April 15, 2008.
(2) Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended
December 31, 2004, filed by TSMC on
May 16, 2005.
(3) Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended
December 31, 2001, filed by
TSMC on
May 9, 2002.
(4) Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended
December 31, 1999, filed by TSMC on
June 29, 2000.
(5) Previously filed in TSMC s
annual report on
Form 20-F for
the fiscal year
ended
December 31,
2002, filed by
TSMC on
June 23, 2003.

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(6) Previously filed in TSMC s registration statement on Form S-8, filed by TSMC on October 20, 2003.
(7) Previously filed in TSMC s registration statement on Form S-8, filed by TSMC on January 6, 2005.
(8) Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended
December 31, 1998, filed by
TSMC on
April 30, 1999.
(9) Previously filed in TSMC s annual report on Form 20-F for the fiscal year ended
December 31, 2003, filed by TSMC on May 28, 2004.
(10) Previously filed in TSMC s registration statement on Form F-1, filed by TSMC on September 15, 1997.

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Contains
portions for
which
confidential
treatment has
been requested.

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## SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant certifies that it meets all the requirements for filing on Form 20-F and has duly caused this annual report to be signed on its behalf by the undersigned.
Date: April 17, 2009
TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED

By: /s/ Lora Ho
Name: Lora Ho
Title: Vice President and Chief Financial Officer

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Taiwan Semiconductor Manufacturing Company Limited
We have audited the accompanying consolidated balance sheets of Taiwan Semiconductor Manufacturing Company Limited (a Republic of China corporation) and subsidiaries (the Company ) as of December 31, 2007 and 2008, and the related consolidated statements of income, changes in shareholders equity, and cash flows for each of the three years in the period ended December 31, 2008 (all expressed in New Taiwan dollars). These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.
We conducted our audits in accordance with auditing standards generally accepted in the Republic of China and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.
In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Taiwan Semiconductor Manufacturing Company Limited and subsidiaries as of December 31, 2007 and 2008, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2008, in conformity with accounting principles generally accepted in the Republic of China.
As discussed in Note 4 to the consolidated financial statements, on January 1, 2008, the Company adopted
Interpretation 2007-052, Accounting for Bonuses to Employees, Directors and Supervisors, issued by the Accounting Research and Development Foundation of the Republic of China that requires companies to record bonuses paid to employees, directors and supervisors as an expense rather than an appropriation of earnings.
Accounting principles generally accepted in the Republic of China vary in certain significant respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of net income for each of the three years in the period ended December 31, 2008 and the determination of shareholders equity and financial position as of December 31, 2007 and 2008, to the extent summarized in Note 30. Our audits also comprehended the translation of New Taiwan dollar amounts into U.S. dollar amounts and, in our opinion, such translation has been made in conformity with the basis stated in Note 3. Such U.S. dollar amounts are presented solely for the convenience of the readers in the United States of America.
We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company s internal control over financial reporting as of December 31, 2008, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 6, 2009 expressed an unqualified opinion on the Company s internal control over financial reporting.
/s/Deloitte \& Touche
Deloitte \& Touche
Taipei, Taiwan
The Republic of China
April 6, 2009

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Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries CONSOLIDATED BALANCE SHEETS
(In Millions of New Taiwan or U.S. Dollars, Except Par Value)

| ASSETS | Notes | December 31 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2007NT\$ | 2008 |  |
|  |  |  | NT\$ | $\begin{gathered} \text { US\$ } \\ \text { (Note 3) } \end{gathered}$ |
| CURRENT ASSETS |  |  |  |  |
| Cash and cash equivalents | 2, 5 | \$ 94,986.5 | \$ 194,613.8 | \$ 5,940.6 |
| Financial assets at fair value through profit or loss | 2, 6, 24 | 1,632.4 | 55.7 | 1.7 |
| Available-for-sale financial assets | 2, 7, 24 | 66,688.4 | 10,898.7 | 332.7 |
| Held-to-maturity financial assets | 2, 8, 24 | 11,526.9 | 5,882.0 | 179.5 |
| Notes and accounts receivable, net | 2, 9, 25 | 42,413.3 | 18,496.6 | 564.6 |
| Receivables from related parties | 25 | 10.9 | 0.4 | 0.0 |
| Other receivables from related parties | 25 | 243.6 | 99.9 | 3.0 |
| Other financial assets | 26 | 1,515.5 | 1,911.7 | 58.4 |
| Inventories, net | 2, 10 | 23,862.3 | 14,876.6 | 454.1 |
| Deferred income tax assets, net | 2,19 | 5,572.3 | 3,969.3 | 121.2 |
| Prepaid expenses and other current assets |  | 1,370.2 | 1,813.7 | 55.4 |
| Total current assets |  | 249,822.3 | 252,618.4 | 7,711.2 |
| LONG-TERM INVESTMENTS | 2, 7, 8, 11, 12, 24 |  |  |  |
| Investments accounted for using equity method |  | 22,517.3 | 18,907.2 | 577.1 |
| Available-for-sale financial assets |  | 1,400.7 | 2,032.7 | 62.0 |
| Held-to-maturity financial assets |  | 8,697.7 | 15,426.2 | 470.9 |
| Financial assets carried at cost |  | 3,845.6 | 3,615.4 | 110.4 |
| Total long-term investments |  | 36,461.3 | 39,981.5 | 1,220.4 |
| PROPERTY, PLANT AND EQUIPMENT, NET | 2, 13, 26 | 260,252.2 | 243,645.4 | 7,437.3 |
| INTANGIBLE ASSETS |  |  |  |  |
| Goodwill | 2 | 5,987.6 | 6,044.4 | 184.5 |
| Deferred charges, net | 2,14 | 7,923.6 | 7,125.8 | 217.5 |
| Total intangible assets |  | 13,911.2 | 13,170.2 | 402.0 |
| OTHER ASSETS |  |  |  |  |
| Deferred income tax assets, net | 2,19 | 7,313.3 | 6,636.9 | 202.6 |

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Refundable deposits
Others
Total other assets
TOTAL ASSETS
LIABILITIES AND SHA
CURRENT LIABILITIES
Financial liabilities at fair value through profit or loss
Accounts payable
Payable to related parties
Income tax payable
Bonuses payable to employees, directors and
supervisors
Payables to contractors and equipment suppliers
Accrued expenses and other current liabilities
Current portion of bonds payable and bank loans

Total current liabilities

LONG-TERM LIABILITIES

| Bonds payable | 15 | 12,500.0 | 4,500.0 | 137.4 |
| :---: | :---: | :---: | :---: | :---: |
| Long-term bank loans | 16, 26 | 1,722.2 | 1,420.5 | 43.4 |
| Other long-term payables | 17, 28 | 9,410.0 | 9,548.2 | 291.4 |
| Obligations under capital leases | 2 | 652.3 | 722.3 | 22.0 |
| Total long-term liabilities |  | 24,284.5 | 16,191.0 | 494.2 |
| OTHER LIABILITIES |  |  |  |  |
| Accrued pension cost | 2,18 | 3,665.5 | 3,701.6 | 113.0 |
| Guarantee deposits | 28 | 2,243.0 | 1,484.5 | 45.3 |
| Deferred credits | 2, 25 | 1,236.9 | 316.5 | 9.7 |
| Others |  | 43.8 | 43.7 | 1.3 |
| Total other liabilities |  | 7,189.2 | 5,546.3 | 169.3 |
| Total liabilities |  | 80,179.7 | 78,544.1 | 2,397.5 |

EQUITY ATTRIBUTABLE TO SHAREHOLDERS
OF THE PARENT
Capital stock NT\$10 par value
20, 22
Authorized: 28,050,000 thousand shares
Issued: 26,427,104 thousand shares in 2007

| 25,625,437 thousand shares in 2008 |  | $264,271.1$ | $256,254.4$ | $7,822.2$ |
| :--- | ---: | ---: | ---: | ---: |
| Capital surplus | 2,20 | $53,732.7$ | $49,875.2$ | $1,522.4$ |
| Retained earnings | 20 | $218,864.5$ | $170,053.7$ | $5,190.9$ |
| Unrealized gain/loss on financial instruments | 24 | 681.0 | $(287.3)$ | $(8.8)$ |
| Cumulative translation adjustments |  | $(1,072.9)$ | 481.1 | 14.7 |
| Treasury stock $-834,096$ thousand shares | 2,22 | $(49,385.0)$ |  |  |


| Total equity attributable to shareholders of the parent | $487,091.4$ | $476,377.1$ | $14,541.4$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| MINORITY INTEREST IN SUBSIDIARIES | 2 | $3,594.1$ | $3,995.4$ | 122.0 |
| Total shareholders equity | $490,685.5$ | $480,372.5$ | $14,663.4$ |  |

TOTAL LIABILITIES AND SHAREHOLDERS
EQUITY
\$ 570,865.2 \$ 558,916.6 \$ 17,060.9
The accompanying notes are an integral part of the consolidated financial statements.
(With Deloitte \& Touche audit report dated April 6, 2009)

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

|  | Notes | Year Ended December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2006 | 2007 |  |  |
|  |  | NT\$ | NT\$ | NT\$ | $\begin{gathered} \text { US\$ } \\ \text { (Note 3) } \end{gathered}$ |
| NET SALES |  | \$ 317,407.2 | \$ 322,630.6 | \$ 333,157.7 | \$ 10,169.6 |
| COST OF SALES | 2, 25 | 161,597.1 | 180,280.4 | 191,408.1 | 5,842.7 |
| GROSS PROFIT |  | 155,810.1 | 142,350.2 | 141,749.6 | 4,326.9 |
| OPERATING EXPENSES | 25 |  |  |  |  |
| Research and development |  | 16,076.4 | 17,946.3 | 21,480.9 | 655.7 |
| General and administrative |  | 8,716.7 | 8,963.8 | 11,096.6 | 338.7 |
| Marketing |  | 3,752.3 | 3,718.2 | 4,736.7 | 144.6 |
| Total operating expenses |  | 28,545.4 | 30,628.3 | 37,314.2 | 1,139.0 |
| INCOME FROM OPERATIONS |  | 127,264.7 | 111,721.9 | 104,435.4 | 3,187.9 |
| NON-OPERATING INCOMEAND GAINS |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Interest income | 2 | 4,542.1 | 5,651.7 | 5,373.8 | 164.0 |
| Foreign exchange gain, net | 2 |  | 80.9 | 1,227.7 | 37.5 |
| Technical service income | 25, 28 | 571.5 | 590.4 | 1,182.0 | 36.1 |
| Settlement income | 28 | 979.2 | 985.1 | 951.2 | 29.0 |
| Gain on settlement and disposal of financial assets, net | 2, 24 | 133.5 | 874.7 | 721.0 | 22.0 |
| Equity in earnings of equity method investees, net Rental income | 2,11 | 2,347.2 | 2,507.9 | 701.5 | 21.4 |
|  | 25 | 224.3 | 378.6 | 166.3 | 5.1 |
| Gain on disposal of property, plant and equipment and other assets | 2, 25 | 421.1 | 91.2 | 100.9 | 3.1 |
| Subsidy income | 2 | 334.5 | 364.3 | 8.0 | 0.2 |
| Valuation gain on financial instruments, net | 2, 6, 24 |  | 63.0 |  |  |
| Others | 25 | 285.7 | 346.0 | 389.0 | 11.9 |

Total non-operating income and gains

NON-OPERATING EXPENSES
AND LOSSES
Loss on impairment of financial assets instruments, net
Interest expense
Loss on impairment of idle assets Provision for litigation loss
Loss on disposal of property, plant and equipment
Foreign exchange loss, net Others

| $2,7,12,24$ | 279.7 | 54.2 | $1,560.1$ | 47.6 |
| ---: | ---: | ---: | ---: | ---: |
| $2,6,24$ | $1,745.0$ |  | $1,081.0$ | 33.0 |
|  | 890.6 | 842.2 | 615.0 | 18.8 |
| 2 |  |  | 210.5 | 6.4 |
| 28 h |  | $1,008.6$ | 99.1 | 3.0 |
| 2 | 241.4 | 6.2 | 0.6 |  |
|  | 400.9 |  |  |  |
|  | 184.0 | 102.5 | 218.3 | 6.7 |

Total non-operating expenses and losses

INCOME BEFORE INCOME TAX
INCOME TAX EXPENSE
2, 19
3,741.6
2,013.7 $3,784.6$
115.5

| $133,362.2$ | $121,642.0$ | $111,472.2$ | $3,402.7$ |
| ---: | ---: | ---: | ---: |
| $7,773.7$ | $11,709.6$ | $10,949.0$ | 334.2 |

(Continued)
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Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries CONSOLIDATED STATEMENTS OF INCOME
(In Millions of New Taiwan or U.S. Dollars, Except Earnings Per Share That Are in New Taiwan or U.S. Dollars)

|  | Notes |  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | $\begin{aligned} & \text { ear Ended } \\ & 2007 \\ & \text { NT\$ } \end{aligned}$ | em | ber 31 <br> 20 <br> NT\$ | US\$ <br> (Note 3) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NET INCOME BEFORE CUMULATIVE EFFECT OF CHANGES IN ACCOUNTING PRINCIPLES |  | \$ | 125,588.5 | \$ | 109,932.4 | \$ | 100,523.2 | \$ 3,068.5 |
| CUMULATIVE EFFECT OF CHANGES IN ACCOUNTING PRINCIPLES, NET OF TAX BENEFIT OF NT\$82.1 MILLION |  |  | 1,606.7 |  |  |  |  |  |
| NET INCOME |  | \$ | 127,195.2 | \$ | 109,932.4 | \$ | 100,523.2 | \$ 3,068.5 |
| ATTRIBUTABLE TO: <br> Shareholders of the parent Minority interests |  | \$ | $\begin{array}{r} 127,009.7 \\ 185.5 \end{array}$ | \$ | $\begin{array}{r} 109,177.1 \\ 755.3 \end{array}$ | \$ | $\begin{array}{r} 99,933.2 \\ 590.0 \end{array}$ | $\begin{array}{r} \$ 3,050.5 \\ 18.0 \end{array}$ |
|  |  | \$ | 127,195.2 | \$ | 109,932.4 | \$ | 100,523.2 | \$ 3,068.5 |
| BASIC EARNINGS PER SHARE <br> Before income tax | 2, 23 | \$ | 5.01 | \$ | 4.50 | \$ | 4.28 | \$ 0.13 |
| After income tax |  | \$ | 4.72 | \$ | 4.06 | \$ | 3.86 | \$ 0.12 |
| DILUTED EARNINGS PER SHARE | 2, 23 | \$ | 5.00 | \$ | 4.50 | \$ | 4.25 | \$ 0.13 |
| Before income tax |  | \$ | 4.72 | \$ | 4.06 | \$ | 3.83 | \$ 0.12 |

After income tax

BASIC EARNINGS PER
EQUIVALENT ADS
2
Before income tax

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| After income tax |  | \$ | 23.61 | \$ | 20.32 | \$ | 19.28 | \$ | 0.59 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DILUTED EARNINGS PER |  |  |  |  |  |  |  |  |  |
| EQUIVALENT ADS | 2 |  |  |  |  |  |  |  |  |
| Before income tax |  | \$ | 25.02 | \$ | 22.48 | \$ | 21.23 | \$ | 0.65 |
| After income tax |  | \$ | 23.59 | \$ | 20.30 | \$ | 19.14 | \$ | 0.58 |
| BASIC WEIGHTED AVERAGE |  |  |  |  |  |  |  |  |  |
| SHARES OUTSTANDING |  |  |  |  |  |  |  |  |  |
| (THOUSANDS) | 2,23 |  | 26,896,606 |  | 26,870,684 |  | 25,909,643 |  |  |
| DILUTED WEIGHTED AVERAGE |  |  |  |  |  |  |  |  |  |
| SHARES OUTSTANDING |  |  |  |  |  |  |  |  |  |
| (THOUSANDS) | 2,23 |  | 26,920,168 |  | 26,892,336 |  | 26,106,676 |  |  |

The accompanying notes are an integral part of the consolidated financial statements.
(With Deloitte \& Touche audit report dated April 6,

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## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY (In Millions of New Taiwan Dollars, Except Dividends Per Share)

Equity Attributable to Shareholders of the Parent
Capital Stock Unrealized
Gain
(Loss) Cumulative Minority Tota
on

| Common Stock |  | Capital | Retained | FinancialTranslation | Treasury |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shares | Amount | Surplus | Earnings InstrumenAdjustments |  | Stock |  |
| (Thousands) | NT\$ | NT\$ | NT\$ | NT\$ | NT\$ | NT\$ |


| Total | Subsidiaries | Equi |
| :--- | :---: | :---: |
| NT\$ | NT\$ | NT |

## ANCE

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24,730,025 & 247,300.2 & \$ 57,117.9 & \$ 142,771.0 & \$ & \$ & (640.7) & \$ & (918.1) & \$ 445,630.3
\end{array} \$ 608.4 \quad \$ 446,2
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$(4,572.8)$
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3.00 per
dividends
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od investees
(122.4)
(122.4)
ury stock
chased
ase in
rity interest
$101.8 \quad 101.8$
$\begin{array}{lll}10,988 & 109.9 & 327.0\end{array}$
436.9
118.2
(28.7) 31.9
118.2 (99.3)
109,177.1 $755.3 \quad 109,9$
stment $\quad 109,17.1 \quad 109$
dividends areholders . 02 per
$51,254 \quad 512.5$
s to directors al surplus erred to $\begin{array}{llll}\text { al stock } & 76,881 & 768.8\end{array}$ ncome in stment g from yes in ntage of rship in y method tees
lation
tments nce of stock exercising oyee stock ns ved by diaries from ation loss on able-for-sale cial assets $y$ in the tion loss on able-for-sale cial assets by equity od investees ury stock chased ury stock ease in rity interests
$\begin{array}{lll}6,027 & 60.3 & 166.9\end{array}$
102.3
(176.9)

1,554.0
1,554.0 (68.8)
227.2
102.3
(826.2) (826.2)
(17.0)
(142.1)
$(30,427.5) \quad(30,427.5)$
$(1,329,817) \quad(13,298.2) \quad(3,220.8) \quad(63,293.5) \quad 79,812.5$

ANCE,
EMBER 31,

The accompanying notes are an integral part of the consolidated financial statements.
(With Deloitte \& Touche audit report dated April 6, 2009)

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

## CASH FLOWS FROM OPERATING

 ACTIVITIESNet income attributable to shareholders of the parent
Net income attributable to minority interest Adjustments to reconcile net income to net cash provided by operating activities:
Depreciation and amortization
Amortization of premium/discount of financial assets
Loss on impairment of financial assets
Gain on disposal of available-for-sale financial assets, net

| $\$ 127,009.7$ | $\$ 109,177.1$ | $\$ 99,933.2$ | $\$ 3,050.5$ |
| ---: | ---: | ---: | ---: |
| 185.5 | 755.3 | 590.0 | 18.0 |
|  |  |  |  |
| $73,715.2$ | $80,005.4$ | $81,512.2$ | $2,488.2$ |
|  |  |  |  |
| 2.4 | $(117.2)$ | $(93.4)$ | $(2.9)$ |
| 279.7 | 54.2 | $1,560.1$ | 47.6 |
|  |  |  |  |
| $(90.8)$ | $(610.2)$ | $(637.2)$ | $(19.5)$ |
|  |  |  |  |
| $(2,347.2)$ | $(2,507.9)$ | $(701.5)$ | $(21.4)$ |
| 614.6 | 625.1 | $1,661.1$ | 50.7 |
|  |  |  |  |
| $(16.2)$ | $(264.5)$ | $(83.8)$ | $(2.6)$ |
| $(179.7)$ | $(85.0)$ | $(100.3)$ | $(3.1)$ |
| 121.6 | 943.8 | $2,279.4$ | 69.6 |
| 44.1 |  | 210.5 | 6.4 |

Net changes in operating assets and liabilities:
Decrease (increase) in:
Financial assets and liabilities at fair value through profit or loss
Notes and accounts receivable, net
Receivables from related parties
Other receivables from related parties
Other financial assets
Inventories

| 340.2 | $(187.1)$ | $1,412.6$ | 43.1 |
| ---: | ---: | ---: | ---: |
| $6,447.3$ | $(10,977.0)$ | $23,916.7$ | 730.1 |
| 440.9 | 629.5 | 10.5 | 0.3 |
| 341.1 | 13.2 | 143.7 | 4.4 |
| $(738.7)$ | 842.1 | $(426.0)$ | $(13.0)$ |
| $(3,702.4)$ | $(2,226.1)$ | $8,985.7$ | 274.3 |
| $(170.5)$ | 290.4 | $(443.5)$ | $(13.5)$ |
|  |  |  |  |
| $(1,487.1)$ | $3,218.3$ | $(6,021.7)$ | $(183.8)$ |
| $(572.4)$ | $(375.7)$ | $(1,013.5)$ | $(30.9)$ |
| $3,931.0$ | $3,179.7$ | $(1,794.3)$ | $(54.8)$ |
|  |  |  |  |
|  |  | $15,369.7$ | 469.2 |
| 862.4 | 913.9 | $(3,954.5)$ | $(120.7)$ |

Accrued pension cost
Deferred credits

Net cash provided by operating activities

CASH FLOWS FROM INVESTING
ACTIVITIES
Acquisitions of:

| Available-for-sale financial assets | $(119,291.7)$ | $(87,550.2)$ | $(85,273.9)$ | $(2,603.0)$ |
| :--- | ---: | ---: | ---: | ---: |
| Held-to-maturity financial assets | $(18,554.0)$ |  | $(16,523.3)$ | $(504.4)$ |
| Investments accounted for using equity method | $(2,613.0)$ | $(5,803.8)$ | $(55.9)$ | $(1.7)$ |
| Financial assets carried at cost | $(511.6)$ | $(911.3)$ | $(463.2)$ | $(14.1)$ |
| Property, plant and equipment | $(78,737.3)$ | $(84,001.0)$ | $(59,222.6)$ | $(1,807.8)$ |
| Proceeds from disposal or redemption of: |  |  |  |  |
| Available-for-sale financial assets | $91,620.4$ | $94,908.7$ | $138,515.0$ | $4,228.2$ |
| Held-to-maturity financial assets | $10,410.0$ | $17,325.1$ | $15,634.6$ | 477.2 |
| Financial assets carried at cost | 126.5 | 410.5 | 199.4 | 6.1 |
| Property, plant and equipment and other assets | 518.7 | 60.5 | 194.9 | 6.0 |
| Proceeds from return of capital by investees |  |  | $2,345.9$ | 71.6 |
| Increase in deferred charges | $(1,414.8)$ | $(3,059.2)$ | $(3,395.3)$ | $(103.6)$ |
| Decrease (increase) in refundable deposits | $(1,224.5)$ | $(1,434.9)$ | 10.6 | 0.3 |
| Net cash paid for acquisition of subsidiaries |  | $(404.4)$ |  |  |
| Increase in other assets | $(52.1)$ | $(228.8)$ | $(8.1)$ | $(0.3)$ |

Net cash used in investing activities
$(119,723.4) \quad(70,688.8) \quad(8,041.9)$
(245.5)
(Continued)
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Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Millions of New Taiwan or U.S. Dollars)


INVESTING AND FINANCING ACTIVITIES AFFECTING BOTH CASH AND NON-CASH ITEMS
Acquisition of property, plant and equipment Decrease (increase) in payables to contractors and equipment suppliers
Increase in obligations under capital leases
Cash paid

Repurchase of treasury stock
Increase in accrued expenses and other current liabilities

Cash paid

## NONCASH FINANCING ACTIVITIES

Current portion of bonds payable and long-term liabilities
Current portion of other long-term payables (under accrued expenses and other current liabilities)
Current portion of other payables to related parties (under payables to related parties)

| $\$ 80,675.3$ | $\$$ | $78,890.0$ | $\$$ | $60,978.5$ | $\$ 1,861.4$ |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $(1,702.5)$ | $5,111.0$ |  | $(1,742.1)$ | $(53.2)$ |  |
| $(235.5)$ |  | $(13.8)$ | $(0.4)$ |  |  |

\$ 78,737.3 \$ 84,001.0 \$ 59,222.6 \$ 1,807.8
$\$ \quad \$ \quad 48,466.9 \quad \$ \quad 30,427.5 \quad \$ \quad 928.8$
$\begin{array}{lll}(3,053.5) & 3,053.5 & 93.2\end{array}$
\$
\$ 45,413.4 \$ 33,481.0
\$ 1,022.0
$\begin{array}{llllllll}\$ & 7,004.1 & \$ & 280.8 & \$ & 8,222.4 & \$ & 251.0\end{array}$

| 617.9 | $3,735.9$ | $1,126.5$ | 34.4 |
| :--- | :--- | :--- | :--- |

688.6
(Continued)
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Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Millions of New Taiwan or U.S. Dollars)

The Company acquired controlling interests in XinTec Inc. (XinTec) and Mutual-Pak Technology Co., Ltd.
(Mutual-Pak) in March 2007 and July 2007, respectively, and consolidated the revenue/income and expenses/losses of these two subsidiaries from the respective acquisition dates. Fair values of assets acquired and liabilities at acquisition assumed were as follows:


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# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries 

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 1. GENERAL

Taiwan Semiconductor Manufacturing Company, Limited (TSMC), a Republic of China (R.O.C.) corporation, was incorporated on February 21, 1987 as a venture among the Government of the R.O.C., acting through the Development Fund of the Executive Yuan; Philips Electronics N.V. and certain of its affiliates (Philips); and certain other private investors. On September 5, 1994, its shares were listed on the Taiwan Stock Exchange (TSE). On October 8, 1997, TSMC listed some of its shares of stock on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs).

TSMC is a dedicated foundry in the semiconductor industry which engaged mainly in the manufacturing, selling, packaging, testing and computer-aided designing of integrated circuits and other semiconductor devices and the manufacturing of masks.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements are presented in conformity with accounting principles generally accepted in the R.O.C.

Significant accounting policies are summarized as follows:

## Principles of Consolidation

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

The consolidated entities were as follows:

| Name of Investor | Name of Investee | 2007 | 2008 | Remark |
| :---: | :---: | :---: | :---: | :---: |
| TSMC | TSMC North America | 100\% | 100\% |  |
|  | TSMC Japan Limited (TSMC Japan) | 100\% | 100\% |  |
|  | TSMC Korea Limited (TSMC Korea) | 100\% | 100\% |  |
|  | Taiwan Semiconductor Manufacturing Company Europe B.V. (TSMC Europe) | 100\% | 100\% |  |
|  | TSMC International Investment Ltd. (TSMC International) | 100\% | 100\% |  |
|  | TSMC Global Ltd. (TSMC Global) | 100\% | 100\% |  |
|  | TSMC China Company Limited (TSMC China) | 100\% | 100\% |  |
|  | Chi Cherng Investment Co., Ltd. (Chi Cherng) | 36\% |  | and Hsin Ruey aggregate a |

$100 \%$ ownership of Chi Cherng as of December 31, 2007. In July 2008, Chi Cherng was merged by Hsin Ruey.
(Continued)

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| Name of Investor | Percentage of Ownership December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Name of Investee | 2007 | 2008 | Remark |
|  | Hsin Ruey Investment Co., Ltd. (Hsin Ruey) | 36\% |  | TSMC and Chi Cherng held in aggregate a 100\% ownership of Hsin Ruey as of December 31, 2007. In August 2008, Hsin Ruey was merged by TSMC. |
|  | VentureTech Alliance Fund III, L.P. (VTAF III) | 98\% | 98\% |  |
|  | VentureTech Alliance Fund II, L.P. <br> (VTAF II) | 98\% | 98\% |  |
|  | Emerging Alliance Fund, L.P. (Emerging Alliance) | 99.5\% | 99.5\% |  |
|  | Global Unichip Corporation (GUC) | 37\% | 36\% | GUC became a consolidated entity of TSMC. TSMC has a controlling interest over the financial, operating and personnel hiring decisions of GUC. |
|  | XinTec Inc. (XinTec) | 43\% | 42\% | TSMC obtained three out of five director positions in March 2007 and TSMC has a controlling interest in XinTec. |
|  | TSMC Partners, Ltd. (TSMC Partners) | 100\% | 100\% |  |
| TSMC International | TSMC Technology, Inc. (TSMC Technology) | 100\% | 100\% |  |
|  | TSMC Development, Inc. (TSMC Development) | 100\% | 100\% |  |
|  | InveStar Semiconductor Development Fund, Inc. (ISDF) | 97\% | 97\% |  |
|  | InveStar Semiconductor Development Fund, Inc. (II) LDC. (ISDF II) | 97\% | 97\% |  |
| TSMC Development | WaferTech, LLC (WaferTech) | 99.996\% | 99.996\% |  |
| VTAF III | Mutual-Pak Technology Co., Ltd. (Mutual-Pak) | 51\% | 51\% |  |


|  | Growth Fund Limited (Growth Fund) |  | 100\% | Newly established. |
| :---: | :---: | :---: | :---: | :---: |
| VTAF III, VTAF II | VentureTech Alliance Holdings, | 100\% | 100\% |  |
| Alliance |  |  |  |  |
| GUC | Global Unichip Corporation-NA (GUC-NA) | 100\% | 100\% |  |
|  | Global Unichip Japan Co., Ltd. (GUC-Japan) | 100\% | 100\% |  |
|  | Global Unichip Europe B.V. (GUC-Europe) |  | 100\% | Newly established. |
| TSMC Partners | TSMC Design Technology Canada Inc. (TSMC Canada) | 100\% | 100\% |  |
|  | F-10 |  |  | (Concluded) |

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The following diagram presents information regarding the relationship and ownership percentages between TSMC and its consolidated investees as of December 31, 2008:
TSMC North America is engaged in selling and marketing of integrated circuits and semiconductor devices. TSMC
Japan, TSMC Korea and TSMC Europe are engaged mainly in marketing or customer service and technical supporting activities. TSMC International is engaged in investment in companies involved in the design, manufacture, and other related business in the semiconductor industry. TSMC Global, TSMC Partners and TSMC Development are engaged in investing activities. TSMC China is engaged in the manufacturing and selling of integrated circuits pursuant to the orders from and product design specifications provided by customers. Emerging Alliance, VTAF II, VTAF III, VTA Holdings, ISDF, ISDF II, and Growth Fund are engaged in investing in new start-up technology companies. TSMC Canada and TSMC Technology are engaged mainly in engineering support activities. WaferTech is engaged in the manufacturing, selling, testing and computer-aided designing of integrated circuits and other semiconductor devices. GUC is engaged in researching, developing, manufacturing, testing and marketing of integrated circuits. GUC-NA, GUC-Japan, and GUC-Europe are engaged in providing products consulting in North America, Japan, and Europe, respectively. XinTec is engaged in the provision of wafer packaging service. Mutual-Pak is engaged in the manufacturing and selling of electronic parts, and researching, developing and testing of RFID. Chi Cherng and Hsin Ruey, both $100 \%$ owned subsidiaries of TSMC, were engaged in investing activities. To simplify the organization structure of investment, TSMC merged Chi Cherng and Hsin Ruey in the third quarter of 2008.

TSMC together with its subsidiaries are hereinafter referred to collectively as the Company .
Minority interests in the aforementioned subsidiaries are presented as a separate component of shareholders equity.

## Use of Estimates

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

## Classification of Current and Noncurrent Assets and Liabilities

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

Repurchase agreements collateralized by government bonds, asset-backed commercial papers and corporate notes acquired with maturities of less than three months from the date of purchase are classified as cash equivalents. The carrying amount approximates fair value.

## Financial Assets/Liabilities at Fair Value Through Profit or Loss

Derivatives that do not meet the criteria for hedge accounting and financial assets acquired principally for the purpose of selling them in the near term are initially recognized at fair value, with transaction costs expensed as incurred. The derivatives and financial assets are remeasured at fair value subsequently with changes in fair value recognized in earnings. A regular way purchase or sale of financial assets is accounted for using settlement date accounting.
Fair value is determined as follows: Publicly traded stocks closing prices at the end of the year; derivatives using valuation techniques incorporating estimates and assumptions that are consistent with prevailing market conditions. When the fair value is positive, the derivative is recognized as a financial asset; when the fair value is negative, the derivative is recognized as a financial liability.

## Available-for-sale Financial Assets

Investments designated as available-for-sale financial assets include debt securities and equity securities. Available-for-sale financial assets are initially recognized at fair value plus transaction costs that are directly attributable to the acquisition. Changes in fair value from subsequent remeasurement are reported as a separate component of shareholders equity. The corresponding accumulated gains or losses are recognized in earnings when the financial asset is derecognized from the balance sheet. A regular way purchase or sale of financial assets is accounted for using settlement date accounting.
Fair value is determined as follows: Structured time deposits using valuation techniques; open-end mutual funds and money market funds net asset values at the end of the year; publicly traded stocks closing prices at the end of the year; and other debt securities average of bid and asked prices at the end of the year.
Cash dividends are recognized as investment income upon resolution of shareholders of an investee but are accounted for as a reduction to the original cost of investment if such dividends are declared on the earnings of the investee attributable to the period prior to the purchase of the investment. Stock dividends are recorded as an increase in the number of shares held and do not affect investment income. The cost per share is recalculated based on the new total number of shares.
Any difference between the initial carrying amount of a debt security and the amount due at maturity is amortized using the effective interest method, with the amortization recognized in earnings.
If there is objective evidence which indicates that a financial asset is impaired, a loss is recognized. If, in a subsequent period, the amount of the impairment loss decreases, for equity securities, the previously recognized impairment loss is reversed to the extent of the decrease and recorded as an adjustment to shareholders equity; for debt securities, the amount of the decrease is recognized in earnings, provided that the decrease is clearly attributable to an event which occurred after the impairment loss was recognized.

## Held-to-maturity Financial Assets

Debt securities for which the Company has a positive intention and ability to hold to maturity are categorized as held-to-maturity financial assets and are carried at amortized cost under the effective interest method except for structured time deposits which are carried at acquisition cost. Those financial assets are initially recognized at fair value plus transaction costs that are directly attributable to the acquisition. Gains or losses are recognized at the time of derecognition, impairment or amortization. A regular way purchase or sale of financial assets is accounted for using settlement date accounting.
If there is objective evidence which indicates that a financial asset is impaired, a loss is recognized. If, in a subsequent period, the amount of the impairment loss decreases and the decrease is clearly attributable to an event which occurred after the impairment loss was recognized, the previously recognized impairment loss is reversed to the extent of the decrease. The reversal may not result in a carrying amount that exceeds the amortized cost that would have been determined as if no impairment loss had been recognized.

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## Allowance for Doubtful Receivables

An allowance for doubtful receivables is provided based on a review of the collectibility of notes and accounts receivable. The Company determines the amount of the allowance for doubtful receivables by examining the aging analysis of outstanding notes and accounts receivable and current trends in the credit quality of its customers as well as its internal credit policies.

## Revenue Recognition and Allowance for Sales Returns and Others

The Company recognizes revenue when evidence of an arrangement exists, the rewards of ownership and significant risk of the goods has been transferred to the buyer; price is fixed or determinable, and collectibility is reasonably assured. Provisions for estimated sales returns and others are recorded in the period the related revenue is recognized, based on historical experience, management $s$ judgment, and any known factors that would significantly affect the allowance.
Sales prices are determined using fair value taking into account related sales discounts agreed to by the Company and its customers. Sales agreements typically provide that payment is due 30 days from invoice date for a majority of the customers and 30 to 45 days after the end of the month in which sales occur for some customers. Since the receivables from sales are collectible within one year and such transactions are frequent, fair value of the receivables is equivalent to the nominal amount of the cash to be received.

## Inventories

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

## Investments Accounted for Using Equity Method

Investments in companies wherein the Company exercises significant influence over the operating and financial policy decisions are accounted for using the equity method. The Company s share of the net income or net loss of an investee is recognized in the equity in earnings/losses of equity method investees, net account. Effective January 1 , 2006, pursuant to the revised Statement of Financial Accounting Standards No. 5, Long-term Investments Accounted for Using the Equity Method , the cost of an investment shall be analyzed and the cost of investment in excess of the fair value of identifiable net assets acquired, representing goodwill, shall not be amortized. If the fair value of identifiable net assets acquired exceeds the cost of investment, the excess shall be proportionately allocated as reductions to fair values of non-current assets (except for financial assets other than investments accounted for using the equity method and deferred income tax assets). If there is objective evidence which indicates that a investment is impaired, the carrying amount of the investment is reduced, with the related impairment loss recognized in earnings.

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When the Company subscribes for additional investee $s$ shares at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment in the investee differs from the amount of the Company s share of the investee s equity. The Company records such a difference as an adjustment to long-term investments with the corresponding amount charged or credited to capital surplus.
Gains or losses on sales from the Company to equity method investees or from equity method investees to the Company are deferred in proportion to the Company s ownership percentages in the investees until such gains or losses are realized through transactions with third parties.
If an investee sfunctional currency is a foreign currency, differences will result from the translation of the investee s financial statements into the reporting currency of the Company. Such differences are charged or credited to cumulative translation adjustments, a separate component of shareholders equity.

## Financial Assets Carried at Cost

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

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

Property, plant and equipment and assets leased to others are stated at cost less accumulated depreciation. Properties covered by agreements qualifying as capital leases are carried at the lower of the leased equipment s market value or the present value of the minimum lease payments at the inception date of the lease, with the corresponding amount recorded as obligations under capital leases. When an indication of impairment is identified, any excess of the carrying amount of an asset over its recoverable amount is recognized as a loss. If the recoverable amount increases in a subsequent period, the amount previously recognized as impairment would be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, as if no impairment loss had been recognized. Significant additions, renewals and betterments incurred during the construction period are capitalized. Maintenance and repairs are expensed as incurred.
Depreciation is computed using the straight-line method over the following estimated service lives: land improvements 20 years; buildings 10 to 20 years; machinery and equipment 3 to 10 years; office equipment 3 to 15 years; and leased assets 20 years.
Upon sale or disposal of property, plant and equipment and assets leased to others, the related cost and accumulated depreciation are deducted from the corresponding accounts, with any gain or loss recorded as non-operating gains or losses in the period of sale or disposal.
When property, plant and equipment are determined to be idle or useless, they are transferred to idle assets at the lower of the net realizable value or carrying amount. Depreciation on the idle assets is provided continuously, and the idle assets are tested for impairment on a periodical basis.
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## Intangible Assets

Goodwill represents the excess of the consideration paid for acquisition over the fair value of identifiable net assets acquired. Prior to January 1, 2006, goodwill was amortized using the straight-line method over the estimated life of 10 years. Effective January 1, 2006, pursuant to the newly revised Statement of Financial Accounting Standards No. 25, Business Combinations Accounting Treatment under Purchase Method, goodwill is no longer amortized and instead is tested for impairment annually. If an event occurs or circumstances change which indicated that the fair value of goodwill is more likely than not below its carrying amount, an impairment loss is recognized. A subsequent reversal of such impairment loss is not allowed.
Deferred charges consist of technology license fees, software and system design costs and other charges. The amounts are amortized over the following periods: Technology license fees the shorter of the estimated life of the technology or the term of the technology transfer contract; software and system design costs and other charges 2 to 5 years. When an indication of impairment is identified, any excess of the carrying amount of an asset over its recoverable amount is recognized as a loss. If the recoverable amount increases in a subsequent period, the previously recognized impairment loss would be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of amortization, as if no impairment loss had been recognized. Expenditures related to research activities and those related to development activities that do not meet the criteria for capitalization are charged to expenses when incurred.

## Pension Costs

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

## Government Subsidies

Income-related subsidies from governments are recognized in earnings when the requirements for subsidies are met.

## Income Tax

The Company applies an inter-period allocation for its income tax whereby deferred income tax assets and liabilities are recognized for the tax effects of temporary differences, net operating loss carryforwards and unused tax credits. Valuation allowances are provided to the extent, if any, that it is more likely than not that deferred income tax assets will not be realized. A deferred tax asset or liability is classified as current or noncurrent in accordance with the classification of its related asset or liability. However, if a deferred tax asset or liability does not relate to an asset or liability in the financial statements, then it is classified as either current or noncurrent based on the expected length of time before it is realized or settled.
Any tax credits arising from purchases of machinery, equipment and technology, research and development expenditures, personnel training expenditures, and investments in important technology-based enterprises are recognized using the flow-through method.
Adjustments of prior years tax liabilities are added to or deducted from the current period stax provision.
Income tax on unappropriated earnings (excluding earnings from foreign consolidated subsidiaries) at a rate of $10 \%$ is expensed in the year of shareholder approval which is the year subsequent to the year the earnings are generated.
The R.O.C. government enacted the Alternative Minimum Tax Act (the AMT Act), which became effective on January 1, 2006. The alternative minimum tax (AMT) imposed under the AMT Act is a supplemental tax levied at a rate of $10 \%$ which is payable if the income tax payable determined pursuant to the Income Tax Law is below the minimum amount prescribed under the AMT Act. The taxable income for calculating the AMT includes most of the tax-exempt income under various laws and statutes. TSMC and subsidiaries domiciled in the R.O.C. have considered the impact of the AMT Act in the determination of their tax liabilities.

## Stock-based Compensation

Employee stock options that were granted or modified in the period from January 1, 2004 to December 31, 2007 are accounted for by the interpretations issued by the Accounting Research and Development Foundation of the Republic of China. The Company adopted the intrinsic value method and any compensation cost determined using this method is recognized in earnings over the employee vesting period. Employee stock option plans that were granted or modified after December 31, 2007 are accounted for using fair value method in accordance with Statement of

Financial Accounting Standards No. 39, Accounting for Share-based Payment . The Company did not grant or modify employee stock options since January 1, 2008.
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## Treasury Stock

Treasury stock is stated at cost and shown as a deduction in shareholders equity. When TSMC retires treasury stock, the treasury stock account is reduced and the common stock as well as the capital surplus additional paid-in capital are reversed on a pro rata basis. When the book value of the treasury stock exceeds the sum of the par value and additional paid-in capital, the difference is charged to capital surplus treasury stock transactions and to retained earnings for any remaining amount.
TSMC s stock held by its subsidiaries is treated as treasury stock and reclassified from investments accounted for using equity method to treasury stock. The gains resulted from disposal of the treasury stock held by subsidiaries and cash dividends received by subsidiaries from TSMC are recorded under capital surplus treasury stock transactions.

## Foreign-currency Transactions

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

## Translation of Foreign-currency Financial Statements

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

## Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents, receivables, investments and deposits. The Company limits its exposure to credit loss by depositing its cash and cash equivalents with high credit rating financial institutions. The Company s sales are primarily denominated in U.S. dollars. Sales to top ten customers represented $53 \%, 51 \%$ and $53 \%$ of the consolidated sales for the years ended December 31, 2006, 2007 and 2008, respectively. The Company routinely assesses the financial strength of substantially all customers. The financial condition of the counter-party to investments and deposits is assessed by management on a regular basis.

## Fair Values of Financial Instruments

The carrying amount of cash equivalents approximates fair value due to the short period of time to maturity. Fair values of investments in equity or debt securities and derivative financial instruments are based on quoted market prices or pricing models using current market data. Receivables, other financial assets, payables and short-term loans are financial instruments with carrying amounts that approximate fair values. Fair value of long-term loans with floating interest rates is their carrying amount. Fair value of long-term loans with fixed interest rates is the present value of expected cash flows discounted using the interest rate the Company may obtain for similar long-term loans. For the Company s investment portfolio without immediately available market quotes, management believes that the carrying amount of the portfolio approximates the fair value at December 31, 2007 and 2008.

## Earnings Per Share

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

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## Recent Accounting Pronouncements

The Accounting Research and Development Foundation (ARDF) of the R.O.C. revised Statement of Financial Accounting Standards No. 10, Accounting for Inventories (SFAS No. 10) in November 2007, which requires inventories to be stated at the lower of cost or net realizable value item by item. Inventories are recorded by the specific identification method, first-in, first-out method or weighted average method. The last-in, first-out method is no longer permitted. The revised SFAS No. 10 should be applied to financial statements for the fiscal years beginning on or after January 1, 2009. The adoption of R.O.C SFAS No. 10 will charge the Company s accounting treatment for inventory on a prospective basis beginning in the first quarter of 2009.

## 3. U.S. DOLLAR AMOUNTS

The Company maintains its accounts and expresses its consolidated financial statements in New Taiwan dollars. For convenience only, U.S. dollar amounts presented in the accompanying consolidated financial statements have been translated from New Taiwan dollars at the noon buying rate in The City of New York for cable transfers in New Taiwan dollars as certified for customs purposes by the Federal Reserve Bank of New York as of December 31, 2008, which was NT\$32.76 to US $\$ 1.00$. The convenience translations should not be construed as representations that the New Taiwan dollar amounts have been, could have been, or could in the future be, converted into U.S. dollars at this or any other rate of exchange.

## 4. ACCOUNTING CHANGES

Effect of Adopting the Newly Released and Revised R.O.C. SFASs
Effective January 1, 2008, the Company adopted Interpretation 2007-052, Accounting for Bonuses to Employees, Directors and Supervisors issued in March 2007 by the ARDF, which requires companies to record bonuses paid to employees, directors and supervisors as an expense rather than as an appropriation of earnings. The adoption of this interpretation resulted in a decrease in net income and earnings per share of NT $\$ 12,827.6$ millions and NT\$0.50, respectively, for the year ended December 31, 2008.

Effective January 1, 2008, the Company adopted Statement of Financial Accounting Standards No. 39, Accounting for Share-based Payment, which requires companies to record share-based payment transactions in the financial statements at fair value. Such a change in accounting principle did not have any effect on the Company s consolidated financial statements as of and for the year ended December 31, 2008.

## 5. CASH AND CASH EQUIVALENTS

Cash and deposits in banks
Repurchase agreements collaterized by government bonds
Asset-backed commercial papers
Corporate notes

December 31
2007 2008
(In Millions)
\$ 84,105.4 \$ 185,943.5
10,067.8 8,670.3
522.1
291.2
\$ 94,986.5 \$ 194,613.8

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## 6. FINANCIAL ASSETS/LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

|  | December 31 |  |  |
| :---: | :---: | :---: | :---: |
|  | 2007 |  | 2008 |
|  | NT\$ |  | NT\$ |
|  | (In Millions) |  |  |
| Trading financial assets |  |  |  |
| Publicly traded stocks | \$ 1,590.2 |  | \$ 13.3 |
| Forward exchange contracts | 6.6 |  | 28.4 |
| Cross currency swap contracts | 35.6 |  | 14.0 |
|  | \$ 1,632.4 |  | \$ 55.7 |
| Trading financial liabilities |  |  |  |
| Forward exchange contracts | \$ 185.6 |  | \$ 35.8 |
| Cross currency swap contracts | 63.7 |  | 49.4 |
|  | \$ 249.3 |  | \$ 85.2 |

The Company entered into derivative contracts during the years ended December 31, 2007 and 2008 to manage exposures due to the fluctuations of foreign exchange rates. The derivative contracts entered into by the Company did not meet the criteria for hedge accounting. Therefore, the Company did not apply hedge accounting treatment for its derivative contracts.
Outstanding forward contracts consisted of the following:

| Maturity Date | Contract Amount <br> (In Millions ) |
| :---: | :---: |

December 31, 2007

Sell US\$/Buy NT\$
Sell EUR/Buy NT\$

January 2008
February 2008 to July 2008

Maturity Date

January 2009 to February 2009
January 2009
January 2009 to April 2009
January 2009 to February 2009

US\$111.0/NT\$3,605.8
EUR 48.0/NT\$2,090.6
Contract Amount
(In Millions )

December 31, 2008

Sell US\$/buy NT\$
Sell EUR/buy NT\$
Sell RMB/buy US\$
Sell US\$/buy JPY

US\$138.9/NT\$4,558.7
EUR1.5/NT\$63.2
RMB55.0/US\$8.0
US\$0.1/JPY11.8

Outstanding cross currency swap contracts consisted of the following:

| Maturity Date | Contract Amount <br> (in Millions) | Range of <br> Interest Rates Paid | Range of <br> Interest Rates <br> Received |
| :--- | :---: | :---: | :---: |
| Table of Contents |  |  | 170 |

December 31, 2007
January 2008 to February 2008
US\$975.0/NT\$31,630.2 3.53\%-5.60\% 0.02\%-3.01\%
December 31, 2008
January 2009
US\$307.0/NT\$10,061.2 0.54\%-5.00\%
$0.00 \%-3.83 \%$
For the years ended December 31, 2007 and 2008, net losses and gains arising from financial assets/liabilities at fair value through profit or loss were $\mathrm{NT} \$ 63.0$ million and $\mathrm{NT} \$ 1,081.0$ million, respectively.
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## 7. AVAILABLE-FOR-SALE FINANCIAL ASSETS

|  |  | December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 2007 \\ & \text { NT\$ } \end{aligned}$ |  | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |  |
|  |  |  |  |  |  |
|  |  | (In Millions) |  |  |  |
| Agency bonds |  | \$ | 8,635.8 | \$ | 5,696.5 |
| Corporate bonds |  |  | 10,745.1 |  | 3,279.1 |
| Corporate issued asset-backed securities |  |  | 5,357.1 |  | 2,334.9 |
| Money market funds |  |  | 19,212.1 |  | 1,000.1 |
| Government bonds |  |  | 7,767.6 |  | 340.9 |
| Publicly traded stocks |  |  | 905.3 |  | 279.9 |
| Structured time deposits |  |  | 499.4 |  |  |
| Open-end mutual funds |  |  | 14,966.7 |  |  |
| Current portion |  |  | $\begin{gathered} 68,089.1 \\ (66,688.4) \end{gathered}$ |  | $\begin{gathered} 12,931.4 \\ (10,898.7) \end{gathered}$ |
|  |  |  | 1,400.7 |  | 2,032.7 |
|  | F-19 |  |  |  |  |

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Structured time deposits categorized as available-for-sale financial assets consisted of the following:

| Principal | Carrying |  |  |
| :---: | :---: | :---: | :---: |
| Amount | Amount | Interest | Rates |
| NT\$ | Maturity |  |  |
| (In Millions) |  | Date |  |
|  |  |  |  |

December 31, 2007

Step-up callable deposits Domestic deposits $\quad \$ 500.0 \quad \$ \quad 499.4 \quad 1.76 \% \quad$ March 2008

The interest rate of the step-up callable deposits was pre-determined by the Company and the banks.

For the years ended December 31, 2007 and 2008, the loss on impairment of available-for-sale financial assets was recognized nil and NT\$934.6 million, respectively.
8. HELD-TO-MATURITY FINANCIAL ASSETS

|  | December 31 |  |  |
| :---: | :---: | :---: | :---: |
|  |  | 2007 | 2008 |
|  |  | NT\$ | NT\$ |
|  | (In Millions) |  |  |
| Corporate bonds |  | \$ 10,900.2 | \$ 18,158.7 |
| Government bonds |  | 7,824.4 | 1,506.5 |
| Structured time deposits |  | 1,500.0 | 1,643.0 |
| Current portion |  | $20,224.6$ | $21,308.2$ |
|  |  | $(11,526.9)$ |  |
|  |  | \$ 8,697.7 | \$ 15,426.2 |

Structured time deposits categorized as held-to-maturity financial assets consisted of the following:

| Principal | Interest | Range of <br> Interest |  |
| :--- | :---: | :---: | :---: |
| Amount | Receivable | Rates | Maturity Date |
| NT\$ $\quad$ NT\$ |  |  |  |
| $($ In Millions) |  |  |  |

December 31, 2007
$\begin{array}{lcccccc}\text { Step-up callable deposits } & & & & \text { April } 2008 \text { to October } \\ \text { Domestic deposits } & \$ 1,500.0 & \$ & 5.6 & 1.77 \%-1.83 \% & 2008\end{array}$

December 31, 2008
Step-up callable deposits
Foreign deposits
\$ 1,643.0 \$ 0.7
4.82\%

December 2011

As of December 31, 2008, the principal of the structured time deposits that resided in banks located in Hong Kong amounted to US $\$ 50.0$ million.

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9. RECEIVABLES, NET

|  | December 31 |  |
| :---: | :---: | :---: |
|  | 2007 | 2008 |
|  | NT\$ | NT\$ |
|  | (In Millions) |  |
| Notes receivable | \$ 59.0 | \$ 5.9 |
| Accounts receivable | 47,145.1 | 25,017.4 |
|  | 47,204.1 | 25,023.3 |
| Allowance for doubtful receivables | (701.8) | (455.7) |
| Allowance for sales returns and others | $(4,089.0)$ | $(6,071.0)$ |
|  | $(4,790.8)$ | $(6,526.7)$ |
|  | \$ 42,413.3 | \$ 18,496.6 |

Changes in the allowances are summarized as follows:

|  | Year Ended December 31 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | NT\$ <br> (In Millions) |  | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |  |
| Allowance for doubtful receivables |  |  |  |  |  |  |
| Balance, beginning of year |  | 980.6 |  | 749.9 |  | 701.8 |
| Provision |  | 54.7 |  | 3.0 |  | 14.9 |
| Write-off |  | (285.4) |  | (51.1) |  | (261.0) |
| Balance, end of year |  | 749.9 |  | 701.8 |  | 455.7 |
| Allowance for sales returns and others |  |  |  |  |  |  |
| Balance, beginning of year |  | 4,317.4 |  | 2,870.8 |  | 4,089.0 |
| Effect of inclusion of newly consolidated subsidiaries |  |  |  | 12.9 |  |  |
| Provision |  | 5,382.2 |  | 5,705.6 |  | 8,825.7 |
| Write-off |  | $(6,828.8)$ |  | $(4,500.3)$ |  | $(6,843.7)$ |
| Balance, end of year |  | 2,870.8 |  | 4,089.0 |  | 6,071.0 |

## 10. INVENTORIES

December 31
2007
2008
NT\$
(In Millions)

| Finished goods | $\$ 4,321.9$ | $\$ 5,863.6$ |
| :--- | ---: | ---: |
| Work in process | $17,346.9$ | $9,078.7$ |
| Raw materials | $1,862.5$ | $1,082.7$ |
| Supplies and spare parts | $1,261.7$ | $1,153.0$ |
|  |  |  |
| Allowance for losses | $24,793.0$ | $17,178.0$ |
|  | $(930.7)$ | $(2,301.4)$ |

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Changes in the allowance are summarized as follows:

|  | Year Ended December 31 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ | $\begin{gathered} 2007 \\ \text { NT\$ } \\ \text { (In } \\ \text { Millions) } \end{gathered}$ |  |  | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |
| Balance, beginning of year | \$ 1,685.8 | \$ | 1,004.9 |  | 930.7 |
| Effect of inclusion of newly consolidated subsidiaries |  |  | 16.3 |  |  |
| Provision | 172.1 |  | 165.4 |  | 1,660.9 |
| Write-offs | (853.0) |  | (255.9) |  | (290.2) |
| Balance, end of year | \$ 1,004.9 | \$ | 930.7 |  | 2,301.4 |

## 11. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

|  | December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2007 |  | 2008 |  |
|  | Carrying <br> Amount <br> NT\$ <br> (In <br> Millions) |  | Carrying <br> Amount <br> NT\$ <br> (In <br> Millions) | \% of Ownership |
| Vanguard International Semiconductor Corporation (VIS) | \$ 11,220.1 | 37 | \$ 9,787.3 | 37 |
| Systems on Silicon Manufacturing Company Pte Ltd. (SSMC) | 9,092.7 | 39 | 6,808.2 | 39 |
| VisEra Holding Company (VisEra Holding) | 2,204.5 | 49 | 2,277.1 | 49 |
| Aiconn Technology Corporation (Aiconn) |  |  | 34.6 | 44 |

\$ 22,517.3
\$ 18,907.2
In August 2007, the Company acquired 169,600 thousand shares in VIS for NT\$4,927.9 million. After the acquisition, the Company s percentage of ownership in VIS increased from $27 \%$ to $37 \%$.

For the years ended December 31, 2006, 2007 and 2008, net equity in earnings of equity method investees of NT\$2,347.2 million, NT\$2,507.9 million and NT\$701.5 million was recognized, respectively. The related equity in earnings of equity method investees was determined based on the audited financial statements of the investees for the same periods as the Company.

As of December 31, 2007 and 2008, fair values of publicly traded stocks in investments accounted for using equity method (VIS) was NT\$15,189.2 million and NT\$4,680.3 million, respectively.

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

|  | Year Ended December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | 2007 <br> NT\$ <br> (In <br> llions) | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |
| Balance, beginning of year | \$ | \$ | 952.2 | \$ 2,589.7 |
| Additions | 1,010.8 |  | 1,968.6 |  |
| Amortization | (58.6) |  | (331.1) | (599.1) |
| Balance, end of year | \$ 952.2 | \$ | 2,589.7 | \$ 1,990.6 |

As of December 31, 2007 and 2008, the ending balances of the aforementioned difference allocated to goodwill were both NT\$1,061.9 million.
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## 12. FINANCIAL ASSETS CARRIED AT COST

|  | December 31 |  |
| :---: | :---: | :---: |
|  | 2007 | 2008 |
|  | NT\$ | NT\$ |
|  | (In Millions) |  |
| Non-publicly traded stocks | \$ 3,462.4 | \$ 3,453.4 |
| Mutual funds | 383.2 | 162.0 |
|  | \$ 3,845.6 | \$ 3,615.4 |

For the years ended December 31, 2007 and 2008, the loss on impairment of financial assets carried at cost was recognized NT\$54.2 million and NT\$625.5 million, respectively.

## 13. PROPERTY, PLANT AND EQUIPMENT

|  | December 31 |  |
| :---: | :---: | :---: |
|  | 2007 | 2008 |
|  | NT\$ | NT\$ |
|  | (In Millions) |  |
| Cost |  |  |
| Land improvements | \$ 942.2 | \$ 953.9 |
| Buildings | 118,640.1 | 132,250.0 |
| Machinery and equipment | 646,419.4 | 697,498.8 |
| Office equipment | 11,829.6 | 12,430.8 |
| Leased assets | 652.3 | 722.3 |
| Advance payments and construction in progress | 778,483.6 | 843,855.8 |
|  | 21,868.2 | 18,605.9 |
|  | 800,351.8 | 862,461.7 |
| Accumulated depreciation |  |  |
| Land improvements | 262.7 | 295.9 |
| Buildings | 63,239.9 | 72,681.7 |
| Machinery and equipment | 467,665.1 | 535,962.3 |
| Office equipment | 8,796.8 | 9,693.8 |
| Leased assets | 135.1 | 182.6 |
|  | 540,099.6 | 618,816.3 |
| Net | \$ 260,252.2 | \$ 243,645.4 |

Depreciation expense on property, plant and equipment was NT\$71,225.2 million, NT\$77,171.3 million and NT\$78,736.8 million for the years ended December 31, 2006, 2007 and 2008, respectively.

The Company entered into agreements to lease buildings that qualify as capital leases. The term of the leases ranged from December 2003 to December 2013. The future minimum lease payments as of December 31, 2008 is NT\$803.6 million.

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## 14. DEFERRED CHARGES, NET

| December 31 |  |  |
| :--- | ---: | ---: |
|  | 2007 |  |
|  | 2008 |  |
|  | NT\$ | NT\$ |
|  | (In Millions) |  |
| Technology license fees | $\$ 5,819.1$ | $\$ 4,125.2$ |
| Software and system design costs | $1,449.6$ | $1,801.8$ |
| Others | 654.9 | $1,198.8$ |
|  |  |  |
|  | $\$ 7,923.6$ | $\$ 7,125.8$ |

Amortization expense on deferred charges was NT\$2,472.4 million, NT\$2,793.0 million and NT\$2,716.3 million for the years ended December 31, 2006, 2007 and 2008, respectively.

As of December 31, 2008, the Company s estimated aggregate amortization expense for each of the five succeeding fiscal years and thereafter is as follows:

|  | Amount <br> NT\$ |
| :--- | ---: | ---: |
| Year | Millions) |
| 2009 | $\$, 827.2$ |
| 2010 | $1,636.1$ |
| 2011 | $1,499.0$ |
| 2012 | 647.6 |
| 2013 | 410.1 |
| 2014 and thereafter | $1,105.8$ |

\$ 7,125.8

## 15. BONDS PAYABLE

| December 31 |  |
| :---: | :---: |
| 2007 | 2008 |
| NT\$ | NT |
| (In Millions) |  |

Domestic unsecured bonds:
Issued in January 2002 and repayable in 2009 and 2012 in two installments, 2.75\%
and $3.00 \%$ interest payable annually, respectively $\$ 12,500.0$
\$ 12,500.0 \$ 12,500.0
Current portion

$$
\$ 12,500.0 \quad \$ 4,500.0
$$

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As of December 31, 2008, future principal repayments for the bonds payable were as follows:

|  | Amount <br> NT\$ |
| :--- | ---: |
| Year of Repayment | (In Millions) |
| 2009 | $8,000.0$ |
| 2012 | $4,500.0$ |
|  | $\$ 8$ |

## 16. LONG-TERM BANK LOANS

|  | December 31 |  |
| :---: | :---: | :---: |
|  | 2007 | 2008 |
|  | NT\$ | NT\$ |
|  | (In Millions) |  |
| Secured loans: |  |  |
| Repayable from August 2009 in 17 quarterly installments, annual interest at |  |  |
| 2.91\%-2.99\% in 2007 and 2.56\%-3.67 \% in 2008 | \$ 630.0 | \$ 728.4 |
| US $\$ 20.0$ million, repayable in full in one lump sum payment in November 2010, annual interest at $5.88 \%$ in 2007 and $3.62 \%$ in 2008 | 648.9 | 658.7 |
| Repayable from December 2007 in 8 semi-annual installments, annual interest at |  |  |
| 2.39\%-3.20\% in 2007 and 2.42\%-3.23 \% in 2008 | 456.8 | 168.8 |
| Repayable from May 2007 in 16 quarterly installments, annual interest at |  |  |
| 2.48\%-2.85\% in 2007 and 2.42 \%-3.00 \% in 2008 | 54.6 | 37.8 |
| Repayable from March 2007 in 12 quarterly installments, annual interest at |  |  |
| 2.79\%-3.16\% in 2007 and 2.53\%-3.21 \% in 2008 | 124.9 | 32.5 |
| Repayable from April 2005 in 16 quarterly installments, annual interest at |  |  |
| 2.51\%-2.85\% in 2007 and 2.42 \%-3.00 \% in 2008 | 45.0 | 9.0 |
| Repayable from February 2005 in 17 quarterly installments, annual interest at |  |  |
| 2.65\%-4.53\% in 2007 and 2.56\%-3.15 \% in 2008 | 40.7 | 7.7 |
| Unsecured loans: |  |  |
| Science Park Administration (SPA) SOC loan, repayable from October 2003 in 20 quarterly installments, interest-free |  |  |
|  | 2,003.0 | 1,642.9 |
| Current portion | (280.8) | (222.4) |
|  | \$ 1,722.2 | \$ 1,420.5 |
| Pursuant to the loan agreements, financial ratios calculated based on annual aud China as well as semi-annual and annual financial statements of XinTec must covenants. As of December 31, 2008, TSMC China and XinTec were in compli covenants. | cial statem h predeterm all such fin | of TSMC <br> dinancial al |

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As of December 31, 2008, future principal repayments for the long-term bank loans were as follows:

|  | Amount <br> NT\$ |
| :--- | ---: | ---: |
| Year of Repayment | (In Millions) |
| 2009 | $\$ 22.4$ |
| 2010 | 916.9 |
| 2011 | 212.3 |
| 2012 | 174.8 |
| 2013 and thereafter | 116.5 |

## 17. OTHER LONG-TERM PAYABLES

|  | December 31 |  |  |
| :---: | :---: | :---: | :---: |
|  | 2007 |  | 2008 |
|  | NT\$ |  | NT\$ |
|  | (In Millions) |  |  |
| Payables for acquisition of property, plant and equipment (Note 28i)Payables for royalties | \$ 7,908.5 |  | 8,579.7 |
|  | 5,174.7 |  | 2,095.0 |
|  | 13,083.2 |  | 10,674.7 |
| Current portion (classified under accrued expenses and other current liabilities) | $(3,673.2)$ |  | $(1,126.5)$ |
|  | \$ 9,410.0 |  | 9,548.2 |

The payables for royalties were primarily attributable to several license arrangements that the Company entered into for certain semiconductor-related patents.
As of December 31, 2008, future payments for other long-term payables were as follows:
$\left.\begin{array}{lrr}\text { Year of Payment } & \begin{array}{c}\text { Amount } \\ \text { NT\$ }\end{array} \\ \text { (In Millions) }\end{array}\right\}$

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## 18. PENSION PLANS

The pension mechanism under the Labor Pension Act is deemed a defined contribution plan. Pursuant to the Act, TSMC, GUC, XinTec and Mutual-Pak have made monthly contributions equal to $6 \%$ of each employee s monthly salary to employees pension accounts. Furthermore, TSMC North America, TSMC China and TSMC Europe and TSMC Canada are required by local regulations to make monthly contributions at certain percentages of the basic salary of their employees. Pursuant to the aforementioned Act and local regulations, the Company recognized pension costs of NT\$679.9 million, NT\$725.8 million and NT\$779.6 million for the years ended December 31, 2006, 2007 and 2008, respectively.

TSMC, GUC and XinTec have defined benefit plans under the Labor Standards Law that provide benefits based on an employee s service years and average monthly salary for the six-month period prior to retirement. The aforementioned companies contribute an amount equal to $2 \%$ of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the Committee s name in the Bank of Taiwan (originally the Central Trust of China, which was dissolved after merger with the Bank of Taiwan on July 1, 2007).

TSMC, GUC, XinTec and Mutual-Pak use December 31 as the measurement date for their pension plans.
Changes in projected benefit obligation and plan assets for the years ended December 31, 2006, 2007 and 2008 are summarized as follows:

| Year Ended December 31 |  |  |
| :---: | :---: | :---: |
| 2006 | 2007 | 2008 |
| NT\$ | NT\$ | NT\$ |
|  | (In |  |
|  | Millions) |  |

Projected benefit obligation

| Balance, beginning of year | $\$ 5,976.9$ | $\$$ | $6,956.1$ | $\$ 6,043.7$ |
| :--- | ---: | ---: | ---: | ---: |
| Effect of inclusion of newly consolidated subsidiaries |  | 19.0 |  |  |
| Service cost | 178.5 | 184.2 | 151.7 |  |
| Interest cost | 164.2 | 156.4 | 171.3 |  |
| Plan amendments |  |  |  | $(173.7)$ |
| Actuarial loss (gain) | 653.4 | $(1,257.0)$ | $1,396.8$ |  |
| Benefits paid | $(16.9)$ | $(15.0)$ | $(29.0)$ |  |
|  |  |  |  |  |
| Balance, end of year | $\$ 6,956.1$ | $\$$ | $6,043.7$ | $\$ 7,560.8$ |

Plan assets

| Balance, beginning of year | $\$ 1,691.6$ | $\$$ | $1,958.6$ | $\$ 2,239.0$ |
| :--- | ---: | ---: | ---: | ---: |
| Effect of inclusion of newly consolidated subsidiaries |  | 17.0 |  |  |
| Actual return of plan assets | 44.7 | 69.0 | 70.7 |  |
| Employer contribution | 233.1 | 209.4 | 206.9 |  |
| Benefits paid | $(10.8)$ | $(15.0)$ | $(29.0)$ |  |

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Other information of defined benefit plans was as follows:
a. Components of net periodic pension cost

|  | Year Ended December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | 07 <br> \$ <br> n <br> ons) | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |
| Service cost | \$ 178.5 | \$ | 184.3 | \$ 151.7 |
| Interest cost | 164.2 |  | 156.4 | 171.3 |
| Projected return on plan assets | (49.4) |  | (51.3) | (68.4) |
| Amortization | 12.0 |  | 35.8 | 4.5 |
| Net periodic pension cost | \$ 305.3 | \$ | 325.2 | \$ 259.1 |

b. Reconciliation of funded status of the plans and accrued pension cost at December 31, 2007 and 2008

|  | December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2007 \\ & \text { NT\$ } \end{aligned}$ |  | 2008 |  |
|  |  |  |  | NT\$ |
|  | (In Millions) |  |  |  |
| Benefit obligation |  |  |  |  |
| Vested benefit obligation | \$ | 120.2 |  | 114.9 |
| Nonvested benefit obligation |  | 3,479.1 |  | 4,182.5 |
| Accumulated benefit obligation |  | 3,599.3 |  | 4,297.4 |
| Additional benefits based on future salaries |  | 2,444.4 |  | 3,263.4 |
| Projected benefit obligation |  | 6,043.7 |  | 7,560.8 |
| Fair value of plan assets |  | $(2,239.0)$ |  | $(2,487.6)$ |
| Funded status |  | 3,804.7 |  | 5,073.2 |
| Unrecognized net transition obligation |  | (109.9) |  | (101.3) |
| Prior service cost |  |  |  | 169.2 |
| Unrecognized net loss |  | (42.0) |  | $(1,439.5)$ |
| Accrued pension cost | \$ | 3,652.8 |  | 3,701.6 |
| Vested benefit | \$ | 120.1 |  | 126.3 |

c. Actuarial assumptions at December 31, 2007 and 2008:

Discount rate used in determining present values
2.75\%-3.00\%
$2.00 \%-2.50 \%$
Future salary increase rate
2.00\%-3.00\%
2.00\%-3.00\%

Expected rate of return on plan assets
2.50\%-3.00\%
2.25\%-2.50\%
d. Expected benefit payments

|  | Amount <br> NT\$ <br> (In Millions) |  |
| :--- | :---: | :---: |
| 2009 |  | $\$ 83.9$ |
| 2010 |  | 13.2 |
| 2011 |  | 19.9 |
| 2012 | 34.6 |  |
| 2013 |  | 46.4 |
| 2014 and thereafter | F-28 | 866.5 |
|  |  |  |

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e. TSMC, GUC and XinTec expect to make contributions to their pension funds in 2009 of NT $\$ 192.9$ million, NT\$2.6 million and NT\$2.4 million, respectively.

|  | Year Ended December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | 07 <br> \$ <br> n <br> ons) | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |
| f. Contributions to the Funds for the year | \$ 233.1 | \$ | 209.4 | \$ 206.9 |
| g. Payments from the Funds for the year | \$ 7.4 | \$ | 15.0 | \$ 29.0 |

h. Plan assets allocation

Under the Labor Standards Law, the government is responsible for the administration of the Funds and determination of the investment strategies and policies. As of December 31, 2007 and 2008, the asset allocation was primarily in cash, equity securities and debt securities. Furthermore, under the Labor Standards Law, the rate of return on assets shall not be less than the average interest rate on a two-year time deposit published by the local banks. The government is responsible for any shortfall in the event that the rate of return is less than the required rate of return.

## 19. INCOME TAX

a. Income tax expense consisted of:

|  | Year Ended December 31 |
| :--- | :---: | :---: | :---: | :---: |
| 2007 |  |

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

|  | Year Ended December 31 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | 2007 <br> NT\$ <br> (In <br> iillions) |  | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |
| Income tax expense based on income before income tax statutory rates | \$ 34,786.3 | \$ | 30,829.4 | \$ | 27,970.4 |
| The effect of the following: |  |  |  |  |  |
| Tax-exempt income | $(12,281.4)$ |  | (7,668.4) |  | (9,670.5) |
| Temporary and permanent differences | $(2,817.1)$ |  | (150.9) |  | 2,122.8 |
| Others |  |  |  |  | 44.1 |
| Additional tax at $10 \%$ on unappropriated earnings | 1,170.1 |  | 2,710.9 |  | 13.9 |
| Cumulative effect of changes in accounting principles | (82.1) |  |  |  |  |
| Net operating loss carryforwards used | (38.4) |  | (814.1) |  | (205.2) |
| Income tax credits used | (12,731.0) |  | $(13,899.6)$ |  | $(11,109.3)$ |
| Income tax currently payable | \$ 8,006.4 | \$ | 11,007.3 | \$ | 9,166.2 |



| December 31 |  |
| :---: | :---: |
| 2007 | 2008 |
| NT\$ | NT\$ |
| (In Millions) |  |

Current deferred income tax assets
Investment tax credits ..... \$ 5,372.7 \$ 2,885.7Temporary differences$674.2 \quad 1,556.5$Valuation allowance
(474.6)(472.9)

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|  | December 31 |  |
| :---: | :---: | :---: |
|  | 2007 | 2008 |
|  | NT\$ | NT\$ |
|  | (In Millions) |  |
| Noncurrent deferred income tax assets |  |  |
| Investment tax credits | \$ 9,885.5 | \$ 11,311.9 |
| Net operating loss carryforwards | 3,963.1 | 3,589.0 |
| Temporary differences | $(2,848.1)$ | $(1,628.3)$ |
| Valuation allowance | $(3,687.2)$ | $(6,635.7)$ |
|  | 7,313.3 | 6,636.9 |

As of December 31, 2008, the net operating loss carryforwards were generated by WaferTech, TSMC Development and TSMC Technology and Mutual-Pak would expire on various dates through 2026.
e. Integrated income tax information:

The balance of the imputation credit account (ICA) of TSMC as of December 31, 2007 and 2008 was NT\$3,012.8 million and NT\$521.6 million, respectively.

The estimated creditable ratio for distribution of TSMC s earnings of 2007 and 2008 was $9.83 \%$ and $0.51 \%$, respectively.

The imputation credit allocated to the shareholders is based on its balance as of the date of dividend distribution. The estimated creditable ratio may change when the actual distribution of imputation credit is made.
f. All of TSMC s earnings generated prior to December 31, 1997 have been appropriated.
g. As of December 31, 2008, investment tax credits of TSMC, GUC, XinTec and Mutual-Pak consisted of the following:


| Statute for Upgrading | Purchase of machinery and equipment | $\$$ | 22.2 | $\$$ |
| :--- | ---: | ---: | ---: | ---: |
| Industries |  |  | 2008 |  |
|  |  | 233.9 | 5.9 | 2009 |
|  | $6,178.4$ | 114.7 | 2010 |  |
|  | $4,664.2$ | $4,664.2$ | 2011 |  |
|  | $2,664.2$ | $2,664.2$ | 2012 |  |


|  |  | \$ 13,762.9 | \$ 7,449.0 |  |
| :---: | :---: | :---: | :---: | :---: |
| Statute for Upgrading Industries | Research and development expenditures | \$ 1,009.8 | \$ | 2008 |
|  |  | 1,173.4 |  | 2009 |
|  |  | 3,263.4 | 673.8 | 2010 |
|  |  | 2,825.1 | 2,825.1 | 2011 |
|  |  | 3,188.7 | 3,188.7 | 2012 |
|  |  | \$ 11,460.4 | \$ 6,687.6 |  |
| Law/Statute | Item | Total Creditable Amount NT\$ | Remaining Creditable Amount NT\$ | Expiry Year |
|  |  | (In | illions) |  |
| Statute for Upgrading Industries | Personnel training expenditures | \$ 22.0 | \$ | 2009 |
|  |  | 23.8 | 23.2 | 2010 |
|  |  | 37.0 | 37.0 | 2011 |
|  |  | 0.8 | 0.8 | 2012 |
|  |  | \$ 83.6 | \$ 61.0 |  |
|  | F-31 |  |  |  |

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

| Construction of Fab 14 | Module A | 2006 to 2010 |
| :--- | :--- | :--- |
| Construction of Fab 12 | Module B and expansion of Fab 14 | Module A |
| Construction of Fab 14 | Module B and expansion of Fab 12 | 2007 to 2011 |
| 2003 plant expansion of GUC | 2008 to 2012 |  |
| 2003 plant expansion of XinTec | 2007 to 2011 |  |

i. The tax authorities have examined income tax returns of TSMC through 2006.
20. SHAREHOLDERS EQUITY

## Tax-Exemption <br> Period

## Common Stock, Capital Surplus and Earnings

As of December 31, 2008, 1,092,053 thousand ADSs of TSMC were traded on the NYSE. The number of common shares represented by the ADSs was $5,460,265$ thousand (one ADS represents five common shares).

Capital surplus can only be used to offset a deficit under the Company Law. However, the capital surplus generated from donations and the excess of the issuance price over the par value of capital stock (including the stock issued for new capital, mergers, convertible bonds and the surplus from treasury stock transactions) may be appropriated as stock dividends, which are limited to a certain percentage of TSMC s paid-in capital. Also, the capital surplus from long-term investment may not be used for any purpose.

Capital surplus consisted of the following:

| From merger | $\$ 24,003.6$ | $\$ 22,805.4$ |
| :--- | ---: | ---: |
| Additional paid-in capital | $19,526.5$ | $17,962.5$ |
| From convertible bonds | $9,360.4$ | $8,893.2$ |
| From long-term investments | 351.2 | 214.1 |
| From treasury stock transactions | 491.0 |  |

$\$ 53,732.7 \quad \$ 49,875.2$
As of December 31, 2007 and 2008, retained earnings consisted of:
Legal capital reserve
Special capital reserve
629.5

TSMC s Articles of Incorporation provide that, when allocating the net profits for each fiscal year, TSMC shall first offset its losses in previous years and then set aside the following items accordingly:
a. Legal capital reserve at $10 \%$ of the profits left over, until the accumulated legal capital reserve equals TSMC s paid-in capital;
b. Special capital reserve in accordance with relevant laws or regulations or as requested by the authorities in charge;

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c. Bonus to directors and bonus to employees of TSMC of not more than $0.3 \%$ and not less than $1 \%$ of the remainder, respectively. Directors who also serve as executive officers of TSMC are not entitled to receive the bonus to directors. TSMC may issue stock bonuses to employees of an affiliated company meeting the conditions set by the Board of Directors or, by the person duly authorized by the Board of Directors;
d. Any balance left over shall be allocated according to the resolution of the shareholders meeting. TSMC s Articles of Incorporation also provide that profits of TSMC may be distributed by way of cash dividend and/or stock dividend. However, distribution of profits shall be made preferably by way of cash dividend. Distribution of profits may also be made by way of stock dividend; provided that the ratio for stock dividend shall not exceed $50 \%$ of the total distribution.

Any appropriations of the profits are subjected to shareholders approval in the following year.
For the year ended December 31, 2008, TSMC has recorded bonuses to employees and directors with a charge to earnings of approximately $15 \%$ of net income. If the actual amounts subsequently resolved by the shareholders differ from the proposed amounts by the Board of Directors, the differences are recorded in the year of shareholders resolution as a change in accounting estimate. If stock bonuses are resolved to be distributed to employees, the number of shares is determined by dividing the amount of bonuses by the closing price (after considering the effect of cash and stock dividends) of the shares on the day preceding the shareholders meeting.

TSMC no longer has supervisors since January 1, 2007. The required duties of supervisors are being fulfilled by the Audit Committee.

The appropriation for legal capital reserve shall be made until the reserve equals TSMC s paid-in capital. The reserve may be used to offset a deficit, or be distributed as dividends and bonuses for the portion in excess of $50 \%$ of the paid-in capital if TSMC has no unappropriated earnings and the reserve balance has exceeded $50 \%$ of TSMC s paid-in capital. The Company Law also prescribes that, when the reserve has reached $50 \%$ of TSMC s paid-in capital, up to $50 \%$ of the reserve may be transferred to capital.

A special capital reserve equivalent to the net debit balance of the other components of shareholders equity (for example, cumulative translation adjustments and unrealized loss on financial assets, but excluding treasury stock) shall be made from unappropriated earnings pursuant to existing regulations promulgated by the Securities and Futures Bureau (SFB). Any special reserve appropriated may be reversed to the extent that the net debit balance reverses.

The appropriations of earnings for 2006 and 2007 had been approved in TSMC s shareholders meetings held on May 7, 2007, and June 13, 2008, respectively. The appropriations of earnings of 2008 were approved by the Board of Directors on February 10, 2009. The appropriations of earnings of 2008 have not yet been resolved by the shareholders. The appropriations and dividends per share were as follows:

Legal capital reserve \$ 12,701.0 \$ 10,917.7 \$ 9,993.3
Special capital reserve

Bonus to employees in cash Bonus to employees in stock
Cash dividends to shareholders Stock dividends to shareholders
Bonus to directors and supervisors

| $4,572.8$ | $3,939.9$ |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $4,572.8$ | $3,939.9$ |  |  |  |  |
| $77,489.1$ | $76,881.3$ | $76,876.3$ | 3.00 | 3.00 | 3.00 |
| 516.6 | 512.5 | 512.5 | 0.02 | 0.02 | 0.02 |
| 285.8 | 176.9 |  |  |  |  |

\$ 100,126.9 \$ 96, 130.5 \$ 86,990.2
Bonus to employees that will be paid in cash and in stock as well as bonus to directors in the amounts of NT\$7,495.0 million, NT\$7,495.0 million and NT\$158.1 million for 2008, respectively, had been charged against earnings and the amount was consistent with the resolutions of meeting of the Board of Directors held on February 10, 2009.

TSMC s shareholders meeting held on May 7, 2007 and June 13, 2008 also resolved to distribute stock dividends out of capital surplus in the amount of NT $\$ 774.9$ and NT $\$ 768.8$ million, respectively. The Board of Directors also resolved to distribute stock dividends out of capital surplus in the amount of NT $\$ 768.8$ million on February 10, 2009. The amounts of the appropriations of earnings for 2008, bonus to employees and directors, and the stock dividends to be distributed out of capital surplus have not yet been resolved by the shareholders. However, the Company Law prescribes that TSMC, as a holder of treasury stock, shall not participate in the appropriations of earnings. Therefore, the actual cash dividend per share and stock dividend per share are slightly more than those in the aforementioned resolutions.
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The amounts of the appropriations of earnings for 2006 and 2007 were consistent with the resolutions of the meetings of the Board of Directors held on February 6, 2007 and February 19, 2008, respectively. If the above bonus to employees, directors and supervisors had been paid entirely in cash and charged to earnings of 2006 and 2007, the basic earnings per share (after income tax) for the years ended December 31, 2006 and 2007 shown in the respective financial statements would have decreased from NT\$3.84 to NT\$4.14 and NT\$4.56 to NT\$4.93, respectively. The shares distributed as a bonus to employees represented $1.77 \%$ and $1.49 \%$ of TSMC s total outstanding common shares as of December 31, 2006 and 2007, respectively.

The information about the appropriations of bonus to employees, directors and supervisors is available at the Market Observation Post System website.

Under the Integrated Income Tax System that became effective on January 1, 1998, R.O.C. resident shareholders are allowed a tax credit for their proportionate share of the income tax paid by TSMC on earnings generated since January 1, 1998.

## 21. STOCK-BASED COMPENSATION PLANS

TSMC s Employee Stock Option Plans, consisting of the TSMC 2002 Plan, TSMC 2003 Plan, and TSMC 2004 Plan, were approved by the SFB on June 25, 2002, October 29, 2003 and January 6, 2005 , respectively. The maximum number of options authorized to be granted under the TSMC 2002 Plan, TSMC 2003 Plan and TSMC 2004 Plan was 100,000 thousand, 120,000 thousand and 11,000 thousand, respectively, with each option eligible to subscribe for one common share of TSMC when exercisable. The options may be granted to qualified employees of TSMC or any of its domestic or foreign subsidiaries, in which TSMC s shareholding with voting rights, directly or indirectly, is more than fifty percent ( $50 \%$ ). The options of all the plans are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date. Under the terms of the plans, the options are granted at an exercise price equal to the closing price of TSMC s common shares listed on the TSE on the grant date.

Options of the plans that had never been granted or had been granted but subsequently canceled had expired as of December 31, 2008.

Information about TSMC s outstanding stock options for the years ended December 31, 2006, 2007 and 2008 was as follows:

| Number of <br> Options <br> (In | Weighted- <br> average <br> Exercise <br> Price |
| :---: | :---: |
| Thousands) | (NT\$) |
|  |  |
| 67,758 | $\$ 39.4$ |
| 2,758 | 40.1 |
| $(14,550)$ | 40.1 |
| $(3,152)$ | 43.7 |
|  |  |
| 52,814 | 39.6 |

Year ended December 31, 2007

| Balance, beginning of year | 52,814 | $\$ 37.9$ |
| :--- | ---: | ---: |
| Options granted | 1,094 | 37.9 |
| Options exercised | $(10,988)$ | 39.8 |
| Options canceled | $(1,045)$ | 45.9 |
|  |  |  |
| Balance, end of year | 41,875 | 37.4 |
|  |  |  |
| Year ended December 31, 2008 |  |  |
| Balance, beginning of year | 41,875 | $\$ 35.6$ |
| Options granted | 767 | 35.2 |
| Options exercised | $(381)$ | 37.7 |
| Options canceled |  | 46.5 |
|  | 36,234 | 35.3 |

The number of outstanding options and exercise prices have been adjusted to reflect the appropriations of earnings by TSMC in accordance with the plans. The options granted included the result of the aforementioned adjustment.
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As of December 31, 2008, information about TSMC s outstanding and exercisable options was as follows:


GUC s Employee Stock Option Plans, consisting of the GUC 2002 Plan and GUC 2003 Plan, were approved by its Board of Directors on July 1, 2002 and January 23, 2003, respectively. The maximum number of options authorized to be granted under the GUC 2002 Plan and GUC 2003 Plan was 5,000 and 7,535, respectively, with each option eligible to subscribe for one thousand common shares of GUC when exercisable. The options may be granted to qualified employees of GUC. The options of all the plans are valid for six years and exercisable at certain percentages subsequent to the second anniversary of the grant date.

Moreover, the GUC 2004 Plan, GUC 2006 Plan, and GUC 2007 Plan were approved by the SFB on August 16, 2004, July 3, 2006, and November 28, 2007 to grant a maximum of 2,500 options, 3,665 options and 1,999 options, respectively, with each option eligible to subscribe for one thousand common shares of GUC when exercisable. The options may be granted to qualified employees of GUC or any of its subsidiaries. Except for the options of the GUC 2006 Plan which are valid until August 15, 2011, the options of the other two GUC option Plans are valid for six years. Options of all three Plans are exercisable at certain percentages subsequent to the second anniversary of the grant date.

Information about GUC s outstanding stock options for the years ended December 31, 2006, 2007 and 2008 was as follows:

|  | Weighted- <br> average <br> Exercise <br> Number of |
| :---: | :---: |
| Options | Prices <br> (NT\$) |

Year ended December 31, 2006

| Balance, beginning of year | 7,132 | $\$ 10.7$ |
| :--- | :---: | ---: |
| Options granted | 3,689 | 19.5 |
| Options exercised | $(2,862)$ | 10.5 |
| Options canceled | $(617)$ | 12.1 |
|  |  |  |
| Balance, end of year | 7,342 | 14.0 |

Year ended December 31, 2007

| Balance, beginning of year | 7,342 | $\$ 14.0$ |
| :--- | ---: | ---: |
| Options granted | 2,053 | 183.6 |
| Options exercised | $(1,563)$ | 10.2 |
| Options canceled | $(234)$ | 13.5 |

Balance, end of year ..... 7,598 ..... 60.3
Year ended December 31, 2008
Balance, beginning of year ..... 7,598 ..... \$ 60.3
Options granted ..... 284 ..... 14.8
Options exercised ..... $(2,115)$ ..... 14.0
Options canceled (210) ..... 168.4
Balance, end of year 5,557 ..... 66.6

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The number of outstanding options and exercise prices have been adjusted to reflect the appropriation of earnings by GUC in accordance with the plans. The options granted were the result of the aforementioned adjustment.

As of December 31, 2008, information about GUC s outstanding and exercisable options was as follows:


XinTec s Employee Stock Option Plans, consisting of the XinTec 2006 Plan and XinTec 2007 Plan, were approved by the SFB on July 3, 2006 and June 26, 2007, respectively. The maximum number of options authorized to be granted under the XinTec 2006 Plan and XinTec 2007 Plan was 6,000 thousand each, with each option eligible to subscribe for one common share of XinTec when exercisable. The options may be granted to qualified employees of XinTec or any of its subsidiaries. The options of all the plans are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date.

Information about XinTec s outstanding options for the years ended December 31, 2007 and 2008 was as follows:

## Weightedaverage Exercise Price (NT\$)

Number of Options
(in
Thousands)

Year ended December 31, 2007

| Balance, beginning of year | 4,968 | $\$ 13.0$ |
| :--- | :---: | :---: |
| Options granted | 5,555 | 17.3 |
| Options canceled | $(881)$ | 14.1 |
|  |  |  |
| Balance, end of year | 9,642 | 15.1 |

Year ended December 31, 2008
Balance, beginning of year
9,642
\$ 15.1
Options granted
(728)

Options canceled

Balance, end of year
$(1,472)$
15.5

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The exercise prices have been adjusted to reflect the appropriation of earnings by XinTec in accordance with the plans.
As of December 31, 2008, information about XinTec s outstanding and exercisable options was as follows:

|  | Options Outstanding Weighted- |  |  | Options Exercisable Weighted- |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RANGE OF | Number of Options | Remaining | average | Number of Options | average |
| Exercise Price (NT\$) | (in ${ }_{\text {Thousands) }}$ | Contractual Life (Years) | Exercise Price (NT\$) | (in <br> Thousands) | Exercise Price (NT\$) |
| \$12.4-\$14.3 | 4,050 | 7.90 | \$ 12.7 | 1,425 | \$ 12.4 |
| 15.4-19.4 | 3,392 | 8.73 | 17.4 |  |  |
|  | 7,442 |  | 14.8 | 1,425 | 12.4 |

The requisite service period under the TSMC 2002 Plan, 2003 Plan, and 2004 Plan is 4 years, which is the same as the vesting period. Based on the vesting schedule, $50 \%$ of the options vest two years after the date of grant, $25 \%$ of the options vest three years after the date of grant, and the remaining $25 \%$ of the options vest four years after the date of grant. If employment is terminated voluntarily by an employee or by the Company, any vested options must be exercised within three months of the employment termination date. For the GUC 2002 Plan, 2003 Plan, 2004 Plan, 2006 Plan and 2007 Plan, the requisite service period is also four years, which is the same as the vesting period. Based on the vesting schedule, $50 \%$ of the options vest two years after the date of grant and $50 \%$ of the options vest four years after the date of grant. If employment is terminated voluntarily by an employee or by the Company, any vested options must be exercised within three days of the employment termination date. For the XinTec 2006 Plan and 2007 Plan, the requisite service period is also 4 years, with $50 \%$ of the options vested two years after the date of grant, $25 \%$ of the options vested three years after the date of grant, and the remaining $25 \%$ of the options vested four years after the date of grant. If employment is terminated voluntarily by an employee or by the Company, any vested options must be exercised within three months of the employment termination date.

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No compensation cost was recognized under the intrinsic value method for the years ended December 31, 2006, 2007 and 2008. Had the Company used the fair value based method to evaluate the options using the Black-Scholes model, the assumptions and pro forma results of the Company for the years ended December 31, 2006, 2007 and 2008 would have been as follows:

|  |  | Year Ended December 31 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2006 | 2007 | 2008 |
| Assumptions: |  |  |  |  |
| TSMC | Weighted average fair value of grants |  |  |  |
|  | Expected dividend yield | 1.00\%-3.44\% | 1.00\%-3.44\% | 1.00\%-3.44\% |
|  | Expected volatility | 43.77\%-46.15\% | 43.77\%-46.15\% | 43.77\%-46.15\% |
|  | Risk free interest rate | 3.07\%-3.85\% | 3.07\%-3.85\% | 3.07\%-3.85\% |
|  | Expected life | 5 years | 5 years | 5 years |
| GUC | Weighted average fair value of grants | 3.73 | 63.74 |  |
|  | Expected dividend yield |  | 0.00\%-0.60\% | 0.00\%-0.60\% |
|  | Expected volatility | 22.65\%-41.74\% | 22.65\%-45.47\% | 22.65\%-45.47\% |
|  | Risk free interest rate | 2.23\%-2.56\% | 2.12\%-2.56\% | 2.12\%-2.56\% |
|  | Expected life | 3-6 years | 3-6 years | 3-6 years |
| XinTec | Weighted average fair value of grants |  | 2.84 |  |
|  | Expected dividend yield |  | 0.80\% | 0.80\% |
|  | Expected volatility |  | 31.79\%-47.42\% | 31.79\%-47.42\% |
|  | Risk free interest rate |  | 1.88\%-2.45\% | 1.88\%-2.45\% |
|  | Expected life |  | 3 years | 3 years |


| Year Ended December 31 |  |  |
| :---: | :---: | :---: |
| 2006 | 2007 | 2008 |
| NT\$ | NT\$ | NT\$ |
|  | (In Millions) |  |

Net income attributable to shareholders of the parent:
As reported
$\begin{array}{rr}\$ 127,009.7 & \$ 109,177.1 \\ 126,887.2 & 109,054.9\end{array}$
\$ 99,933.2
Pro forma
109,054.9
100,037.6

Earnings per share (EPS) after income tax (NT\$):

| Basic EPS as reported | 4.72 | 4.06 | 3.86 |
| :--- | :--- | :--- | :--- |
| Pro forma basic EPS | 4.72 | 4.06 | 3.86 |
| Diluted EPS as reported | 4.72 | 4.06 | 3.83 |
| Pro forma diluted EPS | 4.71 | 4.06 | 3.83 |

The expected volatility is determined based on the historical stock price trends. The expected life computation is based on business environment and the option plan itself. The risk-free interest rate for periods within the contractual life of the option is based on the treasury yield curve in effect at the time of grant. The dividend yield is based on the anticipated future cash dividends yield at the time of grant.

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## 22. TREASURY STOCK

| Beginning |  | (Shares in Thousands) |  |
| :---: | :---: | :---: | :---: |
| Shares | Addition | Stock <br> Dividends | Retirement | | Ending |
| :---: |
| Shares |

Year ended December 31, 2007
Parent company stock held by
subsidiaries

33,926
Repurchase under share buyback plan

33,926
800,000
170
834,096

Year ended December 31, 2008
Parent company stock held by subsidiaries
Repurchase under share buyback plan

34,096
800,000

834,096
495,549

171
34,267
1,295,549
$171 \quad 1,329,816$

As of December 31, 2007, the book value of the treasury stock was NT\$49,385.0 million; the market value was NT\$51,713.9 million. TSMC s common shares held by subsidiaries were treated as treasury stock and the holders are entitled to the rights of shareholders, with the exception of voting rights.

TSMC held a meeting of the Board of Directors on November 13, 2007 and approved a share buyback plan to repurchase the TSMC s common shares up to 800,000 thousand shares listed on the TSE during the period from November 14, 2007 to January 13, 2008 for the buyback price in the range from NT\$43.2 to NT\$94.2. TSMC had repurchased 800,000 thousand common shares. All the treasury stock repurchased under this share buyback plan was retired on February 2008.

TSMC held a meeting of the Board of Directors on May 13, 2008 and approved a share buyback plan to repurchase the TSMC s common shares up to 500,000 thousand shares listed on the TSE during the period from May 14, 2008 to July 13, 2008 for the buyback price in the range from NT $\$ 48.25$ to NT\$100.50. TSMC had repurchased 216,674 thousand common shares. All the treasury stock repurchased under this share buyback plan was retired on August 2008.

TSMC held a meeting of the Board of Directors on August 12, 2008 and approved a share buyback plan to repurchase the TSMC s common shares up to 283,000 thousand shares listed on the TSE during the period from August 13, 2008 to October 12, 2008 for the buyback price in the range from NT\$42.85 to NT\$86.20. TSMC had repurchased 278,875 thousand common shares. All the treasury stock repurchased under this share buyback plan was retired in November 2008.

TSMC merged Chi Cherng and Hsin Ruey in the third quarter of 2008. TSMC s common shares held by Chi Cherng and Hsin Ruey in the number of 34,267 thousand shares were retired on August 2008.

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## 23. EARNINGS PER SHARE

|  | Year Ended December 31 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Before | 2006 | After | Before | 2007 | After | Before |
| Income | Income | Income | Income | Income | After |  |
| Income |  |  |  |  |  |  |
| Tax | Tax | Tax | Tax | Tax | Tax |  |

Income before cumulative effect of changes in accounting principles attributable to shareholders of the parent
Cumulative effect of changes in accounting principles attributable to shareholders of the parent

| $\$ 4.96$ | $\$$ | 4.66 | $\$ 4.50$ | $\$$ | 4.06 | $\$ 4.28$ | $\$$ | 3.86 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Income attributable to $\begin{array}{llllllllllll}\text { shareholders of the parent } & \$ 5.01 & \$ & 4.72 & \$ 4.50 & \$ & 4.06 & \$ & 4.28 & \$ & 3.86\end{array}$

Diluted EPS
Income before cumulative effect of changes in accounting principles attributable to shareholders of the parent
Cumulative effect of changes in accounting principles attributable to shareholders of the parent

Income attributable to shareholders of the parent \$ $5.00 \quad \$ 4.72$
\$ 4.50
\$
4.06
\$ 4.25 \$
3.83

EPS is computed as follows:

| Amounts (Numerator) |  | Number of | EPS |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Before | After |
| Before | After |  | Income | Income |
| Income |  |  |  |  |
| Tax | Income Tax |  | Shares | Tax | Tax |
| NT\$ | NT\$ | (Denominator) | NT\$ | NT\$ |
| (In Millions) |  | (In |  |  |
|  |  | Thousands) |  |  |

## Basic EPS

Earnings attributable to shareholders of the parent

Effect of dilutive potential common stocks
\$ 134,698.7 \$ 127,009.7 26,896,606 \$ $5.01 \quad \$ 4.72$

Diluted EPS
Earnings attributable to shareholders of the parent (including effect of dilutive potential common stocks)
\$ 134,698.7 \$ 127,009.7
26,920,168 \$ $5.00 \quad \$ 4.72$

Year ended December 31, 2007
Basic EPS
Earnings attributable to shareholders of the parent

Effect of dilutive potential common stocks
\$ 120,890.7 \$ 109, 177.1
26,870,684 \$ 4.50
\$ 4.06

Diluted EPS
Earnings attributable to shareholders of the parent (including effect of dilutive potential common stocks)
\$ 120,890.7 \$ 109, 177.1
26,892,336 \$ 4.50
\$ 4.06

Year ended December 31, 2008
Basic EPS
Earnings attributable to shareholders of the parent
\$ 110,847.8 \$ 99,933.
25,909,643 \$ 4.28 \$ 3.86
Effect of dilutive potential common shares
Bonus to employees
181,943
Stock options 15,090

Diluted EPS
Earnings attributable to shareholders of the parent (including effect of dilutive potential common stocks)
\$ 110,847.8 \$ 99,933.2
26,106,676
\$ 4.25
\$ 3.83
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As discussed in Note 3, effective January 1, 2008, the Company adopted Interpretation 2007-052 that requires companies to record bonuses paid to employees as an expense rather than as an appropriation of earnings. If the Company may settle the obligation by cash, by issuing share, or in combination of both cash and shares, potential shares from bonus to employees which will be settled in shares should be included in the weighted average number of shares outstanding in calculation of diluted EPS, if the shares have a dilutive effect. The number of shares is estimated by dividing the amount of bonus to employees by the closing price (after consideration of the dilutive effect of dividends) of the common shares on the balance sheet date. Such dilutive effect of the potential shares needs to be included in the calculation of diluted EPS until the shares of employee bonus are resolved in the shareholders meeting in the following year.

The average number of shares outstanding for EPS calculation has been retroactively adjusted for the issuance of stock dividends and employee stock bonuses. This adjustment caused the basic after income tax EPS for the year ended December 31, 2006 and 2007 to decrease from NT\$4.93 to NT\$4.72 and NT\$4.14 to NT\$4.06, respectively. This adjustment caused diluted after income tax EPS for the year ended December 31, 2006 and 2007 to decrease from NT\$4.92 to NT\$4.72 and NT\$4.14 to NT\$4.06, respectively.

## 24. DISCLOSURES FOR FINANCIAL INSTRUMENTS

a. Fair values of financial instruments were as follows:

December 31

| 2007 |  | 2008 |  |
| :---: | :---: | :---: | :---: |
| Carrying |  | Carrying |  |
| Amount | Fair Value | Amount | Fair Value |
| NT\$ | NT\$ | NT\$ | NT\$ |
| (In Millions) | (In Millions) |  |  |

Assets

Financial assets at fair value through profit or loss
Available-for-sale financial assets
Held-to-maturity financial assets

| $\$ 1,632.4$ | $\$ 1,632.4$ | \$ | 55.7 |
| ---: | ---: | ---: | ---: |
| $68,089.1$ | $68,089.1$ | $12,931.4$ | \$ |
| $20,224.6$ | $20,192.2$ | $21,308.2$ | $12,931.4$ |
| $21,457.0$ |  |  |  |

Liabilities

Financial liabilities at fair value through
profit or loss

Bonds payable (including current portion)

| 249.3 | 249.3 | 85.2 | 85.2 |
| ---: | ---: | ---: | ---: |
| $12,500.0$ | $12,670.0$ | $12,500.0$ | $12,612.4$ |
| $2,003.0$ | $2,003.0$ | $1,642.9$ | $1,642.9$ |
|  |  |  |  |
| $13,083.2$ | $13,083.2$ | $10,674.7$ | $10,674.7$ |
| 652.3 | 652.3 | 722.3 | 722.3 |

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b. Methods and assumptions used in the estimation of fair values of financial instruments

1) The aforementioned financial instruments do not include cash and cash equivalents, receivables, other financial assets, refundable deposits, payables, and payables to contractors and equipment suppliers and guarantee deposits. The carrying amounts of these financial instruments approximate their fair values due to their short maturities.
2) Except for derivatives and structured time deposits, fair values of financial assets at fair value through profit or loss, available-for-sale and held-to-maturity financial assets were based on their quoted market prices.
3) For those derivatives and structured time deposits with no quoted market prices, their fair values are determined using valuation techniques incorporating estimates and assumptions that were consistent with prevailing market conditions.
4) Fair value of bonds payable was based on their quoted market price.
5) Fair values of long-term bank loans, other long-term payables and obligations under capital leases were based on the present value of expected cash flows, which approximate their carrying amounts.
c. The changes in fair value of derivatives contracts which were outstanding as of December 31, 2007 and 2008 estimated using valuation techniques were recognized as valuation losses of $\mathrm{NT} \$ 207.1$ million and NT\$42.7 million, respectively.
d. Movements of the unrealized gain/loss on financial instruments for the years ended December 31, 2007 and 2008 were as follows:

Balance, beginning of year
Recognized directly in shareholders equity
Removed from shareholders equity and recognized in earnings

Year Ended December 31, 2007

From

| From | Available- |
| :---: | :---: |
| Available- | for-sale |
| for-sale | Financial |
|  | Assets Held |


| Financial | by |
| :---: | :---: |
| Assets | Investes |


| $\$ 386.0$ | $\$$ | 175.6 | $\$ 561.6$ |
| ---: | ---: | ---: | ---: |
| 849.8 |  | $(122.4)$ | 727.4 |
| $(608.0)$ |  |  | $(608.0)$ |

\$ 627.8 \$
53.2
\$ 681.0

Year Ended December 31, 2008

| Year Ended December 31, 2008 |  |
| :---: | :---: |
|  | From |
| From | Available- |
| Available- | for-sale |
| for-sale | Financial |
|  | Assets Held |
| Financial | by |


|  | Assets | Investees | Total |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance, beginning of year | $\$$ | 627.8 | $\$$ | 53.2 | $\$$ | 681.0 |
| Recognized directly in shareholders | equity |  | 738.6 |  | $(142.1)$ | 596.5 |
| Removed from shareholders | equity and recognized in earnings | $(1,564.8)$ |  |  |  | $(1,564.8)$ |
| Balance, end of year | $\$(198.4)$ | $\$$ | $(88.9)$ | $\$(287.3)$ |  |  |

e. Information about financial risk

1) Market risk. The publicly traded stocks categorized as financial assets at fair value through profit or loss are exposed to market price fluctuations. The derivative financial instruments categorized as financial assets/liabilities at fair value through profit or loss are mainly used to hedge the exchange rate fluctuations of foreign-currency assets and liabilities; therefore, the market risk of derivatives will be offset by the foreign exchange risk of these hedged items. Available-for-sale financial assets held by the Company are mainly fixed-interest-rate debt securities; therefore, the fluctuations in market interest rates would result in changes in fair value of these debt securities. Subject to recent turmoil in the global financial market, the Company evaluated its financial assets and determined that certain impairment for its asset-backed securities is other-than-temporary. The Company had appropriately recognized related impairment losses.

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2) Credit risk. Credit risk represents the potential loss that would be incurred by the Company if the counter-parties or third-parties breached contracts. Financial instruments with positive fair values at the balance sheet date are evaluated for credit risk. Subject to recent turmoils in the global financial market, the Company evaluated the financial instruments for any possible counter-party or third-party default. As a result of the evaluation, the Company determined that certain financial instruments are exposed to credit risk and had appropriately recognized related impairment losses.
3) Liquidity risk. The Company has sufficient operating capital to meet cash needs upon settlement of derivative financial instruments, bonds payable and bank loans. Therefore, the liquidity risk is low.
4) Cash flow interest rate risk. The Company mainly invests in fixed-interest-rate debt securities. Therefore, cash flows are not expected to fluctuate significantly due to changes in market interest rates.

## 25. RELATED PARTY TRANSACTIONS

Except as disclosed in the consolidated financial statements and other notes, the following is a summary of significant related party transactions:
a. Philips, one of the major shareholders of TSMC, which has become a non-related party since March, 2007.
b. Investees of TSMC

VIS (accounted for using equity method)
SSMC (accounted for using equity method)
c. VisEra Technology Company, Ltd. (VisEra), an indirect investee accounted for using equity method.
d. Others

Related parties over which the Company exercises significant influence but with which the Company had no material transactions.

For the year

| Sales |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| VIS | $\$$ | 14.4 | $\$ 9.2$ | $\$ 0.1$ |  |  |
| VisEra |  | 99.4 |  | 739.9 |  | 30.8 |
| SSMC | 6.5 |  | 2.9 |  | 1.9 |  |
| Philips | $4,025.0$ |  |  |  |  |  |
| Others | 42.0 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | $\$ 4,187.3$ | $\$ 802.0$ | $\$$ | 112.8 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Purchases | $\$ 6,820.6$ | $\$ 5,468.4$ | $\$ 4,441.8$ |  |  |  |

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| VIS | $3,919.6$ | $4,208.2$ | $3,260.2$ |  |
| :--- | :--- | ---: | ---: | ---: |
| VisEra |  | 0.6 | 0.5 |  |
|  |  |  |  |  |
|  |  | $\$ 10,740.2$ | $\$ 9,677.2$ | $\$ 7,702.5$ |

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As of December 31
Receivables
$\begin{array}{lrr}\text { VisEra } & 1.0 \\ \text { Philips } & 250.9\end{array}$
Others
0.4

Other receivables
SSMC
VIS
VisEra
Others

| \$ | 69.6 | $\$$ | 84.8 | \$ 56.9 |
| ---: | ---: | ---: | ---: | ---: |
| 121.9 |  | 118.7 |  | 43.0 |
| 59.0 |  | 40.1 |  |  |
|  | 6.4 |  |  |  |
|  |  |  |  |  |

$$
\begin{array}{llllll}
\$ & 256.9 & \$ & 243.6 & \$ 9.9
\end{array}
$$

As of December 31

Payables

| VIS | $\$ 719.8$ | $\$ 839.6$ | $\$ 317.9$ |  |
| :--- | ---: | ---: | ---: | ---: |
| SSMC | 459.3 |  | 655.1 | 162.8 |
| VisEra |  |  | 8.7 | 9.2 |
| Philips | 688.6 |  |  |  |
|  |  |  |  |  |
|  | $\$ 1,867.7$ | $\$ 1,503.4$ | $\$ 489.9$ |  |

Other long-term payables
Philips (see Note 28a)
\$ 403.4 \$
\$

Deferred credits
VisEra
\$ $124.4 \quad \$ \quad 62.2 \quad \$$
The sales prices and payment terms to related parties were not significantly different from those of sales to third parties. For other related party transactions, prices and terms were determined in accordance with mutual agreements.

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TSMC deferred the net gains (classified under deferred credits) derived from sales of property, plant and equipment to VisEra, and then recognized such gains (classified under non-operating income and gains) over the depreciable lives of the disposed assets.

TSMC leased certain buildings and facilities to VisEra. The related rental income was classified under non-operating income. The lease terms and prices were determined in accordance with mutual agreements. The lease agreement between TSMC and VisEra expired in April 2008.

## 26. PLEDGED OR MORTGAGED ASSETS

The Company provided certain assets as collateral mainly for long-term bank loans and land lease agreements, which were as follows:

|  | December 31 |  |  |
| :--- | :---: | ---: | :---: |
|  | 2007 |  |  |
| Other financial assets | $\mathbf{2 0 0 8}$ |  |  |
| Property, plant and equipment, net | $\$ 48.9$ | $\$ 33.4$ |  |
|  | $5,733.3$ | $4,032.6$ |  |
|  |  |  |  |
|  | $\$ 5,782.2$ | $\$ 4,066.0$ |  |

## 27. SIGNIFICANT LONG-TERM LEASES

The Company leases several parcels of land and office premises from the SPA and Jhongli Industrial Park Service Center. These operating leases expire on various dates from December 2008 to December 2028 and can be renewed upon expiration.

The Company entered into lease agreements for its office premises and certain equipment located in the United States, Europe, Japan, China and Taiwan. These operating leases expire between 2009 and 2018 and can be renewed upon expiration.

As of December 31, 2008, future lease payments were as follows:

| Year | Amount <br> NT\$ |
| :--- | ---: | ---: |
| (In Millions) |  |

Rent expense for the years ended December 31, 2006, 2007 and 2008 was NT\$1,368.2 million, NT\$1,398.3 million and NT\$1,620.6 million, respectively.

## 28. SIGNIFICANT COMMITMENTS AND CONTINGENCIES

Significant commitments and contingencies of the Company as of December 31, 2008, excluding those disclosed in other notes, were as follows:
a. On June 20, 2004, TSMC and Philips (Philips parted with its semiconductor company which was renamed as NXP B.V. in September 2006) amended the Technical Cooperation Agreement, which was originally signed on May 12, 1997. The amended Technical Cooperation Agreement is for five years beginning from January 1, 2004. Upon expiration, this amended Technical Cooperation Agreement will be terminated and will not be automatically renewed; however, the patent cross license arrangement between TSMC and Philips (now NXP B.V.) will survive the expiration of the amended Technical Cooperation Agreement. Under this amended Technical Cooperation Agreement, TSMC will pay Philips (now NXP B.V.) royalties based on a fixed amount mutually agreed-on, rather than under a certain percentage of the TSMC s annual net sales. TSMC and Philips (now NXP B.V.) agreed to cross license the patents owned by each party. TSMC also obtained through Philips (now NXP B.V.) a number of cross patent licenses.

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b. Under a technical cooperation agreement with ITRI, the R.O.C. Government or its designee approved by TSMC can use up to $35 \%$ of TSMC s capacity if TSMC s outstanding commitments to its customers are not prejudiced. The term of this agreement is for five years beginning from January 1, 1987 and is automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice.
c. Under several foundry agreements, TSMC shall reserve a portion of its production capacity for certain major customers that have guarantee deposits with TSMC. As of December 31, 2008, TSMC had a total of US $\$ 43.4$ million of guarantee deposits.
d. Under a Shareholders Agreement entered into with Philips and EDB Investments Pte Ltd. on March 30, 1999, the parties formed a joint venture company, SSMC, which is an integrated circuit foundry in Singapore. TSMC s equity interest in SSMC was $32 \%$. Nevertheless, Philips parted with its semiconductor company which was renamed as NXP B.V. in September 2006. TSMC and NXP B.V. purchased all the SSMC shares owned by EDB Investments Pte Ltd. pro rata according to the Shareholders Agreement on November 15, 2006. After the purchase, TSMC and NXP B.V. currently own approximately $39 \%$ and $61 \%$ of the SSMC shares respectively. TSMC and Philips (now NXP B.V.) committed to buy specific percentages of the production capacity of SSMC. TSMC and Philips (now NXP B.V.) are required, in the aggregate, to purchase up to $70 \%$ of SSMC s capacity, but TSMC alone is not required to purchase more than $28 \%$ of the capacity. If any party defaults on the commitment and the capacity utilization of SSMC fall below a specific percentage of its capacity, the defaulting party is required to compensate SSMC for all related unavoidable costs.

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e. TSMC provides technical services to SSMC under a Technical Cooperation Agreement (the Agreement) effective March 30, 1999. TSMC receives compensation for such services computed at a specific percentage of net selling price of all products sold by SSMC. The Agreement shall remain in force for ten years and may be automatically renewed for successive periods of five years each unless pre-terminated by either party under certain conditions.
f. TSMC provides a technology transfer to VIS under a Manufacturing License and Technology Transfer Agreement entered into on April 1, 2004. TSMC receives compensation for such technology transfer in the form of royalty payments from VIS computed at specific percentages of net selling price of certain products sold by VIS. VIS agreed to reserve its certain capacity to manufacture for TSMC certain products at prices as agreed by the parties.
g. TSMC, TSMC North America and WaferTech filed a series of lawsuits in late 2003 and 2004 against Semiconductor Manufacturing International Corporation, SMIC (Shanghai) and SMIC Americas (aggregately referring to as SMIC ). The lawsuits alleged that SMIC infringed multiple TSMC, TSMC North America and WaferTech patents and misappropriated TSMC, TSMC North America and WaferTech s trade secrets. These suits were settled out of court on January 30, 2005. As part of the settlement, Semiconductor Manufacturing International Corporation shall pay US $\$ 175.0$ million over six years to resolve TSMC, TSMC North America and WaferTech s claims. As of December 31, 2008, SMIC had paid US $\$ 120.0$ million in accordance with the terms of this settlement agreement. In August 2006, TSMC, TSMC North America and WaferTech filed a lawsuit against SMIC in Alameda County Superior Court in California for breach of aforementioned settlement agreement, breach of promissory notes and trade secret misappropriation, seeking injunctive relief and monetary damages. In September 2006, SMIC filed a cross-complaint against TSMC, TSMC North America and WaferTech in the same court, alleging TSMC, TSMC North America and WaferTech of breach of the settlement agreement and implied covenant of good faith and fair dealing, in response to TSMC, TSMC North America and WaferTech s August complaint. In November 2006, SMIC filed a complaint with Beijing People s High Court against TSMC, TSMC North America and WaferTech alleging defamation and breach of good faith. The California State Superior Court of Alameda County issued an Order on TSMC, TSMC North America and WaferTech s pre-trial motion for a preliminary injunction against SMIC on September 7, 2007. In the Order, the Court found TSMC has demonstrated a significant likelihood that it will ultimately prevail on the merits of its claim for breach of certain paragraphs of the (2005) Settlement Agreement with SMIC. The Court also found TSMC has demonstrated a significant probability of establishing that SMIC retains and is using TSMC Information in SMIC s 0.13 um and smaller technologies, and there is significant threat of serious irreparable harm to TSMC if SMIC were to disclose or transfer that information before final resolution of the case. Therefore, the Court ordered that, effective immediately, SMIC must provide advance notice and an opportunity for TSMC, TSMC North America and WaferTech to object before disclosing items enumerated in the Court Order to SMIC s third party partners. The Court, however, did not grant a preliminary injunction as requested by TSMC, TSMC North America and WaferTech. The result of the above-mentioned litigation cannot be determined at this time.
h. In April 2004, UniRAM Technology, Inc. ( UniRAM ) filed an action against MoSys Inc., TSMC and TSMC North America in the U.S. District Court for the Northern District of California, alleging patent infringement and trade secret misappropriation and seeking injunctive relief and damages. TSMC appealed after the United States District Court for the Northern District of California rendered judgment in favor of UniRAM in May 2008. In the third quarter of 2008, TSMC and TSMC North America had reached agreement with UniRAM to settle the dispute. In accordance with the settlement, the judgment has been vacated and the claims asserted by UniRAM are fully and finally settled. As of December 31, 2008, TSMC had accounted for the result of the settlement in accordance with the aforementioned settlement agreement.
i.

The Company entered into an agreement with a counterparty in 2003 whereby TSMC China is obligated to purchase certain property, plant and equipment at the agreed-upon price within the contract period. If the purchase is not completed, TSMC China is obligated to compensate the counterparty for the loss incurred. The property, plant and equipment have been in use by TSMC China since 2004 and are being depreciated over their estimated service lives. The related obligation totaled $\mathrm{NT} \$ 7,908.5$ million and $\mathrm{NT} \$ 8,579.7$ million as of December 31, 2007 and 2008, respectively, which is included in other long-term payables on the Company s consolidated balance sheets.

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## 29. SEGMENT FINANCIAL INFORMATION

a. Industry financial information

The Company operates in one industry. Therefore, the disclosure of industry financial information is not applicable to the Company.
b. Geographic information:

|  | North America and Others NT\$ | Adjustments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Taiwan <br> NT\$ <br> (In | and <br> Elimination NT\$ <br> llions) |  | nsolidated NT\$ |
| Year ended December 31, 2006 |  |  |  |  |  |
| Sales to other than consolidated entities Sales among consolidated entities | $\begin{array}{r} \$ 191,511.9 \\ 18,998.6 \end{array}$ | $\begin{array}{r} \$ 125,895.3 \\ 191,345.1 \end{array}$ | $\$_{(210,343.7)}$ | \$ | 317,407.2 |
| Total sales | \$ 210,510.5 | \$ 317,240.4 | \$ (210,343.7) | \$ | 317,407.2 |
| Gross profit | \$ 5,641.4 | \$ 150,498.0 | \$ (329.3) | \$ | 155,810.1 |
| Operating expenses |  |  |  |  | $(28,545.4)$ |
| Non-operating income and gains |  |  |  |  | 9,705.6 |
| Non-operating expenses and losses |  |  |  |  | $(3,608.1)$ |
| Income before income tax |  |  |  | \$ | 133,362.2 |
| Net income attributable to minority interest |  |  |  | \$ | 185.5 |
| Identifiable assets | \$ 133,341.6 | \$ 441,339.4 | \$ (41,091.0) | \$ | 533,590.0 |
| Long-term investments |  |  |  |  | 53,895.2 |
| Total assets |  |  |  | \$ | 587,485.2 |
| Year ended December 31, 2007 |  |  |  |  |  |
| Sales to other than consolidated entities | \$ 193,066.2 | \$ 129,564.4 | \$ | \$ | 322,630.6 |
| Sales among consolidated entities | 18,084.1 | 194,035.5 | $(212,119.6)$ |  |  |
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| Total sales | \$ 211,150.3 | \$ 323,599.9 |  | $(212,119.6)$ | \$ | 322,630.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, 2007 |  |  |  |  |  |  |
| Gross profit | \$ 3,895.1 | \$ 139,227.5 | \$ | (772.4) | \$ | 142,350.2 |
| Operating expenses |  |  |  |  |  | (30,628.3) |
| Non-operating income and gains |  |  |  |  |  | 11,933.8 |
| Non-operating expenses and losses |  |  |  |  |  | $(2,013.7)$ |
| Income before income tax |  |  |  |  | \$ | 121,642.0 |
| Net income attributable to minority interest |  |  |  |  | \$ | 755.3 |
| Identifiable assets | \$ 145,483.4 | \$ 439,675.9 | \$ | $(50,755.4)$ | \$ | 534,403.9 |
| Long-term investments |  |  |  |  |  | 36,461.3 |
| Total assets |  |  |  |  | \$ | 570,865.2 |
|  | F-48 |  |  |  |  | (Continued) |

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|  | North <br> America <br> and <br> Others <br> NT\$ | Taiwan NT\$ (In | Adjustments <br> and <br> Elimination NT\$ <br> llions) | Consolidated NT\$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, 2008 |  |  |  |  |  |
| Sales to other than consolidated entities Sales among consolidated entities | $\begin{array}{r} \$ 193,727.6 \\ 16,280.8 \end{array}$ | $\begin{array}{r} \$ 139,430.1 \\ 194,731.5 \end{array}$ | \$ $(211,012.3)$ | \$ | 333,157.7 |
| Total sales | \$ 210,008.4 | \$ 334,161.6 | \$ (211,012.3) | \$ | 333,157.7 |
| Gross profit | \$ 2,114.1 | \$ 140,540.3 | \$ (904.8) | \$ | 141,749.6 |
| Operating expenses <br> Non-operating income and gains <br> Non-operating expenses and losses |  |  |  |  | $\begin{gathered} (37,314.2) \\ 10,821.4 \\ (3,784.6) \end{gathered}$ |
| Income before income tax |  |  |  | \$ | 111,472.2 |
| Net income attributable to minority interest |  |  |  | \$ | 590.0 |
| Identifiable assets | \$ 122,781.6 | \$ 425,545.2 | \$ (29,391.7) | \$ | 518,935.1 |
| Long-term investments |  |  |  |  | 39,981.5 |
| Total assets |  |  |  | \$ | 558,916.6 |
|  | F-49 |  |  |  | Concluded) |

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c. Net sales

| Areas | Year Ended December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ | 2007 |  | 2008 |
|  |  | (In Millions) |  |  |
|  |  |  |  |  |
| Taiwan | \$ 34,483.2 | \$ | 42,876.0 | \$ 44,663.5 |
| United States | 155,166.0 |  | 163,242.2 | 203,998.8 |
| Asia and others | 105,808.9 |  | 84,802.0 | 57,610.5 |
| Europe | 27,425.4 |  | 37,416.0 | 35,710.6 |
| Sales returns and allowances | $\begin{gathered} 322,883.5 \\ (5,476.3) \end{gathered}$ |  | $\begin{array}{r} 328,336.2 \\ (5,705.6) \end{array}$ | $\begin{gathered} 341,983.4 \\ (8,825.7) \end{gathered}$ |
| Net sales | \$ 317,407.2 | \$ | 322,630.6 | \$ 333,157.7 |

The net sales information is presented by billed regions.
d. Major customers representing at least $10 \%$ of gross sales

|  |  |  | ear Ended | ber 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | NT\$ | \% | NT\$ (In | \% | NT\$ | \% |
| Customer A | \$ 33,950.4 | 11 | \$ 37,731.0 | 11 | \$ 46,523.1 | 14 |

e. Net sales by product categories:

| Product Category | Year Ended December 31 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ |  | 2007 | $\begin{aligned} & 2008 \\ & \text { NT\$ } \end{aligned}$ |
|  |  |  | NT\$ |  |
|  |  |  | (In |  |
|  |  |  | Millions) |  |
| Wafer fabrication | \$ 286,452.0 | \$ | 293,431.3 | \$ 295,535.9 |
| Mask making | 15,317.1 |  | 16,984.5 | 19,081.8 |
| Others | 15,638.1 |  | 12,214.8 | 18,540.0 |
|  | \$ 317,407.2 |  | 322,630.6 | \$ 333,157.7 |

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## 30. SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN ACCOUNTING PRINCIPLES FOLLOWED BY THE COMPANY AND GENERALLY ACCEPTED ACCOUNTING PRINCIPLES IN THE UNITED STATES OF AMERICA

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the Republic of China (R.O.C. GAAP), which differ in the following respects from accounting principles generally accepted in the United States of America (U.S. GAAP):
a. Marketable securities

Under R.O.C. GAAP, prior to January 1, 2006, marketable securities were carried at the lower of aggregate cost or market value, and debt securities were carried at cost, with only unrealized losses recognized. Effective January 1, 2006, the Company adopted R.O.C. SFAS No. 34, Financial Instruments: Recognition and Measurement, and No. 36, Financial Instruments: Disclosure and Presentation . Financial instruments including debt securities and equity securities are categorized as financial assets or liabilities at fair value through profit or loss (FVTPL), available-for-sale or held-to-maturity securities. FVTPL has two sub-categories, financial assets designated on initial recognition as one to be measured at fair value, and those that are classified as held for trading, which are also measured at fair value with fair value changes recognized in profit and loss. These classifications are similar to those required by U.S. Statement of Financial Accounting Standards (U.S. SFAS) No. 115, Accounting for Certain Investments in Debt and Equity Securities .

Under U.S. SFAS No.115, debt and equity securities that have readily determinable fair values are classified as either trading, available-for-sale or held-to-maturity securities. Debt securities that the Company has the positive intent and ability to hold to maturity are classified as held-to-maturity securities and reported at amortized cost. Debt and equity securities that are bought and traded for short-term profit are classified as trading securities and reported at fair value, with unrealized gains and losses included in earnings. Debt and equity securities not classified as either held-to-maturity or trading are classified as available-for-sale securities and reported at fair value, with unrealized gains and losses excluded from earnings and reported as a separate component of shareholders equity.

Upon adoption of R.O.C. SFAS No. 34 and No. 36 on January 1, 2006, the Company recorded an accumulated effect of changes in accounting principles of NT\$1,606.7 million to adjust the carrying amount of trading securities, which were recorded at the lower of aggregate cost or market value, to fair market value, which is a one-time reconciling adjustment between U.S. GAAP and R.O.C. GAAP in 2006.

Upon adoption of R.O.C. SFAS No. 34 and No. 36, the Company also adjusted the carrying amount of the marketable securities categorized as available-for-sale, which were carried at the lower of aggregate cost or market with unrealized losses included in earnings, to fair market value on January 1, 2006. Therefore, prior to January 1 2006, unrealized gains and losses included in shareholders equity associated with available-for-sale marketable securities under R.O.C. GAAP were different from those under U.S. GAAP.

The Company classified money market funds as available-for-sale marketable securities under both R.O.C. GAAP and U.S. GAAP.

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b. Equity-method investees

The Company s proportionate share of the net income (loss) from an equity-method investee may differ if the equity-method investee $s$ net income (loss) under R.O.C. GAAP differs from that under U.S. GAAP. Such differences between R.O.C. GAAP and U.S. GAAP would result in adjustments to investments accounted for using equity method and the equity in earnings (losses) of equity-method investees recorded in net income.
c. Impairment of long-lived assets

Under U.S. GAAP, an impairment loss is recognized when the carrying amount of an asset or a group of assets is not recoverable from the expected future cash flows and the impairment loss is measured as the difference between the fair value and the carrying amount of the asset or group of assets. The impairment loss is recorded in earnings and cannot be reversed subsequently. Long-lived assets (excluding goodwill and other indefinite lived assets) held and used by the Company are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Under R.O.C. GAAP, for purposes of evaluating the recoverability of long-lived assets, assets purchased for use in the business but subsequently determined to have no use were written down to fair value and recorded as either idle assets or assets held for disposition. Under R.O.C. GAAP, effective January 1, 2005, the Company is required to recognize an impairment loss when an indication is identified that the carrying amount of an asset or a group of assets is not recoverable from the expected future cash flows. However, if the recoverable amount increases in a future period, the amount previously recognized as impairment would be reversed and recognized as a gain. The adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, if no impairment loss had been recognized. Accordingly, the depreciation basis of long-lived assets impaired prior to January 1, 2005 under U.S. GAAP is different from the depreciation basis under R.O.C. GAAP.
d. $10 \%$ tax on unappropriated earnings

In the R.O.C., a $10 \%$ tax is imposed on unappropriated earnings (excluding earnings from foreign consolidated subsidiaries). For R.O.C. GAAP purposes, the Company records the $10 \%$ tax on unappropriated earnings in the year of shareholders approval. Starting from 2002, the American Institute of Certified Public Accountants International Practices Task Force concluded that in accordance with Emerging Issues Task Force (EITF) 95-10, Accounting for tax credits related to dividends in accordance with SFAS 109, the $10 \%$ tax on unappropriated earnings should be accrued under U.S. GAAP during the period the earnings arise and adjusted to the extent that distributions are approved by the shareholders in the following year. To the extent the Company does not have sufficient tax credits to offset the $10 \%$ tax, additional tax expense would be recognized under U.S. GAAP. The net effects of the adjustment of $10 \%$ tax on unappropriated earnings were NT\$3,278.0 million, NT\$2,260.3 million and NT\$983.4 million in 2006, 2007 and 2008 under U.S. GAAP, respectively.

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e. Goodwill and intangible assets

Under R.O.C. GAAP, goodwill was recorded for the excess of the purchase price over the net tangible assets for the purchase of a $32 \%$ equity interest in TSMC-Acer Semiconductor Manufacturing Corporation (TASMC) in 1999 and was amortized over ten years. Under U.S. GAAP, the goodwill was amortized over five years.

Goodwill was not recorded under R.O.C. GAAP for the acquisition of the remaining $68 \%$ equity interest in TASMC in June 2000, because under R.O.C. GAAP goodwill from a business combination in the form of a share exchange was charged to capital surplus. Under U.S. GAAP, the acquisition cost is the fair value of the shares issued in exchange and the difference between the acquisition cost and the sum of the fair values of the net tangible and identifiable intangible assets acquired is recorded as goodwill. Accordingly, the goodwill from the acquisition of the remaining $68 \%$ equity interest in TASMC was recorded for U.S. GAAP purposes and was amortized over the estimated life of five years.

Effective January 1, 2002, the Company adopted U.S. SFAS No. 142, Goodwill and Other Intangible Assets and ceased amortization of goodwill which is now assessed for impairment annually or more frequently if impairment indicators arise. In accordance with U.S. SFAS No. 142, the Company had completed its goodwill impairment test at the reporting unit level and found no impairment as of December 31, 2006, 2007 and 2008.

Effective January 1, 2005, the Company adopted R.O.C. SFAS No. 35, Accounting for Impairment of Assets which required the Company to evaluate impairment of an asset group, including goodwill allocated to such group. The Company found no impairment as of December 31, 2006, 2007 and 2008. Effective January 1, 2006, the Company adopted R.O.C. SFAS No. 25 (revised 2005), Business Combinations which is similar to U.S. SFAS No. 142. Upon adoption of R.O.C. SFAS No. 25 , the Company ceased amortization of goodwill which is now assessed for impairment in accordance with the provisions of the standard and R.O.C. SFAS No. 35 .
f. Bonuses to employees, directors and supervisors

According to R.O.C. regulations and TSMC s Articles of Incorporation, a portion of the Company s distributable earnings should be set aside as bonuses to employees, directors and supervisors. Bonuses to directors and supervisors are usually paid in cash. However, bonuses to employees may be paid in cash or stock, or a combination of both.

Under R.O.C. GAAP, prior to January 1, 2008, the bonuses, including stock bonuses which are valued at the par value of NT\$10 each, are treated as appropriations of retained earnings and are charged to retained earnings after such bonuses are formally approved by the shareholders in the following year.

Under U.S. GAAP, such bonuses are treated as compensation expense and are charged to earnings. The amount of compensation expense related to stock bonuses is determined based on the market value of TSMC s common stock at the date of stock distribution in the following year. The total amount of the aforementioned bonuses to be paid in the following year is initially accrued based on management $s$ estimate pursuant to TSMC s Articles of Incorporation in the year to which it relates. Any difference between the amount initially accrued and the market value of the bonuses upon the payment of cash and the issuance of shares is recognized in the year of approval by shareholders. Subsidiaries registered in the R.O.C. follow the same accounting treatment as TSMC.

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Prior to January 1, 2008, the Company records two separate U.S. GAAP reconciling adjustments relating to bonuses paid to employees, directors and supervisors each year. The first reconciling adjustment, referred to as Bonuses to employees, directors and supervisors current year accrual , records the full bonuses earned in the current year, in an amount equal to the product of the total net income for the current year multiplied by the percentage set forth based on management s estimate pursuant to TSMC s Articles of Incorporation. The second reconciling adjustment, referred to as Fair market value adjustment of prior year accrual , is made in the following year to record the additional compensation expense for prior-year bonuses paid in stock, which is measured at the fair market value on the date of stock distribution.

Effective January 1, 2008, the Company adopted Interpretation 2007-052, Accounting for Bonuses to Employees, Directors and Supervisors issued in March 2007 by the ARDF, which requires companies to record bonuses paid to employees, directors and supervisors as an expense rather than as an appropriation of earnings. The amount of compensation expense related to stock bonuses is determined based on the market value of TSMC s common stock at the date before the shareholders meeting.

Accordingly, as of December 31, 2008, the Company is no longer required to record the first reconciling adjustment as referred above. However, the Company recorded the second reconciling adjustment to reflect the additional compensation expense recognized in 2008 for 2007 bonuses paid in stock, which was measured at the fair market value on the date of stock distribution. Starting from January 1, 2009, the only U.S. GAAP reconciling adjustment for the bonuses paid in stock will be the difference of the market value of TSMC s common stock between the date of stock distribution and the date before the shareholders meeting.
g. Pension benefits
U.S. SFAS No. 87, Employer s Accounting for Pensions requires the Company to determine the accumulated pension obligation and the pension expense on an actuarial basis. The Company adopted U.S. SFAS No. 87 at the beginning of 1993 for U.S. GAAP purposes.
U.S. SFAS No. 87 was amended by U.S. SFAS No. 158, Employers Accounting for Defined Benefit Pension and Other Postretirement Plans (U.S. SFAS No. 158) on September 29, 2006, which requires employers to recognize the overfunded or underfunded status of a defined benefit pension plan as an asset or liability in its statement of financial position and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. U.S. SFAS No. 158 defines the funded status of a benefit plan as the difference between the fair value of the plan assets and the projected benefit obligation.
Previously unrecognized items such as gains or losses, prior service credits and the transition asset or obligation are required to be recognized in other comprehensive income and subsequently recognized through net periodic benefit cost pursuant to the recognition and amortization provisions of U.S. SFAS No. 87 .
R.O.C. SFAS No. 18 is similar in many respects to U.S. SFAS No. 87 and was adopted by the Company in 1996. However, R.O.C. SFAS No. 18 does not require a company to recognize the overfunded or underfunded status of a defined benefit pension plan as an asset or liability in the statement of financial position.

The difference of the overfunded or underfunded status at the date of adoption and hereafter give rise to a U.S. GAAP difference in the actuarial computation and the related amortization.

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h. Stock-based compensation

Effective January 1, 2006, the Company adopted the fair value recognition provisions of U.S. Statement of Financial Accounting Standards No. 123 (revised 2004), Share-Based Payment (U.S. SFAS No. 123R), and the modified prospective transition method and therefore has not restated the results for prior periods. Under the transition method, stock-based compensation expense for the year ended December 31, 2006 includes compensation expense for all unvested stock-based compensation awards granted prior to January 1, 2006 that are expected to vest, based on the grant date fair value estimated in accordance with the original provision of U.S. SFAS No. 123, Accounting for Stock-Based Compensation (U.S. SFAS No. 123) or the intrinsic value described in the next paragraph. Upon an employee stermination, unvested awards are forfeited, which affects the quantity of options to be included in the calculation of stock-based compensation expense. Forfeitures do not include vested options that expire unexercised. Stock-based compensation expense for all stock-based compensation awards granted after January 1, 2006 is based on the grant-date fair value estimate in accordance with the provisions of U.S. SFAS No. 123R. The Company recognizes these compensation costs using the graded vesting method over the requisite service period of the award, which is generally the option vesting term of four years. Prior to the adoption of U.S. SFAS No. 123R, the Company recognized stock-based compensation expense in accordance with U.S. Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees (U.S. APB 25). See Note 31d for additional stock-based compensation disclosures.

Certain characteristics of the stock options granted under the TSMC 2002 Plan and GUC 2004 Plan are not reasonably estimable using appropriate valuation methodologies as prescribed under U.S. SFAS No. 123 and have been accounted for using the variable accounting method. Upon the adoption of U.S. SFAS No. 123R, the Company continued to account for these stock options based on their intrinsic value, remeasured at each reporting date through the date of exercise or settlement.

Under R.O.C. GAAP, employee stock option plans that were granted or modified in the period from January 1, 2004 to December 31, 2007 are accounted for by the interpretations issued by the ARDF. The Company adopted the intrinsic value method and any compensation expense determined using this method is recognized over the vesting period. No stock-based compensation expense was recognized under R.O.C. GAAP for the years ended December 31, 2006, 2007 and 2008.

Effective January 1, 2008, the Company adopted Statement of Financial Accounting Standards No. 39, Accounting for Share-based Payment , which is similar in many respects to U.S. SFAS No. 123R and requires companies to record share-based payment transactions in the financial statements at fair value for the employee stock option plans that were granted or modified after December 31, 2007. The Company did not grant or modify employee stock options since January 1, 2008.

## i. Carry interest

For marketable security investments of InveStar Semiconductor Development Fund, Inc. (ISDF) managed by fund managers, the Company is required by the investment management contract to pay carry interest based on the net realized gain (an amount of annual company profits after accumulated adjusted cost of capital and net of management fees) multiplied by certain percentages. Therefore, the Company estimates and accrues for such expense during the year.

Under R.O.C. GAAP, carry interest expense was not accrued prior to 2006 as the marketable security investments were carried at the lower of cost or market and no unrealized gains were recognized prior to disposal of investments. After adoption of ROC SFAS No. 34 and 36 on January 1 2006, the carry interest

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accrued for the trading marketable security is recognized as an expense while the carry interest accrued for the available-for-sale marketable security is recognized as an adjustment of unrealized gain under the shareholders equity.

Under U.S. GAAP, the Company accrued an expense of NT\$193.3 million in 2005 and reversed such accrual in 2006 since the expense was recorded under R.O.C. GAAP starting from 2006.
j. Earnings per share

Under R.O.C. GAAP, earnings per share is calculated as described in Notes 2 and 23. Under U.S. GAAP, earnings per share is calculated by dividing net income by the average number of shares outstanding in each period, adjusted retroactively for any stock dividends issued and stock splits subsequently. Other shares issued from unappropriated earnings, such as stock bonuses to employees, are included in the calculation of weighted-average number of shares outstanding from the date of issuance.

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Under both R.O.C. GAAP and U.S. GAAP, the unvested stock options are included in the diluted EPS calculation using the treasury stock method if the inclusion of such would be dilutive. The accounting for stock options under R.O.C. GAAP is generally the same as U.S. APB 25 in all material aspects, which uses intrinsic value to account for the stock-based compensation. However, under U.S. GAAP, upon the adoption of SFAS No. 123R, the denominator used to calculate diluted EPS is likely to be different from the denominator used under U.S. APB 25 and R.O.C. GAAP.
U.S. SFAS No.123R paragraphs 66 and 67 state that the shares or stock options shall be treated as contingently issuable shares in accordance with U.S. SFAS No. 128, Earnings per share . The statement provides guidance on applying the treasury stock method for equity instruments granted in share-based payment transactions in determining diluted earnings per share. In applying the treasury stock method, the assumed proceeds shall be the sum of (a) the exercise price, (b) the amount of compensation cost attributed to future services and not yet recognized, and (c) the amount of excess tax benefits that would be credited to additional paid-in capital assuming exercise of the options. Therefore, the number of shares included in the denominator of the diluted EPS calculation under U.S. SFAS No. 128 will be different from that under R.O.C. GAAP. Earnings per equivalent American Depository Share (ADS) is calculated by multiplying earnings per share by five (one ADS represents five common shares).
k. Consolidated entities

Under R.O.C. GAAP, the Company adopted R.O.C. SFAS No. 7, Consolidated Financial Statements , which requires that the accompanying consolidated financial statements include the accounts of all directly and indirectly majority owned subsidiaries of TSMC, and the accounts of investees in which TSMC s ownership percentage is less than $50 \%$ but over which TSMC has a controlling interest. All significant intercompany balances and transactions are eliminated upon consolidation. Partially owned, non-controlled equity investees are accounted for under the equity method. The standard is similar to Accounting Research Bulletin No. 51 Consolidated Financial Statements (U.S. ARB No. 51).
U.S. FASB Interpretation No. 46R (Revised December 2003), Consolidation of Variable Interest Entities (U.S. FIN 46R), which clarifies U.S. ARB No. 51 and replaces FASB Interpretation No. 46 Consolidation of Variable Interest Entities , addresses consolidation by business enterprises of variable interest entities. The interpretation states that if an enterprise absorbs a majority of the expected losses or receives a majority of the expected residual rewards, or both, of a Variable Interest Entity (VIE) through its variable interests, it is identified as the primary beneficiary and is required to consolidate the VIE.

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Under U.S. GAAP, the Company consolidated the accounts of VisEra for the year ended December 31, 2004 and for the ten months period ended October 31, 2005 based on the majority voting interest rule pursuant to U.S. ARB No. 51 and U.S. FIN 46R. Subsequent to October 31, 2005, however, VisEra was no longer treated as a consolidated subsidiary of the Company. The Company believes that this accounting treatment is appropriate under U.S. GAAP because: (i) the Company lost its control over VisEra in November 2005 due to changes in the investment structure through which VisEra became a subsidiary of VisEra Holdings (Cayman), in which the Company owns only a $50 \%$ equity interest; (ii) Cayman is not a VIE as defined in paragraph 5 of FIN 46R; (iii) Cayman is not a majority owned subsidiary of the Company that would require consolidation under U.S. ARB No. 51; and (iv) the Company does not otherwise have control over Cayman. Therefore, the Company deconsolidated VisEra as of November 1, 2005.

Under U.S. GAAP, the Company consolidated the accounts of GUC for the years ended December 31, 2006, 2007, and 2008. GUC is a business entity and an independent operation, which satisfies the exemption defined in paragraph 4 h of U.S. FIN 46R. Therefore, GUC does not fall under the scope of U.S. FIN46R, and the Company follows U.S. ARB No. 51 as well as Regulation S-X Rule 1-02(g) to determine whether a parent-subsidiary relationship existed.

In December 2004, the ARDF revised R.O.C. SFAS No. 7, which was required to be adopted by the Company on January 1, 2005. The revised R.O.C. SFAS No. 7 requires the Company to consolidate all investees over which the Company has a controlling interest. As a result of the adoption of this standard, subsequent to December 31, 2004, there has been no difference between R.O.C. GAAP and U.S. GAAP with respect to consolidated entities of the Company.

The following reconciles net income and shareholders equity under R.O.C. GAAP as reported in the consolidated financial statements to the net income and shareholders equity determined under U.S. GAAP, giving effect to the differences listed above.

| Year Ended December 31 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| 2006 | 2007 |  | 2008 |  |
| NT\$ | NT\$ | NT\$ |  | US\$ |

(Note 3)
(In Millions Except Per Share Amounts)
Net income
Net income attributable to shareholders of the parent based on R.O.C. GAAP
\$ 127,009.7 \$ 109,177.1 \$ 99,933.2 \$3,050.5
Adjustments:
a. Marketable securities

1. Realization of unrealized loss on marketable securities
(262.0)
(52.3)
(98.0)
2. Reversal of cumulative effect of change in accounting principle for adopting R.O.C. SFAS No. 34
$(1,606.7)$
b. U.S. GAAP adjustments on equity- method investees
c. Reversal of depreciation on assets impaired under U.S. GAAP
(42.6)

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e. Bonuses to employees, directors and supervisors

1. Current year accrual
2. Fair market value adjustment of prior year accrual
f. Pension expense
g. Stock-based compensation
3. Stock-based compensation
4. Cumulative effect of change in accounting principle for adopting U.S. SFAS 123R
h. Adjustment of carry interest

Income tax effect of U.S. GAAP adjustments
Minority interest effect of U.S. GAAP adjustments
Net adjustment

Net income based on U.S. GAAP

Basic earnings per common share based on U.S.
GAAP
Income before cumulative effect of changes in accounting principles
Cumulative effect of changes in accounting principles

Net income

Diluted earnings per common share based on U.S.
GAAP
Income before cumulative effect of changes in accounting principles
Cumulative effect of changes in accounting principles
(471.7)
37.9
170.4
98.3
165.0
(31,299.0)
\$ 95,710.7 \$ 71,657.6 \$ 81,473.2
\$2,487.0

| $\$$ | 3.70 | $\$$ | 2.73 | $\$$ | 3.17 | $\$$ | 0.10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $\$$ | 3.70 | $\$$ | 2.73 | $\$$ | 3.17 | $\$$ | 0.10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Net income

Year Ended December 31
2007
NT\$
NT\$
2008
2006
NT\$
\$ $(9,488.6)$ $(28,352.0)$ (20,369.3)
3.9
\$ $(9,488.6)$
\$ $(8,232.8)$
\$
\$
(621.8)
(In Millions Except Per Share Amounts) $\qquad$

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| Year Ended December 31 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| 2006 | 2007 |  | 2008 |  |
| NT\$ | NT\$ | NT\$ |  | US\$ |
|  |  |  |  | (Note |

(In Millions Except Per Share Amounts)
Basic earnings per ADS
Income before cumulative effect of changes in accounting principles
Cumulative effect of changes in accounting principles

Net income

Diluted earnings per ADS
Income before cumulative effect of changes in accounting principles
Cumulative effect of changes in accounting principles

Net income
\$ $\quad 18.47$
13.62
$15.73 \quad \$ \quad 0.48$

Basic number of weighted average shares outstanding under U.S. GAAP (in thousands)

Diluted number of weighted average shares outstanding under U.S. GAAP (in thousands) $25,905,253 \quad 26,299,442 \quad 25,894,469$

December 31
2007
2008
NT\$
NT\$
US\$
(Note 3)
(In Millions)
Shareholders equity
Equity attributable to shareholders of the parent based on R.O.C.
GAAP
\$ 487,091.4 \$ 476,377.1 \$ 14,541.4
Adjustments:
$\begin{array}{lrr}\text { a. U.S. GAAP adjustments on equity-method investees } & \text { (432.5) } \\ \text { b. Impairment of long-lived assets } \\ \text { 1. Loss on impairment of assets } & (10,573.7)\end{array}$
2. Reversal of depreciation on assets impaired under U.S. GAAP

| $9,878.6$ | $10,709.6$ | 326.9 |
| :---: | :---: | :---: |
| $(5,538.3)$ | $(4,530.6)$ | $(138.3)$ |

d. Goodwill

1. Carrying amount difference from $68 \%$ equity interest in TASMC s share acquisition

52,212.7 $52,212.7$
1,593.8
2. Reversal of amortization of goodwill recognized under R.O.C. GAAP

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|  | December 31 |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2007 \\ & \text { NT\$ } \end{aligned}$ | 2008 |  |
|  |  | NT\$ | $\begin{gathered} \text { US\$ } \\ \text { (Note 3) } \end{gathered}$ |
|  |  | (In Millions) |  |
| e. Bonuses to employees, directors and supervisors | \$ $(8,175.3)$ | \$ | \$ |
| f. Accrued pension cost | (39.9) | (35.6) | (1.1) |
| g. Accrual for deferred pension loss under US SFAS No. 158 | (87.5) | $(1,288.9)$ | (39.3) |
| Income tax effect of U.S. GAAP adjustments | 166.6 | 68.4 | 2.1 |
| Minority interest effect of U.S. GAAP adjustments | 0.1 |  |  |
| Net increase in equity attributable to shareholders of the parent | 26,136.7 | 34,712.1 | 1,059.6 |
| Equity attributable to shareholders of the parent based on U.S. GAAP | \$ 513,228.1 | \$ 511,089.2 | \$ 15,601.0 |
|  |  |  | (Concluded) |
|  | Year Ended | ecember 31 |  |
| 2006 | 2007 |  |  |
| NT\$ | NT\$ | NT\$ | US\$ |
|  | (In M | ions) | (Note 3) |

Changes in equity attributable to shareholders of the parent based on U.S. GAAP

Balance, beginning of year
Net income for the year
Unrealized gain (loss) on available-for-sale marketable securities

| TSMC | 338.7 | 290.9 | $(728.2)$ | $(22.2)$ |
| :--- | ---: | :---: | ---: | ---: |
| Equity-method investees | 151.1 | $(119.2)$ | $(142.1)$ | $(4.3)$ |
| Common shares issued as bonus to employees |  |  |  |  |
| TSMC | $21,431.1$ | $32,776.7$ | $24,213.8$ | 739.2 |
| Equity-method investees | 51.6 | 78.7 | 52.0 | 1.6 |
| Adjustment arising from changes of ownership |  |  |  | $(186.1$ |
| percentage in investees | $(549.1)$ | $93.6)$ | $(138.9)$ | $(4.3)$ |
| Translation adjustments |  | $(48,466.9)$ | $(30,616.9$ | 49.3 |
| Treasury stock repurchased by the Company |  |  |  | $(928.8)$ |
| Cash dividends received by subsidiaries from | 82.3 | 101.8 | 102.3 | 3.1 |
| parent company | $(61,825.1)$ | $(77,489.1)$ | $(76,881.3)$ | $(2,346.8)$ |
| Cash dividends to common shareholders | 326.2 | 233.4 | $(252.6)$ | $(7.7)$ |
| Stock-based compensation | 575.2 | 436.9 | 227.2 | 6.9 |
| Issuance of stock from exercising stock options |  |  |  | (Continued) |
|  | F-60 |  |  |  |

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The following U.S. GAAP condensed balance sheets as of December 31, 2007 and 2008, and statements of operations for the years ended December 31, 2006, 2007 and 2008 have been derived from the audited consolidated financial statements and reflect the adjustments presented above.
Certain accounts have been reclassified to conform to U.S. GAAP. Technical service income is included in sales with the related costs included in cost of sales. Provision for litigation loss, gains and losses on disposal of property, plant and equipment and other assets, rental income with related costs, impairment losses on idle assets and certain other items in non-operating income (expense) are included in operating expenses.

|  | December 31 |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2007 \\ & \text { NT\$ } \end{aligned}$ | 2008 |  |
|  |  | NT\$ | $\begin{gathered} \text { US\$ } \\ \text { (Note 3) } \end{gathered}$ |
|  |  | (In Millions) |  |
| Assets |  |  |  |
| Current assets | \$ 249,822.3 | \$ 252,618.4 | \$ 7,711.2 |
| Long-term investments | 36,028.8 | 39,496.5 | 1,205.6 |
| Property, plant and equipment, net | 259,557.0 | 243,645.4 | 7,437.3 |
| Goodwill | 46,926.2 | 47,028.2 | 1,435.5 |
| Other assets | 18,508.4 | 16,695.3 | 509.7 |
| Total assets | \$ 610,842.7 | \$ 599,483.8 | \$ 18,299.3 |
| Liabilities |  |  |  |
| Current liabilities | \$ 62,419.5 | \$ 61,361.7 | \$ 1,873.1 |
| Long-term liabilities | 24,284.5 | 16,191.0 | 494.3 |
| Other liabilities | 7,316.6 | 6,870.8 | 209.7 |

[^2]Minority interest in subsidiaries
Equity attributable to shareholders of the parent

Total liabilities and shareholders equity
equity
者

513,228.1 511,089.2
15,601.0

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|  | $\begin{aligned} & 2006 \\ & \text { NT\$ } \end{aligned}$ | $\begin{aligned} & \text { Year Ended } \\ & 2007 \\ & \text { NT\$ } \\ & \quad(\text { In } \mathbf{N} \end{aligned}$ | cember 31 <br> NT\$ <br> ons) | $\begin{gathered} \text { US\$ } \\ \text { (Note 3) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Net sales | \$ 317,978.7 | \$ 323,221.0 | \$ 334,339.6 | \$ 10,205.7 |
| Cost of sales | 179,174.2 | 202,045.7 | 203,733.9 | 6,219.0 |
| Gross profit | 138,804.5 | 121,175.3 | 130,605.7 | 3,986.7 |
| Operating expenses | 37,050.1 | 44,775.0 | 44,423.4 | 1,356.0 |
| Income from operations | 101,754.4 | 76,400.3 | 86,182.3 | 2,630.7 |
| Non-operating income, net | 4,892.3 | 9,573.1 | 5,701.9 | 174.1 |
| Income before income tax, minority interest and cumulative effect of changes in accounting principles | 106,646.7 | 85,973.4 | 91,884.2 | 2,804.8 |
| Income tax expense | 10,953.4 | 14,011.8 | 10,062.0 | 307.1 |
| Net income before minority interest and cumulative effect of changes in accounting principles | \$ 95,693.3 | \$ 71,961.6 | \$ 81,822.2 | \$ 2,497.7 |
| Cumulative effect of changes in accounting principles | \$ 37.9 | \$ | \$ | \$ |
| Net income attributable to shareholders of the parent | \$ 95,710.7 | \$ 71,657.6 | \$ 81,473.2 | \$ 2,487.0 |
| Net income attributable to minority interest | 20.5 | 304.0 | 349.0 | 10.7 |

The Company reports comprehensive income (loss) in accordance with U.S. SFAS No. 130, Reporting Comprehensive Income for U.S. GAAP purposes. U.S. SFAS No. 130 requires that in addition to net income (loss), a company should report other comprehensive income (loss) consisting of the changes in equity of the company during the year from transactions and other events and circumstance from nonowner sources. It includes all changes in equity during the year except those resulting from investments by shareholders and distribution to shareholders. The components of other comprehensive income for the Company consist of unrealised gains and losses relating to the translation of financial statements maintained in foreign currencies, unrealized gains and losses relating to the Company s investments in available-for-sale securities and changes in actuarial loss and transition obligation of the defined benefit pension plan.

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Statements of comprehensive income for the years ended December 31, 2006, 2007 and 2008 are as follows:

| Year Ended December 31 |  |  |  |
| :--- | :---: | :---: | :---: |
| 2006 | 2007 | 2008 |  |
| NT\$ | NT\$ | NT\$ | US\$ |
|  | (In Millions) |  |  |

Net income attributable to shareholders of the parent based on U.S. GAAP

$$
\$ 95,710.7 \quad \$ 71,657.6 \quad \$ 81,473.2 \quad \$ 2,487.0
$$

Other comprehensive income (loss), net of tax:
Adjustment of unrealized gain (loss) on financial instruments
TSMC
$338.7 \quad 290.9 \quad(728.2)$

Equity-method investees
Translation adjustments
151.1
(549.1)

Changes in actuarial gain /loss and transition obligation

| TSMC | $1,303.8$ | $(1,201.4)$ | $(36.7)$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Equity-method investees | 12.7 | $(52.3)$ | $(1.6)$ |  |
|  |  |  |  |  |
| Comprehensive income | $\$ 95,651.4$ | $\$ 73,239.2$ | $\$ 80,966.1$ | $\$ 2,471.5$ |

The components of accumulated other comprehensive income (loss) were as follows:

|  | December 31 |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2007 \\ & \text { NT\$ } \end{aligned}$ | 2008 |  |
|  |  | NT\$ | US\$ <br> (Note 3) |
|  |  | (In Millions) |  |
| Cumulative translation adjustment | \$ $(1,201.1)$ | \$ 415.8 | \$ 12.7 |
| Unrealized gain on financial instruments | 583.0 | (287.3) | (8.8) |
| Actuarial loss and transition obligation | (56.5) | (1,310.2) | (40.0) |
| Total accumulated other comprehensive loss | \$ (674.6) | \$ $(1,181.7)$ | \$ (36.1) |

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The Company applies R.O.C. SFAS No. 17, Statement of Cash Flows . Its objectives and principles are similar to those set out in U.S. SFAS No. 95, Statement of Cash Flows. The principal differences between the two standards relate to classification. Cash flows from investing activities for changes in deferred charges, refundable deposits and other assets-miscellaneous, and cash flows from financing activities for changes in guarantee deposits, and cash bonuses paid to employees, directors and supervisors are reclassified to operating activities under U.S. SFAS No. 95. Summarized cash flow data by operating, investing and financing activities in accordance with U.S. SFAS No. 95 are as follows:

|  | Year Ended December 31 |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| 2006 | 2007 | 2008 |  |  |
| NT\$ | NT\$ |  | US\$ |  |
|  | (In Millions) |  |  |  |
|  |  |  |  |  |

Net cash inflow (outflow) from:


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## 31. ADDITIONAL DISCLOSURES REQUIRED BY U.S. GAAP

a. Recent accounting pronouncements

On January 1, 2008 the Company adopted U.S. SFAS No. 157, Fair Value Measurements (U.S. SFAS No. 157), which defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. U.S. SFAS No. 157 does not require any new fair value measurements, but provides guidance on how to measure fair value by providing a fair value hierarchy used to classify the source of the information. The adoption of U.S. SFAS No. 157 did not have material impact on the Company s results of operations and financial position.

In February 2008, the FASB issued FASB Staff Position 157-2, Effective Date of FASB Statement No. 157 (FSP 157-2), which delays the effective date of SFAS No. 157 to January 1, 2009, for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). The Company believes that the adoption of the delayed items of SFAS No. 157 will not have material impact on the Company s results of operations and financial position.

In October 2008, the FASB issued FSP 157-3, Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active (FSP 157-3). which clarifies the application of Statement 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. The Company believes the adoption of FSP 157-3 will not have material impact on the Company $s$ results of operations and financial position.

In March 2008, the FASB issued SFAS No. 161, Disclosures about Derivative Instruments and Hedging Activities an amendment of FASB Statement No. 133 (U.S. SFAS No. 161), which requires additional disclosures about the objectives of derivative instruments and hedging activities, the method of accounting for such instruments under SFAS No. 133 and its related interpretations, and a tabular disclosure of the effects of such instruments and related hedged items on our financial position, financial performance, and cash flows. SFAS No. 161 is effective for the Company beginning January 1, 2009. The Company believes the adoption of SFAS No. 161 will not have material impact on its results of operations and financial position.

In December 2007, the FASB issued U.S. SFAS No. 141R, Business Combination (U.S. SFAS No. 141R) and U.S. SFAS No. 160, Non-controlling Interests in Consolidated Financial Statements- an amendment of ARB No. 51 (U.S. SFAS No. 160). U.S. SFAS No. 141R requires most of the assets acquired and liabilities assumed in the business combination to be measured at fair value, as of the acquisition date. In addition, the net assets of non-controlling interest $s$ share of the acquired subsidiaries should be recognized at fair value. U.S. SFAS No. 160 requires the Company to include non-controlling interests as a separate component of shareholders equity, instead of a liability or temporary equity. U.S. SFAS No. 141R is effective for the Company for business combination consummated on or after January 1, 2009 and U.S. SFAS No. 160 is effective for the Company beginning after January 1, 2009. The adoption of SFAS No. 141R will change the accounting treatment of the Company for business combinations on a prospective basis. The Company believes the adoption of SFAS 160 will not have material impact on its results of operations and financial position.

In February 2007, the FASB issued U.S. SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities (U.S. SFAS No. 159). U.S. SFAS No. 159 allows the Company to elect to measure certain financial assets and liabilities at fair value through earnings. This statement is effective for the

Company beginning January 1, 2008. The Company did not elect the fair value option for any eligible financial asset of liability.

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b. Fair Value

On January 1, 2008, the Company adopted SFAS No. 157, Fair Value Measurements (U.S. SFAS No. 157), which defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements.

SFAS No. 157 defines fair value as the price that would be received upon sale of an asset or paid upon transfer of a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the Company.

In addition to defining fair value, SFAS No. 157 expands the disclosure requirements around fair value and establishes a fair value hierarchy for valuation inputs. The hierarchy prioritizes the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of the three levels which is determined by the lowest level input that is significant to the fair value measurement in its entirety. These levels are:

Level 1 Use unadjusted quoted prices in active markets for identical assets or liabilities.
Level 2 Use observable inputs other than Level 1 prices such as quoted prices for identical or similar instruments in markets that are not active, quoted prices for similar instruments in active markets, and model-based valuation in which all significant inputs are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Use inputs that are generally unobservable and reflect the use of significant management judgments and estimates.

The following section describes the valuation methodologies the Company uses to measure financial assets and liabilities at fair value.

For investments other than forward and cross currency swap contract, the Company uses quoted prices in active markets for identical assets to determine fair value where applicable. This pricing methodology applies to our Level 1 investments such as agency bonds, corporate bonds, money market funds, government bonds and publicly traded stocks. If quoted prices in active markets for identical assets are not available, then the Company uses quoted prices that are observable and can be corroborated with other observable market data for identical assets in less active markets. These investments are included in Level 2 and primarily consist of corporate issued asset-backed securities. For the year ended December 31, 2008, none of the Company s financial assets measured at fair value on a recurring basis was determined by using significant unobservable inputs and classified as Level 3.

For forward and cross currency swap contract, fair values are estimated using industry standard valuation models. These models use market-based observable inputs including interest rate curves, foreign exchange rates, and forward and spot prices for currencies to project fair value. The forward and cross currency swap contract financial assets and liabilities are included in Level 2.

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The following table presents our assets and liabilities measured at fair value on a recurring basis as of December 31, 2008:


The table below sets out the balances for those assets required to be measured at fair value on a nonrecurring basis and the associated losses recognized during the year ended December 31, 2008:

|  | $\begin{aligned} & \text { December } \\ & \text { 31, } \end{aligned}$ |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Level | Level |  |  |
|  | 2008 | 1 | 2 | Level 3 | Losses |
|  | NT\$ | NT\$ | NT\$ | NT\$ | NT\$ |
|  |  |  | (In Millions) |  |  |
| Financial assets carried at cost | \$3,615.4 | \$ | \$ | \$3,615.4 | \$ (625.5) |

Financial assets carried at cost consist primarily of non-publicly traded stocks. The Company reviews the carrying values of financial assets carried at cost when impairment indicators are present. Due to the absence of quoted market price, the fair values are determined significantly based on management judgment with the best information available. The Company calculates these fair values using the market approach which includes recent financing activities, valuation of comparable companies, technology development stage, market condition and other economic factors as their fair value inputs. When the market approach is not available, the Company uses the income approach which includes the discounted cash flow and other economic factors as inputs.

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In accordance with the provisions of FSP 157-2, certain non-financial assets measured at fair value on a non-recurring basis are not applicable to these fair value measurement requirements until January 1, 2009. These non-financial assets include non-financial assets and non-financial liabilities measured at fair value in the second step of a goodwill impairment test, as well as intangible assets and other non-financial long-lived assets measured at fair value for impairment assessment.
c. Marketable securities

As of December 31, 2007 and 2008, the marketable securities by category was as follows:

|  |  | December 31 |  |
| :---: | :---: | :---: | :---: |
|  |  | 2007 | 2008 |
|  |  | NT\$ | NT\$ |
|  |  | (In Millions) |  |
| Marketable securities | trading publicly traded stock | \$ 1,590.2 | \$ 13.3 |
| Marketable securities | available-for-sale | 68,089.1 | 12,931.4 |
| Marketable securities | held-to-maturity | 20,224.6 | 21,308.2 |

The Company uses the average cost method for trading securities and available-for-sale securities when determining their cost basis. Proceeds from sales of available-for-sale securities for the years ended December 31, 2006, 2007 and 2008 were NT\$91,620.4 million, NT\$94,908.7 million and NT\$138,515.0 million, respectively. Net realized losses on these sales were NT $\$ 190.3$ million for the year ended December 31, 2006, and net realized gains on these sales were NT\$557.9 million and NT\$539.2 million for the years ended December 31, 2007 and 2008 respectively.
Total appreciation of trading marketable securities held by the Company as of December 31, 2007 and 2008 was NT $\$ 1,486.0$ million and NT $\$ 12.1$ million, respectively.

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As of December 31, 2007 and 2008, available-for-sale and held-to-maturity securities of the Company were as follows:

|  | Adjusted Cost NT\$ | December 31, 2007 |  |  |  | Estimated <br> Fair <br> Value <br> NT\$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Gross nrealized Gains NT\$ | Un | ross <br> ealized <br> osses <br> NT\$ |  |
|  |  | (In Millions) |  |  |  |  |
| Corporate bonds | \$ 21,677.4 | \$ | 60.2 | \$ | (148.0) | \$ 21,589.6 |
| Money market funds | 19,212.1 |  |  |  |  | 19,212.1 |
| Government bonds | 15,559.8 |  | 90.0 |  | (24.5) | 15,625.3 |
| Open-end mutual funds | 14,694.1 |  | 272.6 |  |  | 14,966.7 |
| Agency bonds | 8,529.9 |  | 111.3 |  | (5.4) | 8,635.8 |
| Corporate issued asset-backed securities | 5,930.6 |  | 17.1 |  | (590.6) | 5,357.1 |
| Structured time deposits | 2,000.0 |  |  |  | (10.6) | 1,989.4 |
| Publicly traded stocks | 102.6 |  | 802.7 |  |  | 905.3 |
| Total | \$ 87,706.5 | \$ | 1,353.9 | \$ | (779.1) | \$ 88,281.3 |
| Categorized as: |  |  |  |  |  |  |
| Current assets |  |  |  |  |  |  |
| Available-for-sale securities |  |  |  |  |  | \$ 66,688.4 |
| Held-to-maturity securities |  |  |  |  |  | 11,509.7 |
| Long-term investments |  |  |  |  |  |  |
| Available-for-sale securities |  |  |  |  |  | 1,400.7 |
| Held-to-maturity securities |  |  |  |  |  | 8,682.5 |


| Corporate bonds | $\$ 21,449.4$ | $\$$ | 93.2 | $\$$ | $(117.2)$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Agency bonds | $5,583.1$ | 118.5 | $(5.1)$ | $5,425.4$ |  |
| Corporate issued asset-backed securities | $2,752.4$ |  | $(417.5)$ | $2,334.9$ |  |
| Government bonds | $1,883.1$ | 34.8 |  | $(51.6)$ | $1,866.3$ |
| Structured time deposits | $1,643.0$ | 142.3 |  | $1,785.3$ |  |
| Money market funds | $1,000.1$ |  |  | $1,000.1$ |  |
| Publicly traded stocks | 118.7 | 161.2 |  | 279.9 |  |

[^3]Total
\$ 34,429.8 $\quad \$ \quad 550.0 \quad \$ \quad(591.4) \quad \$ 34,388.4$
(Continued)
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December 31, 2008

|  | Gross | Gross | Estimated |
| :---: | :---: | :---: | :---: |
| Adjusted | Unrealized | Unrealized | Fair |
| Cost | Gains | Losses | Value |
| NT\$ | NT\$ | NT\$ | NT\$ |
|  | (In Millions) |  |  |

Categorized as:
Current assets
Available-for-sale securities $\quad \$ 10,898.7$
Held-to-maturity securities
5,888.2
Long-term investments
Available-for-sale securities
2,032.7
Held-to-maturity securities
15,568.8

The following table shows the gross unrealized losses and fair value of the investments with unrealized losses that are not deemed to be other-than-temporary impaired, aggregated by investment category and length of time that have been in a continuous unrealized loss position as of December 31, 2008:

| Less than | 12 Months |
| :---: | :---: |
| Fair | Unrealized |
| Value | Losses |
| NT\$ | NT\$ |


| 12 Months or Greater |  |
| :--- | :---: |
| Fair | Unrealized |
| Value | Losses |
| NT\$ | NT\$ |
| (In Millions) |  |

Total

| Fair | Unrealized |
| :---: | :---: |
| Value | Losses |
| NT\$ | NT\$ |


| Corporate bonds | \$ 6,960.9 | \$ | (88.0) | \$ 6,019.9 | \$ | (29.2) | \$ 12,980.8 | \$ | (117.2) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate issued asset-backed securities | 688.4 |  | (45.7) | 1,450.0 |  | (371.8) | 2,138.4 |  | (417.5) |
| Agency bonds | 593.2 |  | (4.5) | 135.8 |  | (0.6) | 729.0 |  | (5.1) |
| Government bonds |  |  |  | 616.0 |  | (51.6) | 616.0 |  | (51.6) |
|  | \$8,242.5 | \$ | (138.2) | \$8,221.7 | \$ | (453.2) | \$ 16,464.2 | \$ | (591.4) |

The gross unrealized losses related to bonds and asset-backed securities were due to fair value fluctuations in an unstable United States credit environment. The Company has the intent and ability to hold the investments for a sufficient period of time to allow for recovery in market value.

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As of December 31, 2008, the amortized cost and fair value of the Company s available-for-sale and held-to-maturity investments in debt securities by contractual maturity were as follows:

|  | Cost <br> NT\$ <br> (In | on | ir Value NT\$ |
| :---: | :---: | :---: | :---: |
| Due in one year or less | \$ 6,380.1 | \$ | 6,377.6 |
| Due after one year through two years | 14,903.0 |  | 15,016.5 |
| Due after two years through five years | 5,520.6 |  | 5,548.2 |
| Due after five years | 6,507.3 |  | 6,166.1 |
|  | \$33,311.0 |  | 33,108.4 |

d. Stock-based compensation plans

Effective January 1, 2006, TSMC adopted the fair value recognition provisions of U.S. SFAS No. 123R, using the modified prospective transition method and therefore has not restated the results for prior periods. Under the transition method, stock-based compensation expense in the year ended December 31, 2006 includes stock-based compensation expense for all share-based payment awards granted prior to, but not yet vested as of January 1, 2006, based on the grant-date fair value estimated in accordance with the original provision of U.S. SFAS No. 123, Accounting for Stock-Based Compensation (U.S. SFAS No. 123). In addition, the stock-based compensation expense also includes intrinsic value of certain outstanding share-based awards for which it was not possible to reasonably estimate their grant-date fair value under the requirement of U.S. SFAS No. 123. Stock-based compensation expense for all share-based payment awards granted after January 1, 2006 is based on the grant-date fair value estimated in accordance with the provision of U.S. SFAS No. 123R. The Company recognizes these compensation costs using the graded vesting method over the requisite service period of the award, which is generally a four-year vesting period. The adoption of U.S. SFAS No. 123R resulted in a cumulative gain from accounting change of NT\$37.9 million, which reflects the net cumulative impact of estimating future forfeitures in the determination of period expense, rather than recording forfeitures when they occur as previously permitted. Prior to the adoption of U.S. SFAS No. 123R, the Company accounted for awards granted under the intrinsic value method prescribed by U.S. APB 25 and related interpretations, and provided the required pro forma disclosures prescribed by U.S. SFAS No. 123. In March 2005, the SEC issued Staff Accounting Bulletin No. 107 (SAB No. 107) regarding the SEC s interpretation of U.S. SFAS No. 123R and the value of share-based payments for public companies. TSMC has applied the provisions of SAB No. 107 in its adoption of U.S. SFAS No. 123R. In December 2007, the SEC issued Staff Accounting Bulletin No. 110 (SAB No. 110) amends the SEC s views discussed in SAB 107 regarding the use of the simplified method in developing estimates of the expected life of stock options in accordance with SFAS No. 123R. The amendment allowed the continued use, subject to specific criteria, of the simplified method in estimating the expected life of stock options granted after December 31, 2008. The Company did not grant any employee stock options since then.

As a result of adopting U.S. SFAS No. 123R, income before income tax and cumulative effect of changes in accounting principles and net income for the year ended December 31, 2006 were NT\$73.1 million and NT\$67.1 million, respectively, lower than if the Company had continued to account for stock-based compensation under U.S. APB 25.

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The fair values of the options granted under the TSMC 2002 Plan and GUC 2004 Plan were not reasonably estimable using appropriate valuation methodologies as prescribed under U.S. SFAS No. 123 because the terms of such plans included a provision for a reduction in the exercise price in the event TSMC or GUC issues additional common shares or issues ADSs at a price lower than the exercise price of a granted stock option. Accordingly, the expenses for the stock options granted under the TSMC 2002 Plan and GUC 2004 Plan were determined using the variable accounting method. Upon adoption of U.S. SFAS No. 123R, the Company continued to account for these stock options based on their intrinsic value, remeasured at each reporting date through the date of exercise or other settlement.

Please refer to Note 21 of the Consolidated Financial Statements for other general terms of TSMC s, GUC s and XinTec s Employee Stock Option Plans, such as the maximum contractual term and the number of shares authorized for each stock option plan, as well as the supplemental information such as outstanding options as of December 31, 2008.

The weighted average remaining contractual term and aggregate intrinsic value of options under the foregoing plans as of December 31, 2008 were as follows:

TSMC:

| Options outstanding | 4.7 | $\$ 349.3$ |
| :--- | ---: | ---: |
| Options exercisable | 4.6 | 349.3 |
| GUC: |  |  |
| Options outstanding | 3.3 | 390.1 |
| Options exercisable | 2.2 | 89.0 |
| XinTec: | 8.2 |  |
| Options outstanding | 7.8 | 12.2 |
| Options exercisable | 4.6 |  |

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (the difference between TSMC s or GUC s stock closing price on the last trading date of the year ended December 31, 2008 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2008.
The number of options expected to vest for the years ended December 31, 2007 and 2008 was 16,937 thousand shares and 10,779 thousand shares, respectively.
Total intrinsic value of options exercised in the years ended December 31, 2007 and 2008 was NT\$741.9million and NT\$508.0 million, respectively. Total fair value of options vested, net of taxes, during the years ended December 31, 2007 and 2008 was NT\$574.5 million and NT $\$ 116.3$ million, respectively.
As of December 31, 2008, there was NT\$132.0 million of unrecognized compensation cost related to stock-based compensation plans. The unrecognized compensation cost is expected to be recognized over a weighted average period of 1.9 years.

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e. Uncertainty in income taxes

On January 1, 2007, the Company adopted FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes An interpretation of FASB Statement No. 109 (U.S. FIN 48), which clarifies the accounting for uncertainty in income taxes by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. U.S. FIN 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. As a result of the implementation of U.S. FIN 48, the Company did not recognize any cumulative effect adjustment impacting retained earnings as of the beginning of fiscal year 2007. As of December 31, 2007 and 2008, there was no material uncertain tax position or unrecognized tax benefit identified by the Company. The Company does not expect there will be any significant change in this tax position on unrecognized tax benefits within 12 months of the reporting date.
f. Subsidy income

The subsidy income of NT\$334.5 million, NT\$364.3 million and NT\$8.0 million recognized in the years ended December 31, 2006, 2007 and 2008, respectively, represented payments granted by the government of the People s Republic of China in connection with the Company s investment in Mainland China. Under R.O.C. GAAP, such government grants are recorded as non-operating income when received. In the absence of specific U.S. GAAP accounting guidance, the Company applied the International Accounting Standard 20, Accounting for Government Grants and Disclosure of Government Assistance . Therefore the subsidy income was recognized when received as non-operating income under U.S. GAAP as well.
g. Settlement income

Settlement income of NT\$979.2 million, NT $\$ 985.1$ million and NT $\$ 951.2$ million was recognized in the years ended December 31, 2006, 2007 and 2008, respectively, under the settlement agreement with Semiconductor Manufacturing Company Limited (SMIC). The dispute settlement is not a component of the activities that constitute the Company s ongoing major or central operations and therefore is classified as non-operating income in accordance with U.S. FASB Standard of Financial Accounting Concept (SFAC) No. 6, Elements of Financial Statements .

Under paragraph 84 (g) of U.S. FASB SFAC No. 5, Recognition and Measurement in Financial Statements of Business Enterprises , the Company recognized such settlement income on a cash basis due to the Company s serious doubt as to its collectibility at the time the settlement agreement was consummated. The Company continues to analyze the recognition of the remaining settlement income based on its collectibility, and will evaluate SMIC s reported financial condition, capital resources and liquidity condition on a regular basis.
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[^0]:    (1) The former
    representative
    Mr. Chintay

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[^2]:    Table of Contents

[^3]:    Table of Contents

