UNITED MICROELECTRONICS CORP
Form 20-F
May 08, 2009

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

(Mark One)

o **Registration statement pursuant to Section 12(b) or 12(g) of the Securities Exchange Act of 1934**

or

þ **Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the fiscal year ended December 31, 2008

or

o **Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the transition period from _____ to _____

or

o **Shell company report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
Date of event requiring this shell company report _____

Commission file number 001-15128

United Microelectronics Corporation
(Exact Name of Registrant as Specified in its Charter)

Taiwan, Republic of China
(Jurisdiction of Incorporation or Organization)
No. 3 Li-Hsin Road II, Hsinchu Science Park,
Hsinchu City, Taiwan, Republic of China
(Address of Principal Executive Offices)

Peter Courture, +1 (650) 968-8855, peter@courture.com,
978 Highlands Circle, Los Altos, CA 94024, USA
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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

Title of Each Class	Name of Each Exchange on which Registered
American Depositary Shares, as evidenced by American Depositary Receipts, each representing 5 Common Shares	New York Stock Exchange

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

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:
None

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.

12,987,771,315 Common Shares of Registrant issued as of December 31, 2008 (including zero treasury shares)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes þ No o

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes o No þ

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

Yes þ No o

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

Yes o No o

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

Large accelerated filer þ Accelerated filer o Non-accelerated filer o

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

U.S. GAAP o

International Financial Reporting Standards as issued by the International Accounting Standards Board o Other þ

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

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934).

Yes o No þ

UNITED MICROELECTRONICS CORPORATION
FORM 20-F ANNUAL REPORT
FISCAL YEAR ENDED DECEMBER 31, 2008
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SUPPLEMENTAL INFORMATION

The references to United Microelectronics , we , us , our and our company in this annual report refer to United Microelectronics Corporation and its consolidated subsidiaries, unless the context suggests otherwise. The references to United Semiconductor , United Silicon , UTEK Semiconductor and United Integrated Circuits are to United Semiconductor Corporation, United Silicon Incorporated, UTEK Semiconductor Corporation and United Integrated Circuits Corporation, respectively. The references to Taiwan and ROC refer to Taiwan, Republic of China. The references to shares and common shares refer to our common shares, par value NT$10 per share, and ADSs refers to our American depositary shares, each representing five common shares. The ADSs are issued under the Deposit Agreement, dated as of September 21, 2000, as amended, supplemented or modified from time to time, among United Microelectronics, Citibank N.A. and the holders and beneficial owners from time to time of American Depositary Receipts issued thereunder. ROC GAAP means the generally accepted accounting principles in the Republic of China and US GAAP means the generally accepted accounting principles in the United States. Any discrepancies in any table between totals and sums of the amounts listed are due to rounding.

We publish our financial statements in New Taiwan dollars, the lawful currency of the ROC. In this annual report, NT$ and NT dollars mean New Taiwan dollars, $, US$ and U.S. dollars mean United States dollars, ¥ means Yen, SG$ means Singapore dollars and means Euro.

FORWARD-LOOKING STATEMENTS IN THIS ANNUAL REPORT MAY NOT BE REALIZED

Our disclosure and analysis in this annual report contain or incorporate by reference some forward-looking statements. Our forward-looking statements contain information regarding, among other things, our financial condition, future expansion plans and business strategy. We have based these forward-looking statements on our current expectations and projections about future events. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Although we believe that these expectations and projections are reasonable, such forward-looking statements are inherently subject to risks, uncertainties and assumptions about us, including, among other things:

- our dependence on frequent introduction of new product services and technologies based on the latest developments;
- the intensely competitive semiconductor, communications, consumer electronics and PC industries and markets;
- risks associated with our international business activities;
- our dependence on key personnel;
- general economic and political conditions, including those related to the semiconductor, communications, consumer electronics and PC industries;
- natural disasters, such as earthquakes and droughts, which are beyond our control;
- possible disruptions in commercial activities caused by natural and human-induced disasters and outbreaks of contagious diseases;
- fluctuations in foreign currency exchange rates;
- additional disclosures we make in our previous and future Form 20-F annual reports and Form 6-K periodic reports to the U.S. Securities and Exchange Commission; and
- those other risks identified in the Item 3. Key Information D. Risk Factors section of this annual report.

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The words may , will , is/are likely to , anticipate , believe , estimate , expect , intend , plan and similar ex intended to identify a number of these forward-looking statements. We do not and will not undertake the obligation to update or revise any forward-looking statements contained in this annual report whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this annual report might not occur and our actual results could differ materially from those anticipated in these forward-looking statements.

GLOSSARY

ASIC	Application Specific Integrated Circuit. A custom-designed integrated circuit that performs specific functions which would otherwise require a number of off-the-shelf integrated circuits to perform.
Cell	Semiconductor structure in an electrical state which can store a bit of information, mainly used as the building block of memory array.
Die	A piece of a semiconductor wafer containing the circuitry of an unpackaged single chip.
DRAM	Dynamic Random Access Memory. A type of volatile memory product that is used in electronic systems to store data and program instructions. It is the most common type of RAM and must be refreshed with electricity hundreds of times per second or else it will fade away.
FPGA	Field Programmable Gate Array. A programmable integrated circuit.
Integrated circuit	Entire electronic circuit built on a single piece of solid substrate and enclosed in a small package. The package is equipped with leads needed to electrically integrate the integrated circuit with a larger electronic system. Monolithic and hybrid integrated circuits are distinguished by the type of substrate used.
Interconnect	The conductive path made from copper or aluminum that is required to achieve connection from one circuit element to the other circuit elements within a circuit.
Mask	Photomask. A piece of glass on which an integrated circuit circuitry design is laid out.
Memory	A group of integrated circuits that a computer uses to store data and programs, such as ROM, RAM, DRAM and SRAM.
Micron	A unit of spatial measurement that is one-millionth of a meter.
Nanometer	A unit of spatial measurement that is one-billionth of a meter.
PC	Personal computer.
RAM	Random Access Memory. A type of volatile memory forming the main memory of a computer where applications and files are run.
ROM	Read-Only Memory. Memory that is programmed by the manufacturer and cannot be changed. Typically, ROM is used to provide start-up data when a computer is first turned on.

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Scanner	A photolithography tool used in the production of semiconductor devices. This camera-like step-and-scan tool projects the image of a circuit from a master image onto a photosensitized silicon wafer.
Semiconductor	A material with electrical conducting properties in between those of metals and insulators. Essentially, semiconductors transmit electricity only under certain circumstances, such as when given a positive or negative electric charge. Therefore, a semiconductor s ability to conduct can be turned on or off by manipulating those charges and this allows the semiconductor to act as an electric switch. The most common semiconductor material is silicon, used as the base of most semiconductor chips today because it is relatively inexpensive and easy to create.
SoC	System-on-Chip. A chip that incorporates functions currently performed by several chips on a cost-effective basis.
SOI	Silicon-On-Insulator. Silicon wafer consisting of a thin layer of oxide, on top of which semiconductor devices are built.
SRAM	Static Random Access Memory. A type of volatile memory product that is used in electronic systems to store data and program instructions. Unlike the more common DRAM, it does not need to be refreshed.
Transistor	Tri-terminal semiconductor device in which input signal (voltage or current depending on the type of transistor) controls output current. An individual circuit that can amplify or switch electric current. This is the building block of all integrated circuits.
Volatile memory	Memory products which lose their data content when the power supply is switched off.
Wafer	Thin, round, flat piece of silicon that is the base of most integrated circuits.
8-inch wafer equivalents	Standard unit describing the equivalent amount of 8-inch wafers produced after conversion, used to quantify levels of wafer production for purposes of comparison. Figures of 8-inch wafer equivalents are derived by converting the number of wafers of all dimensions (e.g., 6-inch, 8-inch and 12-inch) into their equivalent figures for 8-inch wafers. 100 6-inch wafers are equivalent to 56.25 8-inch wafers. 100 12-inch wafers are equivalent to 225 8-inch wafers.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected Financial Data

The selected balance sheet data as of December 31, 2007 and 2008 and the selected statements of income and cash flow data for the years ended December 31, 2006, 2007 and 2008 are derived from our audited consolidated financial statements included elsewhere in this annual report. The selected balance sheet data as of December 31, 2004, 2005 and 2006 and the selected statements of income and cash flow data for the years ended December 31, 2004 and 2005 are derived from our audited consolidated financial statements not included in this annual report.

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Our financial statements have been prepared and presented in accordance with ROC GAAP, which differs in many material respects from US GAAP. For the discussion of these differences, see Note 35 to our audited consolidated financial statements included elsewhere in this annual report. Some of the items in the statements of income, cash flow and balance sheets have been reconciled to US GAAP and are set forth below. The summary financial data set forth below should be read in conjunction with Item 5. Operating and Financial Review and Prospects and our financial statements and the notes to those statements included elsewhere in this annual report.

	Year Ended December 31,					
	2004	2005	2006	2007	2008	
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except per share and per ADS data)					
Consolidated Statement of Income Data:						
ROC GAAP						
Net operating revenues	129,191	100,316	112,004	113,311	96,814	2,955
Cost of goods sold	(92,393)	(90,643)	(90,638)	(89,768)	(81,130)	(2,476)
Gross profit	36,798	9,673	21,366	23,543	15,684	479
Operating expenses:						
Sales and marketing	(2,775)	(3,739)	(3,366)	(4,069)	(3,483)	(106)
General and administrative	(4,853)	(4,387)	(3,422)	(3,724)	(3,055)	(93)
Research and development	(7,364)	(9,634)	(9,419)	(9,631)	(8,274)	(253)
Total operating expenses	(14,992)	(17,760)	(16,207)	(17,424)	(14,812)	(452)
Operating income (loss)	21,806	(8,087)	5,159	6,119	872	27
Net non-operating income (loss)	9,938	13,693	31,428	13,551	(22,858)	(698)
Income (Loss) before income tax and minority interest	31,744	5,606	36,587	19,670	(21,986)	(671)
Income tax expense	(374)	(67)	(3,261)	(2,809)	(997)	(30)
Cumulative effect of changes in accounting principles (the net amount after deducted tax expense $0)[1]		(113)	(1,189)			
Minority interest loss	473	1,601	482	101	663	20
Net income (loss)	31,843	7,027	32,619	16,962	(22,320)	(681)
Earnings (Losses) per share:[2][3]						
Basic	1.59	0.36	1.71	1.03	(1.70)	(0.05)
Diluted[5]	1.57	0.35	1.66	1.00	(1.70)	(0.05)
Shares used in earnings (losses) per share calculation:[3]						
Basic	20,024	19,657	19,029	16,464	13,111	13,111
Diluted[5]	20,343	19,959	19,687	16,943	13,170	13,170

Earnings (Losses) per ADS:[3]						
Basic	7.95	1.80	8.55	5.15	(8.50)	(0.26)
Diluted[5]	7.85	1.75	8.30	5.00	(8.50)	(0.26)
US GAAP						
Net operating revenues	129,191	96,782	112,004	113,311	96,814	2,955
Cost of goods sold	(96,895)	(89,743)	(93,326)	(92,081)	(85,912)	(2,622)
Operating income (loss)	(24,681)	(29,072)	2,162	(20,061)	(22,420)	(684)
Net income (loss)	(14,237)	(15,669)	21,797	(9,264)	(28,955)	(884)
Other comprehensive income (loss)	(16,451)	23,708	(8,194)	(4,863)	(25,239)	(770)
Comprehensive income (loss)	(30,688)	8,039	13,602	(14,127)	(54,194)	(1,654)
Earnings (losses) per share: [2][4]						
Basic	(0.88)	(0.97)	1.42	(0.63)	(2.25)	(0.07)
Diluted[5]	(0.88)	(0.97)	1.37	(0.63)	(2.25)	(0.07)
Shares used in earnings (losses) per share calculation:[4]						
Basic	16,139	16,185	15,350	14,599	12,870	12,870
Diluted[5]	16,139	16,185	15,891	14,599	12,870	12,870
Earnings (Losses) per ADS:[4]						
Basic	(4.41)	(4.84)	7.10	(3.17)	(11.25)	(0.34)
Diluted[5]	(4.41)	(4.84)	6.87	(3.17)	(11.25)	(0.34)

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	Year Ended December 31,					
	2004	2005	2006	2007	2008	
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except per share and per ADS data)					
Consolidated Balance Sheet Data:						
ROC GAAP						
Current assets	132,936	144,863	132,344	81,111	68,888	2,103
Long-term investment	32,712	30,797	71,964	69,813	32,441	990
Property, plant and equipment	192,024	159,114	151,828	137,219	108,410	3,309
Total assets	376,305	347,049	367,653	299,558	216,399	6,606
Current liabilities	36,598	36,960	35,703	45,195	12,834	392
Long-term debt (excluding current portion)	61,288	41,692	30,383	7,495	8,130	248
Total liabilities	101,202	82,429	70,251	56,561	24,740	755
Shareholders equity	266,374	258,284	291,165	236,467	184,676	5,637
US GAAP						
Cash and cash equivalents	55,558	63,508	61,649	47,678	40,017	1,222
Working capital[6]	96,690	105,846	95,927	35,273	55,724	1,701
Total assets	452,630	426,706	401,628	310,614	214,990	6,563
Total liabilities	101,599	83,943	71,226	56,795	24,099	736
Shareholders equity	342,420	336,425	324,162	247,302	184,029	5,617

	Year Ended December 31,					
	2004	2005	2006	2007	2008	
	NT$	NT$	NT$	NT$	NT$	US$
	(in millions, except per share and per ADS data)					
Other Consolidated Data:						
ROC GAAP						
Cash flow:						
Capital expenditure	81,110	22,163	33,240	28,299	11,515	351
Cash provided by operating activities	72,557	45,091	47,124	48,124	45,251	1,381
Cash used in investing activities	(72,447)	(7,533)	(16,556)	(21,844)	(11,423)	(349)
Cash used in financing activities	(16,137)	(29,592)	(45,056)	(72,694)	(34,380)	(1,049)
Net increase (decrease) in cash and cash equivalents	(17,390)	7,245	(14,774)	(46,175)	889	27
Gross profit margin	28.5%	9.6%	19.1%	20.8%	16.2%	16.2%
Operating profit (loss) margin	16.9%	(8.1)%	4.6%	5.4%	0.9%	0.9%
Net profit (loss) margin	24.6%	7.0%	29.1%	15.0%	(23.0)%	(23.0)%
Capacity utilization rate (on an actual basis)	90.8%	72.4%	79.5%	81.9%	70.7%	70.7%
Dividends declared per share[7]	0.8	1.1	0.5	0.7	1.2	0.04
US GAAP						
Cash flow:						
Capital expenditure	81,127	22,163	33,240	28,299	11,515	351
Cash provided by operating activities	72,379	45,064	46,385	45,785	44,953	1,372
	(88,469)	(6,081)	(9,736)	10,360	(19,973)	(610)

Cash provided by (used in) investing activities						
Cash used in financing activities	(16,124)	(29,565)	(38,222)	(70,354)	(34,081)	(1,040)
Net increase (decrease) in cash and cash equivalents	(33,639)	7,951	(1,859)	(13,971)	(7,661)	(234)
Gross profit margin	25.0%	7.3%	16.7%	18.7%	11.3%	11.3%
Operating profit (loss) margin	(19.1)%	(30.0)%	1.9%	(17.7)%	(23.2)%	(23.2)%
Net profit (loss) margin	(11.0)%	(16.2)%	19.5%	(8.2)%	(29.9)%	(29.9)%

(1) Refer to Note 3 to the audited consolidated financial statements included elsewhere in this annual report.

(2) Earnings (Losses) per share is calculated by dividing net income by the weighted average number of shares outstanding during the year.

(3) Retroactively adjusted for all subsequent stock dividends and employee stock bonuses.

(4) Retroactively adjusted for the capital reduction completed in 2007 and all subsequent stock dividends.

(5) Diluted securities include convertible

bonds and employee stock options.

(6) Working capital equals current assets minus current liabilities.

(7) Dividends declared per share are in connection with earnings and accumulated additional paid-in capital.

(8) Refer to Note 35 to the audited consolidated financial statements included elsewhere in this annual report.

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Currency Translations and Exchange Rates

In portions of this annual report, we have translated New Taiwan dollar amounts into U.S. dollars for the convenience of readers. The rate we used for the translations was NT$32.76 = US$1.00, which was the noon buying rate announced by the Federal Reserve Bank of New York on December 31, 2008. The translation does not mean that New Taiwan dollars could actually be converted into U.S. dollars at that rate. The following table shows the noon buying rates for New Taiwan dollars expressed in New Taiwan dollar per US$1.00.

	Average[(1)]	High	Low	At Period-End
2004	33.27	34.16	31.74	31.74
2005	32.13	33.77	30.65	32.80
2006	32.51	33.31	31.28	32.59
2007	32.85	33.41	32.26	32.43
2008	31.52	33.58	29.99	32.76
October	32.70	33.50	32.14	32.97
November	33.10	33.42	32.77	33.29
December	33.16	33.58	32.45	32.76
2009 (through May 1)	33.75	35.21	32.82	33.06
January	33.37	33.70	32.82	33.70
February	34.24	35.00	33.61	35.00
March	34.30	35.21	33.75	33.87
April	33.64	33.88	33.05	33.06
May (through May 1)	33.14	33.14	33.14	33.14

Source: Federal Reserve Statistical Release, Board of Governors of the Federal Reserve System.

(1) Determined by averaging the rates on the last business day of each month during the relevant period for annual periods and the rates on each business day for monthly periods.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Our business and operations are subject to various risks, many of which are beyond our control. If any of the risks described below actually occurs, our business, financial condition or results of operations could be seriously harmed.

Risks Related to Our Business and Financial Condition

The current global recession and credit crisis may cause significant disruptions to our major customers businesses as well as to their ability to access sources of liquidity. Demand for our products has been, and will continue to be, adversely affected by overall macroeconomic conditions.

The current global recession and credit crisis since the second half of 2008 has been having a significant negative impact on businesses around the world. Many of our key markets and our targeted markets, including the United States and China, as well as other national economies, have entered a period of economic contraction or significantly slower economic growth. In particular, the current global economic crisis, weak consumer confidence, diminished consumer and business spending, and asset depreciation have contributed to a significant slowdown in the market demand for semiconductors and semiconductor-based end-products, which has led to a decrease in demand for our services. We cannot assure you when an economic recovery may occur, or even when an economic recovery does occur, that demand for our manufacturing services will increase. The combined effects of the global recession may have a material adverse impact on our results of operations, cash flows and financial condition, which may cause the price of our ADSs to decline.

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In addition, many of our customers have experienced difficulty in obtaining credit in the current economic environment, and even if they have been able to obtain credit, the cost of such financing has increased and/or the time necessary to arrange such financing has been substantially prolonged. This lack of and increase in the cost of financing could have a material adverse effect on the financial condition of our customers. A protracted disruption in the ability of our customers to access sources of liquidity could cause serious disruptions to or an overall deterioration in their businesses, which could lead to the inability or failure on their part to meet their payment obligations to us.

The seasonality and cyclical nature of the semiconductor industry and periodic overcapacity make us particularly vulnerable to significant and sometimes prolonged economic downturns.

The semiconductor industry has historically been highly cyclical and, at various times, has experienced significant downturns. Since most of our customers operate in semiconductor-related industries, variations in order levels from our customers can result in volatility in our revenues and earnings. Because our business is, and will continue to be, largely dependent on the requirements of semiconductor companies for our services, downturns in the semiconductor industry will lead to reduced demand for our services. For example, the semiconductor industry is currently experiencing a slowdown that began in late 2008, which may have a material adverse effect on our revenues and business.

Our net operating revenues are also typically affected by seasonal variations in market conditions that contribute to the fluctuation of the average selling prices of semiconductor services and products. The seasonal sales trends for semiconductor services and products closely mirror those for consumer electronics, communication, and computer sales. We generally experience seasonal lows in the demand for semiconductor services and products during the first half of the year, primarily as a result of inventory correction by our customers. Any change in the general seasonal variations, which we cannot anticipate may result in materially adverse effects on our revenues, operations and businesses.

Our operating results fluctuate from quarter to quarter, which makes it difficult to predict our future performance.

Our revenues, expenses and results of operations have varied significantly in the past and may fluctuate significantly from quarter to quarter in the future due to a number of factors, many of which are beyond our control. Our business and operations have at times in the past been negatively affected by, and are expected to continue to be subject to the risk of, the following factors:

- the seasonality and cyclical nature of both the semiconductor industry and the markets served by our customers;
- our customers adjustments in their inventory;
- the loss of a key customer or the postponement of orders from a key customer;
- the rescheduling and cancellation of large orders;
- our ability to obtain equipment, raw materials, electricity, water and other required utilities on a timely and economic basis;
- outbreaks of contagious diseases, including severe acute respiratory syndrome and avian flu;
- environmental events, such as fires and earthquakes, or industrial accidents; and
- technological changes.

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Due to the factors noted above and other risks discussed in this section, many of which are beyond our control, you should not rely on quarter-to-quarter comparisons to predict our future performance. Unfavorable changes in any of the above factors may seriously harm our business, financial condition and results of operations. In addition, our operating results may be below the expectations of public market analysts and investors in some future periods. In this event, the price of the shares or ADSs may underperform or fall.

A decrease in demand for or selling prices of communication devices, consumer electronics and PCs may decrease the demand for our services and reduce our margins.

Our customers generally use the semiconductors produced in our fabs in a wide variety of applications. We derive a significant percentage of our operating revenues from customers who use our manufacturing services to make semiconductors for communication devices, consumer electronics and PCs. The communications and PC markets experienced a sudden and substantial market downturn and inventory correction in most part of 2005. This downturn resulted in a reduced demand for our services and hence decreased our revenues and earnings. Any significant decrease in the demand for communication devices, consumer electronics or PCs may further decrease the demand for our services. In addition, if the average selling prices of communication devices, consumer electronics or PCs decline significantly, we will be pressured to further reduce our selling prices, which may reduce our revenues and, therefore, reduce our margins significantly. As demonstrated by the downturn in demand for high technology products, market conditions can change rapidly, without apparent warning or advance notice. In such instances, our customers will experience inventory buildup and/or difficulties in selling their products and, in turn, will reduce or cancel orders for wafers from us. The timing, severity and recovery of these downturns cannot be predicted accurately or at all. When they occur, our business, profitability and price of the shares and ADSs are likely to suffer.

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

The prices that we can charge our customers for our services are significantly related to the overall worldwide supply of integrated circuits and semiconductor products. The overall supply of semiconductor products is based in part on the capacity of other companies, which is outside of our control. Periods of overcapacity, if we are unable to offset the adverse effects of overcapacity through, among other things, our technology and product mix, we may have to lower the prices we charge our customers for our services and/or we may have to operate at significantly less than full capacity. Such actions could reduce our margin and weaken our financial condition and results of operations. We cannot give any assurance that an increase in the demand for foundry services in the future will not lead to overcapacity again in the near future, which could materially adversely affect our revenues, earnings and margins.

Any problem in the semiconductor outsourcing infrastructure can adversely affect our net operating revenues and profitability.

Many of our customers depend on third parties to provide mask tooling, assembly and test services. If these customers cannot timely obtain these services on reasonable terms, they may not order any foundry services from us. This may significantly reduce our net operating revenues and negatively affect our profitability.

We may be unable to implement new technology as it becomes available, which may result in our loss of customers and market share.

The semiconductor industry is developing rapidly and the related technology is constantly evolving. If we do not anticipate the technology evolution and rapidly adopt new and innovative technology, we may not be able to produce sufficiently advanced products at competitive prices. There is a risk that our competitors may adopt new technology before we do, resulting in our loss of market share. If we are unable to begin offering these products on a competitive and timely basis, we may lose to our competitors providing similar technologies to customers, which may cause our net operating revenues to decline unless we can replace lost customers with new customers.

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We may be unable to provide leading technology to our customers if we lose the support of our technology partners.

Enhancing our manufacturing process technologies is critical to our ability to provide services for our customers. We intend to continue to advance our process technologies through internal research and development and alliances with other companies. Although we have an internal research and development team focused on certain customers developing new semiconductor manufacturing process technologies, we are dependent on our technology partners to advance our portfolio of process technologies. We currently have patent cross-licensing agreements with several companies, including Agere Systems Inc., or Agere (which was acquired by LSI Logic Corporation, or LSI, in December 2006), International Business Machines Corporation, or IBM, Texas Instruments Incorporated, or Texas Instruments, Freescale Semiconductor Inc., or Freescale and Renesas Technology Corp., or Renesas. We also depend upon mask and equipment vendors to supply our technology development teams with the masks and equipment needed to continuously develop more advanced processing technologies. If we are unable to continue any of our joint development arrangements, patent cross-licensing agreements and other agreements, on mutually beneficial economic terms, if we re-evaluate the technological and economic benefits of such relationships, if we are unable to enter into new technology alliances with other leading semiconductor suppliers, or if we fail to secure masks and equipment from our vendors in a timely manner sufficient to support our ongoing technology development, we may lose important customers because we are unable to continue providing our customers with leading edge mass-producible process technologies.

Our business may suffer if we cannot compete successfully in our industry.

The worldwide semiconductor foundry industry is highly competitive. We compete with dedicated foundry service providers such as Taiwan Semiconductor Manufacturing Company Limited, Semiconductor Manufacturing International (Shanghai) Corporation and Chartered Semiconductor Manufacturing Ltd., as well as the foundry operation services of some integrated device manufacturers, such as IBM and Toshiba Corporation, or Toshiba. Integrated device manufacturers principally manufacture and sell their own proprietary semiconductor products, but may also offer foundry service. Other competitors such as Samsung, DongbuAnam Semiconductor, Grace Semiconductor Manufacturing Corp., X-FAB Semiconductors Foundries AG, Silterra Malaysia Sdn. Bhd. and Globalfoundries Inc. have initiated efforts to develop substantial new foundry capacity. New entrants in the foundry business are likely to initiate a trend of competitive pricing and create potential overcapacity in legacy technology. Some of our competitors have greater access to capital and substantially greater production, research and development, marketing and other resources than we do. As a result, these companies may be able to compete more aggressively over a longer period of time than we can.

The principal elements of competition in the wafer foundry market include:

- technical competence;
- time-to-volume production and cycle time;
- time-to-market;
- research and development quality;
- available capacity;
- manufacturing yields;
- customer service;
- price;
- management expertise; and
- strategic alliances.

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Our ability to compete successfully also depends on factors partially outside of our control, including product availability and industry and general economic trends. If we cannot compete successfully in our industry, our business may suffer.

Our profit margin may substantially decline if we are unable to continuously improve our manufacturing yields, maintain high capacity utilization and optimize the technology mix of our silicon wafer production.

Our ability to maintain our profitability depends, in part, on our ability to:

- maintain our capacity utilization, that is, the wafer-out quantity of 8-inch wafer equivalents divided by estimated total 8-inch equivalent capacity in a specified period. The estimated capacity numbers may differ depending upon equipment delivery schedules, pace of migration to more advanced process technologies and other factors affecting production ramp-ups;
- maintain or improve our manufacturing yield, that is, the percentage of usable manufactured devices on a wafer; and
- optimize the technology mix of our production, that is, the relative number of wafers manufactured utilizing different process technologies.

Our manufacturing yields directly affect our ability to attract and retain customers, as well as the price of our services. Our capacity utilization affects our operating results because a large percentage of our operating costs are fixed. Our technology mix affects utilization of our equipment and process technologies, which can affect our margins. If we are unable to continuously improve our manufacturing yields, maintain high capacity utilization or optimize the technology mix of our wafer production, our profit margin may substantially decline.

We may not be able to implement our planned growth if we are unable to obtain the financing necessary to fund the substantial capital expenditures we expect to incur.

Our business and the nature of our industry require us to make substantial capital expenditures leading to a high level of fixed costs. We expect to incur significant capital expenditures in connection with our growth plans. These capital expenditures will be made in advance of any additional sales to be generated by new or upgraded fabs as a result of these expenditures. Given the fixed-cost nature of our business, we have in the past incurred, and may in the future incur, operating losses if our revenues do not adequately offset our capital expenditures. Additionally, our actual expenditures may exceed our planned expenditures for a variety of reasons, including changes in:

- our growth plan;
- our process technology;
- market conditions;
- interest rates;
- exchange rate fluctuations; and
- prices of equipment.

We cannot assure you that additional financing will be available on satisfactory terms, if at all. If adequate funds are not available on satisfactory terms, we may be forced to curtail our expansion plans or delay the deployment of our services, which could result in a loss of customers and limit the growth of our business.

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We depend on a small number of customers for a significant portion of our net operating revenues and a loss of some of these customers would result in the loss of a significant portion of our net operating revenues.

We have been largely dependent on a small number of customers for a substantial portion of our business. In 2008, our top ten customers accounted for 61.4% of our net operating revenues. Our top two customers each accounted for 14.1% and 9.7%, respectively, of our net operating revenues in 2008. We expect that we will continue to be dependent upon a relatively limited number of customers for a significant portion of our net operating revenues. We cannot assure you that our net operating revenues generated from these customers, individually or in the aggregate, will reach or exceed historical levels in any future period. Loss or cancellation of business from significant changes in scheduled deliveries to, or decreases in the prices of services sold to, any of these customers could significantly reduce our net operating revenues.

Our customers generally do not place purchase orders far in advance, which makes it difficult for us to predict our future revenues, adjust production costs and allocate capacity efficiently on a timely basis.

Our customers generally do not place purchase orders far in advance (usually two months before shipment). In addition, due to the cyclical nature of the semiconductor industry, our customers purchase orders have varied significantly from period to period. As a result, we do not typically operate with any significant backlog. The lack of significant backlog makes it difficult for us to forecast our revenues in future periods. Moreover, our expense levels are based in part on our expectations of future revenues and we may be unable to adjust costs in a timely manner to compensate for revenue shortfalls. We expect that in the future our net operating revenues in any quarter will continue to be substantially dependent upon purchase orders received in that quarter.

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

Our ability to compete successfully and achieve future growth will depend, in part, on our ability to protect our proprietary technology and to secure critical processing technology that we do not own at commercially reasonable terms. We cannot assure you that in the future we will be able to independently develop, or secure from any third party, the technology required for upgrading our production facilities. Our failure to successfully obtain such technology may seriously harm our competitive position.

Our ability to compete successfully also depends on our ability to operate without infringing on the proprietary rights of others. We have no means of knowing what patent applications have been filed in the United States until they are granted. The semiconductor industry, because of the complexity of the technology used and the multitude of patents, copyrights and other overlapping intellectual property rights, is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. It is common for patent owners to assert their patents against semiconductor manufacturers. We have received from time to time communications from third parties asserting patents that cover certain of our technologies and alleging infringement of intellectual property rights of others, and we expect to continue to receive such communications in the future. See Item 4. Information on the Company B. Business Overview Litigation for more details of our ongoing litigation. We do not believe that we are currently infringing on any patent rights. In the event any third party were to make a valid claim against us or our customers, we could be required to:

- seek to acquire licenses to the infringed technology which may not be available on commercially reasonable terms, if at all;
- discontinue using certain process technologies, which could cause us to stop manufacturing certain semiconductors;
- pay substantial monetary damages; or
- seek to develop non-infringing technologies, which may not be feasible.

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Any one of these developments could place substantial financial and administrative burdens on us and hinder our business. Litigation, which could result in substantial costs to us and diversion of our resources, may also be necessary to enforce our patents or other intellectual property rights or to defend us or our customers against claimed infringement of the rights of others. If we fail to obtain necessary licenses or if litigation relating to patent infringement or other intellectual property matters occurs, it could hurt our reputation as a technology leader in our industry and prevent us from manufacturing particular products or applying particular technologies, which could reduce opportunities to generate revenues.

Two of our former executives were charged with criminal offenses and our company was fined for violations of the Act Governing Relations Between Peoples of the Taiwan Area and the Mainland Area in connection with our alleged involvement in the operation of Hejian Technology (Suzhou) Co., Ltd., a semiconductor manufacturer in China.

Hejian Technology (Suzhou) Co., Ltd., or Hejian, a semiconductor manufacturer in Suzhou, China, was set up in December 2001. Soon after the establishment of Hejian, there were various rumors that Hejian was set up by us, which we denied immediately because we did not inject any capital into nor did we transfer any technology to Hejian. In early 2006, the Hsinchu District Prosecutor s Office brought criminal charges in the Hsinchu District Court against our former Chairman, Robert H. C. Tsao and our former Vice Chairman, John Hsuan in connection their alleged breach of fiduciary duties and certain alleged violations of the ROC Commercial Accounting Act. Prior to such charges, both our former Chairman and former Vice Chairman resigned from their respective positions with our company. The Hsinchu District Court found our former Chairman and former Vice Chairman not guilty in October 2007, and the Prosecutor s office filed an appeal with the Taiwan High Court in November 2007. On December 31, 2008, the Taiwan High Court rejected the prosecutor s appeal and sustained the Hsinchu District Court s decision. On January 20, 2009, Taiwan High Prosecutor s office filed an appeal with the Supreme Court. The case is still pending in the Supreme Court.

The ROC Financial Supervisory Commission, or the ROC FSC, a regulatory authority that supervises securities, banking, futures, and insurance activities in Taiwan, also began their investigation into whether there had been any violation of ROC securities laws by us. In April 2005, our former Chairman was fined (1) NT$2.4 million by the ROC FSC for our delay in making timely public disclosure (within two days) regarding the information relating to Hejian, which had been resolved in our board meeting on March 4, 2005, or the March 4 Resolution, and (2) NT$0.6 million for our failure to disclose the information regarding the assistance we had provided to Hejian. Our former Chairman s appeal in relation to such fines was overruled in early 2006, and a lawsuit was filed by our former Chairman with the Taipei Administrative High Court to challenge the ROC FSC fines. In December 2007, the Taipei Administrative High Court revoked the ROC FSC s decision and ruled in favor of our former Chairman. In January 2008, the ROC FSC filed an appeal with the Supreme Administrative Court. The appeal is still pending in the Supreme Administrative Court.

In connection with the March 4 Resolution, our company was also fined in the amount of NT$30,000 by the Taiwan Stock Exchange for an alleged delay in making public disclosure. After our former Chairman and former Vice Chairman were indicted by the prosecutor, our company was found by the ROC Ministry of Economic Affairs, or the ROC MOEA, to be in violation of the Act Governing Relations Between Peoples of the Taiwan Area and the Mainland Area and fined in the amount of NT$5 million for our alleged illegal investment in Hejian. Our appeal to the ROC MOEA in relation to such fines was denied in late 2006. We filed an administrative lawsuit in December 2006 with the Taipei Administrative High Court to challenge the ROC MOEA fine. In July 2007, the Taipei Administrative High Court revoked the ROC MOEA s decision and ruled in our favor. In August 2007, the ROC MOEA filed an appeal with the Supreme Administrative Court. The appeal is still pending in the Supreme Administrative Court.

The Hsinchu District Prosecutors Office has opened an investigation related to our investment in ProMOS Technologies, and we cannot assure you of the outcome of this investigation.

On August 27, 2008, the Hsinchu District Prosecutors Office visited our offices in relation to an investigation related to our investment in ProMOS Technologies, or ProMOS. We have fully cooperated with the authorities in this investigation. As of December 31, 2008, the investigation has not been completed yet. We have also initiated an internal inquiry regarding this investment and as of April 15, 2009, we did not find any evidence of inappropriate activities that violate any of the applicable regulations. However, because the matter is still pending, we cannot assure

you of the outcome of the investigation by the Hsinchu District Prosecutors Office. If we are found to be in violation of any applicable laws or regulations, we may be subject to penalties and sanctions that may have a material adverse effect on our business and results of operations.

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We have been offered a 15% interest in a holding company that owns Hejian, but such investment may not materialize.

ROC law prohibits investment in China by Taiwanese makers of semiconductors without government approval. In March 2005, the Chairman of the holding company of Hejian offered us a 15% interest in the holding company of Hejian. Immediately after we received the offer, we filed an application with the Investment Commission for their executive guidance and disclosed our receipt of such offer to investors and the public. As of the date of this annual report, we have not entered into any agreement to formalize the terms and conditions in connection with the transfer of the 15% interest. Pending ROC regulatory approval, we will endeavor to include this 15% interest in our assets, which will then be reflected on our financial statements. We cannot assure you at present that the ROC government will approve our acceptance of this 15% interest, or if such acceptance is approved by the ROC government, the agreement that formalizes the terms and conditions will be on the terms that are favorable to us.

Our operations and business will suffer if we lose one or more of our key personnel without adequate replacements.

Our future success to a large extent depends on the continued service of our Chairman and key executive officers. We do not carry key person insurance on any of our personnel. If we lose the services of any of our Chairman or key executive officers, it could be difficult to find and integrate replacement personnel in a short period of time, which could harm our operations and the growth of our business.

We may have difficulty attracting and retaining skilled employees, who are critical to our future success.

The success of our business depends upon attracting and retaining experienced executives, engineers and other employees to implement our strategy. The competition for skilled employees is intense. We expect demand for personnel in Taiwan to increase in the future as new wafer fabrication facilities and other businesses are established in Taiwan. We do not have long-term employment contracts with any of our employees. If we were unable to retain our existing personnel or attract, assimilate and recruit new experienced personnel in the future, it could seriously disrupt our operations and delay or restrict the growth of our business.

Our transactions with affiliates and shareholders may hurt our profitability and competitive position.

We have provided foundry services to several of our affiliates and shareholders. These transactions were conducted on an arm s-length basis. Other than capacity commitments to our former foundry venture partners, we currently do not provide any preferential treatment to any of these affiliates and shareholders. However, we may in the future reserve or allocate our production capacity to these companies if there is a shortage of foundry services in the market to enable these companies to maintain their operations and/or to protect our investments in them. This reservation or allocation may reduce our capacity available for our other customers, which may damage our relationships with other customers and discourage them from using our services. This may hurt our profitability and competitive position.

The differences between ROC and U.S. accounting standards affect the amount of our net income.

Our financial statements are prepared under ROC GAAP, which differ in certain significant respects from US GAAP. For a discussion of these differences, see Note 35 to our audited consolidated financial statements included elsewhere in this annual report. As a result, our net income (loss) in 2006, 2007 and 2008 under US GAAP was NT$21,797 million, NT$(9,264) million and NT$(28,955) million (US$(884) million), respectively, as compared to net income (loss) under ROC GAAP of NT$32,619 million, NT$16,962 million and NT$(22,320) million (US$(681) million) in 2006, 2007 and 2008, respectively.

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The trend of adopting protectionist measures in certain countries, including the United States, could have a material adverse impact on our results of operations and financial condition.

Governments in the United States, China and certain other countries have implemented fiscal and monetary programs to stimulate economic growth as a result of the recent economic downturn, and many of these programs include protectionist measures that encourage the use of domestic products and labor. Recent policy developments by the governments in China and Australia also suggest an increased unwillingness to allow international companies to invest in or acquire local businesses. Since many of our direct customers and other downstream customers in the supply chain are located in or have operations in the countries where protectionist measures were adopted, such protectionist measures may have a material adverse effect on demand for our manufacturing services.

Any future outbreak of contagious diseases may materially and adversely affect our business and operations, as well as our financial condition and results of operations.

Any future outbreak of contagious diseases, such as avian influenza or severe acute respiratory syndrome, may disrupt our ability to adequately staff our business and may generally disrupt our operations. If any of our employees is suspected of having contracted any contagious disease, we may under certain circumstances be required to quarantine such employees and the affected areas of our premises. Therefore, we may have to temporarily suspend part of or all of our operations. Furthermore, any future outbreak may restrict the level of economic activity in affected regions, including Taiwan, which may also adversely affect our business and prospects. As a result, we cannot assure you that any future outbreak of contagious diseases would not have a material adverse effect on our financial condition and results of operations.

Risks Relating to Manufacturing

Our manufacturing processes are highly complex, costly and potentially vulnerable to impurities and other disruptions that can significantly increase our costs and delay product shipments to our customers.

Our manufacturing processes are highly complex, require advanced and costly equipment and are continuously being modified to improve manufacturing yields and product performance. Impurities or other difficulties in the manufacturing process or defects with respect to equipment or supporting facilities can lower manufacturing yields, interrupt production or result in losses of products in process. As system complexity has increased and process technology has become more advanced, manufacturing tolerances have been reduced and requirements for precision have become even more demanding. Although we have been enhancing our manufacturing capabilities and efficiency, from time to time we have experienced production difficulties that have caused delivery delays and quality control problems, as is common in the semiconductor industry. In the past we have encountered the following problems:

- capacity constraints due to changes in product mix or the delayed delivery of equipment critical to our production, including scanners, steppers and chemical stations;
- construction delays during expansions of our clean rooms and other facilities;
- difficulties in increasing production at new and existing facilities;
- difficulties in upgrading or expanding existing facilities;
- manufacturing execution system or automatic transportation system failure;
- changing or upgrading our process technologies; and
- raw materials shortages and impurities.

We cannot guarantee that we will be able to increase our manufacturing capacity and efficiency in the future to the same extent as in the past.

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We may have difficulty in ramping up production in accordance with our schedule, which could cause delays in product deliveries and decreases in manufacturing yields.

As is common in the semiconductor industry, we have from time to time experienced difficulties in ramping up production at new or existing facilities or effecting transitions to new manufacturing processes. As a result, we have suffered delays in product deliveries or reduced manufacturing yields. We may encounter similar difficulties in connection with:

- the migration to more advanced process technologies, such as 65- and 45-nanometer process technology;
- the joint development with vendors for more powerful tools (both in production and inspection) needed in the future to meet advanced process technology requirements; and
- the adoption of new materials in our manufacturing processes.

We may face construction delays, interruptions, infrastructure failure and delays in upgrading or expanding existing facilities, or changing our process technologies, any of which might adversely affect our production schedule. Our failure to follow our production schedule could delay the time required to recover our investments and seriously affect our profitability.

Our production schedules could be delayed and we may lose customers if we are unable to obtain raw materials and equipment in a timely manner.

We depend on our suppliers for raw materials. To maintain competitive manufacturing operations, we must obtain from our suppliers, in a timely manner, sufficient quantities of quality materials at acceptable prices. Although we source our raw materials from several suppliers, a small number of these suppliers account for a substantial amount of our supply of raw materials because of the consistent quality of these suppliers wafers. For example, in 2008, we purchased a majority of our silicon wafers from three makers, Shin-Etsu Handotai Corporation, or Shin-Etsu, Siltronic AG and Sumco Croup (including Sumco Corporation and Formosa Sumco Technology Corporation). We do not have long-term contracts with most of our suppliers. From time to time, our suppliers have extended lead time or limited the supply of required materials to us because of capacity constraints. Consequently, from time to time, we have experienced difficulty in obtaining the quantities of raw materials we need on a timely basis.

In addition, from time to time we may reject materials that do not meet our specifications, resulting in declines in output or manufacturing yields. We cannot assure you that we will be able to obtain sufficient quantities of raw materials and other supplies in a timely manner. If the supply of materials is substantially diminished or if there are significant increases in the costs of raw materials, we may be forced to incur additional costs to acquire sufficient quantities of raw materials to sustain our operations, which may increase our marginal costs and reduce profitability.

We also depend on a limited number of manufacturers and vendors that make and maintain the complex equipment we use in our manufacturing processes. We also rely on these manufacturers and vendors to improve our technology to meet our customers demands as technology improves. In periods of unpredictable and highly diversified market demand, the lead time from order to delivery of this equipment can be as long as six to twelve months. If there are delays in the delivery of equipment or if there are increases in the cost of equipment, it could cause us to delay our introduction of new manufacturing capacity or technologies and delay product deliveries, which may result in the loss of customers and revenues.

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We may be subject to the risk of loss due to fire because the materials we use in our manufacturing processes are highly flammable.

We use highly flammable materials such as silane and hydrogen in our manufacturing processes and may therefore be subject to the risk of loss arising from fires. The risk of fire associated with these materials cannot be completely eliminated. We maintain insurance policies to reduce losses caused by fire, including business interruption insurance. While we believe that our insurance coverage for damage to our property and business interruption due to fire is consistent with semiconductor industry practice, our insurance coverage is subject to deductibles and self-insured retention and 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 a fire, it would temporarily reduce manufacturing capacity and reduce revenues.

We and many of our customers and suppliers are vulnerable to natural disasters and other events outside of our control, which may seriously disrupt our operations.

Most of our assets and many of our customers and suppliers are located in certain parts of Taiwan. Our operations and the operations of our customers and suppliers are vulnerable to earthquakes, floods, droughts, power losses and similar events that affect the locations of our operations. The occurrence of any of these events could interrupt our services and cause severe damages to wafers in process, or cause significant business interruptions. Although we maintain property and business interruption insurance for such risks, there is no guarantee that future damages or business loss from earthquakes will be covered by such insurance, that we will be able to collect from our insurance carriers, should we choose to claim under our insurance policies, or that such coverage will be sufficient. In addition, our manufacturing facilities have occasionally experienced insufficient power supplies, and our operations have been disrupted.

Our operations may be delayed or interrupted and our business could suffer if we violate environmental regulations.

We are always subject to environmental regulations and a failure or a claim that we have failed to comply with these environmental regulations could cause delays in our production and capacity expansion and affect our public image, either of which could harm our business. In addition, as environmental regulations are becoming more comprehensive and stringent, we may incur a greater amount of capital expenditures in technology innovation and materials substitution in order to comply with such regulations, which may adversely affect our results of operations.

Disruptions in the international trading environment may seriously decrease our international sales.

A substantial portion of our net operating revenues is derived from sales to customers located in countries other than those where our fabs are located, including Taiwan, Singapore and Japan. In 2006, 2007 and 2008, sales to our overseas customers accounted for 65.8%, 62.0%, and 70.2% respectively, of our net operating revenues. We expect sales to customers outside of Taiwan, Singapore and Japan to continue to represent a significant portion of our net operating revenues. The success and profitability of our international activities depend on certain factors beyond our control, such as general economic conditions, labor conditions, political stability, tax laws, import duties and foreign exchange controls of the countries in which we sell our products, and the political and economic relationships between Taiwan, Singapore and Japan and these countries. As a result, our manufacturing services will continue to be vulnerable to disruptions in the international trading environment, including adverse changes in foreign government regulations, political unrest and international economic downturns.

These disruptions in the international trading environment affect the demand for our manufacturing services and change the terms upon which we provide our manufacturing services overseas, which could seriously decrease our international sales.

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Political, Economic and Regulatory Risks

We face substantial political risks associated with doing business in Taiwan, particularly due to the tense relationship between the ROC and the People s Republic of China, or the PRC, that could negatively affect the value of your investment.

Our principal executive offices and most of our assets and operations are located in Taiwan. Accordingly, our business, financial condition and results of operations and the market price of our shares and the ADSs may be affected by changes in ROC governmental policies, taxation, inflation or interest rates and by social instability and diplomatic and social developments in or affecting Taiwan which are outside of our control. Taiwan has a unique international political status. Since 1949, Taiwan and the Chinese mainland have been separately governed. The PRC claims that it is the sole government in China and that Taiwan is part of China. Although significant economic and cultural relations have been established during recent years between the ROC and the PRC, relations have often been strained. The PRC government has refused to renounce the use of military force to gain control over Taiwan and, in March 2005, further passed an Anti-Secession Law that authorizes non-peaceful means and other necessary measures should Taiwan move to gain independence from the PRC. Past developments in relations between the ROC and the PRC have on occasions depressed the market prices of the securities of companies in the ROC. Such initiatives and actions are commonly viewed as having a detrimental effect to reunification efforts between the ROC and the PRC. Relations between the ROC and the PRC and other factors affecting military, political or economic conditions in Taiwan could materially and adversely affect our financial condition and results of operations, as well as the market price and the liquidity of our securities.

Our business depends on the support of the ROC government, and a decrease in this support may increase our labor costs and decrease our net income after tax.

The ROC government has been very supportive of technology companies such as us. For instance, the ROC s labor laws and regulations do not require employees of semiconductor companies, including our company, to be unionized, and permit these employees to work shifts of 10 hours each day on a two-days-on, two-days-off basis. We cannot assure you, however, that these labor laws and regulations will not change in the future. In the event that the ROC government requires our employees to be unionized or decreases the number of hours our employees may work in a given day, our labor costs may increase significantly which could result in lower margins.

We, like many ROC technology companies, have benefited from substantial tax incentives provided by the ROC government. In 2008, such incentives resulted in a tax credit in the amount of NT$958 million (US$29 million). If these incentives are curtailed or eliminated, our net income after tax may decrease substantially.

The trading price of the shares and ADSs may be adversely affected by the general activities of the Taiwan Stock Exchange and U.S. stock exchanges, the trading price of our shares, increases in interest rates and the economic performance of Taiwan.

Our shares are listed on the Taiwan Stock Exchange. The trading price of our ADSs may be affected by the trading price of our shares on the Taiwan Stock Exchange and the economic performance of Taiwan. The Taiwan Stock Exchange is smaller and, as a market, more volatile than the securities markets in the United States and a number of European countries. The Taiwan Stock Exchange has experienced substantial fluctuations in the prices and volumes of sales of listed securities, and there are currently limits on the range of daily price movements on the Taiwan Stock Exchange. The Taiwan Stock Exchange is particularly volatile during times of political instability, such as when relations between Taiwan and the PRC are strained. Moreover, the Taiwan Stock Exchange has experienced problems such as market manipulation, insider trading and payment defaults, and the government of Taiwan has from time to time intervened in the stock market by purchasing stocks listed on the Taiwan Stock Exchange. The recurrence of these or similar problems could decrease the market price and liquidity of the shares and ADSs.

From September 19, 2000, the commencement date of the listing of our ADSs on the New York Stock Exchange, or the NYSE, to December 31, 2008, the daily reported closing prices of our ADSs ranged from US$14.88 per ADS to US$1.51 per ADS. The market price of the ADSs may also be affected by general trading activities on the U.S. stock exchanges, which recently have experienced significant price volatility with respect to shares of technology companies. Fluctuation in interest rates and other general economic conditions may also have an effect on the market price of the ADSs.

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Currency fluctuations could increase our costs relative to our revenues, which could adversely affect our profitability.

More than half of our net operating revenues are denominated in currencies other than New Taiwan dollars, primarily U.S. dollars and Japanese Yen. On the other hand, more than half of our costs of direct labor, raw materials and overhead are incurred in New Taiwan dollars. Although we hedge a portion of the resulting net foreign exchange position through the use of forward exchange contracts, we are still affected by fluctuations in exchange rates among the U.S. dollar, the Japanese Yen, the New Taiwan dollar and other currencies. Any significant fluctuation in exchange rates may be harmful to our financial condition. In addition, fluctuations in the exchange rate between the U.S. dollar and the New Taiwan dollar will affect the U.S. dollar value of the ADSs and the U.S. dollar value of any cash dividends we pay, which could have a corresponding effect on the market price of the ADSs.

Our future tax obligations may adversely affect our profitability.

The ROC government enacted the ROC Income Basic Tax Act, also known as the Minimum Income Tax Statute , or the Statute, which became effective on January 1, 2006 and imposes an alternative minimum tax, or AMT. The AMT is designed to remedy the current excessive tax incentives for individuals and businesses. The AMT imposed under the Statute is a supplemental tax which is payable if the income tax payable pursuant to the ROC Income Tax Act is below the minimum amount prescribed under the Statute. For the purpose of calculating the AMT, the taxable income defined under the Statute includes most income that is exempted from income tax under various legislations, such as those providing tax holidays and investment tax credits. For businesses, the incomes which previously enjoyed tax-exemption privileges under relevant tax regulations, such as the Act for the Establishment and Administration of the Science Parks and the Statute for Upgrading Industries will be subject to the new AMT system for the calculation of business taxpayers aggregate incomes. The AMT rate for business entities is 10%. Under the Statute, a company will be subject to a 10% AMT if its annual taxable income under the Statute exceeds NT$2 million. However, the Statute grandfathered certain tax exemptions granted prior to the enactment of the AMT. For example, businesses already qualified for five-year tax holidays and having obtained the applicable permission issued by the competent authority before December 31, 2005 may continue to enjoy tax incentives, and the income exempted thereunder will not to be added to the taxable income for the purpose of calculating the AMT, so long as the construction of their investment projects breaks ground within one year from January 1, 2006 and is completed within three years commencing from the day immediately following their receipts of the applicable permission issued by the competent authority. In the event of the expiration of the tax exemption periods or an increase in other taxable income subject to the Statute, such 10% AMT may adversely reduce our net income after tax.

Risks Related to the Shares and ADSs and Our Trading Markets

Restrictions on the ability to deposit shares into our ADS program may adversely affect the liquidity and price of the ADSs.

The ability to deposit shares into our ADS program is restricted by ROC law. Under current ROC law, no person or entity, including you and us, may deposit shares into our ADS program without specific approval of the ROC FSC except for the deposit of the shares into our ADS program and for the issuance of additional ADSs in connection with:

(1) distribution of share dividends or free distribution of our shares;

(2) exercise of the preemptive rights of ADS holders applicable to the shares evidenced by ADSs in the event of capital increases for cash; or

(3) delivery of our shares which are purchased in the domestic market in Taiwan directly by the investor or through the depositary or are already in the possession of the investor to the custodian for deposit into our ADS program, subject to the following conditions: (a) the re-issuance is permitted under the deposit agreement and custody agreement, (b) the depositary may accept deposit of those shares and issue the corresponding number of ADSs with regard to such deposit only if the total number of ADSs outstanding after the issuance does not exceed the number of ADSs previously approved by the ROC FSC, plus any ADSs issued pursuant to the events described in (1) and (2) above and (c) this deposit may only be made to the extent previously issued ADSs have been withdrawn.

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As a result of the limited ability to deposit shares into our ADS program, the prevailing market price of our ADSs on the NYSE may differ from the prevailing market price of the equivalent number of our shares on the Taiwan Stock Exchange.

Holders of our ADSs will not have the same proposal or voting rights as the holders of our shares, which may affect the value of your investment.

Except for treasury shares and shares held by our subsidiaries which meet certain criteria provided under the ROC Company Act, each common share is generally entitled to one vote and no voting discount will be applied. However, except as described in this annual report and in the deposit agreement, holders of our ADSs will not be able to exercise voting rights attached to the shares evidenced by our ADSs on an individual basis. Holders of our ADSs will appoint the depositary or its nominee as their representative to exercise the voting rights attached to the shares represented by the ADSs. The voting rights attached to the shares evidenced by our ADSs must be exercised as to all matters brought to a vote of shareholders collectively in the same manner.

Moreover, holders of the ADSs do not have individual rights to propose any matter for shareholders votes at our shareholders meetings. However, holders of at least 51% of the ADS outstanding at the relevant record date may request the depositary to submit to us one proposal per year for consideration at our annual ordinary shareholders meeting, provided that such proposal meets certain submission criteria and limitations, including the language and the length of the proposal, the time of submission, the required certification or undertakings, and the attendance at the annual ordinary shareholders meeting. A qualified proposal so submitted by the depositary will still be subject to review by our board of directors and there is no assurance that the proposal will be accepted by our board of directors for inclusion in the agenda of our annual ordinary shareholders meeting. Furthermore, if we determine, at our discretion, that the proposal submitted by the depositary does not qualify, we have no obligation to notify the depositary or to allow the depositary to modify such proposal.

Furthermore, if holders of at least 51% of the ADSs outstanding at the relevant record date instruct the depositary to vote in the same manner regarding a resolution, including election of directors and/or supervisors, the depositary will appoint our Chairman, or his designee, to represent the ADS holders at the shareholders meetings and to vote the shares represented by the ADSs outstanding in the manner so instructed. If by the relevant record date the depositary has not received instructions from holders of ADSs holding at least 51% of the ADSs to vote in the same manner for any resolution, then the holders will be deemed to have instructed the depositary to authorize and appoint our Chairman, or his designee, to vote all the shares represented by ADSs at his sole discretion, which may not be in your interest.

The rights of holders of our ADSs to participate in our rights offerings may be limited, which may cause dilution to their holdings.

We may from time to time distribute rights to our shareholders, including rights to acquire our securities. Under the deposit agreement, the depositary will not offer those rights to ADS holders unless both the rights and the underlying securities to be distributed to ADS holders are either registered under the Securities Act or exempt from registration under the Securities Act. We are under no obligation to file a registration statement with respect to any such rights or underlying securities or to endeavor to cause such a registration statement to be declared effective. Accordingly, holders of our ADSs may be unable to participate in our rights offerings and may experience dilution in their holdings.

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Changes in exchange controls that restrict your ability to convert proceeds received from your ownership of ADSs may have an adverse effect on the value of your investment.

Your ability to convert proceeds received from your ownership of ADSs depends on existing and future exchange control regulations of the Republic of China. Under the current laws of the Republic of China, an ADS holder or the depositary, without obtaining further approvals from the ROC Central Bank of China, or the CBC, or any other governmental authority or agency of the Republic of China, may convert NT dollars into other currencies, including U.S. dollars, in respect of:

- the proceeds of the sale of shares represented by ADSs or received as share dividends with respect to the shares and deposited into the depositary receipt facility; and
- any cash dividends or distributions received from the shares represented by ADSs.

In addition, the depositary may also convert into NT dollars incoming payments for purchases of shares for deposit in the depositary receipt facility against the creation of additional ADSs. If you withdraw the shares underlying your ADSs and become a holder of our shares, you may convert into NT dollars subscription payments for rights offerings. The depositary may be required to obtain foreign exchange approval from the CBC on a payment-by-payment basis for conversion from NT dollars into foreign currencies of the proceeds from the sale of subscription rights of new shares. Although it is expected that the CBC will grant approval as a routine matter, required approvals may not be obtained in a timely manner, or at all.

Under the Republic of China Foreign Exchange Control Law, the Executive Yuan of the Republic of China may, without prior notice but subject to subsequent legislative approval, impose foreign exchange controls or other restrictions in the event of, among other things, a material change in international economic conditions.

Our public shareholders may have more difficulty protecting their interests than they would as shareholders of a U.S. corporation.

Our corporate affairs are governed by our articles of incorporation and by laws governing ROC corporations. The rights of our shareholders to bring shareholders suits against us or our board of directors under ROC law are much more limited than those of the shareholders of U.S. corporations. Therefore, our public shareholders may have more difficulty protecting their interests in connection with actions taken by our management, members of our board of directors or controlling shareholders than they would as shareholders of a U.S. corporation. Please refer to Item 10. Additional Information B. Memorandum and Articles of Association Rights to Bring Shareholders Suits included elsewhere in this annual report for a detailed discussion of the rights of our shareholders to bring legal actions against us or our directors under ROC law.

Holders of our ADSs will be required to appoint several local agents in Taiwan if they withdraw shares from our ADS program and become our shareholders, which may make ownership burdensome.

Non-ROC persons wishing to withdraw shares represented by their ADSs from our ADS program and hold our shares represented by those ADSs are required to, among other things, appoint a local agent or representative with qualifications set forth by the ROC FSC to open a securities trading account with a local brokerage firm, pay ROC taxes, remit funds and exercise shareholders rights. In addition, the withdrawing holders are also required to appoint a custodian bank with qualifications set forth by the ROC FSC to hold the securities in safekeeping, make confirmations, settle trades and report all relevant information. Without making this appointment and opening of the accounts, the withdrawing holders would not be able to subsequently sell our shares withdrawn from a depositary receipt facility on the Taiwan Stock Exchange. Under ROC law and regulations, citizens of the PRC are not permitted to hold our shares or withdraw shares represented by ADSs from our ADS program unless they obtain the approval from the competent authority. Due to the absence of relevant rules or guidelines, PRC persons are currently not able to conduct investments in the ROC.

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You may not be able to enforce a judgment of a foreign court in the ROC.

We are a company limited by shares incorporated under the ROC Company Act. Most of our assets and most of our directors, supervisors and executive officers and experts named in the registration statement are located in Taiwan. As a result, it may be difficult for you to enforce judgments obtained outside Taiwan upon us or such persons in Taiwan. We have been advised by our ROC counsel that any judgment obtained against us in any court outside the ROC arising out of or relating to the ADSs will not be enforced by ROC courts if any of the following situations shall apply to such final judgment:

- the court rendering the judgment does not have jurisdiction over the subject matter according to ROC law;
- the judgment is contrary to the public order or good morals of the ROC;
- the judgment was rendered by default, except where the summons or order necessary for the commencement of the action was legally served on us within the jurisdiction of the court rendering the judgment within a reasonable period of time or with judicial assistance of the ROC; or
- judgments of ROC courts are not recognized in the jurisdiction of the court rendering the judgment on a reciprocal basis.

We may be considered a passive foreign investment company, which could result in adverse U.S. tax consequences for U.S. investors.

We do not believe that we were a passive foreign investment company, or PFIC, for 2008 and we do not expect to become one in the future, although there can be no assurance in this regard. Based upon the nature of our business activities, we may be classified as a passive foreign investment company for U.S. federal income tax purposes. Such characterization could result in adverse U.S. tax consequences to you if you are a U.S. investor.

For example, if we are a PFIC, our U.S. investors may become subject to increased tax liabilities under U.S. tax laws and regulations and will become subject to burdensome reporting requirements. The determination of whether or not we are a PFIC is made on an annual basis and will depend on the composition of our income and assets from time to time. Specifically, for any taxable year we will be classified as a PFIC for U.S. tax purposes if either (i) 75% or more of our gross income in a taxable year is passive income or (ii) the average percentage of our assets (which includes cash) by value in a taxable year which produce or are held for the production of passive income is at least 50%. The calculation of the value of our assets will be based, in part, on the quarterly market value of shares and ADSs, which is subject to change. In addition, the composition of our income and assets will be affected by how, and how quickly, we spend the cash we have raised in prior offerings. See Taxation U.S. Federal Income Tax Considerations For U.S. Persons Passive foreign investment company.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Our legal and commercial name is United Microelectronics Corporation, commonly known as UMC . We were incorporated under the ROC Company Law as a company limited by shares in May 1980 and our shares were listed on the Taiwan Stock Exchange in 1985. Our principal executive office is located at No. 3 Li-Hsin Road II, Hsinchu Science Park, Hsinchu, Taiwan, Republic of China, and our telephone number is 886-3-578-2258. Our Internet website address is www.umc.com. The information on our website does not form part of this annual report. Our ADSs have been listed on the NYSE under the symbol UMC since September 19, 2000.

We are one of the world s largest independent semiconductor foundries and a leader in semiconductor manufacturing process technologies. Our primary business is the manufacture, or fabrication , of semiconductors, sometimes called chips or integrated circuits , for others. Using our own proprietary processes and techniques, we make chips to the design specifications of our many customers. Our company maintains a diversified customer base across industries, including communication, consumer electronics, computer, memory and others, while continuing to focus on manufacturing for high growth, large volume applications, including networking, telecommunications, Internet, multimedia, PCs and graphics. We sell and market mainly wafers which in turn are used in a number of different applications by our customers. Percentages of our net wafer sales derived from our products used in communication devices, consumer electronics, PCs, memory and other applications were 55.86%, 24.66%, 17.27%, 0.72% and 1.49%, respectively, in 2008.

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We focus on the development of leading mass-producible manufacturing process technologies. We were among the first in the foundry industry to go into commercial operation with such advanced capabilities as producing integrated circuits with line widths of 0.25, 0.18, 0.15, 0.13 micron and 90, 65 and 45 nanometer. Advanced technologies have enabled electronic products, especially in relation to computer, communication and consumer products, to integrate their functions in new and innovative methods. Networking capabilities have allowed electronic products such as computers, cell phones, televisions, PDAs, CD-ROMs and digital cameras to communicate with each other to exchange information. More powerful semiconductors are required to drive multimedia functions (e.g. processing visual data) and to resolve network bandwidth issues. At the same time, the trend toward personal electronic devices has resulted in products that are becoming physically smaller and consume less power. Process technology must also shrink the volumes of products aggressively to cater to this trend of integrating multiple functions, reducing the number of components needed for operation and lowering IC power consumption. Dedicated semiconductor foundries need to achieve this process improvement and at the same time develop multiple process technologies to satisfy the varying needs of computer, communication and consumer products. We believe our superior process technologies will enable us to continue to offer our customers significant performance benefits for their products, faster time-to-market production, cost savings and other competitive advantages.

We provide high quality service based on our performance. In today s marketplace, we believe it is important to make available not only the most manufacturable processes, but also the best solutions to enable customers to design integrated circuits that include entire systems on a chip. Through these efforts, we intend to be the foundry solution for SoC customer needs. To achieve this goal, we believe it is necessary to timely develop and offer the intellectual property and design support that customers need to ensure their specific design blocks work with the other design blocks of the integrated circuit system in the manner intended. Accordingly, we have a dedicated intellectual property and design support team which focuses on timely development of the intellectual property and process specific design blocks our customers need in order to develop products that operate and perform as intended. Our design service team actively cooperates with our customers and vendors of cell libraries and intellectual property offerings to identify, early in the product/market cycle, the offerings needed to ensure that these coordinated offerings are available to our customers in silicon verified form in a streamlined and easy-to-use manner. As a result, we are able to ensure the timely delivery of service offerings from the earliest time in the customer design cycle, resulting in a shorter time-to-volume production. We also provide our customers with real-time Internet access to their confidential production data, resulting in superior communication and efficiency. We further address our customers needs using our advanced technology and proven methodology to achieve fast cycle time, high yield, production flexibility and close customer communication. For example, we select and configure our clean rooms and equipment and develop our processes to maximize the flexibility in meeting and adapting to rapidly changing customer and industry needs. As a result, our cycle time, or the period from customer order to wafer delivery, and our responsiveness to customer request changes are among the fastest in the dedicated foundry industry. We also provide high quality service and engineering infrastructure.

Our production capacity is comparable to that of the largest companies in the semiconductor industry, and we believe our leading edge and high volume capability is a major competitive advantage.

Our technology and service have attracted three principal types of foundry industry customers: fabless design companies, integrated device manufacturers and system companies. Fabless design companies design, develop and distribute proprietary semiconductor products, but do not maintain internal manufacturing capacity. Instead, these companies depend on outside manufacturing sources. Integrated device manufacturers, in contrast, traditionally integrated all functions - manufacturing as well as design, development, sales and distribution. System companies design and develop integrated circuits to be components within their end or intermediate products and generally do not maintain internal manufacturing capacity. For example, system companies market and sell cellular telephones and/or Internet appliances into which they incorporate semiconductor products.

Our primary customers, in terms of our sales revenues, include premier integrated device manufacturers, such as Texas Instruments, Infineon, Freescale, STMicroelectronics, and Kawasaki, and leading fabless design companies, such as Xilinx, Broadcom, MediaTek, Realtek, Novatek, and Marvell. In 2008, our company s top ten customers accounted for 61.4% of our net operating revenues. Our top two customers accounted for 14.1% and 9.7% of our net

operating revenues in 2008, respectively. We believe our success in attracting these customers is a direct result of our commitment to high quality service and our intense focus on customer needs and performance.

For the disclosure related to our acquisition of Hejian, the contents of the Form 6-K we furnished to the Commission on April 29, 2009 (File No. 001-15128), or the Hejian 6-K, are hereby incorporated by reference. The Hejian 6-K has been included elsewhere in this annual report and filed as Exhibit 99.1 to this annual report.

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Please refer to Item 5. Operating and Financial Review and Prospects B. Liquidity and Capital Resources for a discussion of our capital expenditures in the past three years and the plan for the current year.

Our Strategy

To maintain and enhance our position as a market leader, we have adopted a business strategy with a focus on a partnership business model designed to accommodate our customers business needs and objectives and to promote their interests as our partners. We believe that our success and profitability are inseparable from the success of our customers. The goal in this business model is to create a network of partnerships or alliances among system companies and integrated device manufacturers, intellectual property and design houses, as well as foundry companies. We believe that we and our partners will benefit from the synergy generated through such long-term partnerships or alliances and the added value to be shared among the partners. The key elements of our strategy are:

Operate as a SoC Solution Foundry. We plan to operate as a SoC solution foundry. This involves collaborating closely with customers as well as partners throughout the entire SoC technology supply chain, including equipment, Electronic Design Automation tool and IP vendors, to work synergistically towards a SoC solution for each customer. Our implementation of our SoC solution strategy has resulted in a broad range of options available to SoC designers, including silicon-validated reference flows, in-depth IP portfolio and know-how and extensive libraries of IPs, to better provide value to their customers. Capitalizing on our advanced process technology, extensive packaging and testing capabilities and state-of-art 300mm manufacturing facilities, we believe we are in a better position to deliver integrated SoC solutions for customers than most of our competitors.

Build up Customer-focused Partnership Business Model. We have focused on building partnership relationships with our customers, and we strive to help our customers to achieve their objectives through close cooperation. Unlike the traditional buy-and-sell relationship between a foundry and its customers, we believe our partnership business model will help us understand our customers requirements and, accordingly, better accommodate our customers needs in a number of ways, such as customized processes and services that optimize the entire value chain (not just the foundry portion) and intellectual property-related support. We believe that this business model will enable us to deliver our products to our customers at the earliest time our customers require for their design cycle, resulting in shorter time-to-market and time-to-volume production. Furthermore, we believe we will render more cost-effective services by focusing our research and development expenditures on the specific requirements of our customers. We believe our partnership business model will help us not only survive a market downturn, but also achieve a better competitive position.

Continue to Focus on High Growth Applications and Customers. We believe one measure of a successful foundry company is the quality of its customers. We focus our sales and marketing on customers who are established or emerging leaders in industries with high growth potential. Our customers include industry leaders such as AMD (ATI), Broadcom, Marvell, Infineon, MediaTek, Novatek, Realtek, SanDisk, STMicroelectronics, Texas Instruments, Freescale and Xilinx. We seek to maintain and expand our relationships with these companies. We strive to demonstrate to these customers the superiority and flexibility of our manufacturing, technology and service capabilities and to provide them with production and design assistance. We are also making efforts to further diversify our customer portfolio by actively pursuing customers in the PC-related area in order to maintain a balanced exposure to different applications. We believe these efforts strengthen our relationships with our customers and enhance our reputation in the semiconductor industry as a leading foundry service provider.

Maintain Our Leading Position in Mass-Producible Semiconductor Technology and Selectively Pursue Strategic Investments in New Technologies. We believe that maintaining and enhancing our leadership in mass-producible semiconductor manufacturing technology is critical to attract and retain customers. Our reputation for technological excellence has attracted both established and emerging leaders in the semiconductor industries who work closely with us on technology development. In addition, we believe our superior processing expertise has enabled us to provide flexible production schedules to meet our customers particular needs. We plan to continue building internal research and development expertise, to focus on process development and to establish alliances with leading semiconductor companies to accelerate access to next-generation technologies. For example, our 28-nanometer technology, which will be delivered to our customers by 2010, is expected to significantly increase the competitive advantages of our customers by providing better device performance in a smaller die size. We believe our progress in developing more

advanced process technologies has benefited our customers in the fields of computers, communications, consumer electronics and others with special preferences in certain aspects of the products, such as the ultimate performance, density and power consumption.

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We also recognize every company has limited resources and that the foundry industry is ever-evolving. Accordingly, we believe we should invest in new research and development technology intelligently and in a cost-effective manner to achieve the ultimate output of the resulting technology. In doing so, we balance the rate of return of our research and development with the importance of developing a technology at the right time to enhance our competitive edge without unduly diluting our profitability. We intend to avoid investments in technologies that do not present a commercial potential for volume production. We believe that to develop the earliest and most advanced semiconductor technology without regard to its potential for near term volume production may prove costly to our operations and would not strengthen our competitive position. We perceive a benefit to defer investment in the premature equipment needed to claim the earliest advanced technology and instead to purchase a more advanced and less expensive version of equipment from vendors who design such equipment based on pre-production lessons learned from the earliest technology.

Maintain Scale and Capacity Capabilities to Meet Customer Requirements, with a Focus on 12-inch Wafer Facilities for Future Expansion. We believe that maintaining our foundry capacity with advanced technology and facilities is critical to the maintenance of our industry leadership. Our production capacity is currently among the largest of all semiconductor foundries in the world. We intend to increase our 12-inch wafer production capacity to meet the needs of our customers and to fully capitalize on the expected growth of our industry. Our future capacity expansion plans will focus on 12-inch wafer facilities in order to maintain our technology leadership. 12-inch wafers offer manufacturing advantages over 8-inch wafers because of the greater number of chips on each wafer. In addition, 12-inch wafer facilities present a more cost-effective solution in achieving an economic scale of production. We intend to carefully monitor current market conditions in order to optimize the timing of our capital spending.

B. Business Overview

Manufacturing Facilities

To maintain a leading position in the foundry business, we have placed great emphasis on achieving and maintaining a high standard of manufacturing quality. As a result, we seek to design and implement manufacturing processes that produce consistent, high manufacturing yields to enable our customers to estimate, with reasonable certainty, how many wafers they need to order from us. In addition, we continuously seek to enhance our production capacity and process technology, two important factors that characterize a foundry s manufacturing capability. Our large production capacity and advanced process technologies enable us to provide our customers with volume production and flexible and quick-to-market manufacturing services. All of our fabs operate 24 hours per day, seven days per week. Substantially all maintenance at each of the fabs is performed concurrently with production.

The construction of our second 300mm fab in Taiwan is underway, as a step in our continuing expansion of our manufacturing complex in the Tainan Science Park in southern Taiwan. Total investment for this fab is estimated to be US$5 billion, with a maximum designed monthly production capacity of approximately 50,000 wafers. As of March 31, 2009, the construction of this new fab factory building is 90% complete, and the equipment will be moved into this fab after construction is finished. However, we have not finalized the expansion plan yet due to the potential impact of the global economic recession on industry demand. We will closely monitor industry demand and adjust our expansion schedule accordingly.

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The following table sets forth operational data of each of our manufacturing facilities as of December 31, 2008.

Fab8C	**Fab8D**	**Fab8E**	**Fab8F**	**Fab8S**	**Fab12A**
1998	2000	FABII 1998 FAB2A 2000	2000	2000	2002
33,500 afers per month 8-inch 200mm) 9,764 sq. meters Class-0.1 @0.1um, clean tunnel	22,000 wafers per month 8-inch (200mm) 16,589 sq. meters Class100 @0.3um, SMIF/mini-environment	34,000 wafers per month 8-inch (200mm) 21,576 sq. meters FABII: Class-1000@0.3 um FAB2A: Class100@0.3um, SMIF/mini-environment	32,000 wafers per month 8-inch (200mm) 13,812 sq. meters Class 100 @0.3um, SMIF/mini-environment	25,000 wafers per month 8-inch (200mm) 8,163 sq. meters Class 1000 @0.3um, SMIF/mini-environment	36,000 wafers per month 12-inch (300mm) 24,860 sq. meters Class 100 @0.3u SMIF/mini-environ

(1) Measured in original wafer size.

(2) The capacity of a fab is determined based on the capacity ratings given by manufacturers of the equipment used in the fab, adjusted for, among other factors, actual output during uninterrupted trial runs, expected down time due to set up for production runs and maintenance and expected product mix.

(3) Area represents the total area of clean rooms within a fab. Clean room area of Fab 12i area includes Module B area of 11,737 square meters.

(4) Class represents the cleanliness of clean rooms in the fab. Class-10@0.1um means a standard of air purity under which the amount of dust is limited to fewer than 10 particles of contaminants of 0.1 micron or greater per one cubic foot per minute of air flow. Class-0.1@0.1um means a standard of air purity under which the amount of dust is limited to fewer than one particle of contaminant of 0.1 micron or greater per 10 cubic feet per minute of air flow. Class-100@0.3um means a standard of air purity under which the amount of dust is limited to fewer than 100 particles of contaminants of 0.3 micron or greater per one cubic foot per minute of air flow. Class-1000@0.3um means a standard of air purity under which the amount of dust is limited to fewer than 1,000 particles of contaminants of 0.3 micron or greater per one cubic foot per minute of air flow. The general production

environment may be organized into clean tunnels or mini environments . In a clean tunnel environment, the clean room is divided into many tunnels with partitions. A higher level of cleanliness is kept inside the tunnel for production. Mini-environments within a clean room use Standard Mechanical Interface technology, or SMIF, which employs input/output devices designed to protect products from contamination while providing a standard mechanical interface to wafer production tools. Mini-environment is generally a preferred approach because it reduces building structural costs and operating costs, allows flexibility in equipment layout and facilitates the ramping-up process during capacity expansion.

The following table sets forth the size and primary use of our facilities and whether such facilities, including land and buildings, are owned or leased. Our land in the Hsinchu and Tainan Science Parks is leased from the ROC government.

Location	Size (Land/Building)	Primary Use	Land (Owned or Leased)	Building (Owned or Leased)

	(in square meters)			
Fab 6A, 10 Innovation 1st Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC	27,898/34,609	6-inch wafer production	Leased (expires in December 2026)	Owned
Fab 8A, 3 Li-Hsin 2 nd Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC.	43,468/83,699	8-inch wafer production	Leased (expires in March 2014)	Owned
Fab 8C, 6 Li-Hsin 3 rd Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC	24,678/71,428	8-inch wafer production	Leased (expires in March 2016)	Owned
Fab 8D, 8 Li-Hsin 3 rd Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC	8,036/29,181	8-inch wafer production	Leased (expires in March 2016)	Owned
Fab 8E, 17 Li-Hsin Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC	35,000/76,315	8-inch wafer production	Leased (expires in February 2016)	Owned
Fab 8F, 3 Li-Hsin 6 th Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC.	24,180/65,736	8-inch wafer production	Leased (expires in February 2018)	Owned

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Location	Size (Land/Building) (in square meters)	Primary Use	Land (Owned or Leased)	Building (Owned or Leased)
Fab 8S, 16 Creation 1 st Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC.	20,404/65,614	8-inch wafer production	Leased (expires in December 2023)	Owned
Fab 12A, 18 Nan-Ke 2 nd Rd., Tainan Science Park, Sinshih, Tainan, Taiwan 741, ROC.	113,661/177,049	12-inch wafer production	Leased (expires in October 2017)	Owned
Fab 12i, 3 Pasir Ris Drive 12 Singapore 519528	85,737/142,169	12-inch wafer production	Leased (expires in March 2031)	Owned
UMCJ, 1580, Yamamoto, Tateyama-City, Chiba, Japan	387,550/61,176	8-inch wafer production	82% owned, 18% leased (expires in June 2049)	96% Owned, 4% Leased
United Tower, 3 Li-Hsin 2nd Rd., Hsinchu Science Park, Hsinchu, Taiwan 300, ROC.	8,818/85,224	Administration office	Leased (expires in March 2014)	Owned
Tunhwa South Rd. Office, 3F, 76, Sec. 2, Tunhwa S. Rd., Taipei, Taiwan 106, ROC	166/2,575	Administration office	Owned	Owned
Testing Building, 1, Chin-Shan, St. 7, Hsinchu, Taiwan 300, ROC.	10,762/41,318	Leased to several companies	Owned	Owned
R&D Building, 18 Nan-Ke 2 nd Rd., Tainan Science Park, Sinshih, Tainan, Taiwan 741, ROC.	42,000/47,501	Research and development	Leased (expires in December 2023)	Owned

Process Technology

Process technology is a set of specifications and parameters that we implement for manufacturing the critical dimensions of the patterned features of the circuitry of semiconductors. Our process technologies are currently among the most advanced in the foundry industry. These advanced technologies have enabled us to provide flexible production schedules to meet our customers particular needs.

The continued enhancement of our process technologies has enabled us to manufacture semiconductor devices with smaller geometries, allowing us to produce more dice on a given wafer. We pioneered the production of semiconductor products with 0.25 and 0.18 micron process technology in 1997 and 1999, respectively, and used copper interconnect metallurgic to allow better reliability and higher conductibility than traditional aluminum interconnects. We began volume production using 0.13-micron process technology in 2002. Our extensive experience in the 0.13-micron process technology has helped smooth our transition to 90-nanometer pilot production. Our 90-nanometer process marks further advance in our technology achievements, incorporating up to nine copper metal layers, triple gate oxide and other advanced features and using chrom-less phase-shift masks. This technology has been in volume production since the second quarter of 2004 after passing several product certifications. In 2005, our research and development teams continued to work closely with the manufacturing staff to finalize our 90-nanometer technology portfolio. These collaborative efforts, performed in our best-in-class 300mm facilities, contributed to the improvement of high density 6T-SRAM yield to the maturity level of more than 90%. Our accomplishments led to multiple design awards followed by first silicon success, including a PC graphic IC and the world s first 90-nanometer Wireless Local Area Network (WLAN) RF chip featuring a unique and specially developed inductor scheme. In addition, we were able to develop, within 6 months, several customized 90-nanometer processes tailored to our customers device specifications, and demonstrated product success by delivering record high yield for the first product lots. Our first fully-functional 65-nanometer wireless digital baseband customer IC was produced in July of 2005, after only a year since this research and development project began at this facility.

Since the third quarter of 2006, we have begun the mass production of a next-generation 65-nanometer FPGA product, which features a 65% logic capacity increase over previous generation of FPGAs with triple gate oxide and 11 copper metal layers. Our 65-nanometer development team is not only independently developing our technologies in-house but is also bringing up customized process technologies to match customer specific needs. Furthermore, our 45-nanometer process technologies, which are jointly developed by us and our strategic partners will be available to our customers by early 2009, are expected to significantly increase the competitive advantages of our customers by providing better device performance in a smaller die size.

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The table below sets forth our actual process technology range, categorized by line widths, or the minimum physical dimensions of the transistor gate of integrated circuits in production by each fab, in 2008, and the estimated annual full capacity of each fab, actual total annual output and capacity utilization rates in 2006, 2007 and 2008:

	Year of Commencement of Operation	Year Ended December 31, 2008 Range of Process Technologies (in microns)	Year Ended December 31, 2006	2007	2008
			(in thousands of 8-inch wafer equivalents, except percentages)		
Fab					
Fab 6A	1989	0.5	328	328	328
Fab 8A	1995	0.5 to 0.25	816	816	816
Fab 8C	1998	0.35 to 0.15	400	400	400
Fab 8D	2000	0.18 to 0.09	252	260	260
Fab 8E	1998	0.5 to 0.18	406	408	408
Fab 8F	2000	0.25 to 0.15	372	372	374
Fab 8S	2000	0.25 to 0.15	276	276	294
Fab 12A	2002	0.18 to 0.065	754	847	884
Fab 12i	2004	0.13 to 0.065	413	601	743
UMCJ	1996	0.35 to 0.15	378	348	240
Total estimated capacity			4,395	4,656	4,747
Total output (actual)			3,495	3,813	3,355
Average capacity utilization			79.5%	81.9%	70.7%

The table below sets forth a breakdown of number and percentage of wafer output by process technologies in 2006, 2007 and 2008. We began commercial operation of our 0.13-micron, 90-nanometer and 65-nanometer process technologies in the first quarter of 2002, the second quarter of 2003 and the first quarter of 2006, respectively.

	Year Ended December 31,					
	2006		2007		2008	
	(in thousands of 8-inch wafer equivalents, except percentages)					
Technology						
65 nanometers and under	18	0.5%	34	0.9%	147	4.3%
90 nanometers	320	9.2	492	12.9	701	21.0
0.13 micron	477	13.6	595	15.6	555	16.5
0.15 micron	301	8.6	354	9.3	258	7.7
0.18 micron	677	19.4	784	20.5	587	17.5
0.25 micron	252	7.2	206	5.4	110	3.3
0.35 micron	1,004	28.7	971	25.5	728	21.7
0.50 micron or higher	446	12.8	377	9.9	269	8.0

Total	3,495	100.0%	3,813	100.0%	3,355	100.0%

Capacity and Utilization

The fabs in Taiwan that we own directly are named Fab 6A, Fab 8A, Fab 8C, Fab 8D, Fab 8E, Fab 8F and Fab 8S, all of which are located in the Hsinchu Science Park in Taiwan, and Fab 12A, which is located in the Tainan Science Park in Taiwan. The fab in Singapore is named Fab 12i.

Our average capacity utilization rate was 79.5% in 2006, 81.9% in 2007 and 70.7% in 2008.

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Equipment

Considering the performance and productivity of our manufacturing capability highly rely on the quality of our capital equipment, we generally purchase equipment that cannot only meet the demand of our existing process technology, but also has the capability to be upgraded to match our future needs. The principal equipment we use to manufacture semiconductor devices are scanners/steppers, cleaners and track equipment, inspection equipment, etchers, furnaces, wet stations, strippers, implanters, sputters, CVD equipment, probers, testers and so on. We own all of the production equipment except for a few demonstration tools.

Our policy is to purchase high-quality equipment that demonstrates stable performance from vendors with dominate market share to ensure our continued competitiveness in the semiconductor field.

Some of the equipment is available from a limited number of qualified vendors and/or is manufactured in relatively limited quantities, and some equipment has only recently been developed. We believe that our relationships with equipment suppliers are strong enough that we can leverage our position as a major purchaser to purchase equipment on better terms, including shorter lead time, than the terms received by several other foundries.

Although we face the challenge of procuring the right equipment in sufficient quantity necessary for ramp-up or expansion of our fabrication facilities under constraint of short lead times, we have not in the past experienced any material problems in procuring the latest generation equipment on a timely basis even in periods of unpredictably high market demand. We manage the risks in the procurement process through timely internal communications among different divisions, efficient market information collection, early reservation of appropriate delivery slots and constant communications with our suppliers as well as by utilizing our good relationships with the vendors.

Raw Materials

Our manufacturing processes use many raw materials, primarily silicon wafers, chemicals, gases and various types of precious sputtering targets. These raw materials are generally available from several suppliers. Our policy with respect to raw material purchases, similar to that for equipment purchases, is to select only a small number of qualified vendors who have demonstrated quality and reliability on delivery time of the raw materials. We generally do not have any long-term supply contracts with our vendors.

Our general inventory policy is to maintain sufficient stock of each principal raw material for production and rolling forecasts of near-term requirements received from customers. In addition, we have agreements with several key material suppliers under which they hold similar levels of inventory in their warehouses for our use. However, we are not under any obligation to purchase raw material inventory that is held by our vendors for our benefit until we actually order it. We typically work with our vendors to plan our raw material requirements on a quarterly basis, with indicative pricing generally set on a quarterly basis. The actual purchase price is generally determined based on the prevailing market conditions. In the past, prices of our principal raw materials have not been volatile to a significant degree. Although we have not experienced any shortage of raw materials that had a material effect on our operations, and supplies of raw materials we use currently are adequate, shortages could occur in various critical materials due to interruption of supply or an increase in industry demand.

The most important raw material used in our production processes is silicon wafer, which is the basic raw material from which integrated circuits are made. The principal makers for our wafers are Shin-Etsu, Siltronic AG and Sumco Group (including Sumco Group Corporation and Formosa Sumco Technology Corporation). We have in the past obtained and believe that we will continue to be able to obtain a sufficient supply of silicon wafers. We believe that we have close working relationships with our wafer suppliers. Based on such long-term relationships, we believe that these major suppliers will use their best efforts to accommodate our demand.

We use a large amount of water in our manufacturing process. We obtain water supplies from government-owned entities and recycle approximately 85% of the water that we use during the manufacturing process. We also use substantial amounts of dual loop electricity supplied by Taiwan Power Company in the manufacturing process. We maintain back-up generators that are capable of providing adequate amounts of electricity to maintain the required air pressure in our clean rooms in case of power interruptions. We believe our back-up devices are adequate in preventing business interruptions caused by power outages and emergency situations.

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Quality Control

We believe that our advanced process technologies and reputation for high quality and reliable services and products have been important factors in attracting and retaining leading international and domestic semiconductor companies as customers.

Our process technologies and fabrication facilities have been qualified by our customers after satisfying their stringent quality and reliability requirements. Generally, our customers perform on-site fab audits in addition to conducting their own product qualifications. These audits normally address quality management, documentation control, procurement and material incoming inspection, product final inspection, calibration and certification training systems. These audits include both data/record review and physical fabrication area tours for verification of conformity to specifications and procedures. If the audit findings are satisfactory, then the fab facility is termed qualified for proceeding with further product qualification and later volume production. Most of our established customers, including AMD (ATI), Conexant Systems, Kawasaki, Infineon, Freescale, Broadcom, MediaTek, Novatek, Pixart, SiS, STMicroelectronics, Texas Instruments, Xilinx, NXP, Sony, Davicom, Holtek, Cypress, Faraday, nVIDIA, Atmel, AMIS, Solomon, Marvell and Micronas have audited our fabrication, and our fabs have successfully passed their qualification requirements.

Our policy is to implement quality control measures to ensure the delivery of consistent high yield production with reliable performance for our customers. We test and monitor the quality of raw materials, process and products at various stages in the manufacturing process before shipment to customers. Reliability assurance also includes in-process wafer level reliability monitoring as well as packaged level reliability compliance. Our quality control is also continually enhanced through our top down annual Policy Management and bottom up Total Quality Management, or TQM, activities, involving various independent quality control teams from our various foundries, such as Quality Improvement and Innovation Team, Employee Suggestion System and Project Management Team. We also have Quality Assurance Division and Reliability Technology and Assurance Division, which in aggregate consist of 353 engineers, technicians and other staff as of March 31, 2009. These divisions are responsible for incoming materials quality inspection, in process quality audit, outgoing product quality inspection, quality system and standards maintenance, reliability assurance, reliability engineering and customer queries. In addition, our efforts to observe benchmark and best practices among fabs in the industry have also contributed to the improvement of our overall quality control procedures.

All our fabs are ISO/TS 16949:2002 and QC080000 IECQ HSPM certified and also registered under the Year 2000 version of ISO9001. ISO/TS 16949:2002 sets the criteria for developing a fundamental quality management system. It focuses on continual improvement, defect prevention and the reduction of variation and waste. QC080000 IECQ HSPM sets the criteria for developing a process management system for hazardous substances, and focuses on developing environmentally friendly manufacturing processes. The Year 2000 version of ISO9001 emphasizes customer satisfaction and resource management.

Services and Products

We primarily engage in wafer fabrication for foundry customers. To optimize fabrication services for our customers, we work closely with them as they finalize circuit design and contract for the preparation of masks to be used in the manufacturing process. We also offer our customers turnkey services by providing them with subcontracted assembly and test services. We believe that this ability to deliver a variety of foundry services in addition to wafer fabrication enables us to accommodate the needs of a full array of integrated device manufacturers, system companies and fabless design customers with different in-house capabilities.

Wafer manufacturing requires many distinct and intricate steps. Each step in the manufacturing process must be completed with precision in order for finished semiconductor devices to work as intended. The processes require taking raw wafers and turning them into finished semiconductor devices generally through five steps: circuit design, mask tooling, wafer fabrication, assembly and test. The services we offer to our customers in each of these five steps are described below.

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Circuit Design. At this initial design stage, our engineers generally work with our customers to ensure that their designs can be successfully and cost-effectively manufactured in our facilities. We have assisted an increasing number of our customers in the design process by providing them with access to our partners electronic design analysis tools, intellectual property and design services as well as by providing them with custom embedded memory macro-cells. In our Silicon Shuttle program, we offer customers and intellectual property providers early access to actual silicon samples with their desired intellectual property and content in order to enable early and rapid use of our advanced technologies. The Silicon Shuttle program is a multi-chip test wafer program that allows silicon verification of intellectual property elements. In the Silicon Shuttle program, several different vendors can test their intellectual property using a single mask set, greatly reducing the cost of silicon verification for us and the participating vendors. The high cost of masks for advanced processes makes this program attractive to intellectual property vendors. ARM Limited, Faraday Technology Corp., or Faraday Technology, MIPS Technologies International, Virage Logic Corporation and Virtual Silicon Technology have utilized our Silicon Shuttle program. In our Gold IP program, we coordinate with leading suppliers of intellectual property, design and ASIC services to ensure their offerings are available to our customers in an integrated, easy to use manner which matches customers need to our technologies. With a view to lowering customer design barriers, we expanded our design support functions from conventional design support to adding intellectual property development to complement third-party intellectual properties and to provide customers with the widest range of silicon-verified choices. Our offerings range from design libraries to basic analog mixed-mode intellectual properties which, together, have been proved helpful in shortening our customer s design cycle time.

Mask Tooling. Our engineers generally assist our customers to design and/or obtain masks that are optimized for our advanced process technologies and equipment. Actual mask production is usually provided by independent third parties specializing in mask tooling.

Wafer Fabrication. As described above, our manufacturing service provides all aspects of the wafer fabrication process by utilizing a full range of advanced process technologies. During the wafer fabrication process, we perform procedures in which a photosensitive material is deposited on the wafer and exposed to light through the mask to form transistors and other circuit elements comprising a semiconductor. The unwanted material is then etched away, leaving only the desired circuit pattern on the wafer. As part of our wafer fabrication services, we also offer wafer probing services, which test, or probe, individual die on the processed wafers and identify dice that fail to meet required standards. We prefer to conduct wafer probing internally to obtain speedier and more accurate data on manufacturing yield rates.

Assembly and Testing. We offer our customers turnkey services by providing the option to purchase finished semiconductor products that have been assembled and tested. We outsource assembly and test services to leading local assembly and test service providers, including Siliconware Precision Industries Co., Ltd., or Siliconware, and Advanced Semiconductor Engineering Inc. in Taiwan. After final testing, the semiconductors are shipped to our customers designated locations.

Customers and Markets

Our primary customers, in terms of our sales revenues, include premier integrated device manufacturers, such as Texas Instruments, Infineon, Freescale, STMicroelectronics, and Kawasaki, and leading fabless design companies, such as Xilinx, Broadcom, MediaTek, Realtek, Novatek, and Marvell. Although we are not dependent on any single customer, a significant portion of our net operating revenues have been generated from sales to a few customers. Our top ten customers accounted for approximately 61.4% of our net operating revenues in 2008. Our top two customers each accounted for 14.1% and 9.7% of our net operating revenues in 2008. Set forth below is a geographic breakdown of our operating revenues in 2006, 2007 and 2008.

	Year Ended December 31,		
Region	**2006**	**2007**	**2008**
Taiwan	34.2%	38.0%	29.8%
Asia (excluding Taiwan)	8.5	6.9	5.1
North America	49.7	46.9	55.4

Europe	7.6	8.2	9.7
Total	100%	100%	100%

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We believe our success in attracting these end customers is a direct result of our commitment to high quality service and our intense focus on customer needs and performance. Because we are an independent semiconductor foundry, most of our operating revenue is generated by our sales of wafers. Net wafer sales represents 97.2% of our net operating revenue, and excludes revenue from testing, mask and other services. The following table presents the percentages of our net wafer sales by types of customers during the last three years.

	Year Ended December 31,		
Customer Type	**2006**	**2007**	**2008**
Fabless design companies	62.0%	73.7%	73.2%
Integrated device manufacturers	38.0	26.1	26.8
System companies	0.0	0.2	0.0
Total	100.0%	100.0%	100.0%

We focus on providing a high level of customer service in order to attract customers and maintain their ongoing loyalty. Our culture emphasizes responsiveness to customer needs with a focus on flexibility, speed and accuracy throughout our manufacturing and delivery processes. Our customer-oriented approach is especially evident in two types of services: customer design development services and manufacturing services. We believe that our large production capacity and advanced process technology enable us to provide better customer service than many other foundries through shorter turn-around time, greater manufacturing flexibility and higher manufacturing yields.

We work closely with our customers throughout the design development and prototyping processes. Our design support team closely interacts with customers and intellectual property vendors to facilitate the design process and to identify their specific requirements for intellectual property offerings. We are responsive to our customers requirements in terms of overall turn-around time and production time-to-market by, for example, helping our customers streamline their IP offering processes and delivering prototypes in a timely and easy-to-use fashion. We also maintain flexibility and efficiency in our technical capability and respond quickly to our customers design changes.

For IP offerings, we work with several leading IP vendors from digital, memory and analog fields in the semiconductor industry, such as Faraday Technology, ARM Limited, Virage Logic Corporation, Rambus Inc., MIPS Technologies Inc., Silicon Image Inc. and Synopsys Inc., to deliver quality IP blocks that have been silicon validated using our advanced processes. Our alliance programs with major electronic design automation vendors, such as Cadence, Magma, Mentor and Synopsys, provide our customers with digital/analog reference design procedures and easy-to-use design solutions. By continuously enhancing our IP offerings, reference design procedures and design services through collaboration with major vendors, we aim to provide complete, accurate and user-friendly SoC solutions to our customers.

As a design moves into manufacturing production, we continue to provide ongoing customer support through all phases of the manufacturing process. The local account manager works with our customer service representative to ensure the quality of our services, drawing upon our marketing and customer engineering support teams as required. We offer an online service, MyUMC , which gives our customers easy access to our foundry services by providing a total online supply chain solution. MyUMC offers 24-hour access to detailed account information such as manufacturing, engineering and design support documents through each customer s own customized start page. The features available to customers through MyUMC include (i) viewing the status of orders from the start of production to the final shipping stages; (ii) designing layouts to shorten customers tape out time; (iii) collecting customer engineering requests; (iv) gathering and downloading documents for design purposes; (v) and accessing online in real-time the same manufacturing data used by our fab engineers. In order to continually improve our information security management, our information technology division received ISO/IEC 27001:2005 certification in March 2008.

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We price our products on a per die or per wafer basis, taking into account the complexity of the technology, the prevailing market conditions, the order size, the cycle time, the strength and history of our relationship with the customer and our capacity utilization. Our main sales office is located in Taiwan, which is in charge of our sales activities in Asia. Our sales in Europe are currently made through United Microelectronics (Europe) BV, our wholly-owned subsidiary based in Amsterdam. Our sales in North America are made through UMC Group (USA), our subsidiary located in Sunnyvale, California. In addition, we opened a customer support office in Hyderabad Technology Park, India in mid-2007.

We designate a portion of our wafer manufacturing capacity to some of our customers primarily under two types of agreements: reciprocal commitment agreements and deposit agreements. Under a reciprocal commitment agreement, the customer agrees to pay for, and we agree to supply, a specified capacity at a specified time in the future. Under a deposit agreement, the customer makes in advance a cash deposit for an option on a specified capacity at our fabs for a similar period of time. Option deposits are credited to wafer purchase prices as shipments are made. If this customer does not use the specified capacity, it will forfeit the deposit but, in certain circumstances and with our permission, the customer may arrange for a substitute customer to utilize such capacity. We are also obligated in some cases to make available capacity to customers under other types of agreements, such as our capacity commitment arrangement with our venture partners.

We advertise in trade journals, organize technology seminars, hold a variety of regional and international sales conferences and attend a number of industry trade fairs to promote our products and services. We also publish a bi-monthly corporate newsletter for our customers.

Competition

The worldwide semiconductor foundry industry is highly competitive, particularly during periods of overcapacity and inventory correction. We compete internationally and domestically with dedicated foundry service providers as well as with integrated device manufacturers and final product manufacturers which have in-house manufacturing capacity or foundry operations. Some of our competitors have substantially greater production, financial, research and development and marketing resources than we have. As a result, these companies may be able to compete more aggressively over a longer period of time than we can. In addition, several new dedicated foundries have commenced operations and compete directly with us. Any significant increase in competition may erode our profit margins and weaken our earnings.

We believe that our primary competitors in the foundry services market are Taiwan Semiconductor Manufacturing Company Limited, Semiconductor Manufacturing International (Shanghai) Corporation and Chartered Semiconductor Manufacturing Ltd., as well as the foundry operation services of some integrated device manufacturers such as IBM and Toshiba. Other competitors such as Samsung, DongbuAnam Semiconductor, Grace Semiconductor Manufacturing Corp., X-FAB Semiconductors Foundries AG, Silterra Malaysia Sdn. Bhd. and Globalfoundries Inc., have initiated efforts to develop substantial new foundry capacity, although much of such capacity involves less cost-effective production than the 12-inch fabs for which we possess technical know-how. New entrants in the foundry business are likely to initiate a trend of competitive pricing and create potential overcapacity in legacy technology. The principal elements of competition in the semiconductor foundry industry include technical competence, production speed and cycle time, time-to-market, research and development quality, available capacity, manufacturing yields, customer service and price. We believe that we compete favorably with the new competitors on each of these elements, particularly our technical competence and research and development capabilities.

Intellectual Property

Our success depends in part on our ability to obtain patents, licenses and other intellectual property rights covering our production processes and activities. To that end, we have acquired certain patents and patent licenses and intend to continue to seek patents on our production processes. As of December 31, 2008, we held 3,175 U.S. patents and 5,558 patents issued outside of the United States.

Our ability to compete also depends on our ability to operate without infringing on the proprietary rights of others. The semiconductor industry is generally characterized by frequent litigation regarding patent and other intellectual property rights. As is the case with many companies in the semiconductor industry, we have from time to time received communications from third parties asserting patents that cover certain of our technologies and alleging

infringement of certain intellectual property rights of others. We expect that we will receive similar communications in the future. Irrespective of the validity or the successful assertion of such claims, we could incur significant costs and devote significant management resources to the defense of these claims, which could seriously harm our company. See Item 3. Key Information D. Risk Factors Our inability to obtain, preserve and defend intellectual property rights could harm our competitive position.

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In order to minimize our risks from claims based on our manufacture of semiconductor devices or end-use products whose designs infringe on others intellectual property rights, we in general accept orders only from companies that we believe enjoy satisfactory reputation and for products that are not identified as risky for potential infringement claims. Furthermore, we obtain indemnification rights from customers. We also generally obtain indemnification rights from equipment vendors to hold us harmless from any losses resulting from any suit or proceedings brought against our company involving allegation of infringement of intellectual property rights on account of our use of the equipment supplied by them.

We have entered into various patent cross-licenses with major technology companies, including a number of leading international semiconductor companies such as IBM, Renesas and Freescale. We may choose to renew our present licenses or to obtain additional technology licenses in the future. Our license agreement with Texas Instruments expired in December 2007, and we are now in the process of negotiating to renew this license agreement.

Research and Development

We spent NT$9,419 million, NT$9,631 million and NT$8,274 million (US$253 million) in 2006, 2007 and 2008, respectively, on research and development, which represented 8.4%, 8.5% and 8.6% respectively, of our net operating revenues for these periods. Our research and development efforts are mainly focused on delivering SoC foundry solutions that consist of the world s leading process technologies, customer support services and manufacturing techniques. These resources provide our foundry customers with improved opportunities to develop SoC products that supply the global market. Our commitment to research and development can be illustrated by our 2008 research and development expenditures, which reached approximately 8.6% of net operating revenues. In June 2007, we completed the construction of a research and development center for nanometer technologies in the Tainan Science Park. The research and development center allows for seamless application of advanced process technology in the research and development phase to the manufacturing phase, such as our 45 nanometer process technology that has been recently used to fabricate SRAM chips.

As of March 31, 2009, we employed 956 professionals in our research and development activities. In addition, other management and operational personnel are also involved in research and development activities but are not separately identified as research and development professionals.

Our Investments

Depending on the market conditions, we intend to gradually reduce our investments through secondary equity offerings, exchangeable bond offerings and other measures available to our company.

We sold 2 million and 78 million common shares of AU Optronics in 2006 and 2007, respectively. As of December 31, 2007, we have already sold all of the common shares of AU Optronics that we held. We issued Exchangeable Bonds of US$235 million due 2007 in May 2002, and Exchangeable Bonds of US$206 million due 2008 in July 2003. The first bonds were exchangeable, at the option of the bondholders, into common shares or American depositary shares of AU Optronics, and the second bonds were exchangeable into common shares of AU Optronics. As of December 31, 2004, all bondholders of the Exchangeable Bonds due 2008 had exercised their rights to exchange their bonds into common shares of AU Optronics. Prior to the maturity date of May 10, 2007, 99.9% of the bondholders of the Exchangeable Bonds due 2007 had exercised their rights to exchange their bonds into common shares or American depositary shares of AU Optronics. We redeemed all of the remaining bonds outstanding in the principal amount of US$0.3 million.

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In 2006, we sold 42 million common shares of MediaTek for NT$14,259 million. In 2007, we sold 9 million common shares of MediaTek for NT$5,100 million. In 2008, we sold 5 million common shares of MediaTek for NT$1,673 million (US$51 million). As of March 31, 2009, we held 0.19% of MediaTek.

In addition, we sold 1.95 million common shares of ITE Tech. Inc., or ITE, for NT$260 million and 10.1 million common shares of Holtek Semiconductor Inc., or Holtek, for NT$720 million in 2007. In 2008, we sold 3.6 million common shares of ITE for NT$137 million (US$4 million) and 6.3 million common shares of Holtek for NT$253 million (US$8 million). As of March 31, 2009, we held 17.87% and 16.37% in ITE and Holtek, respectively.

In connection with the settlement of our litigations with Silicon Integrated Systems, or SiS, we reached an agreement with SiS in late 2002 to enter into business cooperation, including, among other things, exchange of process patents, production support and our board representation in SiS. In July 2004, we acquired SiSMC, a wafer foundry company spun off from SiS in 2003. As of March 31, 2009, we held 16.34% of SiS s outstanding share capital.

In January 2006, we sold our 63.48% stake in Hsun Chieh Investment Co., Ltd., or Hsun Chieh, to Hsieh Yong Capital Co., Ltd. and recorded a net gain of NT$13,152 million. The percentage of our ownership in Hsun Chieh decreased from 99.97% to 36.49% after the sale. Our representative currently holds one out of three board seats of Hsun Chieh. As a result of the sale, Hsun Chieh is no longer our consolidated subsidiary.

The net gain realized from the sale of our stake in Hsun Chieh in 2006 consisted of three components. The first component was a gain of NT$1,624 million calculated as the excess of cash consideration received over the net book value of the 63.48% stake sold. The second component was a gain of NT$14,149 million recorded to reclassify a portion of the additional paid-in capital from a merger which formed Hsun Chieh in 1999. This component was related to the merger of six companies which resulted in the formation of Hsun Chieh. The fair value of the net assets received was deemed to be the value of the consideration for the acquisition of the interests in the six companies and was reflected in the common stock and additional paid-in capital accounts on the balance sheet. The excess of such fair value of net assets received over the assumed liabilities and payment for shares held by the shareholders of the six companies was recorded in the additional paid-in capital account on our consolidated balance sheet. As a result of the sale of 63.48% of ownership interests in Hsun Chieh, we reversed a proportionate share of the Hsun Chieh s additional paid-in capital account, which had a balance of NT$22,282 million on the date of disposal, and recognized a gain in the consolidated statement of income of NT$14,149 million. These two components were offset in part by a NT$2,621 million loss from a decrease in the current quoted market price of our shares held by Hsun Chieh compared to their original cost.

Environmental Matters

The semiconductor production process generates gaseous wastes, liquid wastes, waste water and other industrial wastes in various stages of the manufacturing process. We have installed various types of anti-pollution equipment in our fabrication facilities to reduce, treat and, where feasible, recycle the wastes generated in our manufacturing process. We receive assistance with disposal of industrial waste from the Science Park Administration and Southern Taiwan Science Park Administration. Our operations are subject to regulation and periodic monitoring by Taiwan s Environmental Protection Administration and local environmental protection authorities.

We believe that we have adopted anti-pollution measures for the effective maintenance of environmental protection standards consistent with the practice of the semiconductor industry in Taiwan. In 2008, we spent approximately NT$59.1 million (US$1.8 million) for pollution control equipment. Our monthly waste disposal fees were approximately NT$3.9 million (US$0.1 million), and our annual cost for environmental monitoring was approximately NT$4.4 million (US$0.1 million). We also believe that we are in compliance in all material respects with applicable environmental laws and regulations.

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Environmental, Safety and Health Management Systems

We have implemented extensive environmental, safety and health management systems. These systems enable our operations to identify applicable environmental, safety and health regulations, assist in evaluating compliance status and timely establish loss preventive and control measures. The systems we implemented in all our fabs have been certified as meeting the ISO 14001 and OHSAS 18001 standards. ISO 14001 consists of a set of standards that provide guidance to the management of organizations to achieve an effective environmental management system. Procedures are established at manufacturing locations to ensure that all accidental spills and discharges are properly addressed. OHSAS 18001 is a recognizable occupational health and safety management system standard, which may be applied to assess and certify our management systems. Our goal in implementing ISO 14001 and OHSAS 18001 systems is to continually improve our environmental, health and safety management.

Litigation

Hejian, a semiconductor manufacturer in Suzhou, China, was set up in December 2001. Soon after the establishment of Hejian, there were various rumors that Hejian was set up by us, which we denied: because we did not inject any capital into nor did we transfer any technology to Hejian.

In early 2006, the Hsinchu District Prosecutor s Office brought criminal charges in the Hsinchu District Court against our former Chairman, Robert H. C. Tsao and our former Vice Chairman, John Hsuan in connection with alleged breach of fiduciary duties and certain alleged violations of the ROC Commercial Accounting Act. Prior to such charges, both our former Chairman and former Vice Chairman resigned from their respective positions with our company. The Hsinchu District Court found our former Chairman and former Vice Chairman not guilty in October 2007, and the Prosecutor s office filed an appeal with the Taiwan High Court in November 2007. On December 31, 2008, the Taiwan High Court rejected the prosecutor s appeal and sustained the Hsinchu District Court s decision. On January 20, 2009, Taiwan High Prosecutor s office filed an appeal with the Supreme Court. The case is still pending in the Supreme Court.

The ROC FSC, a regulatory authority that supervises securities, banking, futures, and insurance activities in Taiwan, also began their investigation into whether there had been any violation of ROC securities laws by us. In April 2005, our former Chairman was fined (1) NT$2.4 million by the ROC FSC for our delay in making public disclosure timely (within two days) regarding the information relating to Hejian, which had been resolved in the March 4 Resolution, and (2) NT$0.6 million for our failure to disclose the information regarding the assistance we had provided to Hejian. Our former Chairman s appeal in relation to such fines was overruled in early 2006, and a lawsuit was filed by our former Chairman with the Taipei Administrative High Court to challenge the ROC FSC fines. In December 2007, the Taipei Administrative High Court revoked the ROC FSC s decision and ruled in favor of our former Chairman. In January 2008, the ROC FSC filed an appeal with the Supreme Administrative Court. The appeal is still pending in the Supreme Administrative Court.

In connection with the March 4 Resolution, our company was also fined in the amount of NT$30,000 by the Taiwan Stock Exchange for an alleged delay in making public disclosure. After our former Chairman and former Vice Chairman were indicted by the prosecutor, our company was found by the ROC MOEA to be in violation of the Act Governing Relations Between Peoples of the Taiwan Area and the Mainland Area and fined in the amount of NT$5 million for our alleged illegal investment in Hejian. Our appeal to the ROC MOEA in relation to such fines was denied in late 2006. We filed an administrative lawsuit in December 2006 with the Taipei Administrative High Court to challenge the ROC MEA fine. In July 2007, the Taipei Administrative High Court revoked the ROC MOEA s decision and ruled in our favor. In August 2007, the ROC MOEA filed an appeal with the Supreme Administrative Court. The appeal is still pending in the Supreme Administrative Court.

In June 2005, our Singapore Branch as plaintiff issued a Writ of Summons against Tokio Marine & Fire Insurance Company (Singapore) Pte. Ltd. or Tokio Marine, as defendant under a marine cargo insurance policy for the replacement cost of a 300mm Endura System damaged in transit. We incurred a cost of approximate US$1.24 million to replace the damaged chamber. Our Singapore Branch filed suit to recover under the Tokio Marine insurance policy on the grounds that the equipment was damaged in shipment as a result of rough handling or conditions. Tokio Marine has denied that the incident was a covered event under the policy. In April 2008, the trial court entered a judgment in our favor in the amount of US$1.24 million with costs to be taxed in accordance with Singapore law. Although the

time for Tokio Marine to appeal had not yet passed, Tokio Marine paid us US$1.24 million plus interest in accordance with the judgment. Tokio Marine filed a notice of appeal to appeal the trial court decision on January 5, 2009. After a hearing on March 26, 2009, the Court of Appeal entered its order in our favor, dismissed the appeal and ordered Tokio Marine to pay the costs we incurred in this appeal.

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In February 2006, Taiwan Power Company, or TPC, filed a civil litigation case in Taiwan Hsinchu District Court against us and other Taiwan companies, claiming that (1) we and the other defendants collectively should pay electrical fees of NT$13.3 million with accrued interest to TPC, and (2) we pay electrical line fees of NT$21.2 million to TPC. On March 11, 2009, the Hsinchu District Court denied Taiwan Power Company s claim and ruled in our favor . The Taiwan Power Company filed an appeal with the Taiwan High Court on April 9, 2009. This case is still pending in the Taiwan High Court. We believe TPC s claims are without merit.

In March 2006, the spouse of Mr. C.F. Shih, a workman employed by Yih-Shin Construction Co., Ltd, or Yih-Shin, one of the subcontractors we engaged for construction of the Fab 12A dormitory, filed a request with the Taiwan Tainan Prosecutors Office for charges against us and other related parties in connection with Mr. Shih s severe injury in connection with the construction work. The Taiwan Tainan Prosecutor s Office denied this request, but Mr. Shih filed a civil claim against us, Yih-Shin and other related parties in April 2006. In the civil claim, Mr. Shih has asked for NT$21.0 million from us, Yih-Shin and other related parties collectively. In addition, Mr. Shih s mother and spouse each requested compensatory damages of NT$0.3 million, and each of Mr. Shih s three children requested for compensatory damages of NT$0.1 million. This lawsuit is pending trial before the Taiwan Tainan District Court.

On August 27, 2008, the Hsinchu District Prosecutors Office visited our offices in relation to an investigation related to our investment in ProMOS Technologies, or ProMOS. We have fully cooperated with the authorities in this investigation. As of December 31, 2008, the investigation has not been completed yet. We have also initiated an internal inquiry regarding this investment and as of the April 15, 2009, we did not find any evidence of inappropriate activities that violate any of the applicable regulations. However, because the matter is still pending, we cannot assure you of the outcome of the investigation by the Hsinchu District Prosecutors Office. See Item 3. Key Information D. Risk Factors The Hsinchu District Prosecutors Office has opened an investigation related to our investment in ProMOS Technologies, and we cannot assure you of the outcome of this investigation.

Dispute with LSI

Due to the recent merger between LSI and Agere Systems, Inc., we have, under the applicable Alternate Payment Provisions and Supplemental Licenses with effective date January 1, 2004, or APP, between us and Agere, exercised our option to terminate its payments under the APP. As a result, under the terms of the APP, the licenses granted to Agere and Lucent under our patents and the licenses granted to us under the semiconductor patents owned by Agere, Lucent Technologies and AT&T are terminated. In light of the merger, we believe we can secure more favorable terms than those afforded under the APP, and have entered negotiations with LSI/Agere toward that goal. Based on past experience and our patent portfolio, on April 1, 2009, we entered a negotiated solution which resolves all disputes between us and LSI/Agere without any material adverse effect on our operations or financial performance as a whole. Pursuant to this settlement, the currently pending proceedings will be terminated and/or dismissed with prejudice, including each of the following proceedings:

In April 2008, LSI filed a petition with the US International Trade Commission naming us and eighteen other companies as proposed respondents (including AMIC Technology, one of our customers). LSI s petition is based on alleged infringement of US Patent Number 5,227,335, claiming certain methods for forming nitrided glue layers for tungsten processing in semiconductor fabrication. LSI s petition seeks an order prohibiting import and/or sale of the accused devices in the US. Under established ITC practice, the ITC initiated an investigation on the petition.

On April 18 2008, LSI also filed a complaint in Federal District Court in the Eastern District of Texas, alleging an infringement of the same patent by the same parties. This complaint seeks an injunction or order prohibiting the alleged infringement along with a reasonable royalty, and other damages in a trebled amount on the basis of alleged willfulness. Based on our motion, this court case was stayed pending the outcome of the ITC matter.

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On October 31, 2008, we filed a counter-suit against LSI in the Federal District Court in the Northern District of California alleging infringement of two our patents, US Patent Numbers 5,459,354 and 5,652,689. Our complaint seeks an injunction or order prohibiting the alleged infringement along with a reasonable royalty, and other damages, trebled on the basis of alleged willfulness.

On December 24, 2008, LSI filed its response to our complaint, denying infringement and alleging invalidity and unenforceability. In addition, LSI included counterclaims against us, alleging invalidity and unenforceability of our patents and further alleging infringement of four LSI US Patents, US Patent Numbers 5,149,672; 6,153,543; 5,599,739; and 5,693,561. LSI s counterclaim seeks an order invalidating and/or rendering the our patents unenforceable, together with an injunction or order prohibiting the alleged infringement along with a reasonable royalty, and other damages, trebled on the basis of alleged willfulness. On January 15, 2009, LSI dismissed that counterclaim without prejudice, and reasserted the same claims in the same court against us and our US subsidiary.

On January 9, 2009, we filed a second complaint in the Federal District Court in the Northern District of California, alleging infringement by LSI and Agere of our US Patent Number 5,393,701. Our complaint seeks an injunction or order prohibiting the alleged infringement along with a reasonable royalty, and other damages, trebled on the basis of alleged willfulness.

We do not expect that these legal proceedings will have a material adverse effect on our operations or financial results as a whole. See Item 3. Key Information D. Risk Factors Our inability to obtain, preserve and defend intellectual property rights could harm our competitive position.

Risk Management

Risk and safety matters are administered by our Group Risk Management and Environmental Safety Health Division, or the GRM & ESH, established in 1998. We are pursuing the goal of a highly protected risk status in the semiconductor industry through the implementation of strict engineering safety procedures, regular enforcement of safety codes and standards, and compliance of detailed industry safety guidelines. Our initiatives include promoting a culture of safety within the organization and equipping each fab with Business Continuity Plan, or BCP, programs and BCP drills to lower the risk of business interruption. The professionally-trained full-time fire brigade is on duty 24-hours a day and armed with state-of-the-art fire fighting equipment to provide services for us as well as other companies in the region and is equipped with a self-developed mobile smoke discharging system in cleanrooms without dedicated smoke control systems. We have also adopted the Triple Star Audit Program of AIG Insurance, a global leader in risk management and insurance, since 1999. All fabs have been ranked as top-class following AIG s risk evaluation and risk improvement recommendations. The audit program focuses on 20 items, including ten Physical Protection Elements and ten Human Elements. Our latest 12-inch fabs, Fab 12A and 12i, obtained triple-stars in all 20 elements in the very first Triple Star Audit.

We believe due to our proactive efforts in earthquake risk exposure prevention, we had quick and exemplary recovery from two major earthquakes in Taiwan on September 21, 1999 and December 26, 2006, respectively. Our Hsinchu fabs and Fab 12A in Tainan sustained only minor impact to their operations from the earthquake without interruption to the power system or water service. Normal operations resumed shortly after the incidents.

Our continuous efforts in risk improvement and mitigation programs were recognized by the clean room risk identification and mitigation Gold Medal we received in the National Quality Control Circle competition held by the ROC MOEA in 2005. In addition, we were awarded Outstanding Performance Award in Risk Management in 2006 by AIG Insurance as a result of our outstanding risk management program.

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Insurance

We maintain industrial all risk insurance for our buildings, facilities, equipment and inventories. The insurance for fabs and their equipment covers physical damage and business interruption losses up to their respective policy limits except for exclusions as defined in the policy. We purchase directors and officers liability insurance for our directors and supervisors, covering the liabilities incurred in relation to his/her/its operation of business and legally responsible for. We also maintain public liability insurance for losses to third parties arising from our business operations. We believe that our insurance coverage is adequate to cover all major types of losses relevant to the semiconductor industry practice. However, significant damage to any of our production facilities, whether as a result of fire or other causes, could seriously harm our business.

C. Organizational Structure

The following list shows our corporate structure as of December 31, 2008:

Company	Jurisdiction of Incorporation	Percentage of Ownership as of December 31, 2008
UMC Group (USA)	California, USA	100.00%
United Microelectronics (Europe) B.V.	The Netherlands	100.00%
UMC Capital Corp.	Cayman Islands	100.00%
United Microelectronics Corp. (Samoa)	Samoa	100.00%
TLC Capital Co., Ltd	Taiwan, ROC	100.00%
UMCi Ltd.	Singapore	100.00%
Fortune Venture Capital Corp.	Taiwan, ROC	99.99%
United Microdisplay Optronics Corp.	Taiwan, ROC	89.99%
UMC Japan	Japan	52.64%
Unitruth Investment Corp.	Taiwan, ROC	99.99%
UMC Capital (USA)	California, USA	100.00%
ECP VITA Ltd.	British Virgin Islands	100.00%
Soaring Capital Corp.	Samoa	100.00%
Unitruth Advisor (Shanghai) Co., Ltd.	China	100.00%

D. Property, Plants and Equipment

Please refer to B. Business Overview Manufacturing Facilities for a discussion of our property, plants and equipment.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Unless stated otherwise, the discussion and analysis of our financial condition and results of operations in this section apply to our financial information as prepared in accordance with ROC GAAP. You should read the following discussion of our financial condition and results of operations together with the consolidated financial statements and the notes to such statements included in this annual report. ROC GAAP varies in certain significant respects from US GAAP. These differences and their effects on our financial statements are described in Note 35 to our audited consolidated financial statements included in this annual report.

For the convenience of readers, NT dollar amounts used in this section for, and as of, the year ended December 31, 2008 have been translated into U.S. dollar amounts using US$1.00 = NT$32.76, the noon buying rate of the Federal Reserve Bank of New York on December 31, 2008. The U.S. dollar translation appears in parentheses next to the relevant NT dollar amount.

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Overview

We are one of the world s leading independent semiconductor foundries, providing comprehensive wafer fabrication services and technologies to our customers based on their designs. We manage our business and measure our results of operations based on a single industry segment.

Our production capacity has increased modestly in the last three years from approximately 382 thousand 8-inch wafer equivalents in December 2006, to approximately 397 thousand 8-inch wafer equivalents in December 2007, and to approximately 413 thousand 8-inch wafer equivalents in December 2008. The larger economies of scale when capacity utilization rate is high have better enabled us to reduce our per unit production cost, which improves margins. However, when capacity utilization rate is low, this increased capacity has led to higher per unit production cost and decreased margins.

Cyclicality of the Semiconductor Industry

As the semiconductor industry is highly cyclical, revenues varied significantly over this period. It can take several years to plan and construct a fab and bring it to operations. Therefore, during periods of favorable market conditions, semiconductor manufacturers often begin building new fabs or acquiring existing fabs in response to anticipated demand growth for semiconductors. In addition, after commencement of commercial operations, fabs can increase production volumes rapidly. As a result, large amounts of semiconductor manufacturing capacity typically become available during the same time period. Absent a proportional growth in demand, this increase in supply often results in semiconductor manufacturing overcapacity, which has led to a sharp decline in semiconductor prices and significant capacity under-utilization. Our average capacity utilization rate increased to 79.5% in 2006, increased to 81.9% in 2007 and decreased to 70.7% in 2008, primarily due to a general decline in the semiconductor industry as a result of the global economic recession and credit crisis since the second half of 2008. We believe that our results in 2006, 2007 and 2008 reflect the ongoing uncertainty in the global economy, conservative corporate information technology spending and low visibility with respect to end market demand.

Pricing

We price our products on either a per die or a per wafer basis, taking into account the complexity of the technology, the prevailing market conditions, the order size, the cycle time, the strength and history of our relationship with the customer and our capacity utilization. Because semiconductor wafer prices tend to fluctuate frequently, we in general review our pricing on a quarterly basis. As a majority of our costs and expenses are fixed or semi-fixed, fluctuations in our products average selling prices historically have had a substantial impact on our margins. Our average selling price increased approximately 0.5% from 2007 to 2008, mainly due to our shift towards higher-priced product mix using more advanced technology.

We believe that our current level of pricing is comparable to that of other leading foundries in each respective geometry. We believe that our ability to provide a wide range of advanced foundry services and process technologies as well as large manufacturing capacity will enable us to compete effectively with other leading foundries at a comparable price level.

Capacity Utilization Rates

Our operating results are characterized by relatively high fixed costs. In 2006, 2007 and 2008, approximately 69.5%, 64.8% and 68.1%, respectively, of our manufacturing costs consisted of depreciation, a portion of indirect material costs, amortization of license fees and indirect labor costs. Our variable costs decreased in 2008 due to (i) a decrease in direct material costs from NT$8,803 million in 2007 to NT$5,985 million (US$183 million) in 2008 due to lower wafer-start quantities and (ii) a decrease in costs of spare parts from NT$10,720 million in 2007 to NT$8,892 million (US$271 million) in 2008 due to less wafer production.

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If our utilization rates increase, our costs would be allocated over a larger number of units, which generally leads to lower unit costs. As a result, our capacity utilization rates can significantly affect our margins. Our utilization rates have varied from period to period to reflect our production capacity and market demand. Our average capacity utilization rate increased to 79.5% in 2006, increased to 81.9% in 2007 but decreased to 70.7% in 2008, primarily due to a general decline in the semiconductor industry as a result of the global economic recession and credit crisis since the second half of 2008. Utilization rates can also be affected by efficiency in production facility and product flow management. Other factors affecting utilization rates are the complexity and mix of the wafers produced, overall industry conditions, the level of customer orders, mechanical failure, disruption of operations due to expansion of operations, relocation of equipment or disruption of power supply and fire or natural disaster.

Our production capacity is determined by us based on the capacity ratings given by manufacturers of the equipment used in the fab, adjusted for, among other factors, actual output during uninterrupted trial runs, expected down time due to set up for production runs and maintenance, expected product mix and research and development. Because these factors include subjective elements, our measurement of capacity utilization rates may not be comparable to those of our competitors.

Change in Product Mix and Technology Migration

Because the price of wafers processed with different technologies varies significantly, the mix of wafers that we produce is among the primary factors that affect our revenues and profitability. The value of a wafer is determined principally by the complexity of the processing technology used to produce the wafer. Production of devices with higher levels of functionality and greater system-level integration requires more manufacturing steps and generally commands higher wafer prices. The increase in price generally has more than offset associated increases in production cost once an appropriate economy of scale is reached.

Prices for wafers of a given level of technology generally decline over the processing technology life cycle. As a result, we have continuously been migrating to increasingly sophisticated technologies to maintain the same level of profitability. We began our volume production with 90 nanometer and 65 nanometer technologies in 2004 and 2006, respectively. We expect to start 40-nanometer production in the first half of 2009. These types of technology migration require continuous capital and research and development investment. Because developing and acquiring advanced technologies involve substantial capital investment, we expect to continue to spend a substantial amount of capital on upgrading our technologies.

Manufacturing Yields

Manufacturing yield per wafer is measured by the number of functional dice on that wafer over the maximum number of dice that can be produced on that wafer. A small portion of our products is priced on a per die basis, and our high manufacturing yields have assisted us in achieving higher margins. In addition, with respect to products that are priced on a per wafer basis, we believe that our ability to deliver high manufacturing yields generally has allowed us to either charge higher prices per wafer or attract higher order volumes, resulting in higher margins.

We continually upgrade our process technologies. At the beginning of each technological upgrade, the manufacturing yield utilizing the new technology is generally lower, sometimes substantially lower, than the yield under the current technology. The yield is generally improved through the expertise and cooperation of our research and development personnel and process engineers, as well as equipment and at times raw material suppliers. Our policy is to offer customers new process technologies as soon as the new technologies have passed our internal reliability tests.

Investments

Most of our investments were made to improve our market position and for strategy considerations, a significant portion of which are in foundry-related companies including fabless design customers, raw material suppliers and intellectual property vendors. In addition, we also invest in non-foundry-related businesses, such as Mega Financial Holding Co. Ltd., or Mega Financial, and ProMOS Technologies. In recent years, we have from time to time disposed of investments for financial, strategic or other purposes.

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See Item 4. Information on the Company B. Business Overview Our Investments for a description of our investments.

Treasury Share Programs

We have from time to time announced plans, none of which was binding on us, to buy back up to a fixed amount of our shares on the Taiwan Stock Exchange at the price range set forth in the plans. In 2006, 2007 and 2008, we purchased an aggregate of 1,400 million, nil and 200 million, respectively, of our shares under these plans. From February 16, 2006 to April 15, 2006, we purchased 1,000 million of our shares for cancellation. Of the repurchased shares, 1,000 million shares in aggregate were cancelled as of May 2006. In addition, we also purchased 400 million of our shares on the Taiwan Stock Exchange at an average price of NT$19.12 per share between May 23, 2006 and July 22, 2006 to transfer to employees. We had no buy back program in 2007. From August 28, 2008 to October 2, 2008, we purchased 200 million of our shares for cancellation. On December 16, 2008, the board of directors approved a resolution to repurchase up to 300 million of our shares on the Taiwan Stock Exchange at a price range between NT$5.12 and NT$11.52 between December 17, 2008 and February 16, 2009 to transfer to employees. Of the repurchased shares, 137 million and 97 million shares were purchased by our employees in November 2003 and December 2007, respectively; and 556 million shares in aggregate were cancelled as of December 31, 2008.

Critical Accounting Policies

General

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements included in the annual report, which have been prepared in accordance with ROC GAAP. ROC GAAP varies in certain respects from US GAAP. These differences and their effects on our financial statements are described in Note 35 to our audited consolidated financial statements included elsewhere in this annual report. The preparation of our consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis and base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies involve significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We recognize revenue when persuasive evidence of an arrangement exists, the product or service has been delivered, the seller s price to the buyer is fixed or determinable and collectability is reasonably assured. Most of our sales transactions have shipping terms of Free on Board, or FOB, or Free Carrier, or FCA, shipment in which title and the risk of loss or damage is transferred to the customer upon delivery of the product to a carrier approved by the customer.

Allowance for sales returns and discounts are estimated taking into consideration of customer complaints, historical experiences, management judgment and any other known factors that might significantly affect collectability. Such allowances are recorded in the same period in which sales are made. Shipping and handling costs are included in sales expenses.

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Accounts Receivable and Allowance for Doubtful Accounts

The allowance for doubtful accounts is provided based on the evaluation of collectability and aging analysis of accounts and on management s judgment. In circumstances where the ability of a specific customer to meet its financial obligations is in doubt, a specific allowance will be provided. Considerable judgment is required in assessing the ultimate realization of these receivables including the current credit worthiness and the past collection history of each customer. If the financial conditions of our customers were to worsen, additional allowances would be required. A deterioration of economic conditions either in the ROC or in other major overseas markets may contribute to the deterioration of financial conditions of our customers, resulting in an impairment of their ability to make payments. The allowances for doubtful accounts accounted for 0.01% and 1.23% of our accounts receivables as of December 31, 2007 and 2008, respectively. According to our management s judgment, we recorded more provisions for doubtful accounts based on a percentage of accounts receivables due from our customers. The increase of allowance in 2008 was primarily the result of the IC market moving slowly and the change in demand of consumer and computer products resulting from the financial crisis in the latter half of 2008.

Inventory

Inventories are recorded at cost when acquired and stated at the lower of aggregate cost, based on the weighted average method, or market value at the balance sheet date. The market values of raw materials and supplies are determined on the basis of replacement cost while net realizable values determined by the average selling price of the most recent periods are used as market values of work-in-process and finished goods. In addition, allowances for obsolete and slow-moving inventories are determined by analyzing the age and sales condition of the inventories.

Income Taxes

Most of our existing tax benefits arise from investment tax credits, and others from net operating loss carry-forward and temporary differences. We recognize these tax benefits as deferred tax assets. Income tax expense or benefit is recognized when there is a net change in deferred tax assets and liabilities. A valuation allowance is recorded to reduce our deferred tax assets to the extent that we believe it is more likely than not that the tax benefits will not be realized. The assessment of the valuation allowance involves subjective assumptions and estimates as it principally depends on the estimation of future taxable income and prudent and feasible tax planning strategies. If future taxable income is lower than expected due to future market conditions or other reasons or in the event we determine that we will not be able to realize all or part of our net deferred tax assets in the future, an adjustment to our deferred tax assets valuation allowance may be required with the adjusting amount charged to income in this period. Likewise, should future taxable income be higher than expected due to future market conditions or other reasons or in the event we determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to our deferred tax assets valuation allowance would increase income in this period.

On January 1, 2007, we adopted FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes An Interpretation of FASB Statement No. 109 , or FIN 48, for US GAAP accounting. As a result of the implementation of FIN 48, our uncertain tax positions are accounted for based on the two-step process prescribed in the interpretation. The first step is to evaluate the tax position for recognition by determining if it is more likely than not that the position will be sustained based on the technical merits. The second step requires us to estimate and measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. Although FIN 48 provides further clarification of the accounting for uncertainty in income taxes recognized in the financial statements, significant management judgment must be made and used in connection with the recognition threshold and measurement attribute prescribed by FIN 48. Determination of our uncertain tax positions involves the legal and factual interpretation with respect to the application of relevant tax laws and regulations, along with our assessment of other factors including changes in facts or circumstances, changes in tax law, and/or effectively settled issues under audit. As mentioned above, the application of tax laws and regulations is inherently subject to legal and factual interpretation, judgment and uncertainty. In addition, tax laws and regulations themselves are subject to change as a result of changes in fiscal policy, changes in legislation, the evolution of regulations and court rulings. Therefore, the final settlement of these uncertain tax positions might be materially different from our estimates, which could result in the need to record additional tax liabilities or potentially reverse previously recorded tax liabilities.

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Long-lived Assets Impairment

Pursuant to ROC GAAP and US GAAP, we are required to review the long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying value of the long-lived assets might not be recoverable. Such review may include assessing whether there is a significant decrease in market values of long-lived assets or significant deterioration of market conditions to indicate the carrying value of such assets may not be recovered through future cash flows, any change in the use of long-lived assets to negatively affect their fair values, and any obsolescence issues that would lead to a lower fair value determination. If there is an indication that an asset might be impaired, we proceed with a further impairment test, which is performed for asset groups 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 and estimates in determining the independent cash flows that can be related to specific asset groups, including the service potential of long-lived assets through its estimated useful life, cash-flow-generating capacity, physical output capacity, potential fluctuation of economic cycle in the semiconductor industry and our operating situation. Under ROC GAAP, we compare the carrying amount with the recoverable amount derived from discounted cash flow analysis to determine whether the asset is impaired and recognize impairment loss to the extent that its carrying amount exceeds its recoverable amount. If there is evidence that impairment losses recognized previously no longer exists, or has diminished, and the recoverable amount of the long-lived assets increases because of an increase in the asset s estimated service potential, the amount of loss may be reversed to the extent that the resulting carrying value should not exceed the carrying value had no impairment loss been recognized in prior years. Under US GAAP, we compare the carrying amount with undiscounted cash flows to evaluate whether the asset is impaired and recognize an impairment loss equal to the excess of its carrying amount over its fair value derived from discounted cash flow analysis. Such impairment cannot be reversed. However, changes in the estimates of expected cash flows may result in impairment charges in the future.

Goodwill Impairment

Pursuant to ROC GAAP, and US GAAP goodwill is subject to impairment tests on an annual basis, or more frequently whenever events occur or circumstances change indicating that goodwill might be impaired. The assessment on impairment of goodwill is subject to significant judgment. Under ROC GAAP, such judgment includes identifying the cash generating unit, or CGU, making assumptions for discounted cash flow analysis to derive the fair value of the CGU and properly assigning relevant assets, liabilities and goodwill to the CGU. Under US GAAP, we are required to identify the reporting unit, use the appropriate stock price to derive the fair value of reporting unit, and assign the fair value of relevant assets and liabilities to the reporting unit. Ultimately, we compare the fair value of goodwill to its carrying value and determine the impairment loss, if any. If the relevant assumptions and estimates change in the future, they will impact our goodwill impairment test.

Pension

All of our regular employees were entitled to a defined benefit pension plan under the ROC Labor Standards Law, or Labor Standards Law, prior to July 1, 2005. Such pension plan was managed by an independently administered pension fund committee, and fund assets were deposited under the committee s name at the Bank of Taiwan. On July 1, 2005, the ROC Labor Pension Act, or the Labor Pension Act, became effective, under which qualified employees may elect to apply the pension calculation either under the ROC Labor Standards Law or under the ROC Labor Pension Act in accordance with a new defined contribution plan. The employees that selected to apply the Labor Pension Act may have their seniority previously accrued under the Labor Standards Law retained.

Under the defined benefit pension plan of the Labor Standards Law, we have significant pension benefit costs and liabilities that are developed from actuarial valuations. Inherent in these valuations are key assumptions including discount rates and expected return on plan assets. We consider current market conditions, including changes in interest rates, in selecting these assumptions. In addition to changes resulting from fluctuations in our related headcount, changes in the related pension costs or liabilities may also occur in the future due to changes in assumptions. Under the defined contribution pension plan of the ROC Labor Pension Act, we are required to make monthly contributions to employees individual pension accounts and recognize expenses in the periods in which the contributions become due.

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Investments in Debt and Equity Securities

Under US GAAP and ROC GAAP, equity securities over which we exercise no significant influence or control and with readily determinable fair values and debt securities are to be classified as either trading, which are known as financial assets at fair value through profit or loss, or FVTPL, under ROC GAAP, available-for-sale or held-to-maturity securities. Debt securities that we have the intent and ability to hold to maturity are classified as held-to-maturity securities and reported at their 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 securities are classified as available-for-sale securities and reported at fair value, with unrealized gains and losses reported in other comprehensive income under shareholders equity. Unrealized losses that are deemed to be other than temporary are charged to earnings. For individual securities classified as either available-for-sale or held-to-maturity, we would determine whether a decline in fair value below cost is other than temporary pursuant to guidance provided by SFAS No. 115, Accounting for Certain Investments in Debt and Equity Securities , or SFAS 115, and FSP FAS No. 115-1/124-1, The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments , or FSP FAS 115-1/124-1. We consider, among other factors, information concerning significant adverse changes in market conditions in which the investee operates and operating issues specific to the investee in determining whether a decline in value is temporary. In general, a decline in market value below cost for a continuous period of six months is considered to be other than temporary unless there is persuasive evidence to the contrary. If the decline in fair value is judged to be other than temporary, the cost basis of the individual security is written down to fair value with a charge against earnings.

Derivative Instruments

Freestanding derivative instruments such as interest rate swap and forward contracts are fair valued at each reporting period end. The fair values of these instruments are determined using market established valuation techniques, which involve certain key inputs such as the expected interest forward rate, expected volatility in interest rates, spot exchange rate and swap point. Any change in such key inputs could materially impact the determination of fair value of these derivative instruments.

Employee Stock Options

Under ROC GAAP, for stock options granted before January 1, 2008, we apply the intrinsic value method to recognize the difference between the market price of the stock at grant date and the exercise price of the employee stock option as compensation expense. For stock options granted on or after January 1, 2008, we recognize compensation cost using the fair value method in accordance with ROC SFAS No. 39 Accounting for Share-Based Payment , or ROC SFAS 39. Under US GAAP, effective January 1, 2006, we adopted the modified prospective transition method provided by SFAS No. 123(R), Share-Based Payment , or SFAS 123(R), to account for its employee stock options. For equity-settled employee stock options, the corresponding increase in equity is measured at the fair value of the options. For cash-settled employee stock options, the corresponding liability incurred is measured at the fair value of the liability and such fair value is remeasured subsequently at each reporting date through the settlement date.

The Black-Scholes option-pricing model requires the use of input assumptions, including expected volatility, expected life, expected dividend rate and expected risk-free rate of return. We applied the historical realized volatility, which calculates volatility based on the historical stock price volatility over the time period equal to the expected term of the employee stock option, in estimating expected volatility because our shares have been publicly traded for a long time. For the options granted prior to 2008, we determined the expected term by using the simplified method in accordance with Staff Accounting Bulletin No. 107. The expected term is determined as the mid-point between the vesting period and the contractual term. On the other hand, we believed that historical pattern of dividend yield should be considered for estimating the expected dividend of the underlying employee stock options. SFAS 123(R) stated that for entities based in jurisdictions outside the United States, the risk-free interest rate is the implied yield of zero-coupon government bonds currently available in the market in which the shares are primarily traded. Hence, we use the average yield of Taiwan Government Bond with the remaining term similar to the expected option term as the risk-free interest rate. The estimates of option fair value are not expected to foresee future events or the values realized

by employees who receive stock option at the end of plans. In addition, later events are not indicative of the rationality of the initial estimates of the fair value of options used by us.

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Employee stock options granted prior to our adoption of SFAS 123(R) that have not vested by the adoption date will be expensed over the remaining portion of the vesting period, based on the fair value on the grant date estimated in accordance with the original provisions of SFAS 123. Pursuant to SFAS 123(R), we adjust employee stock option expenses on an annual basis for changes in expected forfeitures based on the examination of latest employee stock option forfeiture activity. The effect of adjusting the forfeiture rate used for expense amortization after January 1, 2006 is recognized in the corresponding period in which the expected forfeiture rate is changed.

A. Operating Results

Net Operating Revenues

We generate our net operating revenues primarily from fabricating semiconductor devices. We also derive a small portion of our net operating revenues from wafer probe services that we perform internally as well as mask tooling services and assembly and test services that we subcontract out.

Cost of Goods Sold

Our costs of goods sold consist principally of:

- overhead, including depreciation and maintenance of production equipment, indirect labor costs, indirect material costs, supplies, utilities and royalties;
- wafer costs;
- direct labor costs; and
- service charges paid to subcontractors for mask tooling, assembly and test services.

Our total depreciation expenses decreased from NT$44,301 million in 2006 to NT$37,830 million in 2007 and decreased to NT$37,197 million (US$1,135 million) in 2008.

Operating Expenses

Our operating expenses consist of the following:

- Sales and marketing expenses. Sales and marketing expenses consist primarily of intellectual property development expenses, salaries and related personnel expenses, wafer sample expenses and related marketing expenses. Wafer samples are actual silicon samples of our customers early design ideas made with our most advanced processes and provided to those customers.
- General and administrative expenses. General and administrative expenses consist primarily of salaries for our administrative, finance and human resource personnel, fees for professional services, and cost of computer and communication systems to support our operations.
- Research and development expenses. Research and development expenses consist primarily of research testing related expenses, salaries and related personnel expenses and depreciation on the equipment used for our research and development.

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Non-operating Income and Expenses

Our non-operating income principally consists of:

- interest income, which has been primarily derived from time deposits;
- investment income accounted for under the equity method, which has been primarily derived from the recognition of investee companies net income based on the percentage of their ownership we hold;
- gain on disposal of investments, which has been primarily derived from our disposal of long-term investments accounted for under the equity method, available-for-sale financial assets and financial assets measured at cost;
- dividend income, which has been primarily derived from the financial instruments of financial assets at fair value through profit or loss, available-for-sale financial assets and financial assets measured at cost; and
- other income, which has been primarily derived from our branch s grant income received from the government in Singapore.

Our non-operating expenses principally consist of:

- loss on valuation of financial assets and liabilities, which have been primarily derived from disposal of and changes in the values of financial assets and liabilities classified as FVTPL according to ROC SFAS No. 34 Financial Instruments: Recognition and Measurement , or ROC SFAS 34;
- investment loss accounted for under the equity method, which has been primarily derived from the recognition of investee companies net loss based on the percentage of their ownership we hold;
- impairment loss, which have been primarily derived from the loss recognized in our long-term investments and goodwill; and
- loss on decline in market value and obsolescence of inventories, which have been primarily derived from an allowance for loss on decline in market value or obsolescence of inventories.

Taxation

Based on our status as a company engaged in the semiconductor business in Taiwan, we have been granted exemptions from income taxes in Taiwan with respect to income attributable to capital increases for the purpose of purchasing equipment related to the semiconductor business for a period of four or five years following each such capital increase. This tax exemption resulted in tax savings of approximately NT$176 million, NT$939 million and NT$472 million (US$14 million) in 2006, 2007 and 2008, respectively. Our current tax rate is 25%, the same rate applicable to companies outside the Hsinchu Science Park.

We also benefit from other tax incentives generally available to technology companies in Taiwan, including tax credits applicable against corporate income tax that range from 30% to 50% of the amount of certain research and development and employee training expenses and 5% to 20% of the amount of investment in certain qualified equipment and technology. These tax incentives resulted in tax savings of approximately nil, NT$1,072 million and NT$609 million (US$19 million) in 2006, 2007 and 2008, respectively.

After taking into account the tax exemptions and tax incentives discussed above, we recorded NT$3,261 million, NT$2,810 million and NT$997 million (US$30 million) of tax expense in 2006, 2007 and 2008, respectively.

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In 1997, the ROC Income Tax Law was amended to integrate corporate income tax and shareholder dividend tax to eliminate the double taxation effect for resident shareholders of Taiwan companies. Under the amendment, all retained earnings generated from January 1, 1998 and not distributed to shareholders as dividends in the following year will be assessed a 10% retained earnings tax. See Item 10. Additional Information E. ROC Tax Considerations Dividends . As a result, if we do not distribute all of our annual retained earnings generated beginning January 1, 1998 as either cash and/or stock dividends in the following year, these earnings will be subject to the 10% retained earnings tax. In addition, the ROC government enacted the ROC Income Basic Tax Act, also known as the Minimum Income Tax Statute , or the Statute, which became effective on January 1, 2006 and imposes an alternative minimum tax, or AMT. The AMT imposed under the Statute is a supplemental tax which is payable if the income tax payable pursuant to the ROC Income Tax Act is below the minimum amount prescribed under the Statute. In accordance with the Statute, a company will be subject to a 10% AMT if its annual taxable income under the Statute exceeds NT$2 million.

Comparisons of Results of Operations

The following table sets forth some of our results of operations data as a percentage of our net operating revenues for the periods indicated.

	Year Ended December 31,		
	2006	**2007**	**2008**
Net operating revenues	100.0%	100.0%	100.0%
Cost of goods sold	(80.9)	(79.2)	(83.8)
Gross profit	19.1	20.8	16.2
Operating expenses:			
Sales and marketing	(3.0)	(3.6)	(3.6)
General and administrative	(3.1)	(3.3)	(3.1)
Research and development	(8.4)	(8.5)	(8.6)
Operating income	4.6	5.4	0.9
Net non-operating income (loss)	28.1	12.0	(23.6)
Income (Loss) before income tax and minority interest	32.7	17.4	(22.7)
Income tax expense	(2.9)	(2.5)	(1.0)
Cumulative effect of changes in accounting principles (the net amount after deducted tax expense)	(1.1)		
Minority interest loss	0.4	0.1	0.7
Net income (loss)	29.1	15.0	(23.0)

Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

Net operating revenues. Net operating revenues decreased by 14.6% from NT$113,311 million in 2007 to NT$96,814 million (US$2,955 million) in 2008, largely attributable to a decrease in customer demand, which resulted in a 11.7% decrease in wafers sold, from 3,745 thousand wafers in 2007 to 3,308 thousand wafers in 2008.

Cost of goods sold. Cost of goods sold decreased by 9.6% from NT$89,768 million in 2007 to NT$81,129 million (US$2,476 million) in 2008. Our capacity utilization rate decreased from 81.9% in 2007 to 70.7% in 2008.

Gross profit and gross margin. Our gross margin fluctuation depends on the level of manufacturing capacity, wafer shipments and product mix. Gross margin rate decreased from 20.8% in 2007 to 16.2% in 2008, which was primarily driven by lower capacity utilization in 2008. As our utilization rates decreased, our costs were allocated over a smaller number of units, which led to higher unit costs.

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Operating income and operating margin. Operating income decreased substantially from NT$6,119 million in 2007 to NT$872 million (US$27million) in 2008. Our operating margin rate decreased from 5.4% in 2007 to 0.9% in 2008. The decrease in operating margin is largely due to a decrease in gross margin.

Sales and marketing expenses. Our sales and marketing expenses decreased by 14.4% from NT$4,069 million in 2007 to NT$3,483 million (US$106 million) in 2008. The decrease in sales and marketing expenses was mainly due to decreases in sample and mask expenses for sales promotion. Our sales and marketing expenses as a percentage of our net operating revenues remained at 3.6% in both 2007 and 2008.

General and administrative expenses. Our general and administrative expenses decreased by 18.0% from NT$3,724 million in 2007 to NT$3,055 million (US$93 million) in 2008. The decrease in general and administrative expenses was primarily due to decreases in personnel related expenses as a result of decreases in headcounts and salaries in 2008. Our general and administrative expenses as a percentage of our net operating revenues decreased from 3.3% in 2007 to 3.2% in 2008.

Research and development expenses. Our research and development expenses decreased by 14.1% from NT$9,631 million in 2007 to NT$ 8,274 million (US$253 million) in 2008. The decrease in research and development expenses resulted primarily from the reduction of our development of 65-nanometer process technologies. Our research and development expenses as a percentage of our net operating revenues increased from 8.5% in 2007 to 8.6% in 2008.

Net non-operating income (loss). Net non-operating income substantially decreased by 268.7% from income of NT$13,551 million in 2007 to loss of NT$(22,858) million (US$(698) million) in 2008 mainly due to the impairment loss and investment loss accounted for under the equity method. Impairment loss increased from NT$576 million in 2007 to NT$13,180 million (US$402 million) in 2008. Results for investments accounted for under the equity method decreased from a gain of NT$626 million in 2007 to a loss of NT$10,465 million (US$319 million) in 2008.

Net income (loss). Due to the factors described above, we recognized a net loss of NT$(22,320) million (US$(681) million) in 2008, compared to a net income of $16,962 million in 2007.

Year Ended December 31, 2007 Compared to Year Ended December 31, 2006

Net operating revenues. Net operating revenues increased by 1.2% from NT$112,004 million in 2006 to NT$113,311 million in 2007, largely attributable to an increase in customer demand, which resulted in a 8.3% increase in wafers sold, from 3,458 thousand wafers in 2006 to 3,745 thousand wafers in 2007, and our shift towards higher-priced product mix using more advanced technology.

Cost of goods sold. Cost of goods sold decreased by 1.0% from NT$90,638 million in 2006 to NT$89,768 million in 2007. Our capacity utilization rate increased from 79.5% in 2006 to 81.9% in 2007.

Gross profit and gross margin. Our gross margin fluctuation depends on the level of manufacturing capacity, wafer shipments and product mix. Gross margin rate increased from 19.1% in 2006 to 20.8% in 2007, which was primarily driven by higher capacity utilization in 2007. As our utilization rates increased, our costs were allocated over a larger number of units, which led to lower unit costs.

Operating income and operating margin. Operating income increased substantially from NT$5,159 million in 2006 to NT$6,119 million in 2007. Our operating margin rate increased from 4.6% in 2006 to 5.4% in 2007. The increase in operating margin is largely due to an increase in gross margin.

Sales and marketing expenses. Our sales and marketing expenses increased by 20.9% from NT$3,366 million in 2006 to NT$4,069 million in 2007. The increase in sales and marketing expenses was mainly due to increases in sample and mask expenses for sales promotion. Our sales and marketing expenses as a percentage of our net operating revenues increased from 3.0% in 2006 to 3.6% in 2007.

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General and administrative expenses. Our general and administrative expenses increased by 8.8% from NT$3,422 million in 2006 to NT$3,724 million in 2007. The increase in general and administrative expenses was primarily due to increases in personnel related expenses as a result of increases in headcounts and salaries in 2007. Our general and administrative expenses as a percentage of our net operating revenues increased from 3.1% in 2006 to 3.3% in 2007.

Research and development expenses. Our research and development expenses increased by 2.3% from NT$9,419 million in 2006 to NT$9,631 million in 2007. The increase in research and development expenses resulted primarily from our continued development of 90-nanometer and 65-nanometer process technologies. Our research and development expenses as a percentage of our net operating revenues increased from 8.4% in 2006 to 8.5% in 2007.

Net non-operating income. Net non-operating income substantially decreased by 56.9% from NT$31,428 million in 2006 to NT$13,551 million in 2007 mainly due to the decrease in gain on disposal of investments. Gain on disposal of investments decreased from NT$28,651 million in 2006 to NT$12,041 million in 2007. Our gain on disposal of investment in 2006 consists of NT$13,152 million which we recognized from our disposal of investment in Hsun Chieh in that year.

Net income. Due to the factors described above, we earned a net income of NT$16,962 million in 2007, compared to a net income of NT$32,619 million in 2006.

B. Liquidity and Capital Resources

The foundry business is highly capital intensive. Our development over the past three years has required significant investments. Additional expansion for the future generally will continue to require significant cash for acquisition of plant and equipment to support increased capacities, particularly for the production of 12-inch wafers, although our expansion program will be adjusted from time to time to reflect market conditions. In addition, the semiconductor industry has historically experienced rapid changes in technology. To maintain competitiveness at the same capacity, we are required to make adequate investments in plant and equipment. In addition to our need for liquidity to support the large fixed costs of capacity expansion and the upgrading of our existing plants and equipment for new technologies, as we ramp up production of new plant capacity, we require significant working capital to support purchases of raw materials for our production and to cover variable operating costs such as salaries until production yields provide sufficiently positive margins for a fabrication facility to produce operating cash flows.

We have financed our capital expenditure requirements in recent years with cash flows from operations as well as from bank borrowings, the issuance of bonds and equity-linked securities denominated in NT dollars and U.S. dollars. We incurred capital expenditures of NT$33,240 million, NT$28,299 million and NT$11,515 million (US$351 million) in 2006, 2007 and 2008, respectively, requiring a significant amount of funding from financing activities. Once a fab is in operation at acceptable capacity and yield rates, it can provide significant cash flows. Cash flows significantly exceed operating income, reflecting the significant non-cash depreciation expense. We generated cash flows from operations of NT$47,124 million, NT$48,124 million and NT$45,251 million (US$1,381 million) in 2006, 2007 and 2008, respectively.

As of December 31, 2008, we had NT$48,567 million (US$1,483 million) of cash and cash equivalents and NT$1,741 million (US$53 million) of FVTPL, current.

We believe that our working capital, cash flow from operations and unused lines of credit are sufficient for our present requirements.

Operating Activities

Our operating activities generated cash of NT$45,251 million (US$1,381 million) in 2008. Cash generated from our operating activities for 2008 significantly exceeded net income due to the add-back of non-cash items, such as depreciation and amortization in the amount of NT$38,512 million (US$1,176 million).

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Investment Activities

Net cash used in our investment activities was NT$11,423 million (US$349 million) in 2008. In 2008, we used cash of NT$11,515 million (US$351 million) to purchase equipment primarily used at our fabs. This was offset by the net cash provided by acquisition and disposal of available-for-sale financial assets in the amount of NT$3,616 million (US$110 million).

Financing Activities

Net cash used in our financing activities was NT$34,380 million (US$1,049 million) in 2008. We repaid long-term loans and bonds of NT$22,717 million (US$693 million) in cash, and also raised long-term loans of NT$700 million (US$21 million) in 2008.

We had NT$133 million (US$4 million) outstanding short-term loans as of December 31, 2008. We had total availability under existing short-term lines of credit, which can be drawn in NT dollars, U.S. dollars, Japanese Yen, Singapore dollars and/or Euros at our discretion, of NT$12,411 million (US$379 million) as of December 31, 2008.

We had bonds payable of NT$7,497 million (US$229 million) in the aggregate as of December 31, 2008.

As of December 31, 2008, our outstanding long-term debts primarily consisted of:

- NT$7.5 billion seven-year unsecured domestic bonds with interest rates of 4.3% minus 12-month U.S. dollar LIBOR but at the minimum of 0%; and

- NT$200 million unsecured long-term bank loans due by 2011 and NT$500 million secured long-term bank loans due by 2013. The interest rates of our long-term bank loans range from 1.815% to 2.610%.

As of December 31, 2008, the current portion of bonds due within one year was nil, and the current portion of long-term bank loan due within one year was NT$67 million (US$2 million).

Capital Expenditures

We have entered into several construction contracts for the expansion of our factory space. As of December 31, 2008, these construction contracts amounted to NT$2,866 million (US$87 million) with an unaccrued portion of the contracts of NT$526 million (US$16 million).

In 2008, we spent approximately NT$11,515 million (US$351 million) primarily to purchase 8-inch and 12-inch wafer-processing equipment and other equipment for research and development and production purposes. Our initial budget for purchases of semiconductor manufacturing equipment for 2009 is not expected to exceed US$400 million. We may adjust the amount of our capital expenditures upward or downward based on the progress of our capital projects, market conditions and our anticipation of future business outlook.

We believe that our existing cash and cash equivalents and short-term investments will be sufficient to meet our working capital and capital expenditure requirements at least through the end of 2009. We also expect to fund a portion of our capital requirements in 2009 through the cash provided by operating activities. Due to rapid changes in technology in the semiconductor industry, however, we have frequent demand for investment in new manufacturing technologies. We cannot assure you that we will be able to raise additional capital, should that become necessary, on terms acceptable to us, or at all. If financing is not available on terms acceptable to us, management intends to reduce expenditures so as to delay the need for additional financing. To the extent that we do not generate sufficient cash flows from our operations to meet our cash requirements, we may rely on external borrowings and securities offerings to finance our working capital needs or our future expansion plans. The sale of additional equity or equity-linked securities may result in additional dilution to our shareholders. Our ability to meet our working capital needs from cash flow from operations will be affected by the demand for our products and change in our product mix, which in turn may be adversely affected by several factors. Many of these factors are beyond our control, such as economic downturns and declines in the average selling prices of our products. The average selling prices of our products have been subjected to downward pressure in the past and are reasonably likely to be subject to further downward pressure in the future. We have not historically relied, and we do not plan to rely in the foreseeable future, on off-balance sheet financing arrangements to finance our operations or expansion.

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Transactions with Related Parties

Our transactions with related parties have been conducted on arm s-length terms. See Item 7. Major Shareholders and Related Party Transactions B. Related Party Transactions and Note 27 to our audited consolidated financial statements included in this annual report.

Inflation/Deflation

We do not believe that inflation in the ROC has had a material impact on our results of operations.

US GAAP Reconciliation

Our consolidated financial statements are prepared in accordance with ROC GAAP, which differs in certain significant respects from US GAAP. Such differences include methods for measuring the amounts shown in the financial statements and additional disclosures required by US GAAP. Note 35 to our audited financial statements, included in this annual report, provides a discussion and quantification of the differences between ROC GAAP and US GAAP as they related to us. We provide a summary of material differences included therein below.

The following table sets forth a comparison of our net income and shareholders equity in accordance with ROC GAAP and US GAAP for the periods indicated.

	Year Ended December 31,			
	2006	2007	2008	
	NT$	NT$	NT$	US$
	(in millions)			
Net income (loss)				
Net income (loss), ROC GAAP	32,619	16,962	(22,320)	(681)
US GAAP adjustments				
Compensation	(2,106)	(2,648)	(1,925)	(59)
Equity investees	(56)	(4)	(80)	(2)
Investment in debt and equity securities	1,037	319	1,486	45
Exchangeable bond liabilities	199			
Goodwill		(23,761)	(14,571)	(445)
Treasury stock and related disposal	(10,842)	(132)	8,817	269
Derivative instruments	1,126			
Inventory			(362)	(11)
Income tax effect	(180)			
Net income (loss), US GAAP	21,797	(9,264)	(28,955)	(884)
Shareholders equity				
Shareholders equity, ROC GAAP	291,165	236,467	184,676	5,637
Compensation	(685)	(513)	63	2
Equity investees	22	(498)	(78)	(2)
Investment in debt and equity securities	353	236		
Goodwill	37,948	14,187	(8)	(1)
Treasury stock and related disposal	(4,476)	(3,104)	(1,196)	(36)
Pension	(165)	527	934	28
Inventory			(362)	(11)
Shareholders equity, US GAAP	324,162	247,302	184,029	5,617

Note.

Refer to Note 35 to our audited financial statements included elsewhere in this annual report.

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Differences between ROC GAAP and US GAAP that have a material effect on our net income and shareholders equity under ROC GAAP include compensation expenses, investments in debt and equity securities, goodwill, treasury stock and related disposal, inventory and pension.

Compensation Expenses

Pursuant to our articles of incorporation, we are required, under certain circumstances, to distribute a certain percentage of unappropriated earnings as employee bonus and remuneration to directors and supervisors. Please refer to Item 10. Additional Information B. Memorandum and Articles of Association Dividends and Distributions . Remuneration to directors and supervisors is settled in cash. Our articles of incorporation effective since 2005 specifies that employee bonus can be settled in cash or shares or a combination of both. Under ROC GAAP, the distribution of employee bonus and remuneration to directors and supervisors relating to periods prior to January 1, 2008 are treated as appropriation of retained earnings, and we are not required to charge, and have not charged, them to earnings. Employee bonus and remuneration to directors and supervisors relating to the year beginning January 1, 2008 are charged to compensation expense in accordance with ARDF Interpretation No. 96-052. The employee bonus is initially accrued at the year-end based on management s estimate with adjustment in the subsequent year after shareholders approval. Under US GAAP, the bonus and remuneration are treated as compensation expenses. The minimum employee bonus is initially accrued as at the year-end based on the terms of the AOI, with adjustment in the subsequent year after shareholders approval. Compensation expense relating to stock bonus is determined based on the fair market value of our common stock on the grant date.

Under ROC GAAP, we apply the intrinsic value method to recognize compensation cost for employee stock options granted before January 1, 2008. For stock options granted on or after January 1, 2008, we adopted ROC SFAS 39 to recognize compensation cost using the fair value method. Under US GAAP, effective January 1