

ADVANCED SEMICONDUCTOR ENGINEERING INC  
Form 20-F  
April 20, 2012

As filed with the Securities and Exchange Commission on April 20, 2012

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

FORM 20-F

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

OR

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2011

OR

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

OR

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

Commission file number: 001-16125

(Exact Name of Registrant as Specified in Its Charter)

Advanced Semiconductor Engineering, Inc.  
(Translation of Registrant's Name into English)

REPUBLIC OF CHINA  
(Jurisdiction of Incorporation or Organization)

26 Chin Third Road  
Nantze Export Processing Zone  
Nantze, Kaohsiung, Taiwan  
Republic of China  
(Address of Principal Executive Offices)

Joseph Tung  
Room 1901, No. 333, Section 1 Keelung Rd.  
Taipei, Taiwan, 110  
Republic of China  
Tel: 886-2-8780-5489  
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Email: ir@aseglobal.com

(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

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

Title of Each Class	Name of Each Exchange on which Registered
Common Shares, par value NT\$10.00 each	The New York Stock Exchange*
*Traded in the form of American Depositary Receipts evidencing American Depositary Shares, each representing five Common Shares	

(Title of Class)

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:

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None  
(Title of Class)

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

6,755,605,772 Common Shares, par value NT\$10 each \*\*

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

Yes  No

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

Yes  No

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

Yes  No

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

Yes  No

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

Large accelerated filer  Accelerated filer  Non-accelerated filer

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

U.S. GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

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

Item 17  Item 18

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

Yes      "      No    p

\*\* As a result of the exercise of employee stock options and retirement of treasury shares subsequent to December 31, 2011, as of March 31, 2012, we had 6,654,716,832 shares outstanding.

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## USE OF CERTAIN TERMS

All references herein to (i) the “Company,” “ASE Group,” “ASE Inc.,” “we,” “us,” or “our” are to Advanced Semiconductor Engineering, Inc. and, unless the context requires otherwise, its subsidiaries, (ii) “ASE Test” are to ASE Test Limited, a company incorporated under the laws of Singapore, (iii) “ASE Test Taiwan” are to ASE Test, Inc., a company incorporated under the laws of the ROC, (iv) “ASE Test Malaysia” are to ASE Electronics (M) Sdn. Bhd., a company incorporated under the laws of Malaysia, (v) “ISE Labs” are to ISE Labs, Inc., a corporation incorporated under the laws of the State of California, (vi) “ASE Korea” are to ASE (Korea) Inc., a company incorporated under the laws of the Republic of Korea, (vii) “ASE Japan” are to ASE Japan Co. Ltd., a company incorporated under the laws of Japan, (viii) “ASE Shanghai” are to ASE (Shanghai) Inc., a company incorporated under the laws of the PRC, (ix) “ASE Electronics” are to ASE Electronics Inc., a company incorporated under the laws of the ROC, (x) “PowerASE” are to PowerASE Technology, Inc., a company incorporated under the laws of the ROC, (xi) “ASESH AT” are to ASE Assembly & Test (Shanghai) Limited, formerly known as Global Advanced Packaging Technology Limited, a company incorporated under the laws of the PRC, or GAPT, (xii) “ASEN” are to Suzhou ASEN Semiconductors Co., Ltd., a company incorporated under the laws of the PRC, (xiii) “ASEWH” are to ASE (Weihai), Inc., a company incorporated under the laws of the PRC, (xiv) “ASEKS” are to ASE (KunShan) Inc., a company incorporated under the laws of the PRC, (xv) “Universal Scientific” or “USI” are to Universal Scientific Industrial Co., Ltd., a company incorporated under the laws of the ROC, and, unless the context requires otherwise, “Universal Scientific Group” are to Universal Scientific and its subsidiaries, (xvi) “Universal Scientific Shanghai” are to Universal Scientific Industrial (Shanghai) Co., Ltd., a company incorporated under the laws of the PRC, (xvii) “Hung Ching” are to Hung Ching Development & Construction Co. Ltd., a company incorporated under the laws of the ROC, (xviii) “EEMS Test Singapore” are to EEMS Test Singapore Pte. Ltd., a company incorporated under the laws of Singapore, which changed its name to ASE Singapore II Pte. Ltd. and was subsequently merged into ASE Singapore Pte. Ltd. on January 1, 2011, (xix) “ASE Material” are to ASE Material Inc., a company previously incorporated under the laws of the ROC that merged into ASE Inc. on August 1, 2004, (xx) “ASE Chung Li” are to ASE (Chung Li) Inc., a company previously incorporated under the laws of the ROC that merged into ASE Inc. on August 1, 2004, (xxi) “Yang Ting” are to Yang Ting Tech Co., Ltd., a company incorporated under the laws of the ROC, (xxii) the “SEC” are to the Securities and Exchange Commission of the U.S., (xxiii) the “Securities Act” are to the U.S. Securities Act of 1933, as amended, and (xxiv) the “Exchange Act” are to the U.S. Securities Exchange Act of 1934, as amended.

All references to the “Republic of China,” the “ROC” and “Taiwan” are to the Republic of China, including Taiwan and certain other possessions. All references to “Korea” or “South Korea” are to the Republic of Korea. All references to the “PRC” are to the People’s Republic of China and exclude Taiwan, Macau and Hong Kong.

We publish our financial statements in New Taiwan dollars, the lawful currency of the ROC. In this annual report, references to “United States dollars,” “U.S. dollars” and “US\$” are to the currency of the United States; references to “New Taiwan dollars,” “NT dollars” and “NT\$” are to the currency of the ROC; references to “RMB” are to the currency of the PRC; references to “JP¥” are to the currency of Japan; references to “MYR” are to the currency of Malaysia; references to “SGD” are to the currency of Republic of Singapore; references to “KRW” are to the currency of Republic of Korea; and references to “EUR” are to the currency of the European Union. Unless otherwise noted, all translations from NT dollars to U.S. dollars were made at the exchange rate as set forth in the H.10 weekly statistical release of the Federal Reserve System of the United States (the “Federal Reserve Board”) as of December 30, 2011, which was NT\$30.27=US\$1.00, and all translations from RMB to U.S. dollars were made at the exchange rate as set forth in the H.10 weekly statistical release of the Federal Reserve Board as of December 30, 2011, which was RMB 6.2939=US\$1.00. All amounts translated into U.S. dollars in this annual report are provided solely for your convenience and no representation is made that the NT dollar/RMB or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or NT dollars/RMB, as the case may be, at any particular rate or at all. On April 6, 2012, the exchange rate between NT dollars and U.S. dollars as set forth in the H.10 weekly statistical release by the Federal



Reserve Board was NT\$29.50=US\$1.00. On April 6, 2012, the exchange rate between RMB and U.S. dollars as set forth in the H.10 weekly statistical release by the Federal Reserve Board was RMB 6.3052=US\$1.00.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 20-F contains “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act, including statements regarding our future results of operations and business prospects. Although these forward-looking statements, which may include statements regarding our future results of operations, financial conditions or business prospects, are based on our own information and information from other sources we believe to be reliable, you should not place undue reliance on these forward-looking statements, which apply only as of the date of this annual report. We were not involved in the preparation of these projections. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plan” and similar expressions as they relate to us, are intended to identify these forward-looking statements in this annual report. Our actual results of operations, financial conditions or business prospects may differ materially from those expressed or implied in these forward-looking statements for a variety of reasons, including risks associated with cyclicity and market conditions in the semiconductor or electronic industry; demand for the outsourced semiconductor packaging, testing and electronic manufacturing services we offer and for such outsourced services generally; the highly competitive semiconductor or manufacturing industry we are involved in; our ability to introduce new technologies in order to remain competitive; international business activities; our business strategy; our future expansion plans and capital expenditures; the strained relationship between the ROC and the PRC; general economic and political conditions; the recent global economic crisis; possible disruptions in commercial activities caused by natural or human-induced disasters; fluctuations in foreign currency exchange rates; and other factors. For a discussion of these risks and other factors, see “Item 3. Key Information—Risk Factors.”

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## 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

## SELECTED FINANCIAL DATA

The selected consolidated statements of income data and cash flow data for the years ended December 31, 2009, 2010 and 2011, and the selected consolidated balance sheet data as of December 31, 2010 and 2011, set forth below are derived from our audited consolidated financial statements included in this annual report and should be read in conjunction with, and are qualified in their entirety by reference to, these consolidated financial statements, including the notes thereto. The selected consolidated statements of income data and cash flow data for the years ended December 31, 2007 and 2008 and the selected consolidated balance sheet data as of December 31, 2007, 2008 and 2009, set forth below, are derived from our audited consolidated financial statements not included herein and have been classified to conform to the presentation of the consolidated financial statements in this annual report. Our consolidated financial statements have been prepared and presented in accordance with accounting principles generally accepted in the ROC, or ROC GAAP, which differ in some material respects from accounting principles generally accepted in the United States of America, or U.S. GAAP. See note 33 to our consolidated financial statements for a description of the significant differences between ROC GAAP and U.S. GAAP for the periods covered by these consolidated financial statements.

	As of and for the Year Ended December 31,					
	2007	2008	2009	2010	2011	
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except earnings per share and per ADS data)					
<b>ROC GAAP:</b>						
<b>Income Statement Data:</b>						
Net revenues	101,163.1	94,430.9	85,775.3	188,742.8	185,347.2	6,123.1
Cost of revenues(1)	(72,714.4 )	(72,347.7 )	(67,433.6 )	(148,198.2 )	(150,338.4 )	(4,966.6 )
Gross profit	28,448.7	22,083.2	18,341.7	40,544.6	35,008.8	1,156.5
Total operating expenses	(9,580.6 )	(10,524.1 )	(9,131.8 )	(16,445.6 )	(18,187.6 )	(600.8 )
Income from operations	18,868.1	11,559.1	9,209.9	24,099.0	16,821.2	555.7
Non-operating income (expense), net (1)	(1,516.2 )	(2,083.3 )	(821.5 )	(1,275.4 )	175.9	5.8
Income before income tax	17,351.9	9,475.8	8,388.4	22,823.6	16,997.1	561.5
Income tax expense	(3,357.4 )	(2,268.3 )	(1,484.9 )	(3,628.7 )	(3,018.2 )	(99.7 )
Net income	13,994.5	7,207.5	6,903.5	19,194.9	13,978.9	461.8
Attributable to						
Shareholders of the parent	12,165.3	6,160.1	6,744.6	18,337.5	13,726.0	453.5
Minority interest	1,829.2	1,047.4	158.9	857.4	252.9	8.3
	13,994.5	7,207.5	6,903.5	19,194.9	13,978.9	461.8
Earnings per common share(2):						

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Basic	1.84	0.93	1.07	2.78	2.08	0.07
Diluted	1.78	0.91	1.05	2.73	2.03	0.07
Dividends per common share(3)	2.96	2.00	0.50	1.20	1.80	0.06
Earnings per equivalent ADS(2):						
Basic	9.20	4.66	5.33	13.92	10.41	0.34
Diluted	8.89	4.56	5.26	13.64	10.16	0.34
Number of common shares(4):						
Basic	6,610.8	6,613.3	6,331.2	6,585.3	6,592.5	6,592.5
Diluted	6,907.9	6,692.3	6,386.0	6,669.1	6,755.1	6,755.1

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	As of and for the Year Ended December 31,					
	2007	2008	2009	2010	2011	
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except earnings per share and per ADS data)					
Number of equivalent ADSs:						
Basic	1,322.2	1,322.6	1,266.2	1,317.1	1,318.5	1,318.5
Diluted	1,381.6	1,338.5	1,277.2	1,333.8	1,351.0	1,351.0
Balance Sheet Data:						
Current						
assets	56,902.0	46,347.2	61,398.7	85,598.9	90,131.7	2,977.6
Long-term investments	4,850.2	4,327.0	5,160.0	2,400.1	2,220.7	73.4
Property, plant and equipment, net	81,788.3	84,758.0	79,363.9	99,853.9	111,779.0	3,692.7
Intangible assets	4,732.3	12,592.0	12,232.7	15,248.1	15,772.5	521.0
Other assets	4,066.2	4,039.1	3,819.5	5,038.7	3,974.2	131.3
Total assets	152,339.0	152,063.3	161,974.8	208,139.7	223,878.1	7,396.0
Short-term borrowings(5)	15,773.9	11,473.2	13,960.3	17,173.5	26,426.1	873.0
Long-term liabilities(6)	23,897.6	51,495.5	49,306.0	52,533.8	50,225.1	1,659.2
Other liabilities(7)	22,927.6	17,133.8	23,994.8	46,593.1	44,944.4	1,484.8
Total liabilities	62,599.1	80,102.5	87,261.1	116,300.4	121,595.6	4,017.0
Capital stock	54,475.6	56,904.3	54,798.8	60,519.9	67,535.6	2,231.1
Minority interest in						
consolidated subsidiaries	14,566.5	2,288.7	3,097.7	3,283.0	1,113.0	36.8
Total shareholders' equity	89,739.9	71,960.8	74,713.7	91,839.3	102,282.5	3,379.0
Cash Flow Data:						
Net cash outflow from acquisition of						
property, plant and equipment	(17,190.4)	(18,583.3)	(11,445.6)	(34,109.1)	(29,417.9)	(971.9)
Depreciation and amortization	16,626.2	17,244.9	17,638.0	19,854.5	22,945.4	758.0
Net cash inflow from operating						
activities	28,310.6	30,728.8	15,517.2	36,965.1	31,936.7	1,055.1
Net cash outflow from investing						
activities	(18,108.4)	(36,359.2)	(15,980.7)	(36,085.5)	(32,030.7)	(1,058.2)
Net cash inflow (outflow) from						
financing activities	(8,492.7)	13,862.4	(2,778.5)	1,701.5	(342.6)	(11.3)
Segment Data:						
Net revenues:						
Packaging	78,516.3	73,391.6	67,935.5	101,071.3	102,677.3	3,392.0
Testing	20,007.8	19,021.4	15,795.1	21,957.0	21,932.2	724.6
Electronic manufacturing services(8)	—	—	—	59,577.4	57,850.4	1,911.1
Others	2,639.0	2,017.9	2,044.7	6,137.1	2,887.3	95.4
Gross profit:						
Packaging	20,413.4	14,474.6	12,547.9	21,320.6	20,206.4	667.5
Testing	7,373.5	6,255.3	4,453.0	8,245.7	6,978.6	230.5
Electronic manufacturing services(8)	—	—	—	6,482.2	6,350.4	209.8
Others	661.8	1,353.3	1,340.8	4,496.1	1,473.4	48.7

As of and for the Year Ended December 31,

2007	2008	2009	2010	2011	
NT\$	NT\$	NT\$	NT\$	NT\$	US\$

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(in millions, except earnings per share and per ADS data)

U.S. GAAP:

Income Statement Data:

Net revenues	101,163.1	94,430.9	85,775.3	188,742.8	185,347.2	6,123.1
Cost of revenues	(75,139.9 )	(73,001.9 )	(68,350.9 )	(148,887.5 )	(150,793.7 )	(4,981.6 )
Gross profit	26,023.2	21,429.0	17,424.4	39,855.3	34,553.5	1,141.5
Total operating expenses	(10,898.1 )	(10,615.0 )	(9,431.5 )	(16,877.3 )	(18,450.9 )	(609.5 )
Income from operations	15,125.1	10,814.0	7,992.9	22,978.0	16,102.6	532.0
Non-operating income (expense), net	(134.0 )	(1,664.9 )	(679.5 )	504.5	647.4	21.4
Income before income tax	14,991.1	9,149.1	7,313.4	23,482.5	16,750.0	553.4
Income tax expense	(3,262.5 )	(2,503.5 )	(1,793.0 )	(4,581.5 )	(2,969.6 )	(98.1 )
Net income	11,728.6	6,645.6	5,520.4	18,901.0	13,780.4	455.3
Attributable to						
Shareholders of the parent	9,931.1	5,492.1	5,317.5	18,158.2	13,532.5	447.1
Noncontrolling interest	1,797.5	1,153.5	202.9	742.8	247.9	8.2
	11,728.6	6,645.6	5,520.4	18,901.0	13,780.4	455.3

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	As of and for the Year Ended December 31,					
	2007	2008	2009	2010	2011	
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except earnings per share and per ADS data)					
Earnings per common share(2):						
Basic	1.52	0.83	0.84	2.76	2.05	0.07
Diluted	1.47	0.82	0.83	2.73	2.04	0.07
Earnings per equivalent ADS(2):						
Basic	7.61	4.17	4.20	13.79	10.26	0.34
Diluted	7.36	4.11	4.16	13.64	10.18	0.34
Number of common shares(9):						
Basic	6,521.0	6,583.6	6,331.2	6,585.3	6,592.5	6,592.5
Diluted	6,825.7	6,628.4	6,353.0	6,617.2	6,646.0	6,646.0
Number of equivalent ADSs(9):						
Basic	1,304.2	1,316.7	1,266.2	1,317.1	1,318.5	1,318.5
Diluted	1,365.1	1,325.7	1,270.6	1,323.4	1,329.2	1,329.2
Balance Sheet Data:						
Current assets	56,902.0	46,347.2	61,398.7	85,598.9	89,610.0	2,960.3
Long-term investments	3,045.4	2,842.7	3,341.2	1,343.4	1,185.6	39.2
Property, plant and equipment, net	80,036.6	82,694.5	77,927.1	99,216.9	110,927.5	3,664.6
Intangible assets	5,255.8	12,940.6	12,522.8	15,360.8	15,896.2	525.2
Other assets	3,728.3	3,856.5	2,684.5	3,453.2	2,472.1	81.7
Total assets	148,968.1	148,681.5	157,874.3	204,973.2	220,091.4	7,271.0
Short-term borrowings(5)	15,773.9	11,473.2	13,960.3	17,173.5	26,426.1	873.0
Long-term liabilities(6)	23,897.6	51,495.5	49,306.0	52,533.8	50,225.1	1,659.2
Other liabilities(7)	24,746.0	18,307.1	25,092.3	48,813.7	46,822.3	1,546.9
Total liabilities	64,417.5	81,275.8	88,358.6	118,521.0	123,473.5	4,079.1
Capital stock	54,475.6	56,904.3	54,798.8	60,519.9	67,535.6	2,231.1
Equity attributable to shareholders of the parent	70,101.4	65,303.0	66,555.5	82,959.0	95,334.4	3,149.5
Noncontrolling interest in consolidated subsidiaries	14,449.2	2,102.7	2,960.2	3,493.2	1,283.5	42.4

(1) Effective January 1, 2009, we adopted the newly revised ROC Statement of Financial Accounting Standards, or SFAS, No. 10 "Accounting for Inventories." Abnormal cost, write-downs of inventories and any reversal of write-downs are recorded as cost of revenues from non-operating expenses. Information in this annual report from our consolidated statements of income for each of the two years in the period ended December 31, 2008 has been adjusted to reflect the reclassification.

(2) The denominators for diluted earnings per common share and diluted earnings per equivalent ADS are calculated to account for the potential diluted factors, such as the exercise of options and conversion of our convertible bonds into our common shares and American depositary shares, or ADSs.

(3) Dividends per common share issued as a cash dividend, a stock dividend and distribution from capital surplus.

(4) Represents the weighted average number of shares after retroactive adjustments to give effect to (i) employee stock bonuses for earning year 2007 and (ii) stock dividends. Common shares held by consolidated subsidiaries are

classified as “treasury stock,” and are deducted from the number of common shares outstanding.

- (5) Includes current portions of bonds payable, long-term bank loans and capital lease obligations.
- (6) Excludes current portions of bonds payable, long-term bank loans and capital lease obligations.
- (7) Includes current liabilities other than short-term borrowings.
- (8) We have begun providing electronic manufacturing services as a result of our acquisition of the controlling interest of Universal Scientific in February 2010.
- (9) Represents the weighted average number of common shares after retroactive adjustments to give effect to stock dividends.

#### Exchange Rates

Fluctuations in the exchange rate between NT dollars and U.S. dollars will affect the U.S. dollar equivalent of the NT dollar price of the common shares on the Taiwan Stock Exchange and, as a result, will likely affect the market price of the ADSs. Fluctuations will also affect the U.S. dollar conversion by the depositary under our ADS deposit agreement referred to below of cash dividends paid in NT dollars on, and the NT dollar proceeds received by the depositary from any sale of, common shares represented by ADSs, in each case, according to the terms of the deposit agreement dated September 29, 2000 and as amended and supplemented from time to time among us, Citibank N.A., as depositary, and the holders and beneficial owners from time to time of the ADSs, which we refer to as the deposit agreement.



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The following table sets forth, for the periods indicated, information concerning the number of NT dollars for which one U.S. dollar could be exchanged. For periods prior to January 1, 2009, the exchange rates reflected the noon buying rate for cable transfers in NT dollars as certified for customs purposes by the Federal Reserve Bank of New York. For periods after January 1, 2009, the exchange rates reflect the exchange rates set forth in the H.10 statistical release of the Federal Reserve Board.

	Exchange Rate			Period-End
	Average(1)	High	Low	
2007	32.82	33.41	32.26	32.43
2008	31.51	33.58	29.99	32.76
2009	32.96	35.21	31.95	31.95
2010	31.40	32.43	29.14	29.14
2011	29.42	30.67	28.50	30.27
October	30.26	30.67	29.86	29.91
November	30.22	30.43	30.02	30.31
December	30.25	30.38	30.10	30.27
2012				
January	29.99	30.28	29.61	29.61
February	29.53	29.65	29.37	29.37
March	29.52	29.61	29.37	29.50

(1) Annual averages were calculated by using the average of the exchange rates on the last day of each month during the relevant year. Monthly averages were calculated by using the average of the daily rates during the relevant month.

On April 6, 2012, the exchange rate as set forth in the H.10 weekly statistical release by the Federal Reserve Board was NT\$29.50 =US\$1.00.

## CAPITALIZATION AND INDEBTEDNESS

Not applicable.

## REASON FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

## RISK FACTORS

## Risks Relating to Our Business

Since we are dependent on the highly cyclical semiconductor and electronic industries and conditions in the markets for the end-use applications of our products, our revenues and net income may fluctuate significantly.

Our business is affected by market conditions in the highly cyclical semiconductor and electronic industries. Most of our customers operate in this industry, and variations in order levels from our customers and service fee rates may result in volatility in our revenues and net income. From time to time, the semiconductor and electronic industries have experienced significant, and sometimes prolonged, downturns. As our business is, and will continue to be, dependent on the requirements for independent packaging, testing and electronic manufacturing services, any future downturn in the industry would reduce demand for our services. For example, in the fourth quarter of 2008, the global

economic crisis resulted in a significant deterioration in demand for our customers' products, which in turn affected demand for our services and adversely affected our operating results. Although demand has recovered, we expect there to be continued downward pressure on our average selling prices and continued volatility with

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respect to our sales volumes in the future. If we cannot reduce our costs or adjust our product mix to sufficiently offset any decline in sales volumes, our profitability will suffer and we may incur losses.

Market conditions in the semiconductor and electronic industries depend to a large degree on conditions in the markets for the end-use applications of various products, such as communications, computing and consumer electronics products. Any deterioration of conditions in the markets for the end-use applications would reduce demand for our services, and would likely have a material adverse effect on our financial condition and results of operations. In 2011, approximately 52.3%, 14.2% and 33.0% of our net revenues from packaging and testing were attributed to the packaging and testing of semiconductors used in communications, computing, and consumer electronics/industrial/automotive applications, respectively. In the same year, approximately 36.1%, 22.1%, 18.5% and 22.6% of our net revenues from electronic manufacturing services were attributed to the communications, computing, consumer electronics applications and industrial and automotive applications, respectively. Each of the markets for end-use applications is subject to intense competition and significant shifts in demand, which could put pricing pressure on our services and adversely affect our revenues and net income.

A reversal or slowdown in the outsourcing trend for semiconductor packaging and testing services and electronic manufacturing services could adversely affect our growth prospects and profitability.

Semiconductor manufacturers that have their own in-house packaging and testing capabilities, known as integrated device manufacturers and original equipment manufacturers, have increasingly outsourced stages of the production process, including packaging, testing, electronic manufacturing and assembly, to independent companies in order to reduce costs, eliminate product complexity and meet fast-to-market requirements. In addition, the availability of advanced independent semiconductor manufacturing services has also enabled the growth of so-called “fabless” semiconductor companies that focus exclusively on design and marketing and outsource their manufacturing, packaging and testing requirements to independent companies. We cannot assure you that these manufacturers and companies will continue to outsource their packaging, testing and manufacturing requirements to third parties like us. Furthermore, during an economic downturn, these integrated device manufacturers typically rely more on their own in-house packaging and testing capabilities, therefore decreasing their need to outsource. A reversal of, or a slowdown in, this outsourcing trend could result in reduced demand for our services and adversely affect our growth prospects and profitability.

Any global economic downturn could adversely affect the demand for our products and services, and a protracted global economic crisis would have a material adverse effect on us.

The global financial markets experienced significant disruptions in 2008 and the United States, Europe and other economies went into recession. The recovery from the lows of 2008 and 2009 was uneven and it is facing new challenges, including the escalation of the European sovereign debt crisis since 2011. It is unclear whether the European sovereign debt crisis will be contained and what effects it may have. There is considerable uncertainty over the long-term effects of the expansionary monetary and fiscal policies that have been adopted by the central banks and financial authorities of some of the world’s leading economies. There have also been concerns over unrest in the Middle East and Africa, which have resulted in higher oil prices and significant market volatility, and over the possibility of a war involving Iran. Any economic downturn or crisis may also cause our customers to do the following:

- cancel or reduce planned expenditures for our products and services;
- seek to lower their costs by renegotiating their contracts with us;
- consolidate the number of suppliers they use which may result in our loss of customers; and

- switch to lower-priced products or services provided by our competitors.

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Any uncertainty or significant volatility in global economic conditions may also make it difficult for our customers to accurately forecast and plan future business activities and may have a material adverse effect on us.

If we are unable to compete favorably in the highly competitive markets of semiconductor packaging and testing and electronic manufacturing services, our revenues and net income may decrease.

The markets of semiconductor packaging and testing and electronic manufacturing services are very competitive. We face competition from a number of sources, including other independent semiconductor packaging and testing companies, especially those that offer turnkey packaging and testing services, and other electronic manufacturing services providers which may have large-scale manufacturing capabilities and can react fast to market changes. We believe that the principal competitive factors are:

- technological expertise;
- price;
- the ability to provide total solutions to our customers, including integrated design, manufacturing, packaging and testing and electronic manufacturing services;
  - range of package types and testing platforms available;
  - the ability to work closely with our customers at the product development stage;
    - responsiveness and flexibility;
    - fast-to-market product development;
    - capacity;
    - diversity in facility locations; and
    - production yield.

We face increasing competition, as most of our customers obtain services from more than one source. In addition, some of our competitors may have access to more advanced technologies and greater financial and other resources than we do. Any erosion in the prices for our services and/or products could cause our revenues and net income to decrease and have a material adverse effect on our financial condition and results of operations.

Our profitability depends on our ability to respond to rapid technological changes in the semiconductor industry.

The semiconductor industry is characterized by rapid increases in the diversity and complexity of semiconductors. As a result, we expect that we will need to constantly offer more sophisticated packaging and testing technologies and processes in order to respond to competitive industry conditions and customer requirements. If we fail to develop, or obtain access to, advances in packaging or testing technologies or processes, we may become less competitive and less profitable. In addition, advances in technology typically lead to declining average selling prices for semiconductors packaged or tested with older technologies or processes. As a result, if we cannot reduce the costs associated with our services, the profitability of a given service and our overall profitability may decrease over time.

Our operating results are subject to significant fluctuations, which could adversely affect the market value of your investment.

Our operating results have varied significantly from period to period and may continue to vary in the future. Downward fluctuations in our operating results may result in decreases in the market price of our common shares and the ADSs. Among the more important factors affecting our quarterly and annual operating results are the following:

- changes in general economic and business conditions, particularly the cyclical nature of the semiconductor and electronic industries and the markets served by our customers;

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- our ability to quickly adjust to unanticipated declines or shortfalls in demand and market prices;
  - changes in prices for our products or services;
- volume of orders relative to our packaging, testing and manufacturing capacity;
- changes in costs and availability of raw materials, equipment and labor;
- our ability to obtain or develop substitute raw materials with lower cost;
- timing of capital expenditures in anticipation of future orders;
- our ability to acquire or design and produce advanced and cost-competitive interconnect materials, and provide integrated solutions for electronic manufacturing services;
- fluctuations in the exchange rate between the NT dollar and foreign currencies, especially the U.S. dollar; and
- earthquakes, drought, epidemics, tsunami and other natural disasters, as well as industrial and other incidents such as fires and power outages.

Due to the factors listed above, our future operating results or growth rates may be below the expectations of research analysts and investors. If so, the market price of our common shares and the ADSs, and thus the market value of your investment, may fall.

If we are not successful in maintaining our in-house interconnect materials capabilities, our margins and profitability may be adversely affected.

We expect that we will need to maintain our interconnect materials designs and production processes in order to respond to competitive industry conditions and customer requirements. In particular, our competitive position will depend on our ability to design and produce interconnect materials that are comparable to or better than those produced by independent suppliers and others. Many of these independent suppliers have dedicated greater resources than we have for the research and development and design and production of interconnect materials. In addition, we may not be able to acquire the technology and personnel that would enable us to maintain our in-house expertise and our design and production capabilities. For more information on our interconnect materials operations, see “Item 4. Information on the Company—Business Overview—Principal Products and Services—Packaging Services—Interconnect Materials.” If we are unable to maintain our in-house interconnect materials expertise to offer interconnect materials that meet the requirements of our customers, we may become less competitive and our margins and profitability may suffer as a result.

Due to our high percentage of fixed costs, we will be unable to maintain our gross margin at past levels if we are unable to achieve relatively high capacity utilization rates.

Our operations, in particular our testing operations, are characterized by relatively high fixed costs. We expect to continue to incur substantial depreciation and other expenses in connection with our acquisitions of equipment and facilities. Our profitability depends not only on the pricing levels for our services or products, but also on utilization rates for our machinery and equipment, commonly referred to as “capacity utilization rates.” In particular, increases or decreases in our capacity utilization rates can significantly affect gross margins since the unit cost generally decreases as fixed costs are allocated over a larger number of units. In periods of low demand, we experience relatively low

capacity utilization rates in our operations, which leads to reduced margins. For example, in the fourth quarter of 2008, we experienced lower than anticipated utilization rates in our operations due to a significant decline in worldwide demand for our packaging and testing services, which resulted in reduced margins during that period. Although capacity utilization rates have increased since 2009, we cannot assure you that we will be able to maintain or surpass our past gross margin levels if we cannot consistently achieve or maintain relatively high capacity utilization rates.



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If we are unable to manage our expansion or investments effectively, our growth prospects may be limited and our future profitability and core business operations may be adversely affected.

We have significantly expanded our operations through both organic growth and acquisitions in recent years. For example, we acquired the controlling interest of Universal Scientific through a tender offer in February 2010 and EEMS Test Singapore in August 2010 (EEMS Test Singapore was subsequently merged into ASE Singapore Pte. Ltd. on January 1, 2011). We also acquired Yang Ting in January 2012. We expect that we will continue to expand our operations in the future. The purpose of our expansion is mainly to provide total solutions to existing customers or attract new customers and broaden our product range for a variety of end-use applications. However, rapid expansion may place a strain on our managerial, technical, financial, operational and other resources. As a result of our expansion, we have implemented and will continue to implement additional operational and financial controls and hire and train additional personnel. Any failure to manage our growth effectively could lead to inefficiencies and redundancies and result in reduced growth prospects and profitability.

In addition, we have recently made investments in real estate development businesses mostly in China. The PRC property market is volatile and may experience undersupply or oversupply and property price fluctuations. The central and local governments frequently adjust monetary and other economic policies to prevent and curtail the overheating of the economy. Such policies may lead to changes in market conditions, including price instability and imbalance of supply and demand in respect of office, residential, retail, entertainment and cultural properties. We may continue to make investments in this area in the future and our diversification in this industry may put pressure on our managerial, financial, operational and other resources. Our exposure to risks related to real estate development in China may also increase over time as a result of our expansion into such a business. There can be no assurance that our investments in such a business will yield the anticipated returns and that our expansion into such a business, including the resulting diversion of management's attention, will not adversely affect our core business operations.

The packaging and testing businesses are capital intensive. If we cannot obtain additional capital when we need it, our growth prospects and future profitability may be adversely affected.

The packaging and testing businesses are capital intensive. We will need capital to fund the expansion of our facilities as well as fund our research and development activities in order to remain competitive. We believe that our existing cash, marketable securities, expected cash flow from operations and existing credit lines under our loan facilities will be sufficient to meet our capital expenditures, working capital, cash obligations under our existing debt and lease arrangements, and other requirements for at least the next twelve months. However, future capacity expansions or market or other developments may cause us to require additional funds. Our ability to obtain external financing in the future is subject to a variety of uncertainties, including:

- our future financial condition, results of operations and cash flows;
- general market conditions for financing activities by semiconductor or electronics companies; and
- economic, political and other conditions in Taiwan and elsewhere.

If we are unable to obtain funding in a timely manner or on acceptable terms, our growth prospects and future profitability may decline.

Restrictive covenants and broad default provisions in our existing debt agreements may materially restrict our operations as well as adversely affect our liquidity, financial condition and results of operations.

We are a party to numerous loan and other agreements relating to the incurrence of debt, many of which include restrictive covenants and broad default provisions. In general, covenants in the agreements governing our existing debt, and debt we may incur in the future, may materially restrict our operations, including our ability to incur debt, pay dividends, make certain investments and payments, other than in connection with restructurings of consolidated entities, and encumber or dispose of assets. In addition, any global economic deterioration or ineffective expansion may cause us to incur significant net losses or force us to assume considerable liabilities. We cannot assure you that we will be able to remain in compliance with our financial covenants which, as a result, may lead to a default. This

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may thereby restrict our ability to access unutilized credit facilities or the global capital markets to meet our liquidity needs. Furthermore, a default under one agreement by us or one of our subsidiaries may also trigger cross-defaults under our other agreements. In the event of default, we may not be able to cure the default or obtain a waiver on a timely basis. An event of default under any agreement timely governing our existing or future debt, if not cured or waived, could have a material adverse effect on our liquidity, financial condition and results of operations.

We have on occasion failed to comply with certain financial covenants in some of our loan agreements. Such non-compliance may also have, through broadly worded cross-default provisions, resulted in default under some of the agreements governing our other existing debt. For example, we failed to comply with certain financial covenants in some of our loan agreements as a result of our acquisition of the controlling interest of Universal Scientific in February 2010, for which we have timely obtained waivers from our counterparties. If we are unable to timely remedy any of our non-compliance under such loan agreements or obtain applicable waivers or amendments, we would breach our financial covenants and our financial condition would be adversely affected. As of March 31, 2012, no lender has sought to declare a default or enforce remedies in respect of our existing debt as a result of cross-default provisions, breaches of financial covenants or otherwise, although we cannot provide any assurance that they will not take action in the future.

We depend on select personnel and could be affected by the loss of their services.

We depend on the continued service of our executive officers and skilled technical and other personnel. Our business could suffer if we lose the services of any of these personnel and cannot adequately replace them. Although some of these management personnel have entered into employment agreements with us, they may nevertheless leave before the expiration of these agreements. We are not insured against the loss of any of our personnel. In addition, we may be required to increase substantially the number of these employees in connection with our expansion plans, and there is intense competition for their services in this industry. We may not be able to either retain our present personnel or attract additional qualified personnel as and when needed. In addition, we may need to increase employee compensation levels in order to attract and retain our existing officers and employees and the additional personnel that we expect to require. Furthermore, a portion of the workforce at our facilities in Taiwan are foreign workers employed by us under work permits which are subject to government regulations on renewal and other terms. Consequently, our business could also suffer if the Taiwan regulations relating to the employment of foreign workers were to become significantly more restrictive or if we are otherwise unable to attract or retain these workers at a reasonable cost.

If we are unable to obtain additional packaging and testing equipment or facilities in a timely manner and at a reasonable cost, our competitiveness and future profitability may be adversely affected.

The semiconductor packaging and testing businesses are capital intensive and require significant investment in expensive equipment manufactured by a limited number of suppliers. The market for semiconductor packaging and testing equipment is characterized, from time to time, by intense demand, limited supply and long delivery cycles. Our operations and expansion plans depend on our ability to obtain a significant amount of such equipment from a limited number of suppliers. From time to time we have also leased certain equipment. We have no binding supply agreements with any of our suppliers and acquire our packaging and testing equipment on a purchase order basis, which exposes us to changing market conditions and other substantial risks. For example, shortages of capital equipment could result in an increase in the price of equipment and longer delivery times. Semiconductor packaging and testing also require us to operate sizeable facilities. If we are unable to obtain equipment or facilities in a timely manner, we may be unable to fulfill our customers' orders, which could adversely affect our growth prospects as well as financial condition and results of operations. See "Item 4. Information on the Company—Business Overview—Equipment."

Fluctuations in exchange rates could result in foreign exchange losses.

Currently, the majority of our revenues are denominated in U.S. dollars, with a portion denominated in NT dollars and Japanese yen. Our cost of revenues and operating expenses, on the other hand, are incurred in several currencies, primarily NT dollars, U.S. dollars and Chinese yuan, as well as, to a lesser extent, Japanese yen, Korean won and Malaysian ringgit. In addition, a substantial portion of our capital expenditures, primarily for the purchase of packaging and testing equipment, has been, and is expected to continue to be, denominated in U.S. dollars, with

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much of the remainder in Japanese yen. Fluctuations in exchange rates, primarily among the U.S. dollar, the NT dollar, the Japanese yen and the Chinese yuan, will affect our costs and operating margins. In addition, these fluctuations could result in exchange losses and increased costs in NT dollar and other local currency terms. Despite hedging and mitigating techniques implemented by us, fluctuations in exchange rates have affected, and may continue to affect, our financial condition and results of operations. Although we recognized net foreign exchange gains of NT\$4.2 million, NT\$317.6 million and NT\$36.2 million (US\$1.2 million) in 2009, 2010 and 2011, respectively, we cannot assure you that we will achieve or sustain foreign exchange gains in the future. See “Item 11. Quantitative and Qualitative Disclosures about Market Risk—Market Risk—Foreign Currency Exchange Rate Risk.”

The loss of a large customer or disruption of our strategic alliance or other commercial arrangements with semiconductor foundries and providers of other complementary semiconductor manufacturing services may result in a decline in our revenues and profitability.

Although we have over 200 customers for our businesses, we have derived and expect to continue to derive a large portion of our revenues from a small group of customers during any particular period due in part to the concentration of market share in the semiconductor and electronic industries. Our five largest customers together accounted for approximately 28.7%, 26.0% and 26.8% of our net revenues in 2009, 2010 and 2011, respectively. No customer accounted for more than 10% of our net revenues in 2009, 2010 and 2011. The demand for our services from a customer is directly dependent upon that customer’s level of business activity, which could vary significantly from year to year. Our key customers typically operate in the cyclical semiconductor and electronic business and, in the past, have varied, and may vary in the future, order levels significantly from period to period. Some of these companies are relatively small, have limited operating histories and financial resources, and are highly exposed to the cyclicality of the industry. We cannot assure you that these customers or any other customers will continue to place orders with us in the future at the same levels as in past periods. The loss of one or more of our significant customers, or reduced orders by any one of them, and our inability to replace these customers or make up for such orders could adversely affect our revenues and profitability. In addition, we have in the past reduced, and may in the future be requested to reduce, our prices to limit the level of order cancellations. Any price reduction would likely reduce our margins and profitability.

Since 1997, we have maintained a strategic alliance with Taiwan Semiconductor Manufacturing Company Limited, or TSMC, one of the world’s largest dedicated semiconductor foundries. TSMC designates us as their non-exclusive preferred provider of packaging and testing services for semiconductors manufactured by TSMC. In addition, on February 23, 2009, we and Advanced Microelectronic Products, Inc., or AMPI, a provider of foundry services, signed a memorandum of understanding to enter into a strategic alliance focused on providing semiconductor manufacturing turnkey services. These strategic alliances, as well as our other commercial arrangements with providers of other complementary semiconductor manufacturing services, enable us to offer total semiconductor manufacturing solutions to our customers. These strategic alliances and any of our other commercial arrangements may be terminated at any time. Any such termination, and our failure to enter into substantially similar strategic alliances or commercial arrangements, may adversely affect our competitiveness and our revenues and profitability.

Our revenues and profitability may decline if we are unable to obtain adequate supplies of raw materials in a timely manner and at a reasonable price.

Our operations, such as packaging operations, substrate operations and electronic manufacturing services, require that we obtain adequate supplies of raw materials on a timely basis. Shortages in the supply of raw materials have in the past resulted in occasional price increases and delivery delays. In addition, the operations of some of our suppliers are vulnerable to natural disasters, such as earthquakes and typhoons, the occurrences of which may deteriorate and prolong the shortage or increase the uncertainty of the supply of raw materials. For example, on March 11, 2011, a

major earthquake occurred off the coast of Japan resulting in a large tsunami and radiation leak at the Fukushima nuclear power plant. We experienced a disruption to the supply of raw materials from Japan for about three to four weeks due to the fear of radiation contamination and the reduction or postponement in production by some of our Japanese suppliers. Although the purchase of supplies from Japan has been restored to the previous level, we cannot assure you that we will not suffer long-term from the impact of the earthquake and the tsunami. In

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addition, further earthquakes, aftershocks thereof or other disasters in Japan or affecting any regions in which we operate may cause a decline in our sales. Any of the above events or developments may have a material adverse effect on our business, results of operations and financial condition.

Raw materials such as advanced substrates are prone to supply shortages since such materials are produced by a limited number of suppliers such as Kinsus Interconnect Technology Corporation, Nanya Printed Circuit Board Corporation and Unimicron Technology Corp. Our operations conducted through our wholly-owned subsidiary ASE Electronics and ASE Shanghai have improved our ability to obtain advanced substrates on a timely basis and at a reasonable cost. However, we do not expect that our internal interconnect materials operations will be able to meet all of our interconnect materials requirements. Consequently, we will remain dependent on market supply and demand for our raw materials. In addition, recent fluctuations in prices of precious metals, such as gold, have also affected the price at which we have been able to purchase the principal raw materials we use in our packaging processes. We cannot guarantee that we will not experience shortages in the near future or that we will be able to obtain adequate supplies of raw materials in a timely manner or at a reasonable price. Our revenues and net income could decline if we are unable to obtain adequate supplies of high quality raw materials in a timely manner or if there are significant increases in the costs of raw materials that we cannot pass on to our customers.

System failures could harm our business, financial condition and results of operations.

Our systems are vulnerable to damage or interruption from earthquakes, terrorist attacks, floods, fires, power loss, telecommunications failures, computer viruses, computer denial of service attacks or other attempts to harm our system, and similar events. Some of our data centers are located in areas with a high risk of major earthquakes. Our data centers are also subject to break-ins, sabotage and intentional acts of vandalism, and to potential disruptions if the operators of these facilities have financial difficulties. Some of our systems are not fully redundant, and our disaster recovery planning cannot account for all eventualities. The occurrence of a natural disaster, a decision to close a facility we are using without adequate notice for financial reasons or other unanticipated problems at our data centers could result in lengthy interruptions in our service. Any damage to or failure of our systems could result in interruptions in our service. Interruptions in our service could materially and adversely affect our business, financial condition and results of operations.

Any environmental claims or failure to comply with any present or future environmental regulations, as well as any fire or other industrial accident, may require us to spend additional funds and may materially and adversely affect our financial condition and results of operations.

We are subject to various laws and regulations relating to the use, storage, discharge and disposal of chemical by-products of, and water used in, our packaging and interconnect materials production processes, and the emission of volatile organic compounds and the discharge and disposal of solid industrial wastes from electronic manufacturing services operations. Although we have not suffered material environmental claims in the past, the failure to comply with any present or future regulations could result in the assessment of damages or imposition of fines against us, suspension of production or a cessation of our operations. New regulations could require us to acquire costly equipment or to incur other significant expenses that we may not be able to pass on to our customers. Additionally, any failure on our part to control the use, or adequately restrict the discharge, of hazardous substances could subject us to future liabilities that may have a material adverse effect on our financial condition and results of operations. Any failure on the environmental requests on our products, such as Directive 2002/95/EC, see “Item 4. Business Overview—Raw Materials and Suppliers—Packaging,” may have a material adverse effect on our results of operations.

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

our business.

Increasing climate change and environmental concerns could affect the results of our operations if any of our customers request that we exceed any standards set for environmentally compliant products and services, or if raw materials and/or products are required to meet strict inspection standards with respect to any radioactive contamination as a result of concerns arising from radiation leaking incidents, such as the radiation leak which occurred in March 2011 in Japan. If we are unable to offer such products or offer products that are compliant, but

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are not as reliable due to the lack of reasonably available alternative technologies, it may harm our results of operations.

Furthermore, energy costs in general could increase significantly due to climate change regulations. Therefore, our energy costs may increase substantially if utility or power companies pass on their costs, fully or partially, such as those associated with carbon taxes, emission cap and carbon credit trading programs.

Our major shareholders may take actions that are not in, or may conflict with, our public shareholders' best interest.

Members of the Chang family own, directly or indirectly, a significant interest in our outstanding common shares. See "Item 7. Major Shareholders and Related Party Transactions—Major Shareholders." Accordingly, these shareholders will continue to have the ability to exercise a significant influence over our business, including matters relating to:

- our management and policies;
- the timing and distribution of dividends; and
- the election of our directors and supervisors.

Members of the Chang family may take actions that you may not agree with or that are not in our or our public shareholders' best interests.

We may be subject to intellectual property rights disputes, which could materially adversely affect our business.

Our ability to compete successfully and achieve future growth depends, in part, on our ability to develop and protect our proprietary technologies and to secure on commercially acceptable terms certain technologies that we do not own. We cannot assure you that we will be able to independently develop, obtain patents for, protect or secure from any third party, the technologies required.

Our ability to compete successfully also depends, in part, on our ability to operate without infringing the proprietary rights of others. In particular, the semiconductor and electronic industries are characterized by frequent litigation regarding patent and other intellectual property rights. In February 2006, Tessera Inc. filed a suit against us and others alleging patent infringement. See "Item 8. Financial Information—Legal Proceedings." Any litigation, whether as plaintiff or defendant and regardless of the outcome, is costly and diverts company resources.

Any of the foregoing could harm our competitive position and render us unable to provide some of our services operations.

We are an ROC company and, because the rights of shareholders under ROC law differ from those under U.S. law and the laws of certain other countries, you may have difficulty protecting your shareholder rights.

Our corporate affairs are governed by our Articles of Incorporation and by the laws governing corporations incorporated in the ROC. The rights of shareholders and the responsibilities of management and the members of the board of directors under ROC law are different from those applicable to a corporation incorporated in the United States and certain other countries. As a result, public shareholders of ROC companies may have more difficulty in protecting their interests in connection with actions taken by management or members of the board of directors than they would as public shareholders of a corporation in the United States or certain other countries.

We face risks associated with uncertainties in PRC laws and regulations.

We operate, among other things, packaging and testing facilities, electronic manufacturing services and real estate in the PRC through our subsidiaries incorporated in the PRC. Under PRC laws and regulations, foreign investment projects, such as our subsidiaries, must obtain certain approvals from the relevant governmental authorities in the provinces or special economic zones in which they are located and, in some circumstances, from the relevant authorities in the PRC's central government. Foreign investment projects must also comply with certain

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regulatory requirements. However, PRC laws and regulations are often subject to varying interpretations and means of enforcement, and additional approvals from the relevant governmental authorities may be required for the operations of our PRC subsidiaries. If required, we cannot assure you that we will be able to obtain these approvals in a timely manner, if at all. Because the PRC government holds significant discretion in determining matters relating to foreign investment, we cannot assure you that the relevant governmental authorities will not take action that is materially adverse to our PRC operations.

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

Under ROC GAAP and U.S. GAAP, we are required to evaluate our assets, such as equipment, goodwill and investments, for possible impairment at least annually or whenever there is an indication of impairment. If certain criteria are met, we are required to record an impairment charge.

With respect to assets, in 2009, we recognized impairment charges of NT\$11.1 million, primarily as a result of impaired idle equipment. In 2010, we recognized impairment charges of NT\$251.4 million, primarily as a result of an impairment charge related to buildings and improvement, and impaired idle equipment and investment. In 2011, we recognized impairment charges of NT\$ 448.1 million (US\$14.8 million), primarily as a result of an impairment charge related to buildings and improvement, and impaired idle equipment and investment. As of December 31, 2011, goodwill under ROC GAAP and U.S. GAAP amounted to NT\$10,374.5 million (US\$342.7 million) and NT\$10,244.3 million (US\$338.4 million), respectively. See “Item 5. Operating and Financial Review and Prospects—Operating Results and Trend Information—Critical Accounting Policies and Estimates—Realizability of Long-Lived Assets” and “—Goodwill.”

We are unable to estimate the extent and timing of any impairment charges for future years under ROC GAAP or U.S. GAAP, and we cannot give any assurance that impairment charges will not be required in periods subsequent to December 31, 2011. Any impairment charge could have a material adverse effect on our net income. The determination of an impairment charge at any given time is based significantly on our expected results of operations over a number of years in the future. As a result, an impairment charge is more likely to occur during a period in which our operating results and outlook are otherwise already depressed.

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

We are subject to reporting obligations under the U.S. securities laws. The SEC as required by Section 404 of the Sarbanes-Oxley Act of 2002 adopted rules requiring every public company to include a management report on the effectiveness of such company’s internal control over financial reporting in its annual report. In addition, an independent registered public accounting firm must report on such company’s internal control over financial reporting.

Our management concluded that our internal control over financial reporting was effective as of December 31, 2011 and our independent registered public accounting firm has issued an attestation report concluding that our internal control over financial reporting was effective in all material aspects. As effective internal control over financial reporting is necessary for us to produce reliable financial reports and are important to help prevent fraud, any failure to maintain effective internal control over financial reporting could harm our business and result in a loss of investor confidence in the reliability of our financial statements, which in turn could negatively impact the trading price of our common shares and ADSs. Furthermore, we may need to incur additional costs and use additional management and other resources in an effort to comply with Section 404 of the Sarbanes-Oxley Act and other requirements going forward.

Risks Relating to Taiwan, ROC

Strained relations between the ROC and the PRC could negatively affect our business and the market value of your investment.

Our principal executive offices and our principal facilities are located in Taiwan and approximately 63.3%, 49.8% and 50.8% of our net revenues in 2009, 2010 and 2011, respectively, were derived from our operations in

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Taiwan. The ROC has a unique international political status. The government of the PRC asserts sovereignty over all of China, including Taiwan, and does not recognize the legitimacy of the ROC government. Although significant economic and cultural relations have been established in recent years between the ROC and the PRC, relations have often been strained and the PRC government has indicated that it may use military force to gain control over Taiwan in some circumstances, such as the declaration of independence by the ROC. Political uncertainty could adversely affect the prices of our common shares and ADSs. Relations between the ROC and the PRC and other factors affecting the political or economic conditions in Taiwan could have a material adverse effect on our financial condition and results of operations, as well as the market price and the liquidity of our common shares and ADSs.

Currently, we manufacture interconnect materials in the PRC through our wholly-owned subsidiary ASE Shanghai. We also provide wire bond packaging and testing services in the PRC through some of our subsidiaries. In addition, we engage in the PRC in real estate development and the manufacturing of computer peripherals and electronic components through our subsidiaries in the PRC. See “Item 4. Information on the Company—Organizational Structure—Our Consolidated Subsidiaries.” In the past, ROC companies, including ourselves, were prohibited from investing in facilities for the packaging and testing of semiconductors in the PRC. Although the prohibitions have been relaxed since February 2010, the ROC government currently still restricts certain types of investments by ROC companies, including ourselves, in the PRC. We do not know when or if such laws and policies governing investment in the PRC will be amended, and we cannot assure you that such ROC investment laws and policies will permit us to make further investments of certain types in the PRC in the future that we consider beneficial to us. Our growth prospects and profitability may be adversely affected if we are restricted from making certain additional investments in the PRC and are not able to fully capitalize on the growth of the semiconductor industry in the PRC.

As a substantial portion of our business and operations is located in Taiwan, we are vulnerable to earthquakes, typhoons, drought and other natural disasters, as well as power outages and other industrial incidents, which could severely disrupt the normal operation of our business and adversely affect our results of operations.

Taiwan is susceptible to earthquakes and has experienced severe earthquakes which caused significant property damage and loss of life, particularly in the central and eastern parts of Taiwan. Earthquakes have damaged production facilities and adversely affected the operations of many companies involved in the semiconductor and other industries. We have never experienced structural damage to our facilities or damage to our machinery and equipment as a result of these earthquakes. In the past, however, we have experienced interruptions to our production schedule primarily as a result of power outages caused by earthquakes.

Taiwan is also susceptible to typhoons, which may cause damage and business interruptions to companies with facilities located in Taiwan. For example, in 2009, Taiwan experienced severe damage from typhoons, including typhoon Morakot on August 7, 2009 that caused over 600 deaths, severe flooding and extensive property damage. In the third quarter of 2004, a typhoon caused a partial interruption for approximately two weeks in our water supply at ASE Chung Li’s substrate operations.

Taiwan has experienced severe droughts in the past. Although we have not been directly affected by droughts, we are dependent upon water for our packaging and substrates operations and a drought could interrupt such operations. In addition, a drought could interrupt the manufacturing process of the foundries located in Taiwan, in turn disrupting some of our customers’ production, which could result in a decline in the demand for our services. In addition, the supply of electrical power in Taiwan, which is primarily provided by Taiwan Power Company, the state-owned electric utility, is susceptible to disruption that could be prolonged and frequent, caused by overload as a result of high demand or other reasons.

Our production facilities as well as many of our suppliers and customers and providers of complementary semiconductor manufacturing services, including foundries, are located in Taiwan. If our customers are affected by an earthquake, a typhoon, a drought or any other natural disasters, or power outage or other industrial incidents, it could result in a decline in the demand for our services. If our suppliers or providers of complementary semiconductor manufacturing services are affected, our production schedule could be interrupted or delayed. As a result, a major earthquake, typhoon, drought, or other natural disaster in Taiwan, or a power outage or other industrial incident could severely disrupt the normal operation of our business and have a material adverse effect on our financial condition and results of operations.

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We face risks related to health epidemics and outbreaks of contagious diseases, including H1N1 influenza, H5N1 influenza and Severe Acute Respiratory Syndrome, or SARS.

There have been reports of outbreaks of a highly pathogenic influenza caused by the H1N1 virus, as well as an influenza caused by the H5N1 virus, in certain regions of Asia and other parts of the world. An outbreak of such contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries. Additionally, a recurrence of SARS, a highly contagious form of atypical pneumonia, similar to the occurrence in 2003 which affected the PRC, Hong Kong, Taiwan, Singapore, Vietnam and certain other countries, would also have similar adverse effects. Since most of our operations and customers and suppliers are based in Asia (mainly Taiwan), an outbreak of H1N1 influenza, H5N1 influenza, SARS or other contagious diseases in Asia or elsewhere, or the perception that such an outbreak could occur, and the measures taken by the governments of countries affected, including the ROC and the PRC, could adversely affect our business, financial conditions or results of operations.

### Risks Relating to Ownership of the ADSs

The market for the common shares and the ADSs may not be liquid.

Active, liquid trading markets generally result in lower price volatility and more efficient execution of buy and sell orders for investors, compared to less active and less liquid markets. Liquidity of a securities market is often a function of the volume of the underlying shares that are publicly held by unrelated parties.

There has been no trading market outside the ROC for the common shares and the only trading market for the common shares is the Taiwan Stock Exchange. The outstanding ADSs are listed on the New York Stock Exchange. There is no assurance that the market for the common shares or the ADSs will be active or liquid.

Although ADS holders are entitled to withdraw the common shares underlying the ADSs from the depositary at any time, ROC law requires that the common shares be held in an account in the ROC or sold for the benefit of the holder on the Taiwan Stock Exchange. In connection with any withdrawal of common shares from our ADS facility, the ADSs evidencing these common shares will be cancelled. Unless additional ADSs are issued, the effect of withdrawals will be to reduce the number of outstanding ADSs. If a significant number of withdrawals are effected, the liquidity of our ADSs will be substantially reduced. We cannot assure you that the ADS depositary will be able to arrange for a sale of deposited shares in a timely manner or at a specified price, particularly during periods of illiquidity or volatility.

If a non-ROC holder of ADSs withdraws and holds common shares, such holder of ADSs will be required to appoint a tax guarantor, local agent and custodian bank in the ROC and register with the Taiwan Stock Exchange in order to buy and sell securities on the Taiwan Stock Exchange.

When a non-ROC holder of ADSs elects to withdraw and hold common shares represented by ADSs, such holder of the ADSs will be required to appoint an agent for filing tax returns and making tax payments in the ROC. Such agent will be required to meet the qualifications set by the ROC Ministry of Finance and, upon appointment, becomes the guarantor of the withdrawing holder's tax payment obligations. Evidence of the appointment of a tax guarantor, the approval of such appointment by the ROC tax authorities and tax clearance certificates or evidentiary documents issued by such tax guarantor may be required as conditions to such holder repatriating the profits derived from the sale of common shares. We cannot assure you that a withdrawing holder will be able to appoint, and obtain approval for, a tax guarantor in a timely manner.

In addition, under current ROC law, such withdrawing holder is required to register with the Taiwan Stock Exchange and appoint a local agent in the ROC to, among other things, open a bank account and open a securities trading account with a local securities brokerage firm, pay taxes, remit funds and exercise such holder's rights as a shareholder. Furthermore, such withdrawing holder must appoint a local bank to act as custodian for confirmation and settlement of trades, safekeeping of securities and cash proceeds and reporting and declaration of information. Without satisfying these requirements, non-ROC withdrawing holders of ADSs would not be able to hold or otherwise subsequently sell the common shares on the Taiwan Stock Exchange or otherwise.



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The market value of your investment may fluctuate due to the volatility of the ROC securities market.

The trading price of our ADSs may be affected by the trading price of our common shares on the Taiwan Stock Exchange. The ROC securities market is smaller and more volatile than the securities markets in the United States and in many 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 Index peaked at 12,495.3 in February 1990, and subsequently fell to a low of 2,560.5 in October 1990. On March 13, 2000, the Taiwan Stock Exchange Index experienced a 617-point drop, which represented the single largest decrease in the Taiwan Stock Exchange Index in its history. During the period from January 1, 2011 to December 31, 2011, the Taiwan Stock Exchange Index peaked at 9,145.35 on January 28, 2011, and reached a low of 6,633.33 on December 19, 2011. Over the same period, the trading price of our common shares ranged from NT\$37.80 per share to NT\$23.75 per share. On April 10, 2012, the Taiwan Stock Exchange Index closed at 7,640.68, and the closing value of our common shares was NT\$29.05 per share.

The Taiwan Stock Exchange is particularly volatile during times of political instability, including when relations between Taiwan and the PRC are strained. Several investment funds affiliated with the ROC government have also from time to time purchased securities from the Taiwan Stock Exchange to support the trading level of the Taiwan Stock Exchange. Moreover, the Taiwan Stock Exchange has experienced problems such as market manipulation, insider trading and settlement defaults. The recurrence of these or similar problems could have an adverse effect on the market price and liquidity of the securities of ROC companies, including our common shares and ADSs, in both the domestic and international markets.

Holders of common shares and ADSs may incur dilution as a result of the practice among ROC technology companies of issuing stock bonuses and stock options to employees.

Similar to other ROC technology companies, we issue bonuses from time to time in the form of common shares. Prior to 2009, bonuses issued in the form of our common shares were valued at par. Beginning in 2009, bonuses in the form of our common shares are valued at the closing price of the common shares on the day prior to our shareholders' meeting. In addition, under the ROC Company Law we may, upon approval from our board of directors and the ROC Securities and Futures Bureau of the Financial Supervisory Commission, Executive Yuan, establish employee stock option plans. We currently maintain four employee stock option plans pursuant to which our full-time employees and the full-time employees of our domestic and foreign subsidiaries are eligible to receive stock option grants. As of December 31, 2011, 371,033,620 options granted by ASE Inc. were outstanding. See "Item 6. Directors, Senior Management and Employees—Compensation—ASE Inc. Employee Bonus and Stock Option Plans." The issuance of our common shares pursuant to stock bonuses or stock options may have a dilutive effect on the holders of outstanding common shares and ADSs.

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

The ability to deposit common shares into our ADS facility is restricted by ROC law. A significant number of withdrawals of common shares underlying our ADSs would reduce the liquidity of the ADSs by reducing the number of ADSs outstanding. As a result, the prevailing market price of our ADSs may differ from the prevailing market price of our common shares on the Taiwan Stock Exchange. Under current ROC law, no person or entity, including you and us, may deposit our common shares in our ADS facility without specific approval of the ROC Financial Supervisory Commission, Executive Yuan, unless:

- (1) we pay stock dividends on our common shares;

(2) we make a free distribution of common shares;

(3) holders of ADSs exercise preemptive rights in the event of capital increases; or

(4) to the extent permitted under the deposit agreement and the relevant custody agreement, investors purchase our common shares, directly or through the depository, on the Taiwan Stock Exchange, and deliver our

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common shares to the custodian for deposit into our ADS facility, or our existing shareholders deliver our common shares to the custodian for deposit into our ADS facility.

With respect to item (4) above, the depository may issue ADSs against the deposit of those common shares only if the total number of ADSs outstanding following the deposit will not exceed the number of ADSs previously approved by the ROC Financial Supervisory Commission, Executive Yuan plus any ADSs issued pursuant to the events described in items (1), (2) and (3) above.

In addition, in the case of a deposit of our common shares requested under item (4) above, the depository will refuse to accept deposit of our common shares if such deposit is not permitted under any legal, regulatory or other restrictions notified by us to the depository from time to time, which restrictions may include blackout periods during which deposits may not be made, minimum and maximum amounts and frequency of deposits.

The depository will not offer holders of ADSs preemptive rights unless the distribution of both the rights and the underlying common shares to our ADS holders are either registered under the Securities Act or exempt from registration under the Securities Act.

Holders of ADSs will not have the same voting rights as our shareholders, which may affect the value of their ADSs.

The voting rights of a holder of ADSs as to the common shares represented by its ADSs are governed by the deposit agreement. Holders of ADSs will not be able to exercise voting rights on an individual basis. If holders representing at least 51% of the ADSs outstanding at the relevant record date instruct the depository to vote in the same manner regarding a resolution, including the election of directors and supervisors, the depository will cause all common shares represented by the ADSs to be voted in that manner. If the depository does not receive timely instructions representing at least 51% of the ADSs outstanding at the relevant record date to vote in the same manner for any resolution, including the election of directors and supervisors, holders of ADSs will be deemed to have instructed the depository or its nominee to authorize all the common shares represented by the ADSs to be voted at the discretion of our chairman or his designee, which may not be in the interest of holders of ADSs. Moreover, while shareholders who own 1% or more of our outstanding shares are entitled to submit one proposal to be considered at our annual general meetings of shareholders, only holders representing at least 51% of our ADSs outstanding at the relevant record date are entitled to submit one proposal to be considered at our annual general meetings of shareholders. Hence, only one proposal may be submitted on behalf of all ADS holders.

The right of holders of ADSs to participate in our rights offerings is limited, which could cause dilution to your holdings.

We may from time to time distribute rights to our shareholders, including rights to acquire our securities. Under the deposit agreement, the depository will not offer holders of ADSs those rights unless both the distribution of the rights and the underlying securities to all our ADS holders are either registered under the Securities Act or exempt from registration under the Securities Act. Although we may be eligible to take advantage of certain exemptions under the Securities Act available to certain foreign issuers for rights offerings, we can give no assurances that we will be able to establish an exemption from registration under the Securities Act, and we are under no obligation to file a registration statement for any of these rights. Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings.

If the depository is unable to sell rights that are not exercised or not distributed or if the sale is not lawful or reasonably practicable, it will allow the rights to lapse, in which case holders of ADSs will receive no value for these rights.

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

Under current ROC law, the depositary, without obtaining approvals from the Central Bank of the Republic of China (Taiwan) or any other governmental authority or agency of the ROC, may convert NT dollars into other currencies, including U.S. dollars, for:

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

In addition, the depositary may also convert into NT dollars incoming payments for purchases of common shares for deposit in the ADS facility against the creation of additional ADSs. The depositary may be required to obtain foreign exchange approval from the Central Bank of the Republic of China (Taiwan) on a payment-by-payment basis for conversion from NT dollars into foreign currencies of the proceeds from the sale of subscription rights for new common shares. Although it is expected that the Central Bank of the Republic of China (Taiwan) will grant this approval as a routine matter, we cannot assure you that in the future any approval will be obtained in a timely manner, or at all.

Under current ROC law, a holder of the ADSs, without obtaining further approval from the Central Bank of the Republic of China (Taiwan), may convert from NT dollars into other currencies, including U.S. dollars, the following:

- the proceeds of the sale of any underlying common shares withdrawn from the depositary receipt facility or received as a stock dividend that has been deposited into the depositary receipt facility; and
  - any cash dividends or distribution received from the common shares.

However, such holder may be required to obtain foreign exchange approval from the Central Bank of the Republic of China (Taiwan) on a payment-by-payment basis for conversion from NT dollars into foreign currencies of the proceeds from the sale of subscription rights for new common shares. Although the Central Bank of the Republic of China (Taiwan) is generally expected to grant this approval as a routine matter, we cannot assure you that you will actually obtain this approval in a timely manner, or at all.

Under the ROC Foreign Exchange Control Law, the Executive Yuan of the ROC government may, without prior notice but subject to subsequent legislative approval, impose foreign exchange controls in the event of, among other things, a material change in international economic conditions. We cannot assure you that foreign exchange controls or other restrictions will not be introduced in the future.

The value of your investment may be reduced by possible future sales of common shares or ADSs by us or our shareholders.

While we are not aware of any plans by any major shareholders to dispose of significant numbers of common shares, we cannot assure you that one or more existing shareholders or owners of securities convertible or exchangeable into or exercisable for our common shares or ADSs will not dispose of significant numbers of common shares or ADSs. In addition, several of our subsidiaries and affiliates hold common shares, depositary shares representing common shares and options to purchase common shares or ADSs. They may decide to sell those securities in the future. See “Item 7. Major Shareholders and Related Party Transactions—Major Shareholders” for a description of our significant shareholders and affiliates that hold our common shares.

We cannot predict the effect, if any, that future sales of common shares or ADSs, or the availability of common shares or ADSs for future sale, will have on the market price of the common shares or the ADSs prevailing from time to time. Sales of substantial numbers of common shares or ADSs in the public market, or the perception that such sales may occur, could depress the prevailing market prices of the common shares or the ADSs.

Item 4. Information on the Company

## HISTORY AND DEVELOPMENT OF THE COMPANY

Advanced Semiconductor Engineering, Inc. was incorporated on March 23, 1984 as a company limited by shares under the ROC Company Law, with facilities in the Nantze Export Processing Zone located in Kaohsiung, Taiwan. We were listed on the Taiwan Stock Exchange in 1989. Our principal executive offices are located at 26 Chin Third Road, Nantze Export Processing Zone, Nantze, Kaohsiung, Taiwan, ROC and our telephone number at

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the above address is (886) 7361-7131. Our common shares have been listed on the Taiwan Stock Exchange under the symbol “2311” since July 1989 and ADSs representing our common shares have been listed on the New York Stock Exchange under the symbol “ASX” since September 2000.

### Acquisition of Shares of Universal Scientific

In February 2010, we, along with our two subsidiaries, J&R Holding Limited and ASE Test, through a cash and stock tender offer, acquired 641,669,316 common shares of Universal Scientific at NT\$21 per share, amounting to NT\$13,475.1 million in total, resulting in our controlled ownership over Universal Scientific. As a result, Universal Scientific became our consolidated subsidiary. In August 2010, we acquired additional 222,243,661 shares of Universal Scientific through another tender offer at NT\$21 per share, amounting to NT\$4,667.1 million in total. We owned 99.2 % of the outstanding common shares of Universal Scientific as of March 31, 2012.

### Acquisition of EEMS Test Singapore

On August 2, 2010, we, through our subsidiary ASE Singapore Pte. Ltd., entered into a share purchase agreement with EEMS Asia Pte. Ltd., a subsidiary of EEMS Italia S.p.A., in connection with the acquisition of 100.0% of EEMS Test Singapore, a Singapore-based provider of test solutions for the semiconductor industry, for a purchase price of US\$72.2 million. On August 27, 2010, EEMS Test Singapore changed its name to ASE Singapore II Pte. Ltd., which was subsequently merged into ASE Singapore Pte. Ltd. on January 1, 2011.

### Acquisition and Merger of PowerASE

In addition to our previous holdings of PowerASE, in November and December 2011, we acquired 106,808,182 shares of PowerASE mainly through tender offers, for a total consideration of NT\$1,972.2 million (US\$65.2 million). As of March 31, 2012, we own 99.6% of the outstanding common shares of PowerASE. On March 29, 2012, our board of directors adopted resolutions to acquire the remaining 0.4% of the outstanding shares of PowerASE for a consideration of NT\$13.5 million (US\$0.4 million) and merge PowerASE into ASE Inc.

### Acquisition of Yang Ting

On January 13, 2012, we entered into share purchase agreement with the shareholders of Yang Ting, a ROC-based provider of semiconductor packaging and testing services, in connection with the acquisition of 100.0% of Yang Ting, for a total consideration of NT\$300.0 million (US\$9.9 million).

### IPO of Universal Scientific Shanghai

In February 2012, Universal Scientific Shanghai, a subsidiary of Universal Scientific, completed its initial public offering, or IPO, on the Shanghai Stock Exchange. Total proceeds from the IPO was approximately RMB 811.7 million (US\$129.0 million) prior to deducting underwriting discounts and commissions. As of March 31, 2012, we indirectly held 88.7% of the total outstanding shares of Universal Scientific Shanghai through our subsidiaries Universal Scientific and ASE Shanghai.

For more information on our history and development, see “—Organizational Structure.”

## BUSINESS OVERVIEW

We are the world's largest independent provider of semiconductor packaging and testing services based on 2011 revenues. Our services include semiconductor packaging, production of interconnect materials, front-end engineering testing, wafer probing, final testing services and integrated solutions for electronics manufacturing services in relation to computers, peripherals, communications, industrial, automotive, and storage and server applications. We believe that, as a result of the following, we are better positioned than our competitors to meet customers' requirements across a wide range of end-use applications:

- our ability to provide a broad range of cost-effective semiconductor packaging and testing services on a large-scale turnkey basis in key centers of semiconductor manufacturing;



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- our expertise in developing and providing cost-effective packaging, interconnect materials and testing technologies and solutions;
- our ability to provide proactive original design manufacturing services using innovative solution-based designs;
- our scale of operations and financial position, which enable us to make significant investments in capacity expansion and research and development as well as to make selective acquisitions;
- our geographic presence in key centers of outsourced semiconductor and electronics manufacturing; and
- our long-term relationships with providers of complementary semiconductor manufacturing services, including our strategic alliance with TSMC, one of the world's largest dedicated semiconductor foundries.

We believe that it is still the trend for semiconductor companies to outsource their packaging, testing and manufacturing requirements as semiconductor companies rely on independent providers of foundry, advanced packaging, testing and electronic manufacturing services. In response to the increased pace of new product development and shortened product life and production cycles, semiconductor companies are increasingly seeking independent packaging and testing companies that can provide turnkey services in order to reduce time-to-market and electronic manufacturing companies that can provide large-scale production and have the proactive original design capabilities. We believe that our expertise and scale in advanced technology and our ability to integrate our broad range of solutions into turnkey services and electronic manufacturing services allow us to benefit from the accelerated outsourcing trend and better serve our existing and potential customers.

We believe that we have benefited, and will continue to benefit, from our geographic location in Taiwan. Taiwan is currently the largest center for outsourced semiconductor manufacturing in the world and has a high concentration of electronics manufacturing service providers, which are the end users of our customers' products. Our close proximity to foundries and other providers of complementary semiconductor manufacturing services is attractive to our customers who wish to take advantage of the efficiencies of a total semiconductor manufacturing solution by outsourcing several stages of their manufacturing requirements. Our close proximity to end users of our customers' products is attractive to our customers who wish to take advantage of the logistical efficiencies of direct shipment services that we offer. We believe that, as a result, we are well positioned to meet the advanced semiconductor engineering and manufacturing requirements of our customers.

Our global base of over 200 customers includes leading semiconductor companies across a wide range of end-use applications, such as:

- Atmel Corporation
- AU Optronics Corp.
- Broadcom Corporation
- Cambridge Silicon Radio Limited
- Freescale Semiconductor, Inc.
- Infineon Technologies
- Lenovo Computer Ltd.
- Marvell Technology Group Ltd.
- Media Tek Inc.
- Motorola, Inc.
- Mstar Semiconductor Inc.
- Qualcomm Incorporated
- Renesas Electronics Corporation
- Spreadtrum Communications, Inc.
- STMicroelectronics N.V.
- Toshiba Corporation
- Valeo Group

## Industry Background

General

Semiconductors are the basic building blocks used to create an increasing variety of electronic products and systems. Continuous improvements in semiconductor process and design technologies have led to smaller, more complex and more reliable semiconductors at a lower cost per function. These improvements have resulted in significant performance and price benefits to manufacturers of electronic products. As a result, semiconductor demand has grown substantially in our primary end-user markets for communications, computing and consumer

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electronics, and has experienced increased growth in other markets such as automotive products and industrial automation and control systems.

The semiconductor industry is characterized by strong long-term growth, with periodic and sometimes severe cyclical downturns. The Semiconductor Industry Association reported that worldwide sales of semiconductors increased from approximately US\$51 billion in 1990 to approximately US\$299.5 billion in 2011. We believe that overall growth and cyclical fluctuations will continue over the long-term in the semiconductor industry.

### Electronic Manufacturing Services

According to Gartner, Inc., the overall size of the global market for electronics manufacturing services and original design manufacturing was estimated at approximately US\$439.0 billion for 2011. Electronics manufacturing service providers typically achieve large economies of scale in manufacturing by pooling together product design techniques and also provide value-added services such as warranties and repairs. Companies who do not need to manufacture a constant supply of products have increasingly outsourced their manufacturing to these service providers so that they are no longer forced to maintain large inventories of products. Outsourcing will also enable them to still respond quickly and efficiently to sudden spikes in demand.

Electronics manufacturing services are sought by companies in a wide range of industries including, among others, information, communications, consumer electronics, automotive electronics, medical treatment, industrial applications, aviation, navigation, national defense and transportation. Although affected by global economic fluctuations, we expect the electronics manufacturing services industry to continue to grow in the long-term and we have enhanced our presence in the industry through our acquisition of the controlling interest of Universal Scientific in 2010.

### Outsourcing Trends in Semiconductor Manufacturing

Historically, semiconductor companies designed, manufactured, packaged and tested semiconductors primarily in their own facilities. There has been a trend in the industry to outsource stages in the manufacturing process. Virtually every significant stage of the manufacturing process can be outsourced. Wafer foundry services, semiconductor packaging and testing services, and electronic manufacturing services are currently the largest segments of the independent semiconductor manufacturing services market.

The availability of technologically advanced independent manufacturing services has also enabled the growth of “fabless” semiconductor companies that focus on semiconductor design and marketing and outsource their wafer fabrication, packaging and testing requirements to independent companies. We believe that the growth in the number and scale of fabless semiconductor companies that rely solely on independent companies to meet their manufacturing requirements will continue to be a driver of growth in the market for independent foundry, packaging and testing services. Similarly, the availability of technologically advanced independent manufacturing services has encouraged integrated device manufacturers, which had traditionally relied on in-house semiconductor manufacturing capacity, to increasingly outsource their manufacturing requirements to independent semiconductor manufacturing companies.

We believe the outsourcing of semiconductor manufacturing services will increase in the future from current levels for many reasons, including the following:

- **Technological Expertise and Significant Capital Expenditure.** Semiconductor manufacturing processes have become highly complex, requiring substantial investment in specialized equipment and facilities and sophisticated engineering and manufacturing expertise. Technical expertise becomes increasingly important as the industry transitions from one generation of technology to another, as evidenced by the current migration of the fabrication

process from 8-inches to 12-inches in sub-micron technology and the size of technology nodes fabricated from 65 nm to 45 nm, as well as the integration of different functions into a single chip. In addition, product life cycles have been shortening, magnifying the need to continuously upgrade or replace manufacturing equipment to accommodate new products. As a result, new investments in in-house facilities are becoming less desirable to integrated device manufacturers because of the high investment costs as well as the inability to achieve sufficient economies of scale and utilization rates

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necessary to be competitive with the independent service providers. Independent packaging, testing, foundry and electronic manufacturing services companies, on the other hand, are able to realize the benefits of specialization and achieve economies of scale by providing services to a large base of customers across a wide range of products. This enables them to reduce costs and shorten production cycles through high capacity utilization and process expertise. In the process, they are also able to focus on discrete stages of semiconductor manufacturing and deliver services of superior quality.

In recent years, semiconductor companies have significantly reduced their investment in in-house packaging and testing technologies and capacity. As a result, some semiconductor companies may have limited in-house expertise and capacity to accommodate large orders following a recovery in demand, particularly in the area of advanced technology. On the other hand, some semiconductor companies with in-house packaging and testing operations focusing on low-end leadframe-based packages are under increasing pressure to rationalize these operations by relocating to locations with lower costs or better infrastructure, such as the PRC, in order to lower manufacturing costs and shorten production cycle time. We expect semiconductor companies to increasingly outsource their packaging and testing requirements to take advantage of the advanced technology and scale of operations of independent packaging and testing companies and electronic manufacturing services providers.

- **Increased Adoption of Copper Wire Bonding.** With significant cost saving benefits over conventional gold wiring technology, semiconductor companies have been qualifying and converting volumes to copper wire based packages at a rapid pace. Independent packaging and testing companies have been more aggressive in building copper bonding capacity than integrated device manufacturers and have accumulated significantly more experience and know-how with regards to the new technology. Due to the inherent cost savings and comparable yield of copper and their lack of in-house capacity and experience, we believe that integrated device manufacturers will increase outsourcing of their manufacturing services for copper wire packages to independent packaging and test companies.
- **Focus on Core Competencies.** As the semiconductor industry becomes more competitive, semiconductor companies are expected to further outsource their semiconductor manufacturing requirements in order to focus their resources on core competencies, such as semiconductor design and marketing.
- **Time-to-Market Pressure.** The increasingly short product life cycle has accelerated time-to-market pressure for semiconductor companies, leading them to rely increasingly on outsourced suppliers as a key source for effective manufacturing solutions.
- **Capitalize on the High Growth Rates in Emerging Markets.** Emerging markets, and China in particular, have become both major manufacturing centers for the technology industry and growing markets for technology-based products. Thus, in order to gain direct access to the Chinese market, many semiconductor companies are seeking to establish manufacturing facilities in China by partnering with local subcontractors. As a result, certain stages of the semiconductor manufacturing process that were previously handled in-house will be increasingly outsourced in order to improve efficiency.

### The Semiconductor Industry in Taiwan

The semiconductor industry in Taiwan has been a leader in, and a major beneficiary of, the trend in outsourcing. The growth of the semiconductor industry in Taiwan has been the result of several factors. First, semiconductor manufacturing companies in Taiwan typically focus on one or two stages of the semiconductor manufacturing process. As a result, these companies tend to be more efficient and are better able to achieve economies of scale and maintain higher capacity utilization rates. Second, semiconductor manufacturing companies in Taiwan that provide the major stages of the manufacturing process are located close to each other and typically enjoy close working

relationships. This close network is attractive to customers who wish to outsource multiple stages of the semiconductor manufacturing process. For instance, a customer could reduce production cycle time and unit cost and streamline logistics by outsourcing its foundry, packaging, testing and drop shipment services to electronics manufacturing companies in Taiwan. Third, Taiwan has an educated labor pool and a large number of engineers suitable for sophisticated manufacturing industries such as semiconductors.

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The semiconductor industry in Taiwan has over the past decade made significant capital expenditures to expand capacity and technological capabilities. The ROC government has also provided tax incentives and research and development support, both directly and indirectly through support of research institutes and universities. As a result of investments made in recent years, Taiwan has achieved substantial market share in the outsourced semiconductor manufacturing industry. Furthermore, the growth of Taiwan's electronics manufacturing industry, particularly in personal computer, mobile handset and digital camera design and manufacturing, has created substantial local demand for semiconductors.

### The Semiconductor Industry in Other Asian Regions

Many of the factors that contributed to the growth of the semiconductor industry in Taiwan have also contributed to the recent development of the semiconductor industry in Southeast Asia. Access to expanding semiconductor foundry services in Singapore, convenient proximity to major downstream electronics manufacturing operations in Malaysia, Singapore and Thailand, government-sponsored infrastructure support, tax incentives and pools of skilled engineers and labor at relatively low cost have all encouraged the development of back-end semiconductor service operations in Southeast Asia. The downstream electronics manufacturers in Southeast Asia have typically focused on products used in the communications, industrial and consumer electronics and personal computer peripheral sectors. The proximity to both semiconductor foundries and end users has influenced local and international semiconductor companies increasingly to obtain packaging, testing and drop shipment services from companies in Southeast Asia.

In addition, the world's leading electronics manufacturing service providers, many of them from Taiwan, are increasingly establishing manufacturing facilities in the PRC and Vietnam in order to take advantage of lower labor costs, government incentives for investment and the potential size of the domestic market for end users of electronics products. Many of the factors that contributed to the growth of the semiconductor industry in Taiwan are beginning to emerge in the PRC and may play an increasingly important role in the growth of its semiconductor industry over the long term.

### Overview of Semiconductor Manufacturing Process

The manufacturing of semiconductors is a complex process that requires increasingly sophisticated engineering and manufacturing expertise. The manufacturing process may be divided into the following stages:

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We are involved in all stages of the semiconductor manufacturing process except circuit design and wafer fabrication.

	Process	Description
1. Circuit Design		The design of a semiconductor is developed by laying out circuit components and interconnections.
2. Engineering Test		Throughout and following the design process, prototype semiconductors undergo engineering testing, which involves software development, electrical design validation and reliability and failure analysis.
3. Wafer Fabrication		Process begins with the generation of a photomask through the definition of the circuit design pattern on a photographic negative, known as a mask, by an electron beam or laser beam writer. These circuit patterns are transferred to the wafers using various advanced processes.
4. Wafer Probe		Each individual die is electrically tested, or probed, for defects. Dies that fail this test are marked to be discarded.
5. Packaging (or Assembly)		Packaging, also called assembly, is the processing of bare semiconductors into finished semiconductors and serves to protect the die and facilitate electrical connections and heat dissipation. The patterned silicon wafers received from our customers are diced by means of diamond saws into separate dies, also called chips. Each die is attached to a leadframe or a laminate (plastic or tape) substrate by epoxy resin. A leadframe is a miniature sheet of metal, generally made of copper and silver alloys, on which the pattern of input/output leads has been cut. On a laminate substrate, typically used in ball grid array, or BGA, packages, the leads take the shape of small bumps or balls. Leads on the leadframe or the substrate are



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Process	Description
	connected by extremely fine gold or copper wires or bumps to the input/output terminals on the chips, through the use of automated machines known as “bonders.” Each chip is then encapsulated, generally in a plastic casing molded from a molding compound, with only the leads protruding from the finished casing, either from the edges of the package as in the case of the leadframe-based packages, or in the form of small bumps on a surface of the package as in the case of BGA or other substrate-based packages.
6. Final Test	Final testing is conducted to ensure that the packaged semiconductor meets performance specifications. Final testing involves using sophisticated testing equipment known as testers and customized software to electrically test a number of attributes of packaged semiconductors, including functionality, speed, predicted endurance and power consumption. The final testing of semiconductors is categorized by the functions of the semiconductors tested into logic/mixed-signal/RF final testing and memory final testing. Memory final testing typically requires simpler test software but longer testing time per device tested.
7. Module, Board Assembly and Test	Module, board assembly and test refers to the combination of one or more packaged semiconductors with other components in an integrated module or board to enable increased functionality.
8. Material	Material refers to the interconnection of materials which connect the input/output on the semiconductor dies to the printed circuit board, such as substrate, leadframe and flip-chip.

Strategy

Our objective is to provide integrated solutions, including packaging, testing services, interconnect materials design and production capabilities, which set industry standards and to lead and facilitate the industry trend towards outsourcing semiconductor manufacturing requirements. The principal elements of our strategy are to:

Grow Our Advanced Packaging Services and Expand into the Legacy Packaging Market

We believe that an important factor in our ability to attract leading semiconductor companies as our customers has been our ability to fulfill demand for a broad range of packaging solutions on a large scale. We intend to continue to develop process and product technologies to meet the requirements of clients using our advanced packaging services. Our expertise in packaging technology has enabled us to develop advanced solutions such as fine-pitch wire bonding,

stacked die packaging and bump chip carrier packaging. We are continuously investing in research and development in response to and in anticipation of migrations in technology and intend to continue to acquire access to new technologies through strategic alliances and licensing arrangements.

We also intend to expand our legacy leadframe-based packaging product offerings and services. We believe that our clients will continue to outsource their legacy packaging requirements. To capitalize on this trend, we plan to accelerate our legacy packaging production in Shanghai and Kunshan, China and expand into the discrete packaging business by leveraging the existing assets of ASEWH and ASEKS, and our acquisition of Yang Ting.

The increasing miniaturization of semiconductors and the growing complexity of interconnect technology have also resulted in the blurring of the traditional distinctions among assembly at different levels of integration: chip, module, board and system. We currently provide module assembly services primarily at our facilities in Korea. In

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addition, our subsidiary Universal Scientific has provided us with access to process and product technologies at the levels of module, board and system assembly and test, which helps us to better anticipate industry trends and take advantage of potential growth opportunities. We expect to combine our packaging, testing and materials technologies with the expertise of Universal Scientific at the systems level to develop our system-in-package (SiP) business.

### Strategically Expand and Streamline Production Capacity

To capitalize on the growing demand for advanced and legacy packaging and testing services, we intend to strategically expand our production capacity, both through internal growth and through selective acquisitions and joint ventures, with a focus on providing cost competitive and innovative packaging and testing services.

For our advanced packaging and testing business, we intend to invest in trends that are essential to the development of the industry. We plan to expand our capacity with respect to, among other things, 12-inch wafer process, bumping, FC-CSP and system-in-a-package products to meet demand for smaller form factors, higher performance and higher packaging density. We believe rising commodity prices will expedite the migration from leadframe and BGA-based packaging to flip-chip packaging and wafer level packaging, as the cost differential narrows. We intend to increase our capacity for flip-chip packaging and wafer level packaging in order to cope with rising demand for these packaging technologies.

In addition, we intend to promote our copper wire solutions to our customers in addition to gold wire. Gold wire is a significant raw material for us. Gold prices, however, are subject to intense fluctuations and have in the past impacted our profitability. We believe that replacing gold wire in some of our packages with the copper wire technology will not only improve our profitability but will also enable us to provide more value to our customers by providing lower cost solutions compared to the conventional gold packages, which could enhance our competitiveness and market share. We are currently the industry leader in terms of copper wire capacity and have developed the most extensive operating experience with this material. We thus plan to capitalize on the overall industry trend of copper conversion by maintaining our leadership and focusing on integrating copper wire into a wider range of traditional leadframe-based packages and thereafter into higher end substrate-based packages.

For our legacy packaging and testing business, we expect to focus on providing cost competitive services through our China operations by leveraging China's lower cost of labor and land and a rapidly growing end market. Our clients may also benefit from easier inventory management and savings in transportation costs and taxes by outsourcing their packaging and testing requirements to China. Through better management of capacity utilization and efficiency improvements, we plan to offer cost competitive legacy packaging and testing services on a large scale with the intention of driving more integrated device manufacturer outsourcing in the long-run.

We evaluate acquisition and joint venture opportunities on the basis of access to new markets and technology, the enhancement of our production capacity, economies of scale and management resources, and closer proximity to existing and potential customers. In 2007, we completed the acquisition of GAPPT, a company that provides wire bond packaging and testing services for a wide range of semiconductors, and formed a joint venture with NXP Semiconductors in Suzhou, China focused on semiconductor testing and packaging. In 2008, we completed the acquisition of ASEWH, a company that also engages in semiconductor packaging and testing services. In addition, we acquired an aggregate of 863,912,977 common shares of Universal Scientific through two tender offers in February 2010 and August 2010 and owned 99.2 % of its outstanding common shares as of March 31, 2012. Universal Scientific is an electronics manufacturing services company that provides integrated solutions for electronic manufacturing services in relation to computers, peripherals, communications, industrial, automotive, and storage and server applications. We intend to provide our customers with more value-added products through Universal Scientific. On August 2, 2010, we also completed the acquisition of 100.0% of EEMS Test Singapore from EEMS Asia Pte. Ltd.,

a subsidiary of EEMS Italia S.p.A. EEMS Test Singapore is a Singapore-based provider of test solutions for the semiconductor industry. On August 27, 2010, EEMS Test Singapore changed its name to ASE Singapore II Pte. Ltd., which was subsequently merged into ASE Singapore Pte. Ltd. on January 1, 2011. We also acquired Yang Ting in January 2012 to enhance our capacity to provide packaging and testing services for computing applications to existing customers and to attract new customers.

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### Continue to Leverage Our Presence in Key Centers of Semiconductor and Electronics Manufacturing

We intend to continue leveraging our presence in key centers of semiconductor and electronics manufacturing to further grow our business. We have significant packaging, testing and electronics manufacturing services operations in Taiwan, currently the largest center for outsourced semiconductor and electronics manufacturing in the world. This presence enables our engineers to work closely with our customers as well as foundries and other providers of complementary semiconductor and electronics manufacturing services early in the design process, enhances our responsiveness to the requirements of our customers and shortens production cycles. In addition, as a turnkey service provider, we are able to offer, all within relatively close geographic proximity to our customers, complementary service providers and the end users of our customers' products. In addition to our current operations, we intend to expand our packaging and testing operations in Chung Li, Taiwan to better serve our customers located in northern Taiwan and customers who request that we maintain the capability of packaging and testing their products at more than one location in Taiwan.

In addition to our locations in Taiwan, we have primary operations in the following locations:

- PRC — a fast-growing market for semiconductor and electronics manufacturing for domestic consumption and our primary sites for serving legacy packaging clients and electronics manufacturing services;
  - Korea — an increasingly important center for the manufacturing of memory and communications devices;
  - Malaysia and Singapore — an emerging center for outsourced semiconductor manufacturing in Southeast Asia;
- Silicon Valley in California — the preeminent center for semiconductor design, with a concentration of fabless customers; and
- Japan — an emerging market for semiconductor packaging and testing services as Japanese integrated device manufacturers increasingly outsource their semiconductor manufacturing requirements.

### Strengthen and Develop Strategic Relationships with Our Customers and Providers of Complementary Semiconductor Manufacturing Services

We intend to strengthen existing and develop new strategic relationships with our customers and providers of other complementary semiconductor manufacturing services, such as foundries, as well as equipment vendors, raw material suppliers and technology research institutes, in order to offer our customers total semiconductor manufacturing solutions covering all stages of the manufacturing of their products from design to shipment. In addition, we are working with our customers to co-develop new packaging technologies and designs. In some cases, our customers co-invest in building capacities that support these new packaging technologies and designs.

Since 1997, we have maintained a strategic alliance with TSMC, currently one of the world's largest dedicated semiconductor foundries, which designates us as their non-exclusive preferred provider of packaging and testing services for semiconductors manufactured by TSMC. Through our strategic alliance with and close geographic proximity to TSMC, we are able to offer our customers a total semiconductor manufacturing solution that includes access to foundry services in addition to our packaging, testing and direct shipment services. In addition, on February 23, 2009, we and AMPI, a provider of foundry services, signed a memorandum of understanding to enter into a strategic alliance focused on providing semiconductor manufacturing turnkey services.

### Principal Products and Services

We offer a broad range of advanced and legacy semiconductor packaging and testing services. In addition, we started providing electronic manufacturing services since our acquisition of the controlling interest of Universal Scientific in February 2010. Our package types employ either leadframes or substrates as interconnect materials. The semiconductors we package are used in a wide range of end-use applications, including communications,

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computing, consumer electronics, industrial, automotive and other applications. Our testing services include front-end engineering testing, which is performed during and following the initial circuit design stage of the semiconductor manufacturing process, wafer probe, final testing and other related semiconductor testing services. We focus on packaging and testing logic semiconductors. We offer our customers turnkey services which consist of packaging, testing and direct shipment of semiconductors to end users designated by our customers. Our electronics manufacturing services are used in a wide range of end-use applications, including, among others, computers, peripherals, communications, industrial applications, automotive electronics, and storage and server applications. In 2011, our revenues generated from packaging, testing and electronic manufacturing services accounted for 55.4%, 11.8% and 31.2% of our net revenues, respectively.

## Packaging Services

We offer a broad range of package types to meet the requirements of our customers, with a focus on advanced packaging solutions. Within our portfolio of package types, we focus on the packaging of semiconductors for which there is expected to be strong demand. These include advanced leadframe-based package types such as quad flat packages (QFP), thin quad flat packages (TQFP), bump chip carrier (BCC) and quad flat no-lead (QFN) packages, aQFN (advanced QFN) and package types based on substrates, such as flip-chip BGA, flip-chip CSP and other BGA types as well as other advanced packages such as wafer-level products, aCSP (advanced chip scale packages) and aWLP (advanced wafer level packages, fan-out). In addition, to meet current trends towards low cost solutions, we provide copper wire bonding solutions which can be applied to current gold wire products. Low cost flip-chip packages (a-fcCSP) solutions are based on low cost substrate designs and mold only encapsulation. Furthermore, we provide 3D chip packages, such as MAP POP (package on package) and aMAP POP (advanced, laser ablation type), which enable our customers to mount packages more easily. We also offer other forms of stacked die solutions in different package types, e.g. stacked die QFN, hybrid BGAs containing stacked wire bond and fc die. With respect to our module assembly services, we also provide turnkey solutions regarding certain widely-used applications, such as WiMAX, GPS, WLAN and BT, for the integration of different package types into one module. We are among the leaders in such advanced packaging processes and technologies and are well positioned to lead the technology migration in the semiconductor packaging industry. We are also developing the latest generation of stacked die packages based on TSV technology. Our first product has been a CMOS image sensor with TSV to minimize the form factor.

The semiconductor packaging industry has evolved to meet the advanced packaging requirements of high-performance semiconductors. The development of high-performance electronics products has spurred the innovation of semiconductor packages that have higher interconnected density and better electrical performance. As a part of this technology migration, semiconductor packages have evolved from leadframe-based packages to substrate-based packages. The key differences of these package types are:

- the size of the package;
- the density of electrical connections the package can support;
- flexibility at lower costs;
- the thermal and electrical characteristics of the package; and
- environmentally-conscious designs.

**Leadframe-Based Packages.** Leadframe-based packages are packaged by connecting the die, using wire bonders, to the leadframe with gold wire or copper wire. As packaging technology improves, the number of leads per package

increases. Packages have evolved from the lower pin-count plastic dual in-line packages to higher pin-count quad flat packages. In addition, improvements in leadframe-based packages have reduced the footprint of the package on the circuit board and improved the electrical performance of the package.

The following table sets forth our principal leadframe-based packages.

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Package Types	Number of Leads	Description	End-Use Applications
Advanced Quad Flat No-Lead Package (aQFN)	104-276	aQFN allows for leadless, multi-row and fine-pitch leadframe packaging and is characterized by enhanced thermal and electrical performance. aQFN is a cost-effective packaging solution due to its cost-effective materials and simpler packaging process.	Telecommunications products, wireless local access networks, personal digital assistants, digital cameras, low to medium lead count packaging information appliances.
Quad Flat Package (QFP)/Thin Quad Flat Package (TQFP)	44-256	Designed for advanced processors and controllers, application-specific integrated circuits and digital signal processors.	Multimedia applications, cellular phones, personal computers, automotive and industrial products, hard disk drives, communication boards such as ethernet, integrated services digital networks and notebook computers.
Quad Flat No-Lead Package (QFN)/Microchip Carrier (MCC)	12-84	QFN, also known as MCC, uses half-encapsulation technology to expose the rear side of the die pad and the tiny fingers, which are used to connect the chip and bonding wire with printed circuit boards.	Cellular phones, wireless local access networks, personal digital assistant devices and digital cameras.
Bump Chip Carrier (BCC)	16-156	BCC packages use plating metal pads to connect with printed circuit boards, creating enhanced thermal and electrical performance.	Cellular phones, wireless local access networks, personal digital assistant devices and digital cameras.
Small Outline Plastic Package (SOP)/Thin Small Outline Plastic Package (TSOP)	8-56	Designed for memory devices including static random access memory, or SRAM, dynamic random access memory, or DRAM, fast static RAM, also called FSRAM, and flash memory devices.	Consumer audio/video and entertainment products, cordless telephones, pagers, fax machines, printers, copiers, personal computer peripherals, automotive parts, telecommunications products, recordable optical disks and hard disk drives.
Small Outline Plastic J-Bend Package (SOJ)	20-44	Designed for memory and low pin-count applications.	DRAM memory devices, microcontrollers, digital analog conversions and audio/video applications.
Plastic Leaded Chip Carrier (PLCC)	28-84	Designed for applications that do	Personal computers, scanners,



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Package Types	Number of Leads	Description	End-Use Applications
		not require low-profile packages with high density of interconnects.	electronic games and monitors.
Plastic Dual In-line Package (PDIP)	8-64	Designed for consumer electronic products.	Telephones, televisions, audio/video applications and computer peripherals.
Discrete	2-3	Discrete packages are mainly separated Through Hole Device (THD) and Surface Mounting Device (SMD) type which are molded epoxy molding compound. According to JEDEC standards, there are several kinds of mold and lead shapes.	THD package is optimized for using power device (SMP, motor, transformer in LCD/PDP TV, PC, audio, automotive area) and also SMD package is designed for small signal module (cellular phone, MP3, camera, portable electronic device, etc.).

Substrate-Based Packages. Substrate-based packages generally employ the BGA design, which utilizes a substrate rather than a leadframe. Whereas traditional leadframe technology places the electrical connection around the perimeter of the package, the BGA package type places the electrical connection at the bottom of the package surface in the form of small bumps or balls. These small bumps or balls are typically distributed evenly across the bottom surface of the package, allowing greater distance between individual leads and higher pin-counts.

The BGA package type was developed in response to the requirements of advanced semiconductors. The benefits of the BGA package type include:

- smaller package size;
- thinner package;
- higher pin-count;
- greater reliability;
- superior electrical signal transmission; and
- better heat dissipation.

The industry demand for BGA packages has grown significantly in recent years. BGA packages are generally used in applications where size, density and performance are important considerations, such as cellular handsets and high pin-count graphic chipsets. Our expertise in BGA packages also includes capabilities in stacked-die BGA, which assembles multiple dies into a single package. As an extension to stacked-die BGA, we also assemble system-in-a-package (SiP) products, which involve the integration of more than one chip into the same package. We believe that we are among the leaders in these packaging technologies.

We believe that there will continue to be growing demand for packaging solutions with increased input/output density, smaller size and better heat dissipation characteristics. In anticipation of this demand, we have focused on developing our capabilities in some advanced packaging solutions, such as flip-chip BGA, Heat-Spreader FCBGA, flip-chip CSP, Hybrid FCCSP ( Flip-Chip + W/B), Flip-Chip PiP (Package in Package), aMAP POP and aS3™ ( Advanced Single Sided Substrate, which is currently under development). Flip-chip BGA technology replaces wire bonding with wafer bumping for interconnections within the package. Wafer bumping involves the placing of tiny

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solder balls, instead of wires, on top of dies for connection to substrates. As compared with more traditional packages, which allow input/output connection only on the boundaries of the dies, flip-chip packages significantly enhance the input/output flow by allowing input/output connection over the entire surface of the dies.

The following table sets forth our principal substrate-based packages.

Package Types	Number of Leads	Description	End-Use Applications
Plastic BGA	119-1520	Designed for semiconductors which require the enhanced performance provided by plastic BGA, including personal computer chipsets, graphic controllers and microprocessors, application-specific integrated circuits, digital signal processors and memory devices.	Telecommunications products, global positioning systems, notebook computers, disk drives and video cameras.
Cavity Down BGA	256-1140	Designed for memory devices such as flash memory devices, SRAM, DRAM and FSRAM, microprocessors/controllers and high-value, application-specific integrated circuits requiring a low profile, light and small package.	Telecommunications products, wireless and consumer systems, personal digital assistants, disk drives, notebook computers and memory boards.
Stacked-Die BGA	120-1520	Combination of multiple dies in a single package enables package to have multiple functions within a small surface area.	Telecommunications products, local area networks, graphics processor applications, digital cameras and pagers.
Flip-Chip Chip Scale Package (FC-CSP, a-fcCSP)	16-560	A lightweight package with a small, thin profile that provides better protection for chips and better solder joint reliability than other comparable package types.	RFICs and memory ICs such as digital cameras, DVDs, devices that utilize WiMAX technology, cellular phones, GPS devices and personal computer peripherals.
Flip-Chip PiP (Package in Package) (FC-CSP PiP)	500-980	System In Package for Flip-Chip+Memory die inside with a better electrical performance package types.	Application processor for smartphone, data modern on portable devices.
Package-on-Package (POP, aMAP POP)	136-904	This technology places one package on top of another to integrate different functionalities while maintaining a compact size. It offers procurement flexibility,	Cellular phones, personal digital assistants and system boards.

low cost of ownership, better total system cost and faster time to market. Designers typically use the topmost package for memory

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Package Types	Number of Leads	Description	End-Use Applications
		applications and the bottommost package for ASICs. By using this technology, the memory known good die issue can be mitigated and the development cycle time and cost can be reduced.	
Flip-Chip BGA	16-2916	Using advanced interconnect technology, the flip-chip BGA package allows higher density of input/output connection over the entire surface of the dies. Designed for high-performance semiconductors that require high density of interconnects in a small package.	High-performance networking, graphics and processor applications.
Hybrid (Flip-Chip and Wire Bonding)	49-608	A package technology which stacks a die on top of a probed good die to integrate ASIC and memory (flash, SRAM and DDR) into one package and interconnecting them with wire bonding and molding. This technology suffers from known good die issues (i.e., one bad die will ruin the entire module). Rework is also not an option in hybrid packages.	Digital cameras, smartphones, bluetooth applications and personal digital assistants.
Land Grid Array (LGA)	10-72	Leadless package which is essentially a BGA package without the solder balls. Based on laminate substrate, land grid array packages allow flexible routing and are capable of multichip module functions.	High frequency integrated circuits such as wireless communications products, computers servers and personal computer peripherals.
aS3	up to 300	Ultra-thin profile package which is excellent on middle pin count alternative solution; Standard BT material and manufacturing equipment; and Lower cost via on pad.	High I/O and short wire length package solution in high performance requirement.

Wafer-Level Packages. Chip scale packages typically have an area no greater than 1.2 times of the silicon die. Unlike substrate-based packages, where the die is usually mounted on an interposer which then contains electrical connections in the form of small bumps or balls, wafer-level packages do not include an interposer. The electrical connections are plated or printed directly onto the wafer itself, resulting in a package very close to the size of the silicon die. The traditional wafer-level package is also referred to as a fan-in package because I/O terminal of a wire bond pad pattern is redistributed in a grid array like pattern for flip chips.



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As advanced nodes and die shrink produce more I/O, fan-in WLP may no longer be able to support the required solder balls on the available die area. Fan-out WLP essentially enlarges the die with a special mold compound to accommodate the larger ball count. This type of packaging is done by reconstituting a wafer by over-molding known good die on a wafer shaped carrier followed by fan-in WLP processing to complete the package.

System in Package or Modules. As miniaturization requirements for electronic devices increase, smaller and lighter SiPs are garnering much attention within the industry. Wafer level integration-passive device technology has become increasingly important. Passive devices such as inductors, capacitors, resistors, filters and diplexers are those components occupying the largest area in printed circuit boards; therefore, miniaturization and integration is key to advanced SiPs. This can be achieved through integrating passive components on an individual substrate using a thin film process known as MCM-D or IPD (Integrated Passive Device). The IPD can then be used as a package substrate or interposer for SiP. This manufacturing method will enhance product performance and also reduce overall costs. The extension of our current RDL (Redistribution) process can be used to build high quality factor (Q) inductor and RF circuits on top of CMOS (Complementary Metal–Oxide–Semiconductor) wafers. IPD is an enabling technology for advanced SiP. It can be used in the following three approaches to enhance product performance: several solutions to replace discrete components such as Balun, Filter, etc. or to integrate certain passive components and act as interposer, or to replace PWB and act as a substrate of the module.

We provide numerous technologies to meet various customer demands. The following table sets forth our principal wafer-level packaging products:

Package Types	Number of Leads	Description	End-Use Applications
Wafer Level Chip Scale Package (aCSP)	6-100	A wafer level chip scale package that can be directly attached to the circuit board. Provides shortest electrical path from the die pad to the circuit board, thereby enhancing electrical performance.	Cellular phones, personal digital assistants, watches, MP3 players, digital cameras and camcorders.
Advanced Wafer Level Package (aWLP)	189-364	This technology allows the “fanout” of the package I/Os using an area larger than the die size without the need for a separate substrate. It offers cost effective alternatives to flip-chip and wire bumping packaging. 2D and 3D multi-die packages can enable leadless, multi-row and fine-pitch leadframe packages with enhanced thermal and electrical performance.	Telecommunications products, basebands and multiband transceivers.

3D Packaging. 3D packaging has recently received a lot of publicity because of the advent of TSV based chip stacking. Chip stacking has been implemented for many years, albeit without TSVs. Wire bond die is routinely stacked on leadframes as well as BGA substrates. A more recent implementation is the stacking of packages as package on package (PoP) and the more specialized package in package (PiP). ASE has advanced PoP by the invention of aMAPPoP which provides the package interconnects by exposing a molded in solder ball with a laser via. Aside from being cost effective due to block molding, this PoP also has much lower warpage, greatly improving

the stacking yield.

Module Assembly. We also offer module assembly services, which combine one or more packaged semiconductors with other components in an integrated module to enable increased functionality, typically using automated surface mount technology, or SMT, machines and other machinery and equipment for system-level assembly. End-use applications for modules include cellular phones, PDAs, wireless LAN applications, Bluetooth

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applications, camera modules, automotive applications and toys. We currently provide module assembly services primarily at our facilities in Korea for radio frequency and power amplifier modules used in wireless communications and automotive applications.

**Interconnect Materials.** Interconnect materials connect the input/output on the semiconductor dies to the printed circuit board. Interconnect materials include substrate, which is a multi-layer miniature printed circuit board, and is an important element of the electrical characteristics and overall performance of semiconductors. We produce substrates for use in our packaging operations.

The demand for higher performance semiconductors in smaller packages will continue to spur the development of advanced substrates that can support the advancement in circuit design and fabrication. As a result, we believe that the market for substrates will grow and the cost of substrates as a percentage of the total packaging process will increase. In the past, substrates we designed for our customers were produced by independent substrate manufacturers. Since 1997, we have been designing and producing a portion of our interconnect materials in-house. In 2011, our interconnect materials operations supplied approximately 37.8% of our consolidated substrate requirements by value.

The following table sets forth, for the periods indicated, the percentage of our packaging revenues accounted for by each principal type of packaging products or services.

	Year Ended December 31,					
	2009		2010		2011	
	(percentage of packaging revenues)					
Advanced substrate and leadframe-based packages(1)	88.9	%	84.3	%	81.8	%
Traditional leadframe-based packages(2)	5.3		7.1		8.9	
Module assembly	3.0		4.7		5.3	
Other	2.8		3.9		4.0	
Total	100.0	%	100.0	%	100.0	%

(1) Includes leadframe-based packages such as QFP/TQFP, QFN/MCC and BCC and substrate-based packages such as various BGA package types (including flip-chip and others) and LGA.

(2) Includes leadframe-based packages such as SOP/TSOP, SOJ, PLCC and PDIP.

**Testing Services**

We provide a complete range of semiconductor testing services, including front-end engineering testing, wafer probing, final testing of logic/mixed-signal/RF/Discrete and memory final testing and other test-related services.

The testing of semiconductors requires technical expertise and knowledge of the specific applications and functions of the semiconductors tested as well as the testing equipment utilized. We believe that our testing services employ technology and expertise which are among the most advanced in the semiconductor industry. In addition to maintaining different types of testing equipment, which enables us to test a variety of semiconductor functions, we work closely with our customers to design effective testing solutions on multiple equipment platforms for particular semiconductors.

In recent years, complex, high-performance logic/mixed-signal/RF/discrete semiconductors have accounted for an increasing portion of our testing revenues. As the testing of complex, high-performance semiconductors requires a

large number of functions to be tested using more advanced testing equipment, these products generate higher revenues per unit of testing time, as measured in central processing unit seconds.

Front-End Engineering Testing. We provide front-end engineering testing services, including customized software development, electrical design validation, and reliability and failure analysis.

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- **Customized Software Development.** Test engineers develop customized software to test the semiconductor using advanced testing equipment. Customized software, developed on specific test platforms, is required to test the conformity of each particular semiconductor type to its unique functionality and specification.
- **Electrical Design Validation.** A prototype of the designed semiconductor is subjected to electrical tests using advanced test equipment and customized software. These tests assess whether the prototype semiconductor complies with a variety of different operating specifications, including functionality, frequency, voltage, current, timing and temperature range.
- **Reliability Analysis.** Reliability analysis is designed to assess the long-term reliability of the semiconductor and its suitability of use for intended applications. Reliability testing can include “burn-in” services, which electrically stress a device, usually at high temperature and voltage, for a period of time long enough to cause the failure of marginal devices.
- **Failure Analysis.** In the event that the prototype semiconductor does not function to specifications during either the electrical design validation or reliability testing processes, it is typically subjected to failure analysis to determine the cause of the failure to perform as anticipated. As part of this analysis, the prototype semiconductor may be subjected to a variety of analyses, including electron beam probing and electrical testing.

**Wafer Probing.** Wafer probing is the step immediately before the packaging of semiconductors and involves visual inspection and electrical testing of the processed wafer for defects to ensure that it meets our customers’ specifications. Wafer probing services require expertise and testing equipment similar to that used in final testing, and most of our testers can also be used for wafer probing.

**Logic/Mixed-signal/RF/Discrete Final Testing.** We conduct final tests of a wide variety of logic/mixed-signal/RF/discrete semiconductors, with the number of leads or bumps ranging from the single digits to over ten thousand and operating frequencies of over 10 Gbps for digital semiconductors and 6 GHz for radio frequency semiconductors, which are at the high end of the range for the industry. The products we test include semiconductors used for wired, wireless and mobile communications, chipsets, graphics and disk controllers for home entertainment and personal computer applications, as well as a variety of consumer and application-specific integrated circuits for various specialized applications.

**Memory Final Testing.** We provide final testing services for a variety of memory products, such as SRAM, DRAM, single-bit erasable programmable read-only memory semiconductors and flash memory semiconductors.

**Other Test-Related Services.** We provide a broad range of additional test-related services, including:

- **Electric Interface Board and Mechanical Test Tool Design.** Process of designing individualized testing apparatuses such as test load boards, sockets, handler change kits, and probe cards for unique semiconductor devices and packages.
- **Program Conversion.** Process of converting program from one test platform to different test platforms to reduce cost of test.
- **Program Efficiency Improvement.** Process of optimizing the program code or increasing site count of parallel test to improve test throughout.
- **Remote Program Debugging.** Process of allowing the customer to debug their test program remotely through internet connection.

- **Burn-in Testing.** Burn-in testing is the process of electrically stressing a device, usually at high temperature and voltage, for a period of time to simulate the continuous use of the device to determine whether this use would cause the failure of marginal devices;

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- **Module SiP Testing.** We provide module SiP testing through integrated bench solution or automatic test equipment to our customers with a complete solution with respect to wireless connectivity devices, global positioning system devices, personal navigation devices and digital video broadcasting devices;
- **Dry Pack.** Process which involves heating semiconductors in order to remove moisture before packaging and shipping to customers;
- **Tape and Reel.** Process which involves transferring semiconductors from a tray or tube into a tape-like carrier for shipment to customers; and

**Drop Shipment Services.** We offer drop shipment services for shipment of semiconductors directly to end users designated by our customers. Drop shipment services are provided mostly in conjunction with logic/mixed-signal/RF/discrete testing. We provide drop shipment services to a significant percentage of our testing customers. A substantial portion of our customers at each of our facilities have qualified these facilities for drop shipment services. Since drop shipment eliminates the additional step of inspection by the customer before shipment to the end user, quality of service is a key consideration. We believe that our ability to successfully execute our full range of services, including drop shipment services, is an important factor in maintaining existing customers as well as attracting new customers.

The following table sets forth, for the periods indicated, the percentage of our testing revenues accounted for by each type of testing service.

	Year Ended December 31,					
	2009		2010		2011	
	(percentage of testing revenues)					
Testing Services:						
Front-end engineering testing	2.9	%	2.2	%	2.1	%
Wafer probing	13.9		13.8		12.6	
Final testing	83.2		84.0		85.3	
Total	100.0	%	100.0	%	100.0	%

**Electronic Manufacturing Services.** Since our acquisition of the controlling interest of Universal Scientific in February 2010, we also provide integrated solutions for electronics manufacturing services in relation to computers, peripherals, communications, industrial, automotive, and storage and server applications. The key products and services we offer to our customers, for instance, include:

- **Computers:** motherboards for server & desktop PC; peripheral; port replicator; network attached storage; and technical services;
  - **Communications:** Wi-Fi; WiMAX; SiP and Hybrid SiP;
  - **Consumer products:** control boards for flat panel devices;
- **Automotive electronics:** automotive electronic manufacturing services; car LED lighting; regulator/rectifier; and
  - **Industrial products:** point-of-sale systems; smart handheld devices.

## Seasonality

See “Item 5. Operating and Financial Review and Prospects—Operating Results and Trend Information—Quarterly Net Revenues, Gross Profit and Gross Margin.”



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## Sales and Marketing

## Sales and Marketing Offices

We maintain sales and marketing offices in Taiwan, the United States, Austria, Belgium, France, Germany, Singapore, the Philippines, the PRC, Korea, Malaysia, Japan, Mexico and other countries. Our sales and marketing offices in Taiwan are located in Hsinchu and Kaohsiung. We conduct marketing research through our customer service personnel and through our relationships with our customers and suppliers to keep abreast of market trends and developments. We also provide advice in the area of production process technology to our major customers planning the introduction of new products. In placing orders with us, our customers specify which of our facilities these orders will go to. Our customers conduct separate qualification and correlation processes for each of our facilities that they use. See “—Qualification and Correlation by Customers.”

## Customers

In 2011, our global base of over 200 customers includes leading semiconductor companies across a wide range of end-use applications, such as:

- Atmel Corporation
- AU Optronics Corp.
- Broadcom Corporation
- Cambridge Silicon Radio Limited
- Freescale Semiconductor, Inc.
- Infineon Technologies
- Lenovo Computer Ltd.
- Marvell Technology Group Ltd.
- Media Tek Inc.
- Motorola, Inc.
- Mstar Semiconductor Inc.
- Qualcomm Incorporated
- Renesas Electronics Corporation
- Spreadtrum Communications, Inc.
- STMicroelectronics N.V.
- Toshiba Corporation
- Valeo Group

Our five largest customers together accounted for approximately 28.7%, 26.0% and 26.8% of our net revenues in 2009, 2010 and 2011, respectively. No customer accounted for more than 10% of our net revenues in 2009, 2010 and 2011.

We package and test for our customers a wide range of products with end-use applications in the communications, computing, consumer electronics, industrial and automotive sectors. The following table sets forth a breakdown of the percentage of our net revenues generated from our packaging and testing services, for the periods indicated, by the principal end-use applications of the products which we packaged and tested.

	Year Ended December 31,					
	2009		2010		2011	
Communications	46.2	%	47.5	%	52.3	%
Computing	16.8		16.9		14.2	
Consumer electronics/industrial/automotive	36.0		35.2		33.0	
Other	1.0		0.4		0.5	
Total	100.0	%	100.0	%	100.0	%

In addition, we started providing electronic manufacturing services after acquiring the controlling interest of Universal Scientific in February 2010. Our electronic manufacturing services provide a wide range of products with end-use applications. The following table sets forth a breakdown of the percentage of our net revenues generated from our electronic manufacturing services for 2010 and 2011 by the principal end-use applications.

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	Year Ended December 31,			
	2010		2011	
Communications	34.7	%	36.1	%
Computing	25.9		22.1	
Consumer electronics	19.4		18.5	
Industrial and automotive	19.5		22.6	
Other	0.5		0.7	
Total	100.0	%	100.0	%

Many of our customers are leaders in their respective end-use markets. For example, we provide Freescale Semiconductor, Inc., an industry leader in automotive semiconductor products, with a substantial portion of its outsourced packaging and testing requirements. The following table sets forth some of our largest customers, in alphabetical order, categorized by the principal end-use applications of the products which we package and test for them.

Communications	Computing	Consumer Electronics/Industrial/Automotive
Atmel Corporation	Atmel Corporation	AU Optronics Corp.
Avago Technologies	Lenovo Computer Ltd.	Freescale Semiconductor, Inc.
Broadcom Corporation	Marvell Technology Group Ltd.	Motorola, Inc.
Cambridge Silicon Radio Limited	NVIDIA Corporation	Mstar International Inc.
Media Tek Inc.	STMicroelectronics N.V.	Renesas Electronics Corporation
Micron Technology, Inc.		STMicroelectronics N.V.
Qualcomm Incorporated		Toshiba Corporation
Spreadtrum Communications, Inc.		

We categorize our revenues geographically based on the country in which the customer is headquartered. The following table sets forth, for the periods indicated, the percentage breakdown by geographic regions of our revenues.

	Year Ended December 31,					
	2009		2010		2011	
America	52.6	%	55.9	%	58.1	%
Taiwan	20.8		19.7		20.0	
Asia	14.0		13.6		11.3	
Europe	12.6		10.8		10.6	
Total	100.0	%	100.0	%	100.0	%

The majority of our testing revenues is accounted for by the testing of semiconductors that were also packaged at our packaging facilities. The balance represented testing revenues from customers who delivered packaged semiconductors directly to our facilities for testing services alone. The majority of our packaging revenues is accounted for by the packaging of semiconductors which were subsequently tested at our facilities. We expect that more customers of our packaging facilities will begin to contract for our packaging and testing services on a turnkey basis.

### Qualification and Correlation by Customers

Customers generally require that our facilities undergo a stringent qualification process during which the customer evaluates our operations and production processes, including engineering, delivery control and testing capabilities. The qualification process typically takes up to several weeks, but can take longer depending on the requirements of the customer. In the case of our testing operations, after we have been qualified by a customer and

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before the customer delivers semiconductors to us for testing in volume, a process known as correlation is undertaken. During the correlation process, the customer provides us with sample semiconductors to be tested and either provides us with the test program or requests that we develop a conversion program. In some cases, the customer also provides us with a data log of results of any testing of the semiconductors which the customer may have conducted previously. The correlation process typically takes up to two weeks, but can take longer depending on the requirements of the customer. We believe our ability to provide turnkey services reduces the amount of time spent by our customers in the qualification and correlation process. As a result, customers utilizing our turnkey services are able to achieve shorter production cycles.

### Pricing

We price our packaging services and electronic manufacturing services primarily on a cost-plus basis with reference to prevailing market prices. We price our testing services primarily on the basis of the amount of time, measured in central processing unit seconds, taken by the automated testing equipment to execute the test programs specific to the products being tested, as well as the cost of the equipment, with reference to prevailing market prices. Prices for our packaging, testing and electronic manufacturing services are confirmed at the time orders are received from customers, which is typically several weeks before delivery.

### Raw Materials and Suppliers

#### Packaging

The principal raw materials used in our packaging processes are interconnect materials such as leadframes and substrates, gold wire and molding compound. The silicon die, which is the functional unit of the semiconductor to be packaged, is supplied in the form of silicon wafers. Each silicon wafer contains a number of identical dies. We receive the wafers from the customers or the foundries on a consignment basis. Consequently, we generally do not incur inventory costs relating to the silicon wafers used in our packaging process.

We do not maintain large inventories of leadframes, substrates, gold wire or molding compound, but generally maintain sufficient stock of each principal raw material based on blanket orders and rolling forecasts of near-term requirements received from customers. In addition, several of our principal suppliers dedicate portions of their inventories as reserves to meet our production requirements. However, shortages in the supply of materials experienced by the semiconductor industry have in the past resulted in occasional price adjustments and delivery delays. For example, in the first half of 2000, the industry experienced a shortage in the supply of advanced substrates used in BGA packages, which, at the time, were only available from a limited number of suppliers located primarily in Japan. Recent fluctuations in gold prices have also affected the price at which we have been able to purchase the principal raw materials. In order to reduce the adverse impact caused by the price fluctuations of raw materials, we have developed substitute raw materials for copper, the cost of which is much cheaper than that of gold. However, we cannot guarantee that we will not experience shortages or price increase in the near future or that we will be able to obtain adequate supplies of raw materials in a timely manner and at a reasonable price or to develop any substitute raw materials. In the event of a shortage and/or price increase, we generally inform our customers and work together to accommodate changes in delivery schedules and/or the price increase of raw materials.

We produce substrates for use in our packaging operations. In 2011, our interconnect materials operations supplied approximately 37.8% of our consolidated substrate requirements by value. See “—Principal Products and Services—Packaging Services—Interconnect Materials.”

As a result of the “Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment,” or RoHS, which became effective on July 1, 2006, we have adjusted our purchases of raw materials and our production processes in order to use raw materials that comply with this legislation for part of our production. This legislation restricts the use in the European Union, or EU, of certain substances the EU deems harmful to consumers, which includes certain grades of molding compounds, solder and other raw materials that are used in our products. Manufacturers of electrical and electronic equipment must comply with this legislation in order to sell their products in an EU member state. Any failure on the environmental requests on our products, such as Directive 2002/95/EC may have a material adverse effect on our results of operations.

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### Testing

Apart from packaged semiconductors, no other raw materials are needed for the functional and burn-in testing of semiconductors.

### Electronic Manufacturing Services

Our manufacturing processes use many raw materials in our electronic manufacturing services. For 2011, the raw materials costs accounted for 80.0% of our net revenues from electronic manufacturing services. Our principal raw materials include, among others, printed circuit boards, integrated chips, ink, semiconductor devices, computer peripherals and related accessories and electronic components. Our principal raw materials varied in the past, depending on the end-use products we provided.

To ensure the quality, on-time delivery and pricing competitiveness, we have established both a standardized supplier assessment system and an evaluation mechanism, continued to maintain close working relationships with our suppliers and jointly created a stable and sustainable supply chain. In addition, we adjusted the procurement strategy in line with industry trends as well as the nature of raw materials and decentralized the sources of raw materials to lower the concentration risk of supply. However, we cannot assure you that we will not experience any shortage or price increase in the near future. See “Item 3. Risk Factor-Our revenues and profitability may decline if we are unable to obtain adequate supplies of raw materials in a timely manner and at a reasonable price.”

### Equipment

#### Packaging

The most important equipment used in the semiconductor packaging process is the wire bonder. Wire bonders connect the input/output terminals on the silicon die using extremely fine gold wire to leads on leadframes or substrates. Typically, a wire bonder may be used, with minor modifications, for the packaging of different products. We purchase our wire bonders principally from Kulicke & Soffa Industries Inc and others. As of February 29, 2012, we operated an aggregate of 13,667 wire bonders, of which 13,386 were fine-pitch wire bonders. As of the same date, 42 of the wire bonders operated by us were consigned by customers. For the packaging of certain types of substrate-based packages, such as flip-chip BGA, die bonders are used in place of wire bonders. We purchase our die bonders principally from Esec AG, ASM Assembly Automation Ltd. and Hitachi High Technologies Corporation. The number of bonders at a given facility is commonly used as a measure of the packaging capacity of the facility. In addition to bonders, we maintain a variety of other types of packaging equipment, such as wafer grind, wafer mount, wafer saw, automated molding machines, laser markers, solder plate, pad printers, dejunkers, trimmers, formers, substrate saws and scanners. We purchase our molding machines principally from ASM Assembly Automation Ltd., Fico B.V. and Towa Corporation.

#### Testing

Testing equipment is the most capital intensive component of the testing process. We generally seek to purchase testers from different suppliers with similar functionality and the ability to test a variety of different semiconductors. We purchase testers from major international manufacturers, including Verigy Ltd., Teradyne, Inc., Credence Systems Corporation, LTX Corporation, Seiko Epson and Tokyo Electron Limited. Upon acquisition of new testers, we install, configure, calibrate, perform burn-in diagnostic tests on and establish parameters for the testers based on the anticipated requirements of existing and potential customers and considerations relating to market trends. As of February 29, 2012, we operated an aggregate of 2,576 testers, of which 592 were consigned by customers and 68 were leased under operating leases. In addition to testers, we maintain a variety of other types of testing equipment, such as

automated handlers and probers (special handlers for wafer probing), scanners, reformers and computer workstations for use in software development. Each tester may be attached to a handler or prober. Handlers attach to testers and transport individual packaged semiconductor to the tester interface. Probers similarly attach to the tester and align each individual die on a wafer with the interface to the tester.



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For the majority of our testing equipment, we often base our purchases on prior discussions with our customers about their forecast requirements. The balance consists of testing equipment on consignment from customers and which are dedicated exclusively to the testing of these customers' specific products.

Test programs, which are the software that drive the testing of specific semiconductors, are written for a specific testing platform. We often perform test program conversions that enable us to test semiconductors on multiple test platforms. This portability between testers enables us to allocate semiconductors tested across our available test capabilities and thereby improve capacity utilization rates. In cases where a customer requires the testing of a semiconductor product that is not yet fully developed, the customer may provide personal computer workstations to us to test specific functions. In cases where a customer has specified testing equipment that was not widely applicable to other products which we test, we have required the customer to furnish the equipment on a consignment basis.

### Electronic Manufacturing Services

The SMT (Surface Mount Technology) assembly line is the key facility of our electronic manufacturing operations, and generally includes a printer and one or two high-speed mounters and/or a multi-function mounter. The SMT assembly process primarily consists of the following three manufacturing steps: (i) solder paste stencil printing (ii) component placement and (iii) solder reflow. High-speed SMT assembly systems offer both economical and technical advantages which may reduce both production cost and time while meeting quality requirements. Thus, SMT has become the most popular assembly method for sophisticated electronic devices. We had 110 SMT lines as of February 29, 2012.

### Intellectual Property

As of February 29, 2012, we held 1,863 Taiwan patents, 687 U.S. patents, 559 PRC patents and 12 patents in other countries related to various semiconductor packaging technologies and invention, utility and design on our electronic manufacturing services. In addition, we also filed several trademarks applications in Taiwan, the United States and China. For example, "ASE", "aCSP", "Advanced CSP", "a\_EASI", "a-fcCSP", "aMAPPoP", "aQFN" "a-QFN", "a-S3", "a-T", "a-WLP", "iSiP", "iWLP" and "MAPPoP" have been registered in Taiwan.

We have also entered into various non-exclusive technology license agreements with other companies involved in the semiconductor manufacturing process, including Tesser Inc., Fujitsu Limited, Flip Chip International, L.L.C., Mitsui High-Tec, Inc., Infineon Technologies AG, Siliconware Precision Industries Co., Ltd. and Richwave Technology Corp. We paid royalties under our license agreements in the amount of NT\$200.6 million, NT\$335.8 million and NT\$85.5 million (US\$2.8 million) in 2009, 2010 and 2011, respectively. The technology we license from these companies includes solder bumping, redistribution, ultra CSP assembly, advanced QFN assembly, wafer level packaging and other technologies used in the production of package types, such as BCC, flip-chip BGA, film BGA and aQFN. The license agreement with Tesser Inc. will not expire until the expiration of the Tesser Inc. patents licensed by the agreement. For information regarding our intellectual property dispute with Tesser Inc., see "Item 8. Financial Information—Legal Proceedings." Our license agreements with Flip Chip International, L.L.C. and Siliconware Precision Industries Co., Ltd. will not expire until the expiration of the patents licensed by the agreement. Our license agreement with Infineon Technologies AG will expire on November 5, 2017, and our license agreement with Mitsui High-Tec, Inc. will expire on June 24, 2012. Our license agreement with Fujitsu Limited renews automatically each year unless the parties to the agreement agree otherwise. Our license agreement with Richwave Technology Corp. expired on February 11, 2011.

Our success depends in part on our ability to obtain, maintain and protect our patents, licenses and other intellectual property rights, including rights under our license agreements with third parties.

## Quality Control

We believe that our advanced process technology and reputation for high quality and reliable services have been important factors in attracting and retaining leading international semiconductor companies as customers for our services and/or products. We maintain a quality control staff at each of our facilities. Our quality control staff typically includes engineers, technicians and other employees who monitor the processes in order to ensure high

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quality. Our quality assurance systems impose strict process controls, statistical in-line monitors, supplier control, data review and management, quality controls and corrective action systems. Our quality control employees operate quality control stations along production lines, monitor clean room environments and follow up on quality through outgoing product inspection and interaction with customer service staff. We have established quality control systems which are designed to ensure high quality service to customers, high product and testing reliability and high production yields at our facilities. We also have established an environmental management system in order to ensure that we can comply with the environmental standards of our customers and the countries within which they operate. See “—Raw Materials and Suppliers—Packaging.” In addition, our facilities have been qualified by all of our major customers after satisfying stringent quality standards prescribed by these customers.

Our packaging and testing operations are undertaken in clean rooms where air purity, temperature and humidity are controlled. To ensure stability and integrity of our operations, we maintain clean rooms at our facilities that meet U.S. Federal Standard 209E class 1,000, 10,000 and 100,000 standards.

Our packaging, testing and interconnect materials facilities in Taiwan, Malaysia, Japan, the PRC, Singapore and Korea have been certified as meeting ISO/TS16949 standards. Such standards were originally created by the International Automotive Task Force in conjunction with the International Standards Organization, or ISO. These standards provide for continuous improvement with an emphasis on the prevention of defects and reduction of variation and waste in the supply chain. The ISO/TS16949 certification is required by some semiconductor manufacturers as a threshold indicator of company’s quality control standards.

Our packaging, testing and interconnect materials facilities in Taiwan, Japan, Korea, Malaysia, the PRC, California and Singapore have been certified as meeting the ISO 9001 quality standards set by the ISO. Our packing, testing and interconnect materials facilities in Taiwan, Japan, Korea, Malaysia, the PRC, California and Singapore have also been certified as meeting the ISO 14001 quality standards. In addition, our packaging facilities in Kaohsiung, Taiwan have been certified as meeting the ISO 17025:2005 quality standards set by the ISO. ISO certifications are required by many countries in connection with sales of industrial products.

ISE Labs’s testing facilities in Fremont, California is considered suitably equipped by Defense Logistics Agency to perform the MIL-STD-833 tests on monolithic microcircuits in accordance with the requirements of military specification MIL-PRF-38535.

Our packaging, testing and interconnect materials facilities in Taiwan, Malaysia, the PRC, Japan, Singapore and Korea have been certified as a “Sony Green Partner,” which indicates our compliance with the “Sony Green Package” standard requirements.

Our packaging, testing and interconnect material facilities in Taiwan, the PRC, Japan, Korea and Malaysia have been certified to be in compliance with IECQ HSPM QC080000, a certification designed to manage, reduce and eliminate hazardous substances. Our packaging, testing and interconnect facilities in Taiwan have been certified to be in compliance with ISO 14064-1, which specifies the principles and requirements at the organization level for quantification and reporting of greenhouse gas emissions and removals.

Our packaging, testing and interconnect materials facilities in Taiwan, Korea, Singapore and the PRC have also been certified to be in compliance with OHSAS 18001, a set of standards designed upon collaboration with occupational health and safety experts and now offered by many certification organizations as an indication of compliance with certain standards for occupational health and safety. In addition, our facilities for the packaging, testing and interconnect materials in Taiwan have been certified to be in compliance with Taiwan Occupational and Health Management System, or TOSHMS, and SA8000, which is the most widely recognized global standard for managing

human rights in the workspace.

Since our acquisition of the controlling interest of Universal Scientific in February 2010, we have begun providing electronics manufacturing services, for which we also have strict process controls. The table below sets forth the certifications we have obtained for our electronics manufacturing services facilities.

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Location	ISO	TL 9000	ISO/TS		OHSAS18001	IECQ	ISO
	14001	(1)	ISO 9001	16949		QC	14064-1
Taiwan	ü		ü	ü	ü	ü	ü
Shenzhen, PRC	ü	ü	ü		ü	ü	ü
Shanghai, PRC	ü	ü	ü	ü	ü	ü	ü
Kunshan, PRC	ü		ü		ü	ü	
Mexico	ü		ü	ü		ü	

(1) TL 9000 quality management system sets forth the supply chain quality requirements of the global communications industry.

In addition, we have received various vendor awards from our customers for the quality of our products and services.

### Competition

We compete in the highly competitive independent semiconductor packaging and testing markets. We face competition from a number of sources, including other independent semiconductor packaging and testing companies. More importantly, we compete for the business of integrated device manufacturers with in-house packaging and testing capabilities and fabless semiconductor design companies with their own in-house testing capabilities. Some of these integrated device manufacturers have commenced, or may commence, in-house packaging and testing operations in Asia. Substantially all of the independent packaging and testing companies that compete with us have established operations in Taiwan.

Integrated device manufacturers that use our services continuously evaluate our performance against their own in-house packaging and testing capabilities. These integrated device manufacturers may have access to more advanced technologies and greater financial and other resources than we do. We believe, however, that we can offer greater efficiency at lower cost while maintaining equivalent or higher quality for several reasons. First, as we benefit from specialization and economies of scale by providing services to a large base of customers across a wide range of products, we are better able to reduce costs and shorten production cycles through high capacity utilization and process expertise. Second, as a result of our customer base and product offerings, our equipment generally has a longer useful life. Third, as a result of the continuing reduction of investments in in-house packaging and testing capacity and technology at integrated device manufacturers, we are better positioned to meet their advanced packaging and testing requirements on a large scale.

Since our acquisition of the controlling interest of Universal Scientific in February 2010, we also provide electronic manufacturing services. We face significant competition from other electronics manufacturing services providers, such as Hon Hai Precision Ind. Co., Ltd, with comprehensive integration, wide geographic coverage and large production capabilities that enable them to achieve economies of scale. We believe, however, that we can still achieve satisfactory performance in the market given that we have been able to provide products with high quality and we are capable of designing new products by cooperating with our customers.

### Environmental Matters

Our operations of packaging, interconnect materials and electronic manufacturing services generate environmental wastes, including gaseous chemical, liquid and solid industrial wastes. We have installed various types of anti-pollution equipment for the treatment of liquid and gaseous chemical waste generated at our facilities. We believe

that we have adopted adequate anti-pollution measures for the effective maintenance of environmental protection standards that are consistent with the industry practice in the countries in which our facilities are located. In addition, we believe we are in compliance in all material respects with present environmental laws and regulations applicable to our operations and facilities.

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Insurance

We have insurance policies covering property damage and damage to our production facilities, buildings and machinery. In addition, we have insurance policies covering our public and product liabilities. Significant damage to any of our production facilities would have a material adverse effect on our results of operations.

We are not insured against the loss of key personnel.

ORGANIZATIONAL STRUCTURE

The following chart illustrates our corporate structure including our principal manufacturing subsidiaries as of March 31, 2012. The following chart does not include wholly-owned intermediate holding companies and internal trading companies.

Our Consolidated Subsidiaries

ASE Test Taiwan

ASE Test Taiwan, which was acquired in 1990, is our wholly-owned subsidiary. It is incorporated in Taiwan and is engaged in the testing of integrated circuits.

ASE Test Malaysia

ASE Test Malaysia, which was established in 1991, is our wholly-owned subsidiary. It is incorporated in Malaysia and is engaged in the packaging and testing of integrated circuits.

ISE Labs

ISE Labs is our wholly-owned subsidiary. It is a semiconductor company specializing in front-end engineering testing that is incorporated in the United States and has its principal facilities located in Fremont and Santa Clara,

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California. Through ASE Test, we acquired 70.0% of the outstanding shares of ISE Labs in 1999, and increased our holding to 100.0% through purchases made in 2000 and 2002.

### ASE Singapore Pte. Ltd.

ASE Singapore Pte. Ltd. is incorporated in Singapore and provides testing services. It was previously our wholly-owned subsidiary through ISE Labs's 100% interest. Through a restructuring in November 2008, we acquired 100% of ASE Singapore Pte. Ltd. through one of our wholly-owned intermediate holding companies. In January 2011, ASE Singapore II Pte. Ltd. merged into ASE Singapore Pte. Ltd., which we acquired in August 2010. See "Item 4 – History and Development of the Company – Acquisition of EEMS Test Singapore."

### ASE Electronics

ASE Material was established in 1997 as an ROC company for the production of interconnect materials, such as substrates, used in the packaging of semiconductors. We initially held a majority stake in ASE Material, but acquired the remaining equity by means of a merger of ASE Material with and into us in August 2004. In August 2006, we spun off the operations originally conducted through ASE Material into our wholly-owned subsidiary ASE Electronics. ASE Electronics currently supplies our packaging operations with a substantial portion of our substrate requirements. The facilities of ASE Electronics are primarily located in the Nantze Export Processing Zone near our packaging and testing facilities in Kaohsiung, Taiwan.

### ASE Chung Li and ASE Korea

In July 1999, we purchased Motorola's Semiconductor Products Sector operations in Chung Li, Taiwan and Paju, South Korea for the packaging and testing of semiconductors with principally communications, consumer and automotive applications, thereby forming ASE Chung Li and ASE Korea. In August 2004, we acquired the remaining outstanding shares of ASE Chung Li that we did not already own and merged ASE Chung Li into us.

### ASE Japan

ASE Japan, which we acquired from NEC Electronics Corporation in May 2004, is our wholly-owned subsidiary. It is incorporated in Japan and is engaged in the packaging and testing of semiconductors.

### ASE Shanghai

ASE Shanghai was established in 2001 as a wholly-owned subsidiary of ASE Inc. and began operations in June 2004. ASE Shanghai primarily manufactures and supplies interconnect materials for our packaging operations.

### PowerASE

In July 2006, we established PowerASE, a joint venture with Powerchip Technology Corporation, or Powerchip, focusing on the packaging and testing of memory semiconductors. PowerASE began operations in December 2006. Pursuant to the joint venture agreement, we invested US\$30.0 million for 60.0% of the equity interest in PowerASE. In November and December 2011, we acquired a total of 106,808,182 shares of PowerASE mainly through tender offers, for a total consideration of NT\$1,972.2 million (US\$65.2 million). As of March 31, 2012, we own 99.6% of the outstanding common shares of PowerASE. On March 29, 2012, our board of directors adopted resolutions to acquire the remaining 0.4% of the outstanding shares of PowerASE for a consideration of NT\$13.5 million (US\$0.4 million) and merge PowerASE into ASE Inc.



ASESH AT

We acquired 100.0% of GAPTECH, now known as ARESH AT, in January 2007 for a purchase price of US\$60.0 million. ARESH AT is a PRC company based in Shanghai, China that provides wire bond packaging and testing services for a wide range of semiconductors.

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### ASEN

In September 2007, we acquired 60.0% of ASEN, formerly known as NXP Semiconductors Suzhou Ltd., from NXP Semiconductors for a purchase price of US\$21.6 million. NXP Semiconductors holds the remaining 40.0% of ASEN. ASEN is based in Suzhou, China and is engaged in semiconductor packaging and testing.

### ASEWH

In May 2008, we acquired 100.0% of the shares of ASEWH from Aimhigh Global Corp. and TCC Steel. ASEWH is based in Weihai, Shandong, China and is engaged in semiconductor packaging and testing.

### ASEKS

ASEKS was set up in 2004 and began operating in 2010. ASEKS is based in KunShan, China and is engaged in semiconductor packaging and testing.

### Yang Ting

We acquired 100.0% of the shares of Yang Ting in January 2012. Yang Ting is based in Taichung, ROC, and specializes in semiconductor packaging and testing services.

### Universal Scientific Group

Universal Scientific, which is an ROC company, manufactures electronics products in varying degrees of system integration principally on a contract basis for original equipment manufacturers, including:

- electronic components such as thick film mixed-signal devices, thick film resistors, high frequency devices and automotive and power electronic devices;
- board and sub-system assemblies such as customized surface mount technology board assemblies, mother boards for personal computers, wireless local area network cards and fax control boards; and
- system assemblies such as portable computers, desktop personal computers, network computers and servers.

We purchased 22.6% of the outstanding shares of Universal Scientific in 1999. We subsequently increased our holding to 23.3% in 2000. As of December 31, 2009, we held approximately 18.1% of Universal Scientific's outstanding equity shares, which allowed us to exercise significant influence over Universal Scientific and therefore accounted for this investment by the equity method.

In February 2010, we, along with our two subsidiaries, J&R Holding Limited and ASE Test, through a cash and stock tender offer, acquired 641,669,316 common shares of Universal Scientific at NT\$21 per share, amounting to NT\$13,475.1 million in total, resulting in our controlling ownership over Universal Scientific. As a result, Universal Scientific became our subsidiary. In August 2010, we acquired additional 222,243,661 shares of Universal Scientific through another tender offer at NT\$21 per share, amounting to NT\$4,667.1 million in total. We owned 99.2% of the outstanding common shares of Universal Scientific as of March 31, 2012.

In February 2012, Universal Scientific Shanghai, a subsidiary of Universal Scientific, completed its IPO on the Shanghai Stock Exchange. Total proceeds from the IPO was approximately RMB 811.7 million (US\$129.0 million) prior to deducting underwriting discounts and commissions. As of March 31, 2012, we indirectly held 88.7% of

Universal Scientific Shanghai's total outstanding shares through our subsidiaries Universal Scientific and ASE Shanghai.

Universal Scientific's principal manufacturing facilities are located in Nantou, Taiwan, and Shenzhen and Shanghai, China. The shares of Universal Scientific were listed on the Taiwan Stock Exchange under the symbol "2350" and delisted on June 17, 2010.

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## PROPERTY, PLANTS AND EQUIPMENT

We operate a number of packaging, testing and electronic manufacturing facilities in Asia and the United States. Our facilities provide varying types or levels of services with respect to different end-product focus, customers, technologies and geographic locations. With our diverse facilities we are able to tailor our packaging, testing and electronic manufacturing solutions closely to our customers' needs. The following table sets forth the location, commencement of operation, primary use, approximate floor space and ownership of our principal facilities as of February 29, 2012.

Facility	Location	Commencement of Operation	Primary Use	Approximate Floor Space (in sq. ft.)	Owned or Leased
ASE Inc.	Kaohsiung, ROC	March 1984	Our primary packaging facility, which offers complete semiconductor manufacturing solutions in conjunction with ASE Test Taiwan and foundries located in Taiwan. Focuses primarily on advanced packaging services, including flip-chip, wafer bumping and fine-pitch wire bonding.	3,462,000	Land: leased Buildings: owned and leased
	Chung Li, ROC	Acquired in July 1999	An integrated packaging and testing facility that specializes in semiconductors for communications and consumer applications.	1,566,000	Land and buildings: owned
	Nantou, ROC	April 2011	Our facility that specializes the assembly and manufacture of DC (direct current) to DC converter and print head.	80,000	Land and buildings: leased
ASE Test Taiwan	Kaohsiung, ROC	December 1987	Our primary testing facilities, which offer complete semiconductor manufacturing solutions in conjunction with ASE Inc.'s facility in Kaohsiung and foundries located in Taiwan. Focuses primarily on advanced logic/mixed-signal/RF/discrete testing for integrated device manufacturers, fabless design companies and system companies.	826,000	Land: leased Buildings: owned and leased

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	Chung Li, ROC	October 2001	Our primary wafer probing testing facilities.	37,000	Land and building: leased
ASE Test Malaysia	Penang, Malaysia	February 1991	An integrated packaging and testing facility that focuses primarily on the requirements of integrated device manufacturers.	828,000	Land: leased Buildings: owned
ASE Korea	Paju, Korea	Acquired in July 1999	An integrated packaging and testing facility that specializes in semiconductors for radio frequency, sensor and automotive applications.	810,000	Land and buildings: owned

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Facility	Location	Commencement of Operation	Primary Use	Approximate Floor Space (in sq. ft.)	Owned or Leased
ISE Labs	California, USA Texas, USA	Acquired in May 1999	Front-end engineering and final testing facilities located in northern California in close proximity to some of the world's largest fabless design companies. Testing facilities located in close proximity to integrated device manufacturers and fabless companies in Texas.	93,000	Land and buildings: owned and leased
ASE Singapore	Singapore	Acquired in May 1999	An integrated testing, sorting and related backend supporting facility that specializes in semiconductors for communication, computers and consumer applications.	282,000	Land: leased Buildings: owned and leased
ASE Shanghai	Shanghai, China	June 2004	Design and production of semiconductor packaging materials.	1,431,000	Land: leased Buildings: owned
ASE Japan	Takahata, Japan	Acquired in May 2004	An integrated packaging and testing facility that specializes in semiconductors for cellular phone, household appliance and automotive applications.	298,000	Land and buildings: leased
ASE Electronics	Kaohsiung, ROC	August 2006	Facilities for the design and production of interconnect materials such as substrates used in the packaging of semiconductors.	377,000	Land: leased Buildings: owned
PowerASE	Chung Li, ROC	December 2006	An integrated packaging and testing facility that specializes in memory semiconductors for personal computer applications.	130,000	Buildings: leased
ASESH AT	Shanghai, China	Acquired in January 2007	An integrated packaging and testing facility that specializes in semiconductors for communications and consumer	796,000	Land: leased Buildings: owned

applications.

ASEN	Suzhou, China	Acquired in September 2007	An integrated packaging and testing facility that specializes in communication applications.	433,000	Land: leased Buildings: owned
ASEWH	Shandong, China	Acquired in May 2008	An integrated packaging and testing facility that specializes in semiconductors for communications, computing and consumer applications.	226,000	Land: leased Buildings: owned
ASEKS	Kunshan, China	July 2010	An integrated packaging and testing facility that specializes in	1,141,000	Land: leased Buildings: owned

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Facility	Location	Commencement of Operation	Primary Use	Approximate Floor Space (in sq. ft.)	Owned or Leased
			semiconductors for communications and consumer applications.		
Yang Ting	Taichung, ROC	Acquired in January 2012	An integrated packaging and testing facility that specializes on computing applications.	84,000	Land: Leased Buildings: owned
Universal Scientific	Nantou, ROC	February 1974	The parent company of Universal Scientific Group, engages in research and development activities for notebook and desktop personal computers (PCs), desktop PC systems, communications products, and various electronic components such as thick film resistors, thick film hybrid integrated circuits (ICs) and automotive parts.	1,009,000	Land: owned Buildings: owned
Universal Scientific Industrial De Mexico S.A. De C.V.	Guadalajara, Mexico	September 1997	Manufacturing site, which offer Motherboard manufacture and system assembly.	383,000	Land: owned Buildings: owned
USI Electronics (Shenzhen) Co., Ltd.	Shenzhen, China	June 2000	Manufacturing site, design, manufacture and marketing of motherboards, electronic components, accessories and related products in China.	495,000	Land: leased Buildings: owned
Universal Scientific Shanghai	Shanghai, China	February 2003	Manufacturing site, design, manufacture and marketing of motherboards, electronic components, accessories and related products in China.	709,000	Land: leased Buildings: owned and leased
	Kunshan, China	May 2011	Manufacturing site, design, manufacture and marketing of motherboards, electronic components, accessories and	258,000	Land: leased Buildings: leased



related products in China.

Universal Global Technology (Shenzhen) Co., Ltd.	Shenzhen, China	April 2009	Manufacturing site, design, manufacture and marketing of electronic components, accessories and related products.	129,000	Land and buildings: leased
Universal Global Scientific Industrial Co., Ltd.	Nantou, ROC	February 2010	Design, manufacture and marketing of electronic components, accessories and related products.	314,000	Buildings: leased

Our leased property in Kaohsiung consists primarily of leases of land in the Kaohsiung Nantze Export Processing Zone between ASE Inc. and ASE Test Taiwan, as the lessees, and the Export Processing Zones Administration, or the EPZA, under the Ministry of Economic Affairs. The leases have ten year terms that expire between March 2012 and August 2020. No sublease or lending of the land is allowed. The EPZA has the right to

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adjust the rental price in the event the government revalues the land. The leases are typically renewable with three months notice prior to the termination date.

For information on the aggregate capacity of our facilities we operate, see “—Business Overview—Equipment.”

### Item 4A. Unresolved Staff Comments

None.

### Item 5. Operating and Financial Review and Prospects

## OPERATING RESULTS AND TREND INFORMATION

The following discussion of our business, financial condition and results of operations should be read in conjunction with our consolidated financial statements, which are included elsewhere in this annual report. This discussion contains forward-looking statements that reflect our current views with respect to future events and financial performance. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of any number of factors, such as those set forth under “Item 3. Key Information—Risk Factors” and elsewhere in this annual report. See “Special Note Regarding Forward-Looking Statements.”

### Overview

We offer a broad range of semiconductor packaging, testing services and we also offer electronic manufacturing services since our acquisition of the controlling interest of Universal Scientific in February 2010. In addition to offering each service separately, we also offer turnkey services, which consist of the integrated packaging, testing and direct shipment of semiconductors to end users designated by our customers and solution-based proactive original design manufacturing, or ODM, with our customers. In addition, we started generating revenues from our real estate business since 2010. Our net revenues changed from NT\$85,775.3 million in 2009 and NT\$188,742.8 million in 2010 to NT\$185,347.2 million (US\$6,123.1 million) in 2011.

Discussed below are several factors that have had a significant influence on our financial results in recent years.

### Pricing and Revenue Mix

We price our services on a cost-plus basis, taking into account the actual costs involved in providing these services, with reference to prevailing market prices. The majority of our prices and revenues are denominated in U.S. dollars. Any significant fluctuation in the exchange rates, especially between NT dollars and U.S. dollars will affect our costs and, in turn, our pricing.

In the case of semiconductor packaging, the cost of the silicon die, typically the most costly component of the packaged semiconductor, is usually not reflected in our costs (or revenues) since it is generally supplied by our customers on a consignment basis.

The semiconductor industry is characterized by a general trend towards declining prices for products and services of a given technology over time. In addition, during periods of intense competition and adverse conditions in the semiconductor industry, the pace of this decline may be more rapid than in other years. The average selling prices of our packaging and testing services have experienced sharp declines during such periods as a result of intense price competition from other independent packaging and testing companies that attempt to maintain high capacity utilization levels in the face of reduced demand.

Declines in average selling prices have been partially offset over the last several years by changes in our revenue mix. In particular, revenues derived from packaging more advanced package types, such as flip-chip BGA, higher density packages with finer lead-to-lead spacing, or pitch, and testing of more complex, high-performance semiconductors have increased as a percentage of total revenues. We intend to continue to focus on packaging more advanced package types, such as BGA and flip-chip BGA, developing and offering new technologies in packaging and testing services and expanding our capacity to achieve economies of scale, as well as improving production

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efficiencies for older technologies, in order to mitigate the effects of declining average selling prices on our profitability.

Our profitability for a specific package type does not depend linearly on its average selling price. Some of our more traditional package types, which typically have low average selling prices, may well command steadier and sometimes higher margins than more advanced package types with higher average selling prices.

### High Fixed Costs

Our operations, in particular our testing operations, are characterized by relatively high fixed costs. We expect to continue to incur substantial depreciation and other expenses as a result of our acquisitions of packaging and testing equipment and facilities. Our profitability depends in part not only on absolute pricing levels for our services, but also on utilization rates for our packaging and testing equipment, commonly referred to as “capacity utilization rates.” In particular, increases or decreases in our capacity utilization rates could have a significant effect on gross margins since the unit cost of packaging and testing services generally decreases as fixed costs are allocated over a larger number of units. The capacity utilization rates of the machinery and equipment installed at our production facilities typically depend on factors such as the volume and variety of products packaged or tested using such machinery and equipment, the efficiency of our operations in terms of the loading and adjustment of machinery and equipment for the packaging or testing of different products, the complexity of the different products to be packaged or tested, the amount of time set aside for the maintenance and repair of the machinery and equipment, and the experience and schedule of work shifts of operators.

The current generation of advanced testers typically cost between US\$1.0 million and US\$3.0 million each, while wire bonders used in packaging typically cost between US\$65,000 and US\$70,000 each. In 2009, 2010 and 2011, our depreciation, amortization and rental expense included in cost of revenues as a percentage of net revenues was 19.4%, 9.9% and 11.6%, respectively. The increase in depreciation, amortization and rental expense as a percentage of net revenues in 2011 compared to 2010 was primarily a result of the depreciation of new equipment, particularly with respect to equipment acquired for packaging services. We begin depreciating our equipment when it is available for use. There may sometimes be a time lag between when our equipment is available for use and when it achieves high levels of utilization. In periods of depressed industry conditions, such as the fourth quarter of 2008, we experienced lower than expected demand from customers, resulting in an increase in depreciation relative to net revenues. In particular, the capacity utilization rates for our testing equipment are more severely affected during an industry downturn as a result of a decrease in outsourcing demand from integrated device manufacturers, which typically maintain larger in-house testing capacity than in-house packaging capacity.

In addition to purchasing testers, we also lease a portion of our testers, which we believe allows us to better manage our capacity utilization rates and cash flow. Since testers operated under operating leases can be replaced with more advanced testers upon the expiration of the lease, we believe that these operating leases have enabled us to improve our capacity utilization rates by allowing us to better align our capacity with changes in equipment technology. For more information about our testers, including the number of testers under lease, see “Item 4. Information on the Company—Business Overview—Equipment—Testing.”

### Raw Material Costs

As testing requires minimal raw materials, substantially all of our raw material costs are accounted for by packaging, the production of interconnect materials and electronic manufacturing services. In particular, our electronic manufacturing services acquired in 2010 require more significant demand of raw materials than our packaging and the production of interconnect materials. In 2009, 2010 and 2011, raw material cost as a percentage of our net revenues was 29.8%, 46.9% and 46.9%, respectively.

We have developed copper wire to gradually replace gold wire in the packing processes in order to benefit from the lower material cost of copper. However, gold wire is still one of the principal raw materials we use in our packaging processes, and the recent volatility in the price of gold has affected our cost of revenues. In 2011, the spot rate for gold fluctuated from approximately US\$1,316 per ounce to approximately US\$1,897 per ounce according to the statistics published by The London Bullion Market Association. It may be difficult for us to adjust our average selling prices to account for fluctuations in the price of gold. We expect that gold wire will continue to be an important raw material for us and we therefore expect to continue to be subject to significant fluctuations in the price of gold.

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### Significant Acquisitions

In February 2010, we, along with our two subsidiaries, J&R Holding Limited and ASE Test, through a cash and stock tender offer, acquired 641,669,316 common shares of Universal Scientific at NT\$21 per share, amounting to NT\$13,475.1 million in total, resulting in our controlled ownership over Universal Scientific. As a result, Universal Scientific became our subsidiary. In August 2010, we acquired additional 222,243,661 shares of Universal Scientific through another tender offer at NT\$21 per share, amounting to NT\$4,667.1 million in total. We owned 99.2% of the outstanding common shares of Universal Scientific as of March 31, 2012. See “Item 4. Information on the Company—History and Development of the Company—Acquisition of Shares of Universal Scientific.”

Since our acquisitions of Universal Scientific, their results of operations have been consolidated into our results of operations. Any losses by Universal Scientific may have significant adverse effects on our net income.

### Recent ROC GAAP Accounting Pronouncements

Effective January 1, 2011, we adopted the newly issued ROC SFAS No. 41 “Operating Segments.” The requirements of ROC SFAS No. 41 are based on the information about the components of the Company that the management uses to make decisions about operating matters. SFAS No. 41 requires identification of operating segments on the basis of internal reports that are regularly reviewed by a company’s chief operating decision makers in order to allocate resources to the segments and assess their performance. ROC SFAS No. 41 supersedes ROC SFAS No. 20 “Segment Reporting.”

Effective January 1, 2011, we adopted the newly revised ROC SFAS No. 34 “Financial Instruments: Recognition and Measurement.” The main revision includes that loans and receivables originated by a company are now covered by ROC SFAS No. 34.

On May 14, 2009, the Financial Supervisory Commission of the ROC, or the FSC, announced the “Framework for Adoption of International Financial Reporting Standards by Companies in the ROC.” In this framework, starting 2013, companies with shares listed on the Taiwan Stock Exchange or traded on the Taiwan GreTai Securities Market or Emerging Stock Market should prepare their financial statements in accordance with the Guidelines Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards, International Accounting Standards, and the Interpretations as well as related guidance translated by the Accounting Research and Development Foundation and issued by the FSC. See note 32 to our consolidated financial statements included in this annual report for a description of our plans, status of execution and the material differences between the existing accounting policies and the accounting policies to be adopted under the International Financial Reporting Standards.

### Critical Accounting Policies and Estimates

Preparation of our consolidated financial statements requires us to make estimates and judgments in applying our critical accounting policies which have a significant impact on the results we report in our consolidated financial statements. We continually evaluate these estimates and assumptions. Actual results may differ from these estimates under different assumptions and conditions. Significant accounting policies are summarized as follows.

**Revenue Recognition.** Revenues are recognized when the rewards of ownership or services and the significant risk of the goods or services has been transferred to the buyers. Other criteria that we use to determine when to recognize revenue are:

- existence of persuasive evidence of an arrangement;
- the selling price is fixed or determinable; and
- collectibility is reasonably assured.

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Our customers bear the title and risk of loss for those bare semiconductor wafers that we receive and package into finished semiconductors and/or those packaged semiconductors that we receive and test for performance specifications. Accordingly, the cost of customer-supplied semiconductor materials is not included in our consolidated financial statements.

An appropriate sales discount and return allowance is recognized in the period during which the sale is recognized, and is estimated based on historical experience, the management's judgment and relevant factors.

**Impairment of Accounts Receivable.** We periodically record a provision for doubtful accounts based on our evaluation of the collectibility of our accounts receivable. The total amount of this provision is determined by us as specified under ROC SFAS No. 34, "Financial Instruments: Recognition and Measurement." We first assess whether objective evidence of impairment exists individually in each customer for account receivable, then includes in a group basis with historical collective experience and similar credit risk characteristics and collectively assess them for impairment. As of December 31, 2009, 2010 and 2011, the allowance we set aside for doubtful accounts was NT\$68.7 million, NT\$134.0 million and NT\$128.9 million (US\$4.3 million), respectively. Additional allowances may be required in the future if the financial condition of our customers or general economic conditions further deteriorate, and this additional allowance would reduce our net income.

**Inventories.** Inventories are recorded at cost when acquired and stated at the lower of cost or net realizable values. Inventories are written down to net realizable value item by item. Materials received from customers for processing, mainly of semiconductor wafers, are excluded from inventories, as title and risk of loss remains with the customers. An allowance for loss on decline in market value and obsolescence is provided based on the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. An additional inventory provision may be required if actual market conditions are less favorable than those projected.

**Valuation Allowances for Deferred Income Tax Assets.** Tax benefits arising from deductible temporary differences, unused tax credits and net operating loss carryforwards are recognized as deferred income tax assets. We record a valuation allowance to the extent that we believe it is more likely than not that deferred income tax assets will not be realized. We have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need and amount for the valuation allowance. In the event we were to determine that we would be able to realize our deferred income tax assets in the future in excess of our net recorded amount, an adjustment to our deferred income tax assets would increase income in the period such determination was made. Alternatively, should we determine that we would not be able to realize all or part of our deferred income tax assets in the future, an adjustment to our deferred income tax assets would decrease income in the period such determination was made.

**Realizability of Long-Lived Assets.** We are required to evaluate our equipment and other long-lived assets for impairment whenever there is an indication of impairment. If certain criteria are met, we are required to record an impairment charge.

In accordance with ROC SFAS No. 35, long-lived assets held and used by us are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Under ROC GAAP, if the recoverable amount increases in a future period, the amount previously recognized as impairment will be reversed and recognized as a gain. However, the adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss had been recognized. We measure any impairment for long-lived assets based on a projected future cash flow. If the long-lived assets are determined to be impaired, we recognize an impairment loss to the extent the present value of discounted cash flows attributable to the assets are less than their carrying value. We also perform a periodic review to identify assets that are no longer used and are not expected to be used in future periods. An impairment charge is recorded to the extent, if any, that the carrying amount of the idle assets exceeds their fair value. The process of evaluating the potential impairment of long-lived assets



requires significant judgment. We are required to review for impairment groups of assets related to the lowest level of identifiable independent cash flows. In addition, we must make subjective judgments regarding the remaining useful lives of assets and the expected future revenue and expenses associated with the assets. Any changes in these estimates based on changed economic conditions or business strategies may result in material impairment charges in future periods.

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In accordance with U.S. GAAP, long-lived assets held and used by us are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. For purposes of evaluating the recoverability of long-lived assets, the recoverability test is performed by comparing undiscounted net cash flows of the assets against the carrying amount of the assets. If the recoverability test indicates that an impairment has occurred, the impairment loss is the amount of the asset's carrying amount in excess of the related fair value.

In 2009, 2010 and 2011, we recognized impairment losses of nil, NT\$169.9 million and NT\$234.3 million (US\$7.7 million), respectively, on property, plant and equipment, and NT\$11.1 million, NT\$37.1 million and NT\$81.5 million (US\$2.7 million) on idle assets, respectively. See note 13 and note 15 to our consolidated financial statements included in this annual report.

**Business Combinations.** When we acquire businesses, we allocate the purchase price to tangible assets and liabilities and identifiable intangible assets acquired. Any residual purchase price is recorded as goodwill. The allocation of the purchase price requires management to make significant estimates in determining the fair values of assets acquired and liabilities assumed, especially with respect to intangible assets. These estimates are based on historical experience, information obtained from the management of the acquired companies and independent external service providers' reports. These estimates can include, but are not limited to, the cash flows that an asset is expected to generate in the future, the appropriate weighted-average cost of capital, and the synergistic benefits expected to be derived from the acquired business. In addition, pursuant to the revised U.S. GAAP, we need to measure the fair value of the investment we originally held and the noncontrolling interest. Before the revised U.S. GAAP became effective on January 1, 2009, the noncontrolling interest was measured at carrying amount, the same way as current ROC GAAP does. These estimates are inherently uncertain and unpredictable. In addition, unanticipated events and circumstances may occur which may affect the accuracy or validity of such estimates.

For example, we acquired Universal Scientific through tender offers in February and August 2010 and EEMS Test Singapore in August 2010 (see "Item 4 – Information on the Company – History and Development of the Company"); pursuant to ROC SFAS No. 25 "Business Combinations," No. 37 "Intangible Assets," and U.S. GAAP guidance relating to business combinations and goodwill and other intangible assets, acquired tangible assets and liabilities as well as identified intangible assets were valued at estimates of their current fair values. The valuation of acquired intangible assets was determined based on management's estimates. In addition, the amortization method of these intangible assets is based on future economic benefits over the estimated life. In addition, we also recognized goodwill which represents the excess of the purchase price over the estimated fair value of the net assets acquired. See our consolidated statements of cash flow as well as note 14 and note 34(k) to our consolidated financial statements included in this annual report.

**Goodwill.** Goodwill is evaluated for impairment at least annually and we test for impairment between annual tests if an event occurs or circumstances change that would indicate that the carrying amount may be impaired. Goodwill is evaluated for impairment by comparing the carrying value of the cash-generating unit to which the goodwill has been allocated to its recoverable amount. Recoverable amount is defined as the higher of a cash-generating unit's fair value less costs to sell or its "value in use," which is defined as the present value of the expected future cash flows generated by the assets. In conducting the future cash flow valuation, we make assumptions about future operating cash flows, the discount rate used to determine present value of future cash flows, and capital expenditures. Future operating cash flows assumptions include sales growth assumptions, which are based on our historical trends and industry trends, and gross margin and operating expense growth assumptions, which are based on the historical relationship of those measures compared to sales and certain cost cutting initiatives. An impairment charge is incurred to the extent the carrying value exceeds the recoverable amount. As of December 31, 2011, we had goodwill of NT\$10,374.5 million (US\$342.7 million) and NT\$10,244.3 million (US\$338.4 million) under ROC GAAP and U.S. GAAP, respectively. In 2011, we recognized an impairment loss of NT\$38.9 million (US\$1.3 million) and NT\$6.9 million

(US\$0.2 million) under ROC GAAP and U.S. GAAP, respectively, due to our acquisition of Lu-Chu Development Corporation, or Lu-Chu. Our conclusion could, however, change in the future if actual results differ from our estimates and judgments under different assumptions and conditions.

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Valuation of Long-term Investments. We hold long-term investments in public and non-public entities. We evaluate these long-term investments periodically for impairment based on market prices, if available, the financial condition of the investee company, economic conditions in the industry, and our intent and ability to hold the investment for a long period of time. These assessments usually require a significant amount of judgment, as a significant decline in the market price may not be the best indicator of impairment. Whenever triggering events or changes in circumstances indicate that an investment may be impaired and carrying value may not be recoverable, we measure the impairment based on the market prices, if available, or the projected future cash flow of the investments, the underlying assumptions for which had been formulated by such investments internal management team, taking into account sales growth and capacity utilization. Under U.S. GAAP, we evaluate long-term investments using the above mentioned criteria and, to the extent any decline in the value of a long-term investment is determined to be other than temporary, an impairment charge is recorded in the current period. Under ROC GAAP, we use similar method to determine the impairment charge recorded in the current period but there is no such term called “other-than-temporary-impairment” under ROC GAAP. Several of the long-term investments held by us are recognized as the equity method investments, financial assets carried at cost or available-for-sale financial assets. Any significant decline in the investments or financial assets could affect the value of the long-term investment and an impairment charge may occur. In 2009, we did not record any impairments on long-term investments. In 2010 and 2011, we recognized impairment losses of NT\$44.4 million and NT\$93.4 million (US\$3.1 million), respectively, on our investments. See note 6 and 12 to our consolidated financial statements included in this annual report.

Stock-based Compensation. Employee stock options granted on or after January 1, 2008 are accounted for under ROC SFAS No. 39, “Accounting for Share-based Payment.” Under the statement, the value of the stock options granted, which is equal to the best available estimate of the number of stock options expected to vest multiplied by the grant-date fair value, is expensed on a straight-line basis over the vesting period. The estimate is revised if subsequent information indicates that the number of stock options expected to vest differs from previous estimates. The grant-date fair value involves a number of factors, such as expected dividend yield, expected volatility, expected life and the effects of early exercise, which require the management’s judgments. Employee stock options granted on or before December 31, 2007 were accounted for under the interpretations issued by the ROC Accounting Research and Development Foundation. We adopted the intrinsic value method, under which compensation cost was recognized on a straight-line basis over the vesting period.

Under U.S. GAAP, stock-based compensation expense includes compensation expense for all unvested stock-based compensation awards granted prior to January 1, 2006 that are expected to vest, based on the grant-date fair value estimated in accordance with the transition method and the original provision of the U.S. guidance relating to accounting for stock-based compensation. Stock-based compensation expense for all stock-based compensation awards granted after January 1, 2006 is based on the grant-date fair value estimated in accordance with the provisions of the U.S. guidance relating to share-based payment.

## Results of Operations

The following table sets forth, for the periods indicated, financial data from our consolidated statements of income, expressed as a percentage of net revenues.

	Year Ended December 31,					
	2009		2010		2011	
	(percentage of net revenues)					
ROC GAAP:						
Net revenues	100.0	%	100.0	%	100.0	%
Packaging	79.2		53.5		55.4	
Testing	18.4		11.6		11.8	

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Electronic manufacturing services	–	31.6	31.2
Others	2.4	3.3	1.6
Cost of revenues	(78.6 )	(78.5 )	(81.1 )
Gross profit	21.4	21.5	18.9
Operating expenses	(10.7 )	(8.7 )	(9.8 )

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	Year Ended December 31,					
	2009		2010		2011	
	(percentage of net revenues)					
Income from operations	10.7		12.8		9.1	
Non-operating income (expense), net	(0.9	)	(0.7	)	0.1	
Income before income tax	9.8		12.1		9.2	
Income tax expense	(1.7	)	(1.9	)	(1.6	)
Net income	8.1	%	10.2	%	7.6	%
Attributable to						
Net income of parent company's shareholders	7.9	%	9.7	%	7.4	%
Minority interest in net income of subsidiaries	0.2		0.5		0.2	
	8.1	%	10.2	%	7.6	%

The following table sets forth, for the periods indicated, the gross margins for our packaging, testing services and electronic manufacturing services and our total gross margin. Gross margin is calculated by dividing gross profits by net revenues.

	Year Ended December 31,					
	2009		2010		2011	
	(percentage of net revenues)					
ROC GAAP:						
Gross profit						
Packaging	18.5	%	21.1	%	19.7	%
Testing	28.2	%	37.6	%	31.8	%
Electronic manufacturing services	–		10.9	%	11.0	%
Overall	21.4	%	21.5	%	18.9	%

The following table sets forth, for the periods indicated, a breakdown of our total cost of revenues and operating expenses, expressed as a percentage of net revenues.

	Year Ended December 31,					
	2009		2010		2011	
	(percentage of net revenues)					
ROC GAAP:						
Cost of revenues						
Raw materials	29.8	%	46.9	%	46.9	%
Labor	15.0		10.8		12.1	
Depreciation, amortization and rental expense	19.4		9.9		11.6	
Others	14.4		10.9		10.5	
Total cost of revenues	78.6	%	78.5	%	81.1	%
Operating expenses						
Selling	1.4	%	1.5	%	1.5	%
General and administrative	5.1		3.9		4.5	
Research and development	4.2		3.3		3.8	
Total operating expenses	10.7	%	8.7	%	9.8	%

Year Ended December 31, 2011 Compared to Year Ended December 31, 2010

Net Revenues. Net revenues decreased 1.8% to NT\$185,347.2 million (US\$6,123.1 million) in 2011 from NT\$188,742.8 million in 2010, primarily due to the decline in revenues from our other businesses, including real estate business which decreased due to the cyclical nature of this business. Packaging revenues increased 1.6% to NT\$102,677.3 million (US\$3,392.0 million) in 2011 from NT\$101,071.3 million in 2010. Testing revenues decreased 0.1% to NT\$21,932.2 million (US\$724.6 million) in 2011 from NT\$21,957.0 million in 2010. Revenues from our electronic

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manufacturing services business decreased 2.9% to NT\$57,850.4 million (US\$1,911.1 million) in 2011 from NT\$59,577.4 million in 2010. The increase in packaging revenues was primarily due to an increase in the demand for our services and an increase in the revenues generated from our copper wire bonding solutions. The decrease in testing revenues was primarily due to a decrease in volume of testing business. The decrease in the revenues from our electronic manufacturing services business was primarily due to our retreat from the manufacturing of computer motherboard as a result of our business strategy adjustment.

**Gross Profit.** Gross profit decreased 13.7% to NT\$35,008.8 million (US\$1,156.5 million) in 2011 from NT\$40,544.6 million in 2010. Our gross profit as a percentage of net revenues, or gross margin, decreased to 18.9% in 2011 from 21.5% in 2010 primarily due to increases in depreciation expenses and labor cost as a percentage of our net revenues. Raw material costs in 2011 were NT\$86,919.3 million (US\$2,871.5 million) compared to NT\$88,556.1 million in 2010. As a percentage of net revenues, raw material costs were 46.9% in 2011 which was the same as in 2010. Depreciation, amortization and rental expenses in 2011 were NT\$21,536.5 million (US\$711.5 million), compared to NT\$18,584.3 million in 2010. As a percentage of net revenues, depreciation, amortization and rental expenses increased to 11.6% in 2011 from 9.9% in 2010. This increase was primarily due to acquisition of new equipment in 2010, in particular equipment we bought in the second and third quarters of 2010. Labor cost in 2011 was NT\$22,380.0 million (US\$739.3 million) compared to NT\$20,394.6 million in 2010. As a percentage of net revenues, labor cost increased to 12.1% in 2011 from 10.8% in 2010, primarily due to an increase in salaries and bonuses from the increase in headcount. Our gross margin for packaging decreased to 19.7% in 2011 from 21.1% in 2010. This decrease was primarily due to increases in depreciation expense and labor cost as a percentage of our net packaging revenues and was partially offset by the decrease in the raw material costs as a percentage of our net packaging revenues. Our gross margin for testing decreased to 31.8% in 2011 from 37.6% in 2010. This decrease was primarily due to increases in depreciation expense and labor cost as a percentage of net testing revenues. Our gross margin for electronic manufacturing services increased to 11.0% in 2011 from 10.9% in 2010.

**Operating Income.** Operating income decreased 30.2% to NT\$16,821.2 million (US\$555.7 million) in 2011 compared to NT\$24,099.0 million in 2010. Our operating income as a percentage of net revenues, or operating margin, decreased to 9.1% in 2011 from 12.8% in 2010, primarily due to a decrease in gross margin and partially due to an increase in operating expenses as a percentage of net revenues. Operating expenses increased 10.6% to NT\$18,187.6 million (US\$600.8 million) in 2011 compared to NT\$16,445.6 million in 2010. The increase in operating expenses was primarily due to increases in general and administrative expense, as well as research and development expense. General and administrative expense increased 12.6% to NT\$8,299.5 million (US\$274.2 million) in 2011 from NT\$7,373.7 million in 2010, primarily due to an increase in salaries and bonuses from the increase in headcount. General and administrative expense represented 4.5% of our net revenues in 2011 compared to 3.9% in 2010. Research and development expense increased 15.5% to NT\$7,118.0 million (US\$235.1 million), accounting for 3.8% of net revenues, in 2011 from NT\$6,162.2 million, accounting for 3.3% of net revenues, in 2010. This increase in the research and development expense was primarily due to increases in salaries and bonuses from the increase in headcount. Selling expense decreased 4.8% to NT\$2,770.1 million (US\$91.5 million) in 2011 from NT\$2,909.6 million in 2010. This decrease was primarily due to a decrease in commission and service expenses. Selling expense as a percentage of net revenues was 1.5% in 2011 which was the same as in 2010.

**Non-Operating Income (Expense).** We had net non-operating income of NT\$175.9 million (US\$5.8 million) in 2011 compared to net non-operating expense of NT\$1,275.4 million in 2010. This overall increase was primarily due to (i) an increase of NT\$609.9 million (US\$20.1 million) in our dividend income primarily from financial assets carried at cost, (ii) an income increase from the changes of the net gain/loss on valuation of financial assets and liabilities and net foreign exchange gain/loss and (iii) an income increase from the changes of net gain/loss on disposal of property, plant and equipment, partially offset by (i) an increase of impairment loss and (ii) an increase in our net interest expense. We recognized a net gain on valuation of financial assets and liabilities and net foreign exchange gain of NT\$904.3 million (US\$29.9 million) in 2011 compared to NT\$394.7 million in 2010. The increase was due to a



decrease of valuation loss on the derivative contracts which we utilized from time to time to reduce the impacts of foreign currency fluctuations on our results of operations. We recognized impairment losses of NT\$448.1 million (US\$14.8 million) in 2011 compared to NT\$251.4 million in 2010, primarily due to an increase in impairment losses on the property, plant and equipment and available-for-sale financial assets in 2011. We recognized net interest expense of NT\$1,335.6 million (US\$ 44.1 million) in 2011 compared to NT\$ 1,170.8 million in 2010 primarily due to increases in interest rates.

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**Net Income.** Net income, excluding minority interest, decreased 25.1% to NT\$13,726.0 million (US\$453.5 million) in 2011 from NT\$18,337.5 million in 2010. Our diluted earnings per ADS decreased to NT\$10.2 (US\$0.34) in 2011 compared to diluted earnings per ADS of NT\$13.6 in 2010. Our income tax expense decreased 16.8% to NT\$3,018.2 million (US\$99.7 million) in 2011 from NT\$3,628.7 million in 2010, primarily due to decreases in income before tax and valuation allowance, and an increase in credits for investments and research used, which were offset by an increase in income tax on undistributed earnings.

**Year Ended December 31, 2010 Compared to Year Ended December 31, 2009**

**Net Revenues.** Net revenues increased 120.0% to NT\$188,742.8 million in 2010 from NT\$85,775.3 million in 2009, primarily due to the revenues contributed from the electronic manufacturing services business we acquired in 2010 and the recovery of the global economy. Packaging revenues increased 48.8% to NT\$101,071.3 million in 2010 from NT\$67,935.5 million in 2009. Testing revenues increased 39.0% to NT\$21,957.0 million in 2010 from NT\$15,795.1 million in 2009. In addition, we recorded revenues of NT\$59,577.4 million generated from our electronic manufacturing services business as a result of our acquisition of Universal Scientific in 2010. The increase in packaging revenues was primarily due to an increase in the demand for our services and an increase in the revenues generated from our copper wire bonding solutions. The increase in testing revenues was primarily due to an increase in testing volume.

**Gross Profit.** Gross profit increased 121.1% to NT\$40,544.6 million in 2010 from NT\$18,341.7 million in 2009. Our gross profit as a percentage of net revenues, or gross margin, increased to 21.5% in 2010 from 21.4% in 2009. Our gross margin for packaging increased to 21.1% in 2010 from 18.5% in 2009. This increase was primarily due to a decrease in depreciation expense as a percentage of our net packaging revenues, partially offset by an increase in the raw material costs as a percentage of our net packaging revenues. Our gross margin for testing increased to 37.6% in 2010 from 28.2% in 2009. This increase was primarily due to a decrease in depreciation expense as a percentage of net testing revenues as a result of our improved capacity utilization. Our gross margin for electronic manufacturing services was 10.9% in 2010. Raw material costs in 2010 were NT\$88,556.1 million compared to NT\$25,536.0 million in 2009. As a percentage of net revenues, raw material costs increased to 46.9% in 2010 from 29.8% in 2009, primarily because, since we acquired Universal Scientific in February 2010, we started providing electronic manufacturing services, which entail greater raw material costs as a percentage to our net revenues. Depreciation, amortization and rental expenses in 2010 were NT\$18,584.3 million, compared to NT\$16,602.5 million in 2009. As a percentage of net revenues, depreciation, amortization and rental expenses decreased to 9.9% in 2010 from 19.4% in 2009. This decrease was primarily due to a relatively low depreciation expense as a percentage of net revenues in our electronic manufacturing business and an increase in our revenues. Labor cost in 2010 was NT\$20,394.6 million compared to NT\$12,897.2 million in 2009. As a percentage of net revenues, labor cost decreased to 10.8% in 2010 from 15.0% in 2009, primarily because our new electronic manufacturing business has lower labor costs as a percentage of our net revenues.

**Operating Income.** Operating income increased 161.7% to NT\$24,099.0 million in 2010 compared to NT\$9,209.9 million in 2009. Our operating income as a percentage of net revenues, or operating margin, increased to 12.8% in 2010 from 10.7% in 2009, primarily due to the improved capacity utilization, partially offset by the lower operating income generated from our electronic manufacturing services as a percentage of net revenues. Operating expenses increased 80.1% to NT\$16,445.6 million in 2010 compared to NT\$9,131.8 million in 2009. The increase in operating expenses was primarily due to increases in general and administrative expense, as well as the research and development expense. General and administrative expense increased 71.1% to NT\$7,373.7 million in 2010 from NT\$4,310.7 million in 2009, primarily due to the increase in salaries and bonuses as a result of (i) our acquisition of Universal Scientific in February 2010, (ii) option cost recognized for our newly granted options in 2010, and (iii) an increase in the accrued salaries and bonuses based on our net income that have increased. General and administrative expense represented 3.9% of our net revenues in 2010 compared to 5.1% in 2009. Research and development expense

increased 70.6% to NT\$6,162.2 million, accounting for 3.3% of net revenues, in 2010 from NT\$3,612.0 million, accounting for 4.2% of net revenues, in 2009. This increase in the research and development expense was primarily due to our acquisition of Universal Scientific in February 2010 and the increase of accrued salaries and bonuses based on our net income. Selling expense increased 140.6% to NT\$2,909.6 million in 2010 from NT\$1,209.2 million in 2009. This increase was primarily due to our acquisition of Universal Scientific in February 2010. Selling expense as a percentage of net revenues increased to 1.5% in 2010 from 1.4% in 2009.

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Non-Operating Income (Expense). We incurred a net non-operating expense of NT\$1,275.4 million in 2010 compared to a net non-operating expense of NT\$821.5 million in 2009. This overall increase was primarily due to (i) an increase in our loss on disposal of property, plant and equipment, (ii) an increase in our impairment loss and (iii) a decrease in the income earned from equity investments, partially offset by a decrease in our net interest expense. We recognized income from equity method investments of NT\$73.0 million in 2010 compared to NT\$330.1 million in 2009. The decrease was due to our acquisition of Universal Scientific, which was our equity-method investee and has become our consolidated subsidiary in 2010 after our acquisition. We recognized net interest expense of NT\$1,170.8 million in 2010 compared to NT\$1,334.2 million in 2009, primarily due to decreases in interest rates and the reallocation of capital funds among subsidiaries. We recognized impairment losses of NT\$251.4 million in 2010 compared to NT\$11.1 million in 2009, primarily due to the increase in impairment losses on equity method investments, property, plant and equipment in 2010.

Net Income. Net income, excluding minority interest, increased 171.9% to NT\$18,337.5 million in 2010 from NT\$6,744.6 million in 2009. Our diluted earnings per ADS increased to NT\$13.6 in 2010 compared to diluted earnings per ADS of NT\$5.3 in 2009. Our income tax expense increased 144.4% to NT\$3,628.7 million in 2010 from NT\$1,484.9 million in 2009, primarily due to the increase in our income tax on the profit from our operation of real estate and our new businesses in 2010, namely the electronic manufacturing business.

## Quarterly Net Revenues, Gross Profit and Gross Margin

The following table sets forth our unaudited consolidated net revenues, gross profit and gross margin for the quarterly periods indicated. The unaudited quarterly results reflect all adjustments, consisting of normal recurring adjustments, that, in the opinion of management, are necessary for a fair presentation of the amounts, on a basis consistent with the audited consolidated financial statements included elsewhere in this annual report. You should read the following table in conjunction with the audited consolidated financial statements and related notes included elsewhere in this annual report. Our net revenues, gross profit and gross margin for any quarter are not necessarily indicative of the results for any future period. Our quarterly net revenues, gross profit and gross margin may fluctuate significantly.

	Quarter Ended							
	Mar. 31, 2010 NT\$	Jun. 30, 2010 NT\$	Sept. 30, 2010 NT\$	Dec. 31, 2010 NT\$	Mar. 31, 2011 NT\$	Jun. 30, 2011 NT\$	Sept. 30, 2011 NT\$	Dec. 31, 2011 NT\$
	(in millions)							
Consolidated Net Revenues								
Packaging	22,080.4	25,699.6	27,288.5	26,002.8	24,812.4	25,991.2	26,331.2	25,542.5
Testing	4,662.4	5,288.1	6,017.3	5,989.2	5,338.9	5,492.3	5,498.0	5,603.0
Electronic manufacturing services *	10,138.7	14,725.7	17,486.6	17,226.4	15,095.3	14,018.6	14,209.9	14,526.6
Others	673.0	702.5	696.9	4,064.7	758.9	752.2	658.7	717.5
Total	37,554.5	46,415.9	51,489.3	53,283.1	46,005.5	46,254.3	46,697.8	46,389.6
Consolidated Gross Profit								
Packaging	4,330.3	5,484.0	6,104.1	5,402.2	4,950.0	5,384.8	5,136.9	4,734.7
Testing	1,610.0	2,084.3	2,333.0	2,218.4	1,644.0	1,660.8	1,787.5	1,886.3
Electronic manufacturing services *	1,136.8	1,623.0	2,033.5	1,688.9	1,575.4	1,443.4	1,623.2	1,708.4

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Others	545.9	657.6	634.8	2,657.8	488.3	475.8	364.4	144.9
Total	7,623.0	9,848.9	11,105.4	11,967.3	8,657.7	8,964.8	8,912.0	8,474.3
Consolidated								
Gross Profit								
(%)								
Packaging	19.6	% 21.3	% 22.4	% 20.8	% 19.9	% 20.7	% 19.5	% 18.5
Testing	34.5	% 39.4	% 38.8	% 37.0	% 30.8	% 30.2	% 32.5	% 33.7
Electronic								
manufacturing								
services *	11.2	% 11.0	% 11.6	% 9.8	% 10.4	% 10.3	% 11.4	% 11.8
Overall	20.3	% 21.2	% 21.6	% 22.5	% 18.8	% 19.4	% 19.1	% 18.3

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\*We have begun providing electronic manufacturing services as a result of our acquisition of the controlling interest of Universal Scientific in February 2010.

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Our results of operations are affected by seasonality. In general, our first quarter net revenues have historically decreased over the preceding fourth quarter, primarily due to the combined effects of holidays in the United States, Taiwan and elsewhere in Asia. Moreover, the increase or decrease in net revenues of a particular quarter as compared with the immediately preceding quarter varies significantly. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our operating results are subject to significant fluctuations, which could adversely affect the market value of your investment.”

### Exchange Rate Fluctuations

For quantitative and qualitative disclosure of our exposure to foreign currency exchange rate risk, see “Item 11. Quantitative and Qualitative Disclosures about Market Risk—Market Risk—Foreign Currency Exchange Rate Risk.”

### Taxation

The corporate income tax rate in the ROC applicable to us decreased from 25% in 2009 to 17%, effective January 1, 2010. The tax incentives schemes under the ROC Statute for Upgrading Industries expired on December 31, 2009, and under this statute we had been granted tax holidays covering the portion of our income attributable to eligible machinery and equipment which were procured with cash infusion from our shareholders or after the capitalization of retained earnings through the issuance of stock dividends, and tax credits of 7% for the purchase of qualifying manufacturing equipment. We can continue to enjoy the tax holidays that have been granted to us by the ROC tax authority. On April 16, 2010, the Legislative Yuan of ROC passed the Industrial Innovation Act, effective from January 1, 2010 to December 31, 2019. Under the Industrial Innovation Act, a profit-seeking enterprise may deduct up to 15% of its research and development expenditures from its income tax payable for the fiscal year in which these expenditures are incurred. However, the deduction may not exceed 30% of the income tax payable for that fiscal year.

As of February 29, 2012, we had five five-year tax holidays on income derived from a portion of our operations in Kaohsiung, Taiwan. One tax exemption will expire on December 31, 2013 and two tax exemptions will expire on December 31, 2016. We are in the process of applying for the use of the remaining two exemptions in connection with our operations in Kaohsiung, Taiwan, following the completion of the related capacity expansions or application on the tax exemption period. In addition, some of our subsidiaries, such as ASE Test Taiwan and PowerASE, are entitled to certain tax exemptions on income derived from a portion of their respective operations. The aggregate tax benefits of such exemptions for the years ended December 31, 2009, 2010 and 2011 were NT\$654.8 million, NT\$979.0 million and NT\$656.6 million (US\$21.7 million), respectively.

In addition, since we have facilities located in special export zones such as the Nantze Export Processing Zone in Taiwan, we enjoy exemptions from various import duties, commodity taxes and sales taxes on imported machinery, equipment, raw materials and components which are directly used for manufacturing finished goods. Finished goods produced by companies located in these zones and exported or sold to others within the zones are exempt from otherwise applicable commodity or business taxes in Taiwan.

Under the ROC Income Tax Act, all earnings generated in a year which are not distributed to shareholders as dividends in the following year will be assessed a 10% undistributed earnings tax. As a result, if we do not distribute all of our annual earnings as either cash or stock dividends in the following year, these undistributed earnings will be subject to the 10% undistributed earnings tax.

The ROC government enacted Alternative Minimum Tax Act, or AMT Act, which became effective on January 1, 2006. The alternative minimum tax, or AMT, imposed under the AMT Act is a supplemental tax on basic income, which includes most income that is exempt from income tax under various legislation such as tax holidays. If the amount of income tax payable determined by the Income Tax Act falls below the amount of the AMT, any difference

will be payable. The AMT rate for business entities is 10%. However, the AMT Act grandfathered certain tax exemptions granted prior to the enactment of the AMT Act.

In 2010, our effective income tax rate decreased to 16% from 18% in 2009 primarily due to the decrease in the corporate income tax rate in the ROC. In 2011, our effective income tax rate increased to 18% from 16% in 2010

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primarily due to an increase in undistributed earnings tax. We believe that our future estimated taxable income will be sufficient to utilize the current and noncurrent portion of our net deferred tax assets recorded as of December 31, 2011.

## Inflation

We do not believe that inflation in Taiwan or elsewhere has had a material impact on our results of operations.

## U.S. GAAP Reconciliation

Our consolidated financial statements are prepared in accordance with ROC GAAP, which differ in certain material respects from U.S. GAAP. The following table sets forth a comparison of our net income and shareholders' equity in accordance with ROC GAAP and U.S. GAAP as of and for the periods indicated.

	As of and For the Year Ended December 31,			
	2009	2010	2011	US\$
	NT\$	NT\$	NT\$	US\$
	(in millions)			
Net income:				
ROC GAAP	6,903.5	19,194.9	13,978.9	461.8
U.S. GAAP	5,520.4	18,901.0	13,780.4	455.3
Total shareholders' equity:				
ROC GAAP	74,713.7	91,839.3	102,282.5	3,379.0
U.S. GAAP	69,515.7	86,452.2	96,617.9	3,191.9

Note 33 to our consolidated financial statements included in this annual report provides a description of the significant differences between ROC GAAP and U.S. GAAP as they relate to us and a reconciliation of net income and shareholders' equity. Significant differences between ROC GAAP and U.S. GAAP include impairment loss reversal, undistributed earnings tax, stock-based compensation, business combination, defined benefit pension plans and noncontrolling interest treatment.

## Recent U.S. GAAP Accounting Pronouncements

In September 2009, the FASB issued an accounting standard update which provides guidance on how to separate consideration in multiple-deliverable arrangements and significantly expands disclosure requirements. The standard establishes a hierarchy for determining the selling price of a deliverable, eliminates the residual method of allocation and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method. The update is effective for annual reporting periods beginning on or after June 15, 2010. This guidance is effective for us for the year ended December 31, 2011. The adoption of the guidance did not have a material effect on our results of operations, financial position and cash flows.

In January 2010, the FASB issued an accounting update that amended guidance and clarified the disclosure requirements about fair market value measurement. These amended standards require new disclosures for significant transfers of assets or liabilities between Level 1 and Level 2 in the fair value hierarchy; separate disclosures for purchases, sales, issuance and settlements of Level 3 fair value items on a gross, rather than net basis; and more robust disclosure of the valuation techniques and inputs used to measure Level 2 and Level 3 assets and liabilities. Except for the detailed disclosures of changes in Level 3 items, which are effective for us as of January 1, 2011, the remaining new disclosure requirements were effective for us as of January 1, 2010. We have included these new disclosures, as



applicable, in Note 34(j) to our consolidated financial statements included in this annual report.

In April 2010, the FASB issued an accounting update that provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for certain research and development transactions. Under this new standard, a company can recognize as revenue consideration that is contingent upon achievement of a milestone in the period in which it is achieved, only if the milestone meets all

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criteria to be considered substantive. This standard is effective for us on a prospective basis as of January 1, 2011. The adoption of the guidance did not have a material effect on our results of operations, financial position and cash flows.

In April 2010, the FASB issued an accounting update to clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades must not be considered to contain a market, performance, or service condition. Therefore, an entity should not classify such an award as a liability if it otherwise qualifies for classification in equity. This guidance is effective for annual periods beginning on or after December 15, 2010, and will be applied prospectively. Affected entities will be required to record a cumulative catch-up adjustment to the opening balance of retained earnings for all awards outstanding as of the beginning of the annual period in which the guidance is adopted. Earlier application is permitted. This guidance is effective for us for the year ended December 31, 2011. The adoption of the guidance did not have a material effect on our results of operations, financial position and cash flows.

In December 2010, the FASB issued an accounting update to require that supplemental pro forma information disclosures pertaining to acquisitions should be presented as if the business combination(s) occurred as of the beginning of the prior annual period when comparative financial statements are presented. This guidance also expands the supplemental pro forma disclosures to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings. This guidance is effective for business combinations consummated in periods beginning after December 15, 2010. Early adoption is permitted. This guidance is effective for us for the year ended December 31, 2011. We have included these new disclosures in Note 34(k) to our consolidated financial statements included in this annual report.

In December 2010, the FASB issued an accounting update to modify Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. In determining whether it is more likely than not that a goodwill impairment exists, an entity should consider whether there are any adverse qualitative factors indicating that an impairment may exist. For public entities, this guidance is effective for impairment tests performed during entities' fiscal years that begin after December 15, 2010. Early application will not be permitted. This guidance is effective for us for the year ended December 31, 2011. The adoption of the guidance did not have a material effect on our results of operations, financial position and cash flows.

In May 2011, the FASB issued an accounting update to amend the fair value measurement guidance and include some enhanced disclosure requirements. The most significant change in disclosures is an expansion of the information required for Level 3 measurements based on unobservable inputs. The standard is effective for fiscal years beginning after December 15, 2011. Early adoption is not permitted. We do not expect the adoption will have a material impact on our results of operations, financial position or cash flows.

In June and December 2011, the FASB issued accounting updates to eliminate the current option to report other comprehensive income and its components in the statement of stockholders' equity. Instead, an entity will be required to present items of net income and other comprehensive income in one continuous statement or in two separate, but consecutive, statements. The new requirements do not change which components of comprehensive income are recognized in net income or other comprehensive income, or when an item of other comprehensive income must be reclassified to net income. This guidance must be applied retroactively and is effective for fiscal years beginning after December 15, 2011. Earlier application is permitted. We are currently evaluating which presentation option we will elect, but the adoption of these provisions will have no effect on our results of operations, financial position or cash flows.

In September 2011, the FASB issued an accounting update, which is intended to reduce the cost and complexity of the annual goodwill impairment test by providing entities an option to perform a “qualitative” assessment to determine whether further impairment testing is necessary. Specifically, an entity has the option to first assess qualitative factors to determine whether it is necessary to perform the current two-step test. If an entity believes, as a result of its qualitative assessment, that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is required. Otherwise, no further testing is required. This standard is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after

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December 15, 2011. Earlier adoption is permitted. The adoption of this guidance is not expected to have a material impact on our results of operations, financial position or cash flows.

In December 2011, the FASB issued an accounting update, which creates new disclosure requirements regarding the nature of an entity's rights of setoff and related arrangements associated with its financial instruments and derivative instruments. Certain disclosures of the amounts of certain instruments subject to enforceable master netting arrangements or similar agreements would be required, irrespective of whether the entity has elected to offset those instruments in the statement of financial position. The disclosure requirements are effective for annual reporting periods beginning on or after January 1, 2013 with retrospective application required. Since this standard impacts disclosure requirements only, its adoption is not expected to have a material impact on our results of operations, financial condition or cash flows.

## LIQUIDITY AND CAPITAL RESOURCES

We have historically been able to satisfy our working capital needs from our cash flow from operations. We have historically funded our capacity expansion from internally generated cash and, to the extent necessary, the issuance of equity securities and borrowings. If adequate funds are not available on satisfactory terms, we may be forced to curtail our expansion plans. Moreover, our ability to meet our working capital needs from cash flow from operations will be affected by the demand for our packaging, testing services and electronics manufacturing services, which in turn may be affected by several factors. Many of these factors are outside of our control, such as economic downturns and declines in the prices of our services or products caused by a downturn in the industry. See "Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Our operating results are subject to significant fluctuations, which could adversely affect the market value of your investment." To the extent we do not generate sufficient cash flow from our operations to meet our cash requirements, we will have to rely on external financing.

Net cash provided by operating activities amounted to NT\$31,936.7 million (US\$1,055.1 million) in 2011, primarily as a result of (i) our operation performance with net income of NT\$13,978.9 million (US\$461.8 million) and (ii) our non-cash depreciation and amortization in the amount of NT\$22,945.4 million (US\$758.0 million). Net cash provided by operating activities amounted to NT\$36,965.1 million in 2010, primarily as a result of (i) our improved operation performance with net income of NT\$19,194.9 million (ii) our non-cash depreciation and amortization in the amount of NT\$19,854.5 million. Net cash provided by operating activities amounted to NT\$15,517.2 million in 2009, primarily as a result of adjustment for non-cash depreciation and amortization of NT\$17,638.0 million. The decrease in net cash provided by operating activities in 2011 compared to 2010 was primarily due to the decrease in net income. The increase in net cash provided by operating activities in 2010 compared to 2009 was primarily due to the cash inflows from (i) the increase of net income, (ii) the decrease in accounts receivables and (iii) the decrease in construction in process related to property development.

Net cash used in investing activities amounted to NT\$32,030.7 million (US\$1,058.2 million) in 2011, primarily due to our acquisition of property, plant and equipment of NT\$29,417.9 million (US\$971.9 million). Net cash used in investing activities amounted to NT\$36,085.5 million in 2010, primarily due to the acquisition of property, plant and equipment of NT\$34,109.1 million. Net cash used in investing activities amounted to NT\$15,980.7 million in 2009, primarily due to the acquisition of property, plant and equipment of NT\$11,445.6 million.

Net cash used in financing activities in 2011 amounted to NT\$342.6 million (US\$11.3 million) in 2011. This amount reflected primarily cash dividends of NT\$3,858.3 million (US\$ 127.5 million) and the repurchase of treasury stock of NT\$2,772.6 million (US\$ 91.6 million), which was partially offset by the net proceeds of NT\$5,747.3 million (US\$ 189.9 million) from bank loans, capital lease obligations and issuance of bonds. Net cash provided by financing activities in 2010 amounted to NT\$1,701.5 million. This amount reflected primarily our proceeds obtained from

long-term bank loans in the amount of NT\$32,586.2 million, partially offset by (i) our repayment of bank loans, including short-term borrowings, in the amount of NT\$28,506.5 million, (ii) our distributed cash dividends in the amount of NT\$1,940.7 million, and (iii) our repurchase of treasury stock in the amount of NT\$1,185.2 million. Net cash used in financing activities in 2009 amounted to NT\$2,778.5 million. This amount reflected primarily cash dividends of NT\$2,575.7 million and the repurchase of treasury stock of NT\$1,314.3 million, which was partially offset by the net proceeds from the bank loans and capital lease obligations of NT\$2,005.5 million.

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As of December 31, 2011, our primary source of liquidity was NT\$24,421.8 million (US\$806.8 million) of cash and NT\$846.4 million (US\$28.0 million) of financial assets—current. Our financial assets—current primarily consisted of swap contracts, mutual funds and quoted stocks. As of December 31, 2011, we had total unused short-term credit lines of NT\$67,171.3 million (US\$2,219.1 million), and total unused long-term credit lines of NT\$18,736.8 million (US\$619.0 million). As of December 31, 2011, we had working capital of NT\$23,369.8 million (US\$772.0 million).

As of December 31, 2011, we had total borrowings of NT\$76,593.0 million (US\$2,530.3 million), NT\$22,965.1 million (US\$758.7 million) of which were short-term borrowings and NT\$53,627.9 million (US\$1,771.6 million) of which were long-term borrowings. In 2011, the maximum amount of our short-term borrowings was NT\$32,043.1 million (US\$1,058.6 million) and the average amount of our short-term borrowings was NT\$27,193.0 million (US\$898.3 million). The fluctuation was primarily because our working capital fluctuated during 2011 from time to time. The annual interest rate for borrowings under our short-term bank loans ranged from 0.96% to 7.32% as of December 31, 2011. Our short-term loans are primarily revolving facilities with a term of one year, each of which may be extended on an annual basis with lender consent. Our long-term borrowings consist of bank loans, bonds payable and capital lease obligations. As of December 31, 2011, we had outstanding long-term borrowings, less current portion, of NT\$50,166.9 million (US\$1,657.3 million). As of December 31, 2011, the current portion of our long-term borrowings was NT\$3,461.0 million (US\$114.3 million). Our long-term borrowings typically carried variable annual interest rates which ranged between 0.95% to 6.05% as of December 31, 2011.

We have pledged a portion of our assets, with a carrying value of NT\$5,737.3 million (US\$189.5 million) as of December 31, 2011, to secure our obligations under our short-term and long-term facilities.

In September 2011, Anstock Limited, our wholly owned subsidiary incorporated in the Cayman Islands with limited liability, issued RMB150.0 million (US\$23.8 million) 3.125% Guaranteed Bonds due September 22, 2014 (the “2014 Bonds”) and RMB500.0 million (US\$79.4 million) 4.250% Guaranteed Bonds due September 20, 2016 (the “2016 Bonds”) (the 2014 Bonds and the 2016 Bonds, collectively the “Bonds”). The Bonds are irrevocably and unconditionally guaranteed on an unsecured and unsubordinated basis by us. The 2014 Bonds bear interest from and including September 20, 2011 at the rate of 3.125% per annum. Interest on the 2014 Bonds is payable semi-annually in arrear on September 20 and March 20 of each year beginning on March 20, 2012. The 2014 Bonds will mature on September 22, 2014 unless previously redeemed or purchased and cancelled. The 2016 Bonds bear interest from and including September 20, 2011 at the rate of 4.250% per annum. Interest on the 2016 Bonds is payable semi-annually in arrear on September 20 and March 20 of each year beginning on March 20, 2012. The 2016 Bonds will mature on September 20, 2016 unless previously redeemed or purchased and cancelled. The net proceeds from the Bonds was advanced by Anstock Limited to ASESH AT in the form of an intercompany RMB loan for working capital and capital expenditure with maturity in September 2016.

In August 2011, we issued NT\$8.0 billion (US\$264.3 million) 1.45% secured corporate bonds with five year term (the “Corporate Bonds”), guaranteed by the Bank of Taiwan, Mega International Commercial Bank, Taiwan Cooperative Bank, First Bank and Hua Nan Bank. The Corporate Bonds bear an annual simple interest and payment by coupon rate from the issue date. The net proceeds from the Corporate Bonds will be used to repay our existing debts.

In June 2009, we entered into a syndicated loan agreement with a banking syndicate led by Citibank, N.A., Taipei Branch for a NT\$12,000.0 million term loan facility for operating revolving fund, all of which we have fully repaid in 2011, mainly to finance our acquisition of Universal Scientific.

In March 2008, we entered into a syndicated loan agreement with a banking syndicate led by Citibank, N.A., Taipei Branch for a NT\$24,750.0 million term loan facility, which we and the lenders subsequently agreed to reduce to NT\$17,500.0 million to afford us more flexibility to request additional loans in the future. As of June 3, 2008, we had drawn down NT\$17,500.0 million, the full amount of the facility, to finance a portion of the consideration for our

acquisition, by way of a scheme of arrangement under Singapore law, of all the outstanding ordinary shares of ASE Test that we did not already directly or indirectly own. In May 2008, we entered into an additional syndicated loan agreement with a banking syndicate led by Citibank, N.A., Taipei Branch for an US\$200.0 million term loan facility, also for the purposes of financing our acquisition of ASE Test's outstanding ordinary shares. This US\$200.0 million term loan was fully repaid in 2011.

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In March 2008, ASESH AT entered into a five-year syndicated credit facility of US\$147.0 million for our repayment requests and operating revolving fund, which the DBS Bank (China) Limited, Shanghai Branch acted as an arranger and agent. The facility bears interest at LIBOR plus 0.9% per annum.

Our long-term loans and facilities contain various financial and other covenants that could trigger a requirement for early payment. Among other things, these covenants require the maintenance of certain financial ratios, such as liquidity ratio, indebtedness ratio, interest coverage ratio and other technical requirements. In general, covenants in the agreements governing our existing debt, and debt we may incur in the future, may materially restrict our operations, including our ability to incur debt, pay dividends, make certain investments and payments, other than in connection with restructurings of consolidated entities, and encumber or dispose of assets. A default under one debt instrument may also trigger cross-defaults under our other debt instruments. An event of default under any debt instrument, if not cured or waived, could have a material adverse effect on our liquidity, as well as our financial condition and operations.

We have on occasion failed to comply with certain financial covenants in some of our loan agreements. Such non-compliance may also have, through broadly worded cross-default provisions, resulted in default under some of the agreements governing our other existing debt. For example, we failed to comply with certain financial covenants in some of our loan agreements as a result of our acquisition of Universal Scientific in February 2010; however, we have timely obtained waivers from our counterparties. If we are unable to timely remedy any of our non-compliance under such loan agreements or obtain applicable waivers or amendments, we would breach our financial covenants and our financial condition would be adversely affected. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Restrictive covenants and broad default provisions in our existing debt agreements may materially restrict our operations as well as adversely affect our liquidity, financial condition and results of operations.”

Our contingent obligations consist of guarantees provided by us to our subsidiaries. As of December 31, 2011, we endorsed and guaranteed the bonds issued by our subsidiary, Anstock Limited, in the amount of RMB657.3 million (US\$104.5 million). Other than such guarantee, we have no other contingent obligations.

We have made, and expect to continue to make, substantial capital expenditures in connection with the expansion of our production capacity. The table below sets forth our principal capital expenditures incurred for the periods indicated.

	Year Ended December 31,			
	2009	2010	2011	
	NT\$	NT\$	NT\$	US\$
	(in millions)			
Machinery and equipment	11,389.5	30,238.2	22,778.7	752.5
Building and improvements	1,242.4	4,522.9	8,253.3	272.7

We have budgeted capital expenditures of approximately US\$700.0 million to US\$790.0 million for 2012, primarily to purchase machinery and equipment in connection with the expansion of our packaging and testing operations. We may adjust the amount of our capital expenditures upward or downward based on market conditions, the progress of our expansion plans and cash flow from operations. Due to the rapid changes in technology in the semiconductor industry, we frequently need to invest in new machinery and equipment, which may require us to raise additional capital. We cannot assure you that we will be able to raise additional capital should it become necessary on terms acceptable to us or at all. See “Item 3. Key Information—Risk Factors—Risks Relating to Our Business—Because of the highly cyclical nature of our industry, our capital requirements are difficult to plan. If we cannot obtain additional capital when we need it, our growth prospects and future profitability may be adversely affected.”



We believe that our existing cash, marketable securities, expected cash flow from operations and existing credit lines under our loan facilities will be sufficient to meet our capital expenditures, working capital, cash obligations under our existing debt and lease arrangements, and other requirements for at least the next 12 months. We currently hold cash primarily in U.S. dollars, New Taiwan dollars, Chinese yuan, Japanese yen, Malaysian ringgit and Korean

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won. As of December 31, 2011, we had contractual obligations of NT\$43,090.6 million (US\$1,423.5 million) due in the next three years. We currently expect to meet our payment obligations through the expected cash flow from operations, long-term borrowings and the issuance of additional equity or equity-linked securities. We will continue to evaluate our capital structure and may decide from time to time to increase or decrease our financial leverage through equity offerings or borrowings. The issuance of additional equity or equity-linked securities may result in additional dilution to our shareholders.

From time to time, we evaluate possible investments, acquisitions or divestments and may, if a suitable opportunity arises, make an investment, acquisition or divestment.

Our treasury team, under the supervision of our chief financial officer, is responsible for setting our funding and treasury policies and objectives. Our exposure to financial market risks relate primarily to changes in interest rates and foreign currency exchange rates. To mitigate these risks, we utilize derivative financial instruments, the application of which is primarily to manage these exposures, and not for speculative purposes.

We have, from time to time, entered into interest rate swap transactions to hedge our interest rate exposure. As of December 31, 2011, we had NT\$7,612.5 million (US\$251.5 million) outstanding in interest rate swap contracts for NT dollar which will mature in March 2013. In addition, we have, from time to time, entered into forward exchange contracts, swap contracts, cross currency swap contracts and European foreign currency options contracts to hedge our existing assets and liabilities denominated in foreign currencies. See “Item 11. Quantitative and Qualitative Disclosures about Market Risk” and note 5 and note 26 to our consolidated financial statements included in this annual report.

## RESEARCH AND DEVELOPMENT

For 2009, 2010 and 2011, our research and development expenditures totaled approximately NT\$3,612.0 million, NT\$6,162.2 million and NT\$7,118.0 million (US\$235.1 million), respectively. These expenditures represented approximately 4.2%, 3.3% and 3.8% of net revenues in 2009, 2010 and 2011, respectively. We have historically expensed all research and development costs as incurred and none is currently capitalized. As of March 31, 2012, we employed 5,669 employees in research and development.

### Packaging

We centralize our research and development efforts in packaging technology in our Kaohsiung, Taiwan facilities. After initial phases of development, we conduct pilot runs in one of our facilities before new technologies or processes are implemented commercially at other sites. Facilities with special product expertise, such as ASE Korea, also conduct research and development of these specialized products and technologies at their sites. One of the areas of emphasis for our research and development efforts is improving the efficiency and technology of our packaging processes and these efforts are expected to continue. We are also putting significant research and development efforts into the development and adoption of innovative technology. We work closely with manufacturers of our packaging equipment and materials in designing and developing the equipment and materials used in our production process. We also collaborate with our significant customers to co-develop new product and process technologies.

In addition to investing in the development of advanced package assembly technology and improving production efficiency, a significant portion of our research and development efforts is focused on the development of advanced substrate production technology for BGA packaging. Substrate is the principal raw material for BGA packages. Development and production of advanced substrates involve complex technology. We are currently working closely with certain first-tier substrate suppliers in Asia, primarily including those located in Japan, Taiwan and Korea. We believe that our successful cooperation with substrate suppliers to enhance the overall substrate production capability and to meet future advanced package requirement has enabled us to capture an increasingly important value-added

component of the packaging process, helped ensure a stable and cost-effective supply of substrates for our BGA packaging operations and shortened time to market.

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## Testing

Our research and development efforts in the area of testing have focused primarily on developing advanced test solutions for customer requirement. These efforts include developing test software of logic/mixed-signal/RF/discrete semiconductors, characterization of semiconductors, layout design, electrical simulation for high frequency test board and developing software of parametric test data analysis. We work closely with our customers on the leading edge test technologies, such as 3D IC test and contactless test. Our research and development operations also include an equipment development group, which currently designs testing hardware and software for specific semiconductors to offer our customers cost effective test solutions.

## Electronics Manufacturing Services

To further enhance the quality of our services and products, we focus on developing diversified and innovative products to improve our competitiveness. By leveraging our proprietary research and development expertise, we are able to provide our customers with high performance and cost-effective products and services by optimizing our product design, engineering and manufacturing capabilities. During the process of designing, as well as developing the technology for, our software and hardware, our research and development team also dedicates itself to discovering new know-how, and then applying such know-how to create new, advanced and improved products, processes, methodology and services. We are currently investing in the development of products used in electronic manufacturing services in relation to computers and peripherals, communications, industrial, automotive, and storage and server applications.

## OFF-BALANCE SHEET ARRANGEMENTS

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

## TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following table sets forth the maturity of our contractual obligations as of December 31, 2011.

	Total	Payments Due by Period			
		Under 1	1 to 3	3 to 5	After 5
	NT\$	Year	Years	Years	Years
	NT\$	NT\$	NT\$	NT\$	NT\$
	(in millions)				
<b>Contractual Obligations:</b>					
Long-term debt(1)	53,863.0	12,626.9	28,469.6	12,766.5	—
Capital lease obligations(2)	66.1	42.2	22.2	1.7	—
Operating leases(3)	742.5	270.6	139.2	79.6	253.1
Purchase obligations(4)	1,519.9	1,519.9	—	—	—
<u>Total(5)(6)(7)(8)</u>	<u>56,191.5</u>	<u>14,459.6</u>	<u>28,631.0</u>	<u>12,847.8</u>	<u>253.1</u>

(1) Includes bank loans and bonds payable but excludes interest payments.

(2) Represents our commitments under property leases less imputed interest. These obligations are recorded on our consolidated balance sheets.

- (3) Represents our commitments under leases for land, machinery and equipment such as testers, and office buildings and equipment. See note 29 to our consolidated financial statements included in this annual report.
- (4) Represents unpaid commitments for construction. These commitments are not recorded on our consolidated balance sheets as of December 31, 2011. See note 29 to our consolidated financial statements included in this annual report. Total commitments for construction of buildings were approximately NT\$2,783.0 million (US\$91.9 million), of which NT\$1,263.1 million (US\$41.7 million) had been paid as of December 31, 2011.
- (5) Excludes non-binding commitments to purchase machinery and equipment of approximately NT\$5,073.0 million (US\$167.6 million), of which NT\$251.9 million (US\$8.3 million) had been paid as of December 31, 2011. See note 29 to our consolidated financial statements included in this annual report.
- (6) Excludes payments that vary based upon our net sales or sales volume, such as commissions, service fees and royalty payments for technology license agreements. Royalty expenses in 2011 were approximately NT\$85.5 million (US\$2.8 million). See note 29 to our consolidated financial statements included in this annual report.

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- (7) Excludes our minimum pension funding requirements since such amounts have not been determined. Under defined benefit pension plans, we made pension contributions of approximately NT\$269.7 million (US\$8.9 million) in 2011, and we estimate that we will contribute approximately NT\$151.4 million (US\$5.0 million) in 2012. See note 20 to our consolidated financial statements included in this annual report.
- (8) Excludes uncertain tax liabilities. We recognized additional long term taxes payable of NT\$66.8 million (US\$2.2 million) and accrued interest and penalties of NT\$13.5 million (US\$0.4 million) related to uncertain tax positions in the year as of December 31, 2011. At that time, we were unable to make a reasonably reliable estimate of the timing of payments due to uncertainties in the timing of the outcome of the tax audits.

Item 6. Directors, Senior Management and Employees

DIRECTORS AND SENIOR MANAGEMENT AND BOARD PRACTICES

Directors

Our board of directors is elected by our shareholders in a general meeting at which a quorum, consisting of a majority of all issued and outstanding common shares, is present. The chairman is elected by the board from among the directors. Our nine-member board of directors, including two independent directors, is responsible for the management of our business.

The term of office for our directors is three years from the date of election. The current board of directors began serving on June 26, 2009. The terms of the current directors expire on June 25, 2012. Directors may serve any number of consecutive terms and may be removed from office at any time by a resolution adopted at a meeting of shareholders. Normally, all board members are elected at the same meeting of shareholders, except where the posts of one-third or more of the directors are vacant, at which time a special meeting of shareholders shall be convened to elect directors to fill the vacancies. We and our subsidiaries do not have service contracts with our directors that provide for benefits upon termination of employment.

Our board of directors established an audit committee on July 22, 2005 to satisfy the requirements of Rule 10A-3 under the Exchange Act. The audit committee is appointed by the board of directors and currently consists of Shen-Fu Yu and Ta-Lin Hsu, who are independent under Rule 10A-3 and financially literate with accounting or related financial management expertise. The audit committee has responsibility for, among other things, overseeing the qualifications, independence and performance of our independent auditors and the integrity of our financial statements.

Our board of directors established a compensation committee on September 29, 2011. The compensation committee consists of Shen-Fu Yu, our independent director, Ta-Lin Hsu, our independent director, and Hsiao-Ying Ku. The compensation committee has responsibility for, among other things, setting forth and reviewing policies, systems, standards and structures regarding performance evaluation and compensation of the directors, supervisors and executive officers, and evaluating compensation of the directors, supervisors and executive officers.

The following table sets forth information regarding all of our directors as of February 29, 2012.

Name	Position	Director Since	Age	Other Significant Positions Held Outside of the ASE Group
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Jason C.S. Chang(1) (2)	Director, Chairman and Chief Executive Officer	1984	67	None
Richard H.P. Chang(1)	Director, Vice Chairman and President	1984	65	None
Tien Wu(2)	Director and Chief Operating Officer	2003	54	None
Joseph Tung(2)	Director, Chief Financial Officer and Vice President	1997	53	Independent director of Ta Chong Bank Ltd.
Raymond Lo(2)	Director and General Manager, Kaohsiung packaging facility	2006	57	None

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Name	Position	Director Since	Age	Other Significant Positions Held Outside of the ASE Group
Jeffrey Chen(2)	Director and Executive Vice President	2003	48	None
Rutherford Chang(3)	Director	2009	32	None
Shen-Fu Yu	Independent Director	2009	67	Supervisor, Dynapack International Technology Corporation
Ta-Lin Hsu	Independent Director	2009	68	Chairman and founder, H&Q Asia Pacific

(1) Jason C.S. Chang and Richard H.P. Chang are brothers.

(2) Representative of ASE Enterprises, a company organized under the laws of Hong Kong, which held 17.5% of our outstanding common shares as of February 29, 2012. All of the outstanding shares of ASE Enterprises are held by a company organized under the laws of the British Virgin Islands in trust for the benefit of the family of our Chairman and Chief Executive Officer, Jason C.S. Chang, who is the sole shareholder and director of that company.

(3) Rutherford Chang is the son of Jason C.S. Chang

Supervisors

We currently have five supervisors, each serving a three-year term. The current supervisors began serving on June 26, 2009, and their terms will expire on June 25, 2012. The supervisors' duties and powers include investigation of our business condition, inspection of our corporate records, verification and review of financial statements to be presented by our board of directors at shareholders' meetings, convening of shareholders' meetings, representing us in negotiations with our directors and notification, when appropriate, to the board of directors to cease acting in contravention of any applicable law or regulation, our Articles of Incorporation or the resolutions of our shareholders' meeting. Each supervisor is elected by our shareholders and cannot concurrently serve as a director, managerial officer or other staff member. The ROC Company Law requires at least one supervisor be appointed at all times, or two supervisors for a company with publicly issued equity shares, and that a supervisor's term of office be no more than three years.

The following table sets forth information regarding all of our supervisors as of February 29, 2012.

Name	Position	Supervisor Since	Age	Other Significant Positions Held Outside of the ASE Group
Samuel Liu(1)	Supervisor	2005	63	None
Tien-Szu Chen(1)	Supervisor	2006	50	None
John Ho(1)	Supervisor	1998	56	None
Yen-Yi Tseng(2)	Supervisor	2000	70	Chairman of Hung Ching
Jerry Chang(3)	Supervisor	2009	34	None

(1) Representative of ASE Test Taiwan.



(2) Representative of Hung Ching.

(3) Jerry Chang is the son of Richard H.P. Chang.

In accordance with ROC law, each of our directors and supervisors is elected either in his or her capacity as an individual or as an individual representative of a corporation or government. Persons designated to represent corporate or government shareholders as directors are typically nominated by such shareholders at the annual general meeting and may be replaced as representatives by such shareholders at will. Of the current directors and supervisors, five represent ASE Enterprises, three represent ASE Test Taiwan and one represents Hung Ching. The remaining directors and supervisors serve in their capacity as individuals.

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## Executive Officers

The following table sets forth information regarding all of our executive officers as of February 29, 2012.

Name	Position	Years with the Company	Age
Jason C.S. Chang	Chairman and Chief Executive Officer	28	67
Richard H.P. Chang	Vice Chairman and President	28	65
Tien Wu	Chief Operating Officer; Chief Executive Officer, ISE Labs	12	54
Joseph Tung	Chief Financial Officer and Vice President	17	53
Raymond Lo	President, ASE Test Taiwan; General Manager, Kaohsiung packaging facility	26	57
Tien-Szu Chen	President, PowerASE	24	50
Chun-Che Lee	President, ASE Shanghai	28	52
Ung Bae	President, ASE Korea	14	55
Chih-Hsiao Chung	President, ASE Japan	12	47
Kwai Mun Lee	President, ASE South-East Asia operations	14	49
Samuel Liu	Chief Executive Officer, Universal Scientific	8	63
Cheng-Jung Wei	President, Universal Scientific	25	48

## Biographies of Directors, Supervisors and Executive Officers

Jason C.S. Chang has served as Chairman of ASE Inc. since its founding in March 1984 and as its Chief Executive Officer since May 2003. He is also a director of Universal Scientific. He holds a degree in electrical engineering from National Taiwan University and a master's degree from the Illinois Institute of Technology. He is the brother of Richard H.P. Chang, our Vice Chairman and President.

Richard H.P. Chang has served as Vice Chairman of ASE Inc. since November 1999 after having served as President of ASE Inc. since its founding in March 1984, and served as Chief Executive Officer of ASE Inc. from July 2000 to April 2003. In February 2003, he was again appointed President of ASE Inc. upon the retirement of Mr. Leonard Y. Liu. He is currently the chairman of Universal Scientific. He holds a degree in industrial engineering from Chung Yuan Christian University of Taiwan. He is the brother of Jason C.S. Chang, our Chairman and Chief Executive Officer.

Tien Wu has served as a director of ASE Inc. since June 2003 and Chief Operating Officer since April 2006, prior to which he served as the President of Worldwide Marketing and Strategy of the ASE Group. Prior to joining ASE Inc. in March 2000, Mr. Wu held various managerial positions with IBM. He holds a bachelor's degree in computer engineering from National Taiwan University, a master's degree in mechanical engineering and a doctorate degree in applied mechanics from the University of Pennsylvania.

Joseph Tung has served as a director of ASE Inc. since April 1997 and Chief Financial Officer since December 1994. Before joining ASE Inc., Mr. Tung was a Vice President at Citibank, N.A. He received a degree in economics from the National Chengchi University of Taiwan and a master's degree in business administration from the University of

Southern California.

Raymond Lo has served as a director of ASE Inc. and General Manager of our packaging facility in Kaohsiung, Taiwan since April 2006. Mr. Lo also served as a supervisor of ASE Inc. between July 2000 and April 2006. Before joining ASE Inc., Mr. Lo was the Director of Quality Assurance at Zeny Electronics Co. He holds a degree in electronic physics from the National Chiao-Tung University of Taiwan.

Jeffrey Chen has served as a director of ASE Inc. since June 2003 and an Executive Vice President for Chairman Office. He is also director of Universal Scientific. Prior to joining ASE Inc., he worked in the corporate banking department of Citibank, N.A. in Taipei and as a Vice President of corporate finance at Bankers Trust in

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Taipei. He holds a degree in finance and economics from Simon Fraser University in Canada and a master's degree in business administration from the University of British Columbia in Canada.

Rutherford Chang has served as a director of ASE Inc. since June 2009 and a special assistant to the Chairman of ASE Inc. since March 2005. He received a bachelor's degree in psychology from Wesleyan University in Connecticut. He is the son of Jason C.S. Chang, our Chairman and Chief Executive Officer.

Shen-Fu Yu has served as an independent director of ASE Inc. since June 2009. He is also a supervisor of Dynapack International Technology Corporation. He has worked in Deloitte & Touche Accounting Firm as a consultant from June 2003 to November 2006. He received a bachelor's degree in Accounting in National Taiwan University and a master's degree in Accounting from National ChengChi University.

Ta-Lin Hsu has served as an independent director of ASE Inc. since June 2009. He is currently the chairman and founder of H&Q Asia Pacific. He received a bachelor's degree in physics from National Taiwan University, a master's degree in electrophysics from the Polytechnic Institute of Brooklyn and a doctorate degree in Electrical Engineering from the University of California at Berkeley.

Samuel Liu has served as a supervisor of ASE Inc. since May 2005. He is currently the Chief Executive Officer for Universal Scientific. Mr. Liu has worked in the electronics industry for over 30 years in various technical and management roles. He holds a bachelor's degree in electrical engineering from National Taiwan University and a doctorate degree in material science from Stanford University.

Tien-Szu Chen has served as a supervisor of ASE Inc. since June 2006. Mr. Chen holds a bachelor's degree in industrial engineering from Chung Yuan Christian University in Taiwan.

John Ho has served as a supervisor of ASE Inc. since April 1998. He is also a director of Universal Scientific. He served as Chief Financial Officer of ASE Inc. from 1988 until 1995. He holds a degree in business administration from National Taiwan University and a master's degree in business administration from the University of Iowa.

Yen-Yi Tseng has served as a supervisor of ASE Inc. since July 2000 and Chairman of Hung Ching since July 2002. Mr. Tseng served as President of Ret-Ser Engineering Agency from 1991 to 1998. He holds a degree in civil engineering from National Taiwan University and a master's degree in system engineering from Asian Institute of Technology in Thailand. He was also a participant in the Program for Management Development at Harvard Business School.

Jerry Chang has served as a supervisor of ASE Inc. since June 2009. Prior to joining ASE Inc., he was an analyst at Morgan Stanley Asia. He received a bachelor's degree in political economy from Williams College in Massachusetts. He is the son of Richard H.P. Chang, our Vice Chairman and President.

Chun-Che Lee has served as a President of ASE Shanghai since July 2005. Mr. Lee has also served as a President of R&D of ASE Inc., prior to which he was a vice president, director and manager of research and development at ASE Inc. since 1984. Mr. Lee holds a degree in aeronautic from the Tamkung University of Taiwan.

Ung Bae has served as President of ASE Korea since July 2008, after serving as Senior Vice President of ASE Korea since July 1999. Mr. Bae was Vice President of Motorola Korea, Limited before joining ASE Korea when we acquired Motorola Korea, Limited. He holds a degree in electronic engineering from the In-Ha university of Korea.

Chih-Hsiao Chung has served as President of ASE Japan since March 2011. Mr. Chung has also managed the sales and marketing of ASE Japan region since April 2007. Before joining ASE Inc., Mr. Chung was the Senior Manager of

Sale and Marketing at Kimberly Clark Co., Taiwan. He holds a master's degree in business administration from the University of Wisconsin-Madison.

Kwai Mun Lee has served as President of our Southeast Asia operations, with responsibility for the operations of our Penang, Malaysia and Singapore manufacturing facilities, since March 2006. Before joining the ASE Group,

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Mr. Lee held senior management positions at Chartered Semiconductor and STATSChipPAC. He started his career as an engineer at Intel. He holds a degree in engineering from the Swinburne Institute of Technology in Australia.

Cheng-Jung Wei has served as a director of Universal Scientific since May 2008, the President of Universal Scientific since April 2008 and the vice president of Mobility Solution Business Unit of Universal Scientific since September 2004. He joined Universal Scientific 23 years ago as an engineer in July 1987. He holds a bachelor's degree in electrical engineering from Chinese Culture University and a master's degree in business administration from Tunghai University.

The business address of our directors, supervisors and executive officers is our registered office.

## COMPENSATION

In 2011, we paid to our directors, supervisors and executive officers approximately NT\$581.8 million (US\$19.2 million) in cash remuneration. We did not pay any remuneration in kind to our directors, supervisors or executive officers in 2011. In 2011, we accrued pension costs of NT\$8.2 million (US\$0.3 million) for retirement benefits for our management. The remuneration of our independent directors is set at NT\$2.0 million per person per year. In addition, according to our Articles of Incorporation, not more than 2% of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as bonuses to our directors. 7% to 10% of our annual net earnings (after recovering any losses incurred in prior years and deducting the legal reserve and special reserve provisions, if any) may be distributed as a bonus to employees, including executive officers.

We have not provided any loans to or guarantees for the benefit of any of our directors, supervisors or executive officers. For information regarding our pension and other retirement plans and those of our subsidiaries, see note 20 to our consolidated financial statements included in this annual report.

### ASE Inc. Employee Bonus and Stock Option Plans

We award bonuses to employees of ASE Inc. and its subsidiaries who are located in Taiwan based on overall income and individual performance targets. Prior to 2009, these employees were eligible to receive bonuses in the form of our common shares valued at par. Beginning in 2009, employees are eligible to receive bonuses in the form of our common shares valued at the closing price (after adjustment with consideration of the effects on the share price, if any, brought by cash and stock dividends resolved at shareholders' meetings) of the common shares on the day prior to our shareholders' meeting. Actual amounts of bonuses to individual employees are determined based upon the employee meeting specified individual performance objectives. In 2009, we granted an aggregate value of NT\$554.4 million in cash bonuses to our employees. In 2010, we granted an aggregate value of NT\$607.0 million in cash bonuses to our employees. In 2011, we granted an aggregate value of NT\$1,523.1 million (US\$50.3 million) as cash bonus to our employees. In 2012, our directors proposed a distribution of NT\$1,235.3 million (US\$40.8 million) in cash bonuses to our employees.

We currently maintain four option plans, adopted in 2002, 2004, 2007 and 2010. Pursuant to these plans, our full-time employees as well as the full-time employees of our domestic and foreign subsidiaries are eligible to receive stock option grants. Each option entitles the holder to purchase one ASE Inc. common share at a price equal to (for the 2002, 2004 and 2007 plans), or not less than (for the 2010 plan), the closing market price on the date of the option issuance, such exercise price being subject to retroactive adjustment in the event of certain capital transactions in subsequent periods. Each option is exercisable upon vesting for five years. Forty percent of the options originally granted vest upon the second anniversary of the grant date, and an additional 10% of the options originally granted vest every six months thereafter. Each option expires at the end of the tenth year following its grant date. The options

are generally not transferable. As of December 31, 2011, a total of 159,968,000 options had been granted under the 2002 plan, 145,989,000 of which had an original exercise price of NT\$20.80 per share (currently adjusted to NT\$7.0 per share) and 13,979,000 of which had an original exercise price of NT\$24.6 per share (currently adjusted to NT\$10.3 per share). As of December 31, 2011, a total of 139,917,000 options had been granted under the 2004 plan, 124,917,000 of which had an original exercise price of NT\$26.60 per share (currently adjusted to NT\$15.4 per share) and 15,000,000 of which had an original exercise price of NT\$20.55 per share (currently adjusted to NT\$12.6 per share). As of December 31, 2011, a total of 185,806,000 options had been

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granted under the 2007 plan. The original exercise price under the 2007 plan was NT\$30.65 per share (currently adjusted to NT\$24.1 per share). As of December 31, 2011, a total of 199,999,500 options had been granted under the 2010 plan, 187,719,500 of which had an original exercise price of NT\$28.6 per share (currently adjusted to NT\$23.3 per share) and 12,280,000 of which had an original exercise price of NT\$28.75 per share (currently adjusted to NT\$25.8 per share).

## ASE Mauritius Inc. Share Option Plan

As of December 31, 2011, ASE Mauritius Inc. maintained one option plan adopted in 2007. Under this plan, certain employees of ASE Mauritius Inc. and the ASE Group are granted options to purchase ordinary shares of ASE Mauritius Inc. at an exercise price of US\$1.70, which exercise price was determined by taking into account a fairness opinion rendered by an independent appraiser and was reviewed by our accountants. Each option is exercisable upon vesting for five years and expires after ten years. As of December 31, 2011, a total of 30,000,000 options had been granted under this plan with an exercise price of US\$1.70.

## Universal Scientific Share Option Plans

As a result of our acquisition of Universal Scientific, we assumed option plans previously adopted by USI Enterprise Limited, one of Universal Scientific's subsidiaries.

USI Enterprise Limited maintains three option plans adopted in 2007, 2010 and 2011, under which certain employees of Universal Scientific and our employees were granted options to purchase common shares of USI Enterprise Limited. Each option under these three plans is exercisable upon vesting for five years and will expire after ten years. As of December 31, 2011, we had 17,861,500 options outstanding with an exercise price of US\$1.53 per share, 8,800,000 options outstanding with an exercise price of US\$2.42 per share and 8,800,000 options outstanding with an exercise price of US\$2.94 per share under these three plans respectively.

## EMPLOYEES

The following table sets forth, for the periods indicated, certain information concerning our employees for the dates indicated.

	As of December 31,		
	2009	2010	2011
Total	29,538	48,901	51,411
Function			
Direct labor	17,718	28,715	28,598
Indirect labor (manufacturing)	6,629	11,301	12,771
Indirect labor (administration)	2,661	3,867	4,553
Research and development	2,530	5,018	5,489
Location			
Taiwan	16,927	22,381	24,687
PRC	7,170	19,394	19,692
Korea	1,910	2,492	2,665
Malaysia	2,110	2,178	2,180
Japan	758	677	667
Singapore	377	848	822
United States	286	335	344
Mexico	-	593	354



Others	-	3	-
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The increase in our employee count in 2011 was primarily due to our business expansion.

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Eligible employees may participate in our employee share bonus plan and stock option plans and our subsidiaries' share option plans, such as the option plans adopted by ASE Mauritius and USI Enterprise Limited. See “—Compensation.”

With the exception of ASE Korea's employees, our employees are not covered by any collective bargaining arrangements. We believe that our relationship with our employees is good.

## SHARE OWNERSHIP

The following table sets forth certain information with respect to our common shares and options exercisable for our common shares held by our directors, supervisors and executive officers as of February 29, 2012.

Director, Supervisor or Executive Officer	Number of ASE Inc. Common Shares Held	Percentage of Total ASE Inc. Common Shares Issued and Outstanding	Number of Options Held(1)	Exercise Price of Options (NT\$)	Expiration Date of Options
Jason C.S. Chang	70,565,136	1.06% (2)	18,780,000	7.00-24.10	12/24/2012-5/6/2020
Richard H.P. Chang	90,075,058	1.35%	10,570,000	7.00-24.10	12/24/2012-5/6/2020
Tien Wu	3,187,511	0.05%	*	23.30-24.10	12/19/2017-5/6/2020
Joseph Tung	3,203,760	0.05%	*	7.00-24.10	12/24/2012-5/6/2020
Raymond Lo	1,700,797	0.03%	*	10.30-24.10	08/22/2013-5/6/2020
Jeffrey Chen	2,029,861	0.03%	*	23.30-24.10	12/19/2017-5/6/2020
Rutherford Chang	1,456,035	0.02%	*	23.30-24.10	12/19/2017-5/6/2020
Shen-Fu Yu	-	0.00%	-	-	-
Ta-Lin Hsu	-	0.00%	-	-	-
Samuel Liu	179,377	0.00%	*	15.40-23.30	06/30/2014-5/6/2020
Tien-Szu Chen	807,311	0.01%	*	15.40-24.10	06/30/2014-5/6/2020
John Ho	2,558,281	0.04%	*	15.40-24.10	06/30/2014-5/6/2020
Yen-Yi Tseng	177,119	0.00%	*	23.30-24.10	12/19/2017-5/6/2020
Jerry Chang	420,974	0.01%	*	7.00-24.10	12/24/2012-5/6/2020
Chun-Che Lee	2,144,552	0.03%	*	10.30-24.10	08/22/2013-5/6/2020
Ung Bae	90,000	0.00%	*	15.40-24.10	06/30/2014-5/6/2020
Chih-Hsiao Chung	53,287	0.00%	*	23.30-24.10	12/19/2017-5/6/2020
Kwai Mun Lee	-	0.00%	*	10.30-24.10	08/22/2013-5/6/2020
Cheng-Jung Wei	47,310	0.00%	-	-	-

(1) Each option covers one of our common shares.

(2) In addition to holding 1.06% of our common shares directly, Jason C.S. Chang is the sole shareholder and director of a company that holds all the outstanding shares of ASE Enterprises, which holds 17.50% of our common shares. See “Item 7. Major Shareholders and Related Party Transactions—Major Shareholders.”

\*The sum of the number of common shares held and the number of common shares issuable upon exercise of all options held is less than 1% of our total outstanding common shares.

## Item 7. Major Shareholders and Related Party Transactions

## MAJOR SHAREHOLDERS

The following table sets forth information known to us with respect to the beneficial ownership of our common shares, as of February 29, 2012, by each shareholder known by us to beneficially own more than 5% of our outstanding common shares and all directors, supervisors and executive officers as a group.

Name of Shareholder or Group	Common Shares Beneficially Owned	
	Number	Percentage
ASE Enterprises(1)	1,164,333,431	17.50%
Directors, supervisors and executive officers as a group(2)	1,422,981,261	21.39%

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- (1) ASE Enterprises is a company organized under the laws of Hong Kong. All of the outstanding shares of ASE Enterprises are held by a company organized under the laws of the British Virgin Islands in trust for the benefit of the family of our Chairman and Chief Executive Officer, Jason C.S. Chang, who is the sole shareholder and director of that company.
- (2) Includes shareholding of ASE Enterprises, ASE Test Taiwan and Hung Ching.

The following table sets forth information relating to our common shares held directly by our consolidated subsidiaries and our equity method investee as of February 29, 2012.

Name of Shareholder	Common Shares Beneficially Owned	
	Number	Percentage
ASE Test(1)	77,376,842	1.16%
ASE Test Taiwan(2)	9,631,503	0.14%
J&R Holding Limited(3)	40,972,453	0.62%
Hung Ching(4)	75,085,219	1.13%

- (1) ASE Test is our wholly-owned subsidiary. ASE Test's ownership of our common shares is the result of the merger of ASE Material with and into us in August 2004 and subsequent dividends upon shares received in connection with this merger.
- (2) ASE Test Taiwan was our wholly-owned subsidiary as of February 29, 2012.
- (3) J&R Holding Limited is our wholly-owned subsidiary. J&R Holding Limited's ownership of our common shares is the result of the merger of ASE Chung Li with and into us in August 2004 and subsequent dividends upon shares received in connection with this merger.
- (4) As of February 29, 2012, we held 26.22% of the outstanding shares of Hung Ching.

In connection with the merger of ASE Chung Li and ASE Material with and into ASE Inc. in August 2004, we and ASE Test established a trust to hold and dispose of 149,175,000 and 5,000,000 of our common shares that were issued to ASE Test and ASE Test Taiwan, respectively, upon completion of the merger. As a result, the trustee appointed under the trust agreement has become one of our shareholders until such common shares are sold as permitted under the rules and regulations of the Taiwan Stock Exchange and the terms and conditions of the trust agreement. As of February 29, 2012, as a result of stock dividends and our acquisition of Universal Scientific through a cash and stock tender offer, the total amount of our common shares held by the trust was 85,798,959. See “—Related Party Transactions.”

As of February 29, 2012, none of our major shareholders had voting rights different from those of our other shareholders. There were no significant changes in our major shareholders or significant changes in the percentage ownership of any of our major shareholders in 2009, 2010 and 2011.

As of February 29, 2012, a total of 6,653,273,912 common shares were outstanding. With certain limited exceptions, holders of common shares that are not ROC persons are required to hold their common shares through a brokerage account in the ROC. As of February 29, 2012, 474,876,765 common shares were registered in the name of a nominee of Citibank, N.A., the depositary under our ADS deposit agreement. Citibank, N.A., has advised us that, as of February 29, 2011, 94,975,113 ADSs, representing 474,875,565 common shares, were held of record by Cede & Co.,

and 239 ADSs, representing 1,195 common shares, were held by eight other U.S. persons. The remaining 5 common shares held by Citibank, N.A. are a result of fractional shares distributed during stock distributions on the common shares underlying the ADSs. We have no further information as to common shares held, or beneficially owned, by U.S. persons.

#### RELATED PARTY TRANSACTIONS

In recent years, we have awarded our cash bonuses to the employees of our subsidiaries as part of their compensation, based in part on our consolidated net income and the subsidiaries' contribution to the consolidated income. We expect this practice to continue in the future.

In order to comply with Singapore law and ROC Company Law, trusts organized under ROC law have been established to hold and dispose of our common shares issued to ASE Test and ASE Test Taiwan in connection with the merger of ASE Chung Li and ASE Material into our company in August 2004. Under Section 76(1)(b)(ii) of the Companies Act, Chapter 50, of Singapore, ASE Test, a Singapore company, may not purport to acquire, directly or indirectly, shares or units of shares in our company, ASE Test's parent company. Pursuant to the applicable trust

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agreements, the trustee under each trust is (1) the registered owner of the common shares, (2) authorized to exercise all of the rights as a shareholder of the common shares, (3) authorized to sell the common shares, subject to market conditions, when such common shares become available for resale under ROC law and in accordance with volume limitations under ROC law, at its sole discretion; provided such common shares are sold (i) in compliance with ROC laws and regulations, (ii) in an orderly manner in order to minimize the impact on the trading price of the common shares, and (iii) in a manner consistent with its fiduciary duties owed to ASE Test and (4) able to transfer and deliver to ASE Test or ASE Test Taiwan the proceeds from the sale of our common shares and any cash dividends distributed, as the case may be. In February 2010, to complete the tender offer to acquire Universal Scientific, ASE Test transferred 141,808,499 shares to the shareholders of Universal Scientific. Neither ASE Test nor ASE Test Taiwan have any rights with respect to the common shares held in trust pursuant to the applicable trust agreements other than the right to receive the proceeds from the sale of such common shares and cash dividends declared while the shares remain in trust. As of February 29, 2012, these trusts held 77,376,842 of our common shares issued to ASE Test and 8,422,117 of our common shares issued to ASE Test Taiwan.

We have historically provided the promissory notes as guarantees to some of our subsidiaries. As of December 31, 2011, we endorsed and guaranteed the bonds issued by our subsidiary, Anstock Limited, in the amount of RMB 657.3 million (US\$104.5 million). Other than such guarantee, we have no other contingent obligations.

In 2011, Universal Scientific entered into contracts to transfer equipments, lands and buildings to its subsidiary Universal Global Scientific Industrial Co., Ltd. for a total consideration of NT\$883.8 million (US\$29.2 million).

In October 2011, we entered into a contract to dispose of the K9 factory-administration building in Nantze Export Processing Zone, Taiwan, to ASE Electronics, our wholly owned subsidiary, for a consideration of NT\$780.0 million (US\$25.8 million).

On November 17, 2011, ASESH AT acquired 10% equity of Shanghai Ding Hui Real Estate Development Co., Ltd., or Ding Hui, from Kunshan Ding Yao Real Estate Development Co., Ltd., or Ding Yao, of which the chairman of the board of directors is also our president, for a consideration of RMB 221.5 million (US\$35.2 million).

## INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

## Item 8. Financial Information

### CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION

Consolidated financial statements are set forth under “Item 18. Financial Statements.”

## LEGAL PROCEEDINGS

On February 1, 2006, Tessera, Inc., or Tessera, filed an amended complaint in the United States District Court for the Northern District of California adding Advanced Semiconductor Engineering, Inc. and ASE (U.S.) Inc., collectively referred to as ASE, and other companies to a suit alleging that ASE’s and the 13 other defendants’ manufacturing, use, importation, offer for sale, and sale of various packaged semiconductor products infringed five patents owned by Tessera relating to certain types of semiconductor chip packaging, and/or breached technology license agreements regarding certain types of semiconductor chip packages between Tessera and certain defendants, including ASE. Tessera sought, among other things, monetary damages and injunctive relief in the lawsuit. On March 27, 2006, ASE filed its answer and counterclaims with the court.

On May 15, 2007, at Tessera's request, the United States International Trade Commission, or the ITC, instituted an investigation, or ITC Investigation No. 605, of certain of ASE's co-defendants and other companies, including certain of ASE's customers, but not ASE and the other contract chip packagers that were included as defendants in the California case. On May 20, 2009, the ITC issued its final determination in ITC Investigation No. 605, finding infringement of both asserted patents by the ITC Investigation No. 605 respondents' accused semiconductor packages. The ITC also issued (1) a limited exclusion order prohibiting the unlicensed entry of semiconductor

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packages found to infringe, and products incorporating such chips, manufactured abroad by or on behalf of, or imported by or on behalf of, Spansion, Qualcomm, ATI, Motorola, ST-NV, and Freescale; and (2) cease and desist orders directed to Motorola, Qualcomm, Freescale, and Spansion. The ITC did not grant a general exclusion order as requested by Tessera. The exclusion and cease and desist orders expired on September 24, 2010, when the asserted patents expired. The ITC's determination was affirmed by the Court of Appeals for the Federal Circuit on December 21, 2010. The United States Supreme Court denied a petition for writ of certiorari on November 28, 2011.

On April 21, 2008, Tessera filed an ITC complaint against ASE and the other contract chip packagers that were included as defendants in the California case, and on May 21, 2008, the ITC instituted a new investigation against them, or ITC Investigation No. 649, which involved three patents also asserted in the original California case, as well as one newly-asserted patent. On August 4, 2008, ASE, Inc., ASE (U.S.) Inc. and ASE Test Limited filed an action in the United States District Court for the Northern District of California against Tessera, Inc. seeking a declaratory judgment of non-infringement and invalidity of the patent newly asserted by Tessera in the ITC. On December 19, 2008, the court stayed the declaratory judgment action in response to a joint motion of the parties. On August 7, 2009, the ITC terminated Investigation No. 649 in response to Tessera's motion to terminate, without the issuance of an exclusion order or any other remedy.

On January 4, 2012, the court held a case management conference where the stay was lifted in both California district court cases -- the original 2006 case, and the 2008 declaratory judgment case. The court also scheduled trial in both cases for April 7, 2014.

The United States Patent and Trademark Office, or PTO, also instituted reexamination proceedings on all six Tessera patents at issue in the two California cases and the ITC proceedings. Following expiration of five of the six patents in September 2010, the PTO confirmed the patentability of certain claims of three of the asserted patents. Reexamination proceedings are ongoing with respect to the three other patents.

It is not possible to predict the outcome of the California litigations, the reexamination proceedings, or the total costs of resolving these disputes.

**DIVIDENDS AND DIVIDEND POLICY**

We have historically paid dividends on our common shares with respect to the results of the preceding year following approval by our shareholders at the annual general meeting of shareholders. We have historically paid the large majority of our dividends in the form of stock. We have paid annual stock dividends on our common shares since 1989, except in 2002 and 2006 when we did not pay any dividend due to the losses we incurred in the 2001 and 2005 fiscal years, respectively, and in 2009 when we only distributed cash dividends. We also paid cash dividends of NT\$0.50 per share in 2009, NT\$0.36 per share in 2010 and NT\$0.65 per share in 2011. On March 29, 2012, our board of directors adopted resolutions to pay stock dividends of NT\$1.40 (140 shares per 1,000 shares) and cash dividends of NT\$0.65 per share based on the 6,654,282,532 shares registered as of March 20, 2012. This proposal is awaiting shareholders' approval and the actual cash dividends per share will be adjusted by any fluctuations in the number of our shares due to, for example, the exercise of share options.

The following table sets forth the stock dividends paid during each of the years indicated and related information.

Stock Dividends Per Common Share(1)	Total Common Shares Issued as Stock Dividends	Outstanding Common Shares on Record Date(2)	Percentage of Outstanding Common Shares Represented by Stock Dividends
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	NT\$			
1997	3.80	277,020,000	729,000,000	38.0%
1998	7.20	732,240,000	1,017,000,000	72.0%
1999	1.07	190,460,000	1,780,000,000	10.7%
2000	3.15	623,811,852	1,980,355,086	31.5%
2001	1.70	467,840,000	2,752,000,000	17.0%
2002	—	—	3,254,800,000	—
2003	1.00	325,480,000	3,254,800,000	10.0%
2004	0.57	221,977,360	3,862,595,437	5.7%
2005	1.00	411,221,140	4,113,744,200	10.0%

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	Stock Dividends Per Common Share(1)	Total Common Shares Issued as Stock Dividends	Outstanding Common Shares on Record Date(2)	Percentage of Outstanding Common Shares Represented by Stock Dividends
2006	—	—	4,592,508,620	—
2007	1.48	694,101,071	4,645,295,431	14.9%
2008	0.29	158,766,146	5,484,848,118	2.9%
2009	—	—	5,474,320,814	—
2010	0.84	461,577,546	5,500,216,994	8.4%
2011	1.15	695,735,660	6,055,261,112	11.5%

(1) Holders of common shares receive as a stock dividend the number of common shares equal to the NT dollar value per common share of the dividend declared multiplied by the number of common shares owned and divided by the par value of NT\$10 per share. Fractional shares are not issued but are paid in cash.

(2) Aggregate number of common shares outstanding on the record date applicable to the dividend payment. Includes common shares issued in the previous year under our employee bonus plan.

In order to meet the needs of our present and future capital expenditures, we anticipate paying both stock and cash dividends in the future. The form, frequency and amount of future cash or stock dividends on our common shares will depend upon our net income, cash flow, financial condition, shareholders' requirement for cash inflow and other factors. According to our Articles of Incorporation, we have a general policy that cash dividend distribution should not be lower than 30% of the total dividend amount and the remainder be distributed as stock dividends. See "Item 10. Additional information—Articles of Incorporation—Dividends and Distributions."

In general, we are not permitted to distribute dividends or make other distributions to shareholders for any year where we did not record net income or retained earnings (excluding reserves). The ROC Company Law also requires that 10% of annual net income (less outstanding taxes and prior years' losses, if any) be set aside as a legal reserve until the accumulated legal reserve equals our paid-in capital. In addition, our Articles of Incorporation require that before a dividend is paid pro rata out of our annual net income:

- up to 2% of our annual net income (less prior years' losses and legal and special reserves, if any) should be paid to our directors and supervisors as compensation; and
- between 7% and 10% of the annual net income (less prior years' losses and legal and special reserves, if any) should be paid to our employees as bonuses; the 7% portion is to be distributed to all employees in accordance with our employee bonus distribution rules, while any portion exceeding 7% is to be distributed in accordance with rules established by our board of directors to individual employees who have been recognized as having made special contributions to our company. Such employees include those of our subsidiaries.

Holders of ADSs will be entitled to receive dividends, subject to the terms of the deposit agreement, to the same extent as the holders of the common shares. Cash dividends will be paid to the depositary in NT dollars and, except as otherwise provided in the deposit agreement, will be converted by the depositary into U.S. dollars and paid to holders of ADSs according to the terms of the deposit agreement. Stock dividends will be distributed to the depositary and, except as otherwise provided in the deposit agreement, will be distributed by the depositary, in the form of additional ADSs, to holders of ADSs according to the terms of the deposit agreement.

Holders of outstanding common shares on a dividend record date will be entitled to the full dividend declared without regard to any prior or subsequent transfer of common shares. Holders of outstanding ADSs are entitled to receive dividends, subject to the terms of the deposit agreement, to the same extent as the holders of outstanding common shares.

For information relating to ROC withholding taxes payable on dividends, see “Item 10. Additional Information—Taxation—ROC Taxation—Dividends.”

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## SIGNIFICANT CHANGES

Other than as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of the annual financial statements.

## Item 9. The Offer and Listing

## OFFER AND LISTING DETAILS

Our common shares were first issued in March 1984 and have been listed on the Taiwan Stock Exchange since July 1989. The Taiwan Stock Exchange is an auction market where the securities traded are priced according to supply and demand through announced bid and ask prices. As of February 29, 2012, there were an aggregate of 6,653,273,912 of our common shares outstanding. The following table sets forth, for the periods indicated, the high and low closing prices and the average daily volume of trading activity on the Taiwan Stock Exchange for the common shares and the high and low of the daily closing values of the Taiwan Stock Exchange Index. The closing price for our common shares on the Taiwan Stock Exchange on April 10, 2012 was NT\$29.05 per share.

	Closing Price per Share		Adjusted Closing Price per Share(1)		Average Daily Trading Volume (in thousands of shares)	Taiwan Stock Exchange Index	
	High	Low	High	Low		High	Low
2007	48.80	29.55	36.03	22.61	28,931	9,809.9	7,344.6
2008	34.25	9.85	26.30	7.93	24,392	9,295.2	4,089.9
2009	29.10	10.75	25.18	8.71	33,646	8,188.1	4,242.6
2010	35.50	21.95	31.26	19.11	32,137	8,972.5	7,071.7
First Quarter	31.60	24.05	27.39	20.71	34,103	8,356.9	7,212.9
Second Quarter	32.00	25.10	27.74	21.63	29,055	8,171.9	7,071.7
Third Quarter	27.60	21.95	23.85	19.11	31,005	8,240.9	7,254.1
Fourth Quarter	35.50	23.95	31.26	20.90	34,496	8,972.5	8,046.2
2011	37.60	24.00	33.14	24.00	32,247	9,145.4	6,633.3
First Quarter	37.60	30.25	33.14	26.55	38,948	9,145.4	8,234.8
Second Quarter	36.20	28.75	31.89	25.20	26,475	9,062.4	8,478.9
Third Quarter	32.70	24.00	29.40	24.00	36,799	8,824.4	6,877.1
Fourth Quarter	28.50	24.70	28.50	24.70	27,156	7,622.0	6,633.3
October	27.30	25.40	27.30	25.40	35,292	7,616.0	6,989.2
November	28.50	26.50	28.50	26.50	25,088	7,622.0	6,784.5
December	28.35	24.70	28.35	24.70	21,828	7,178.7	6,633.3
202012							
First Quarter	31.10	25.50	31.10	25.50	31,048	8,144.0	7,872.7
January	31.10	25.50	31.10	25.50	27,368	7,517.1	6,952.2
February	30.30	27.80	30.30	27.80	44,620	8,121.4	7,549.2
March	29.70	27.50	29.70	27.50	21,645	8,144.0	7,872.7
Second Quarter							
April (through April 10)	30.35	29.05	30.35	29.05	26,137	7,862.9	7,600.9

(1)

As adjusted retroactively by the Taiwan Stock Exchange to give effect to stock dividends and cash dividends paid in the periods indicated. See “Item 8. Financial Information—Dividends and Dividend Policy.”

The performance of the Taiwan Stock Exchange has in recent years been characterized by extreme price volatility. There are currently limits on the range of daily price movements on the Taiwan Stock Exchange. In the case of equity securities traded on the Taiwan Stock Exchange, such as our common shares, fluctuations in the price of a particular security may not exceed a 7% change either above or below the previous day’s closing price of such security.

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Our ADSs have been listed on the New York Stock Exchange under the symbol “ASX” since September 26, 2000. The outstanding ADSs are identified by the CUSIP number 00756M404. As of February 29, 2012, a total of 94,975,113 ADSs were outstanding. The following table sets forth, for the periods indicated, the high and low closing prices and the average daily volume of trading activity on the New York Stock Exchange for our ADSs and the highest and lowest of the daily closing values of the New York Stock Exchange Index. The closing price for our ADSs on the New York Stock Exchange on April 10, 2012 was US\$4.84 per ADS.

	Closing Price per ADS		Adjusted Closing Price per ADS(1)		Average Daily Trading Volume (in thousands of ADSs)	New York Stock Exchange Index	
	High US\$	Low US\$	High US\$	Low US\$		High	Low
2007	7.45	4.59	5.36	3.93	658	10,311.61	8,837.97
2008	5.57	1.42	4.79	1.34	622	9,656.00	4,651.21
2009	4.63	1.49	4.49	1.41	1,188	7,261.24	4,226.31
2010	5.82	3.39	5.71	3.33	867	7,964.02	6,434.81
First Quarter	5.07	3.84	4.91	3.72	1,179	7,478.86	6,713.87
Second Quarter	5.12	3.89	4.96	3.77	934	7,728.96	6,469.65
Third Quarter	4.23	3.39	4.10	3.33	677	7,310.32	6,434.81
Fourth Quarter	5.82	3.95	5.71	3.87	692	7,964.02	7,272.53
2011	6.55	4.04	6.43	4.04	1,346	8,671.41	6,571.45
First Quarter	6.55	5.22	6.43	5.12	1,454	8,507.90	7,929.87
Second Quarter	6.29	5.04	6.17	4.94	1,270	8,671.41	7,963.60
Third Quarter	5.75	4.04	5.64	4.04	1,543	8,476.13	6,726.62
Fourth Quarter	4.77	4.05	4.77	4.05	1,116	7,813.99	6,571.45
October	4.63	4.05	4.63	4.05	1,364	7,813.99	6,571.45
November	4.77	4.34	4.77	4.34	1,048	7,671.91	6,898.18
December	4.74	4.11	4.74	4.11	935	7,559.71	7,142.45
202012							
First Quarter	5.27	4.37	5.27	4.37	1,398	8,297.47	7,557.68
January	5.27	4.37	5.27	4.37	1,477	7,914.81	7,557.68
February	5.26	4.65	5.26	4.65	1,710	8,171.54	7,931.43
March	5.13	4.59	5.13	4.59	1,069	8,297.47	7,920.35
Second Quarter							
April (through April 10)	5.15	4.84	5.15	4.84	1,710	8,281.12	7,841.91

(1) As adjusted retroactively to give effect to stock dividends paid in the periods indicated.

## PLAN OF DISTRIBUTION

Not applicable.

## MARKETS

The principal trading market for our common shares is the Taiwan Stock Exchange and the principal trading market for ADSs representing our common shares is the New York Stock Exchange.

SELLING SHAREHOLDERS

Not applicable.

DILUTION

Not applicable.

EXPENSES OF THE ISSUE

Not applicable.

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Item 10. Additional Information

SHARE CAPITAL

Not applicable.

ARTICLES OF INCORPORATION

General

We are a company limited by shares organized under the laws of the ROC. Our organizational document is our Articles of Incorporation. We have no by-laws.

Our Articles of Incorporation provide, in Article 2, that we may engage in the following types of business:

- the manufacture, assembly, processing, testing and export of various types of integrated circuitry;
- the research, development, design and manufacture, assembly, processing, testing and export of various computers, electronics, communications, information products and their peripheral products;
  - general import and export trading (excluding businesses that require trading permits);
  - the manufacture of electronic parts and components;
- the manufacture of mechanical and electronic devices and materials (including integrated circuit leadframes, BGA substrates and flip-chip substrates);
  - wholesale and retail sales of electronic materials;
- technical support and consulting service for integrated circuit leadframes, BGA substrates and flip-chip substrates;
  - leasing; and
- except any business requiring a special permit, any business not prohibited or restricted by law or regulation.

We were incorporated on March 23, 1984 as a company limited by shares under the ROC Company Law. Our authorized capital was NT\$95,000,000,000, divided into 9,500,000,000 common shares, 6,654,716,832 of which were outstanding as of March 31, 2012. We do not have any equity in the form of preference shares or otherwise outstanding as of the date of this annual report.

With the approval of our board of directors and the ROC Financial Supervisory Commission, Executive Yuan, we may grant stock options to our employees, provided that NT\$8,000,000,000 of our authorized capital (800,000,000 common shares) is reserved for employee stock options and that the shares to be issued under any option plan shall not exceed 10% of our outstanding common shares and the total number of shares to be issued under all option plans shall not exceed 15% of our outstanding common shares. The exercise price of an option shall not be less than the closing price of our common shares on the Taiwan Stock Exchange on the grant date of the option. As of March 31, 2012, we had granted 685,690,500 options pursuant to employee stock option plans established on August 28, 2002, May 27, 2004, November 22, 2007 and April 20, 2010 to our full-time employees as well as to full-time employees of our domestic and foreign subsidiaries. See “Item 6. Directors, Senior Management and Employees—Compensation—ASE



Inc. Employee Bonus and Stock Option Plans.”

#### Directors

Our Articles of Incorporation provide that we are to have from seven to nine directors with tenures of three years who are elected at a shareholders’ meeting. With effect from our 2009 annual general meeting of shareholders, two of our directors will be required to be independent directors. There is no minimum amount of shares necessary

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to stand for election to a directorship. Many of our directors are representatives appointed by corporate shareholders which appoint individual representatives. Re-elections are allowed. The directors have certain powers and duties, including devising operations strategy, proposing to distribute dividends or make up losses, proposing to increase or decrease capital, reviewing material internal rules and contracts, hiring and discharging the general manager, establishing and dissolving branch offices, reviewing budgets and audited financial statements and other duties and powers granted by or in accordance with the ROC Company Law, our Articles of Incorporation or shareholders resolutions.

The board of directors is constituted by the directors, who elect a chairman from among the directors to preside over the meeting of the board. Meetings of the board may be held in the ROC or by videoconference. A director may appoint another director to attend a meeting and vote by proxy, but a director may accept only one proxy.

## Dividends and Distributions

In general, we are not permitted to distribute dividends or make other distributions to shareholders in any year in which we did not record net income or retained earnings (excluding reserves). The ROC Company Law also requires that 10% of annual net income (less prior years' losses, if any) be set aside as a legal reserve until the accumulated legal reserve equals our paid-in capital. In addition, our Articles of Incorporation require that before a dividend is paid out of our annual net income:

- up to 2% of our annual net income (less prior years' losses and legal and special reserves, if any) should be paid to our directors and supervisors as compensation; and
- between 7% and 10% of the annual net income (less prior years' losses and legal and special reserves, if any) should be paid to our employees as bonuses. The 7% portion is to be distributed to all employees in accordance with our employee bonus distribution rules, while any portion exceeding 7% is to be distributed in accordance with rules established by our board of directors to individual employees who have been recognized as having made special contributions to our company. Such employees include those of our subsidiaries.

At the annual general shareholders' meeting, our board of directors submits to the shareholders for their approval any proposal for the distribution of dividends or the making of any other distribution to shareholders from our net income for the preceding fiscal year. All common shares outstanding and fully paid as of the relevant record date are entitled to share equally in any dividend or other distribution so approved. Dividends may be distributed in cash, in the form of common shares or a combination of the two, as determined by the shareholders at the meeting. According to our Articles of Incorporation, we have a general policy that cash dividend distribution should not be lower than 30% of the total dividend amount and the remainder be distributed as stock dividends. See "Item 8. Financial Information—Dividends and Dividend Policy."

We are also permitted to make distributions to our shareholders in cash or in the form of common shares from reserves if we have no accumulated loss. However, the distribution payable out of our legal reserve can only come from the amount exceeding 25% of the total paid-in capital.

For information on the dividends we paid in recent years, see "Item 8. Financial Information—Dividends and Dividend Policy." For information as to ROC taxes on dividends and distributions, see "—Taxation—ROC Taxation—Dividends."

## Changes in Share Capital

Under ROC Company Law, any change in the authorized share capital of a company limited by shares requires an amendment to its Articles of Incorporation. In the case of a public company such as ourselves, the approval of the

ROC Financial Supervisory Commission, Executive Yuan and the ROC Ministry of Economic Affairs is also required. Authorized but unissued common shares may be issued, subject to applicable ROC law, upon terms as our board of directors may determine. In June 2011, we amended our Articles of Incorporation to enlarge our authorized share capital from NT\$80 billion, divided into 8 billion shares with a face value of NT\$10 per share, to NT\$95 billion, divided into 9.5 billion shares with a face value of NT\$10 per share.

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### Preemptive Rights

Under the ROC Company Law, when an ROC company issues new shares for cash, existing shareholders who are listed on the shareholders' register as of the record date have preemptive rights to subscribe for the new issue in proportion to their existing shareholdings, while a company's employees, whether or not they are shareholders of the company, have rights to subscribe for 10% to 15% of the new issue. Any new shares that remain unsubscribed at the expiration of the subscription period may be freely offered, subject to compliance with applicable ROC law.

In addition, in accordance with the ROC Securities and Exchange Law, a public company that intends to offer new shares for cash must offer to the public at least 10% of the shares to be sold, except under certain circumstances or when exempted by the ROC Financial Supervisory Commission, Executive Yuan. This percentage can be increased by a resolution passed at a shareholders' meeting, which would diminish the number of new shares subject to the preemptive rights of existing shareholders.

These preemptive rights provisions do not apply to offerings of new shares through a private placement approved at a shareholders' meeting.

### Meetings of Shareholders

We are required to hold an ordinary meeting of our shareholders within six months following the end of each fiscal year. These meetings are generally held in Kaohsiung, Taiwan. Any shareholder who holds 1% or more of our issued and outstanding shares may submit one written proposal for discussion at our annual shareholders' meeting. Extraordinary shareholders' meetings may be convened by resolution of the board of directors or by the board of directors upon the written request of any shareholder or shareholders who have held 3% or more of the outstanding common shares for more than one year. Shareholders' meetings may also be convened by a supervisor. Notice in writing of meetings of shareholders, stating the place, time and purpose, must be dispatched to each shareholder at least 30 days, in the case of ordinary meetings, and 15 days, in the case of extraordinary meetings, before the date set for each meeting. A majority of the holders of all issued and outstanding common shares present at a shareholders' meeting constitutes a quorum for meetings of shareholders.

### Voting Rights

Under the ROC Company Law, except under limited circumstances, shareholders have one vote for each common share held. Under the ROC Company Law, our directors and supervisors are elected at a shareholders' meeting through cumulative voting.

In general, a resolution can be adopted by the holders of at least a majority of the common shares represented at a shareholders' meeting at which the holders of a majority of all issued and outstanding common shares are present. Under ROC Company Law, the approval by at least a majority of the common shares represented at a shareholders' meeting in which a quorum of at least two-thirds of all issued and outstanding common shares are represented is required for major corporate actions, including:

- amendment to the Articles of Incorporation, including increase of authorized share capital and any changes of the rights of different classes of shares;
- execution, amendment or termination of any contract through which the company leases its entire business to others, or the company appoints others to operate its business or the company operates its business with others on a continuous basis;

- transfer of entire business or assets or a substantial part of its business or assets;
- acquisition of the entire business or assets of any other company, which would have a significant impact on the company's operations;
  - distribution of any stock dividend;
  - dissolution, merger or spin-off of the company; and

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- removal of the directors or supervisors.

A shareholder may be represented at an ordinary or extraordinary meeting by proxy if a valid proxy form is delivered to us five days before the commencement of the ordinary or extraordinary shareholders' meeting.

Holders of ADSs do not have the right to exercise voting rights with respect to the underlying common shares, except as described in the deposit agreement.

### Other Rights of Shareholders

Under the ROC Company Law, dissenting shareholders are entitled to appraisal rights in certain major corporate actions such as a proposed amalgamation by the company. If agreement with the company cannot be reached, dissenting shareholders may seek a court order for the company to redeem all of their shares. Shareholders may exercise their appraisal rights by serving written notice on the company prior to or at the related shareholders' meeting and/or by raising and registering an objection at the shareholders' meeting. In addition to appraisal rights, shareholders have the right to sue for the annulment of any resolution adopted at a shareholders' meeting where the procedures were legally defective within 30 days after the date of the shareholders' meeting. One or more shareholders who have held more than 3% of the issued and outstanding shares of a company for more than one year may require a supervisor to bring a derivative action on behalf of the company against a director as a result of the director's unlawful actions or failure to act.

### Rights of Holders of Deposited Securities

Except as described below, holders of ADSs generally have no right under the deposit agreement to instruct the depository to exercise the voting rights for the common shares represented by the ADSs. Instead, by accepting ADSs or any beneficial interest in ADSs, holders of ADSs are deemed to have authorized and directed the depository to appoint our chairman or his designee to represent them at our shareholders' meetings and to vote the common shares deposited with the custodian according to the terms of the deposit agreement.

The depository will mail to holders of ADSs any notice of shareholders' meeting received from us together with information explaining how to instruct the depository to exercise the voting rights of the securities represented by ADSs.

If we fail to timely provide the depository with an English language translation of our notice of meeting or other materials related to any meeting of owners of common shares, the depository will endeavor to cause all the deposited securities represented by ADSs to be present at the applicable meeting, insofar as practicable and permitted under applicable law, but will not cause those securities to be voted.

If the depository timely receives voting instructions from owners of at least 51.0% of the outstanding ADSs to vote in the same direction regarding one or more resolutions to be proposed at the meeting, including election of directors and supervisors, the depository will notify our chairman or his designee to attend the meeting and vote all the securities represented by the holders' ADSs in accordance with the direction received from owners of at least 51.0% of the outstanding ADSs.

If we have timely provided the depository with the materials described in the deposit agreement and the depository has not timely received instructions from holders of at least 51.0% of the outstanding ADSs to vote in the same direction regarding any resolution to be considered at the meeting, then, holders of ADSs will be deemed to have authorized and directed the depository bank to give a discretionary proxy to our chairman or his designee to attend and vote at the meeting the common shares represented by the ADSs in any manner, our chairman or his designee may wish, which

may not be in the interests of holders.

The ability of the depositary to carry out voting instructions may be limited by practical and legal limitations and the terms of the securities on deposit. We cannot assure ADS holders that they will receive voting materials in time to enable them to return voting instructions to the depositary in a timely manner.

While shareholders who own 1% or more of our outstanding shares are entitled to submit one proposal to be considered at our annual general meetings, only holders representing at least 51% of our ADSs outstanding at the

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relevant record date are entitled to submit one proposal to be considered at our annual general meetings. Hence, only one proposal may be submitted on behalf of all ADS holders.

### Register of Shareholders and Record Dates

Our share registrar, President Securities Corp., maintains our register of shareholders at its offices in Taipei, Taiwan, enters transfers of common shares in our register upon presentation of, among other documents, certificates representing the common shares transferred and acts as paying agent for any dividends or distributions with respect to our common shares. Under the ROC Company Law and our Articles of Incorporation, we may, by giving advance public notice, set a record date and close the register of shareholders for a specified period in order for us to determine the shareholders or pledgees that are entitled to rights pertaining to the common shares. The specified period required is as follows:

- ordinary shareholders' meeting—60 days;
- extraordinary shareholders' meeting—30 days; and
- relevant record date—5 days.

### Annual Financial Statements

At least ten days before the annual ordinary shareholders' meeting, our annual financial statements must be available at our principal executive office in Kaohsiung, Taiwan for inspection by the shareholders.

### Transfer of Common Shares

The transfer of common shares in registered form is effected by endorsement and delivery of the related share certificates but, in order to assert shareholders' rights against us, the transferee must have his name and address registered on our register of shareholders. Shareholders are required to file their respective specimen seals, also known as chops, with us. Chops are official stamps widely used in Taiwan by individuals and other entities to authenticate the execution of official and commercial documents. The settlement of trading in the common shares is normally carried out on the book-entry system maintained by the Taiwan Depository & Clearing Corporation.

### Acquisition of Common Shares by ASE Inc.

Under the ROC Securities and Exchange Law, we may purchase our own common shares for treasury stock in limited circumstances, including:

- to transfer shares to our employees;
- to deliver shares upon the conversion or exercise of bonds with warrants, preferred shares with warrants, convertible notes, convertible preferred shares or warrants issued by us; and
- to maintain our credit and our shareholders' equity, provided that the shares so purchased shall be canceled.

We may purchase our common shares on the Taiwan Stock Exchange or by means of a public tender offer. These transactions require the approval of a majority of our board of directors at a meeting in which at least two-thirds of the directors are in attendance. The total amount of common shares purchased for treasury stock may not exceed 10% of the total outstanding shares. In addition, the total cost of the purchased shares shall not exceed the aggregate amount



of our retained earnings, any premium from share issuances and the realized portion of our capital reserve.

We may not pledge or hypothecate any of our shares purchased by us. In addition, we may not exercise any shareholders' right attaching to such shares. In the event that we purchase our shares on the Taiwan Securities Exchange, our affiliates, directors, supervisors, managers, and their respective spouses and minor children and/or nominees are prohibited from selling any of our shares during the period in which we are purchasing our shares.

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Pursuant to the amended ROC Company Law, effective from November 14, 2001, our subsidiaries are not permitted to acquire our common shares. This restriction does not affect any acquisition of our common shares made by our subsidiaries prior to November 14, 2001.

### Liquidation Rights

In the event of our liquidation, the assets remaining after payment of all debts, liquidation expenses and taxes will be distributed pro rata to the shareholders in accordance with the relevant provisions of the ROC Company Law and our Articles of Incorporation.

### Transfer Restrictions

#### Substantial Shareholders

The ROC Securities and Exchange Law currently requires:

- each director, supervisor, manager, or substantial shareholder (that is, a shareholder who holds more than 10% shares of a company), and their respective spouses, minor children or nominees, to report any change in that person's shareholding to the issuer of the shares and the ROC Financial Supervisory Commission, Executive Yuan; and
- each director, supervisor, manager, or substantial shareholder, and their respective spouses, minor children or nominees, after acquiring the status of director, supervisor, manager, or substantial shareholder for a period of six months, to report his or her intent to transfer any shares on the Taiwan Stock Exchange to the ROC Financial Supervisory Commission, Executive Yuan at least three days before the intended transfer, unless the number of shares to be transferred is less than 10,000 shares.

In addition, the number of shares that can be sold or transferred on the Taiwan Stock Exchange by any person subject to the restrictions described above on any given day may not exceed:

- 0.2% of the outstanding shares of the company in the case of a company with no more than 30 million outstanding shares; or
- 0.2% of 30 million shares plus 0.1% of the outstanding shares exceeding 30 million shares in the case of a company with more than 30 million outstanding shares; or
- in any case, 5% of the average trading volume (number of shares) on the Taiwan Stock Exchange for the ten consecutive trading days preceding the reporting day on which the director, supervisor, manager or substantial shareholder reports the intended share transfer to the ROC Financial Supervisory Commission, Executive Yuan.

These restrictions do not apply to sales or transfers of our ADSs.

## MATERIAL CONTRACTS

### Equity Purchase Agreement between Us and Shareholders of Yang Ting

On January 13, 2012, we entered into share purchase agreements with shareholders of Yang Ting in connection with the acquisition of 100.0% of Yang Ting, for a purchase price of NT\$300.0 million (US\$9.9 million). See "Item 4. Information on the Company—History and Development of the Company—Acquisition of Yang Ting" for more

information.

Equity Purchase Agreement between ASESH AT and Ding Yao in respect of Ding Hui

On November 17, 2011, we, through our subsidiary ASESH AT, entered into an equity purchase agreement with Ding Yao in connection with the acquisition of 10% equity of Ding Hui for a consideration of RMB 221.5 million (US\$35.2 million).

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### Equity Purchase Agreement between PowerASE and Shareholders of Lu-Chu

On October 25, 2011, we, through our subsidiary PowerASE, entered into equity purchase agreements with shareholders of Lu-Chu. In connection with the acquisition, we purchased a total of 82.27% equity of Lu-Chu for a total consideration of NT\$1,331.7 million (US\$44.0 million).

### FOREIGN INVESTMENT IN THE ROC

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

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

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

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

Foreign investors (other than PRC persons) who wish to make (i) direct investments in the shares of ROC private companies or (ii) investment in 10% or more of the equity interest of an ROC company listed on the Taiwan Stock Exchange or the Over-the-Counter (GreTai) Securities Market in any single transaction, are required to submit a foreign investment approval application to the Investment Commission of the Ministry of Economic Affairs of the ROC or other applicable government authority. The Investment Commission or such other government authority reviews each foreign investment approval application and approves or disapproves each application after consultation with other governmental agencies (such as the Central Bank of the Republic of China (Taiwan) and the ROC Financial Supervisory Commission, Executive Yuan).

Under current ROC law, any non-ROC person possessing a foreign investment approval may remit capital for the approved investment and is entitled to repatriate annual net profits, interest and cash dividends attributable to the approved investment. Dividends attributable to such investment may be repatriated upon submitting certain required

documents to the remitting bank, and investment capital and capital gains attributable to such investment may be repatriated after approvals of the Investment Commission or other government authorities have been obtained.

In addition to the general restriction against direct investment by foreign investors in securities of ROC companies, foreign investors (except in certain limited cases) are currently prohibited from investing in certain industries in the ROC pursuant to a “negative list,” as amended by the Executive Yuan. The prohibition on foreign

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investment in the prohibited industries specified in the negative list is absolute in the absence of a specific exemption from the application of the negative list. Pursuant to the negative list, certain other industries are restricted so that foreign investors (except in limited cases) may invest in these industries only up to a specified level and with the special approval of the relevant competent authority that is responsible for enforcing the relevant legislation that the negative list is intended to implement.

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

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

In addition to the general restriction against direct investment by PRC investors in securities of ROC companies, PRC investors may only invest in certain industries in the "positive list", as promulgated by the Executive Yuan. Furthermore, a PRC investor who wishes to be elected as an ROC company's director or supervisor shall also submit an investment approval application to the Investment Commission of the ROC Ministry of Economic Affairs or other government authority for approval.

## EXCHANGE CONTROLS

### ROC Exchange Controls

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

Apart from trade-related foreign exchange transactions, ROC companies and individual residents of the ROC may, without foreign exchange approval, remit to and from the ROC foreign currency of up to US\$50 million (or its equivalent) and US\$5 million (or its equivalent) respectively in each calendar year. The above limits apply to remittances involving a conversion of NT dollars to a foreign currency and vice versa. In addition, a requirement is

also imposed on all enterprises to register medium- and long-term foreign debt with the Central Bank of the Republic of China (Taiwan).

In addition, foreign persons may, subject to specified requirements but without foreign exchange approval of the Central Bank of the Republic of China (Taiwan), remit to and from the ROC foreign currencies of up to US\$100,000 (or its equivalent) per remittance if the required documentation is provided to the ROC authorities. The above limit applies to remittances involving a conversion of NT dollars to a foreign currency and vice versa. The

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above limit does not, however, apply to the conversion of NT dollars into other currencies, including U.S. dollars, from the proceeds of sale of any underlying shares withdrawn from a depositary receipt facility.

## TAXATION

### ROC Taxation

The following discussion describes the material ROC tax consequences of the ownership and disposition of common shares or ADSs to a non-resident individual or non-resident entity that owns common shares or ADSs (referred to here as a “non-ROC holder”). As used in the preceding sentence, a “non-resident individual” is a non-ROC national who owns common shares or ADSs and is not physically present in the ROC for 183 days or more during any calendar year and a “non-resident entity” is a corporation or a non-corporate body that owns common shares or ADSs, is organized under the laws of a jurisdiction other than the ROC and has no fixed place of business or business agent in the ROC.

### Dividends

Dividends (whether in cash or common shares) declared by us out of retained earnings and distributed to a non-ROC holder are subject to ROC withholding tax, currently at the rate of 20% on the amount of the distribution (in the case of cash dividends) or on the par value of the distributed common shares (in the case of stock dividends). A 10% undistributed earnings tax is imposed on a ROC company for its after-tax earnings generated after January 1, 1998 which are not distributed in the following year. The undistributed earnings tax so paid will further reduce the retained earnings available for future distribution. When we declare a dividend out of those retained earnings, an amount in respect of the undistributed earnings tax, up to a maximum amount of 10% of the dividend to be distributed, will be credited against the 20% withholding tax imposed on the non-ROC holders.

Distributions of stock dividends out of capital reserves will not be subject to withholding tax.

### Capital Gains

Under current ROC law, capital gain realized upon the sale or other disposition of securities is exempt from ROC income tax. This exemption currently applies to capital gains derived from the sale of common shares.

Sales of ADSs are not regarded as sales of ROC securities and thus any gains derived from transfers of ADSs by non-ROC holders are not currently subject to ROC income tax.

### Securities Transaction Tax

Securities transaction tax will be imposed on the seller at the rate of 0.3% of the transaction price upon a sale of common shares. Transfers of ADSs are not subject to ROC securities transaction tax.

### Subscription Rights

Distributions of statutory subscription rights for the common shares in compliance with the ROC Company Act are currently not subject to ROC tax. Income derived from sales of statutory subscription rights evidenced by securities are currently exempted from income tax but are subject to securities transaction tax, currently at the rate of 0.3% of the gross amount received. Income derived from sales of statutory subscription rights which are not evidenced by securities are treated as income generated from property transactions and are subject to income tax at a fixed rate of 20% of the income if the seller is a non-ROC holder. Subject to compliance with ROC law, we, in our sole discretion, may determine whether statutory subscription rights are evidenced by securities.



## Estate and Gift Tax

ROC estate tax is payable on any property within the ROC of a deceased non-resident individual, and ROC gift tax is payable on any property within the ROC donated by a non-resident individual. Estate tax and gift tax are currently imposed at the rate of 10%. Under the ROC Estate and Gift Act, common shares issued by ROC

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companies are deemed located in the ROC without regard to the location of the owner. It is unclear whether a holder of ADSs will be considered to own common shares for this purpose.

### Tax Treaty

At present, the ROC has income tax treaties with Indonesia, Singapore, New Zealand, Australia, the United Kingdom, South Africa, Gambia, Swaziland, Malaysia, Macedonia, the Netherlands, Senegal, Sweden, Belgium, Denmark, Israel, Vietnam, Paraguay, Hungary, France, India, Slovakia and Switzerland. These tax treaties may limit the rate of ROC withholding tax on dividends paid with respect to common shares issued by ROC companies. A non-ROC holder of ADSs will be considered as the beneficial owner of common shares for the purposes of such treaties. Accordingly, holders of ADSs who wish to apply a reduced withholding tax rate that is provided under a tax treaty should consult their own tax advisers concerning such application. The United States does not have an income tax treaty with the ROC.

### United States Federal Income Taxation

The following discussion describes the material U.S. federal income tax consequences of the ownership and disposition of common shares or ADSs to those U.S. holders described below who hold such common shares or ADSs as capital assets for U.S. federal income tax purposes. As used herein, a “U.S. Holder” is a beneficial owner of common shares or ADSs that is for U.S. federal income tax purposes:

- a citizen or resident of the United States;
- a corporation, or other entity taxable as a corporation, created or organized under the laws of the United States or of any political subdivision of the United States; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

This discussion assumes that we are not a passive foreign investment company, as discussed below.

This discussion does not address all of the tax consequences that may be relevant in light of a U.S. Holder’s particular circumstances. In particular, it does not address all of the tax consequences that may be relevant to holders subject to special rules, including:

- persons subject to the alternative minimum tax;
- insurance companies;
- tax-exempt entities, including “individual retirement accounts” or “Roth IRAs”;
- dealers or traders in securities who use a mark-to-market method of accounting for U.S. federal income tax purposes;
- certain financial institutions;
- partnerships or other entities classified as partnerships for U.S. federal income tax purposes;
- persons holding common shares or ADSs in connection with a trade or business conducted outside of the U.S.;

- persons who hold or will hold common shares or ADSs as part of a straddle, hedge, conversion transaction, integrated transaction or similar transaction;
  - persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
  - persons who own or are deemed to own 10% or more of our voting stock; or

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- persons who acquired our common shares or ADSs pursuant to the exercise of any employee stock option or otherwise as compensation.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds common shares or ADSs, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships holding common shares or ADSs and partners in such partnerships should consult their tax advisers as to the particular U.S. federal income tax consequences of holding and disposing of the common shares or ADSs.

This discussion is based on the Internal Revenue Code of 1986, as amended (the “Code”), final, temporary and proposed Treasury regulations, administrative pronouncements and judicial decisions, all as of the date hereof. These laws and regulations are subject to change, possibly with retroactive effect. This discussion is also based in part on representations by the depository and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms.

In general, for U.S. federal income tax purposes, a U.S. Holder who owns ADSs should be treated as the owner of the common shares represented by the ADSs. Accordingly, no gain or loss should be recognized if a U.S. holder exchanges ADSs for the common shares represented by those ADSs.

The U.S. Treasury has expressed concerns that parties to whom American depositary shares are released before delivery of shares to the depository (“pre-release”), or intermediaries in the chain of ownership between holders and the issuer of the security underlying the American depositary shares, may be taking actions that are inconsistent with the claiming of foreign tax credits by the holders of American depositary shares. Such actions would also be inconsistent with the claiming of the reduced rate of tax applicable to dividends received by certain noncorporate U.S. holders. Accordingly, the analysis of the creditability of ROC taxes and the availability of the reduced tax rate for dividends received by certain non-corporate U.S. Holders, both described below, could be affected by actions that may be taken by such parties or intermediaries.

U.S. Holders should consult their tax advisers with regard to the application of the U.S. federal income tax laws to their common shares or ADSs as well as any tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

## Dividends

Distributions paid on common shares or ADSs (other than certain pro rata distributions of common shares to all shareholders, including holders of ADSs), including the amount of any ROC taxes withheld thereon, reduced by any credit against the withholding tax on account of the 10% retained earnings tax imposed on us, generally will constitute foreign source dividend income to the extent paid out of our current or accumulated earnings and profits as determined in accordance with U.S. federal income tax principles. Because we do not maintain calculations of our earnings and profits under U.S. federal income tax principles, we expect that distributions generally will be reported to U.S. Holders as dividends. The amount a U.S. Holder will be required to include in income for any dividend paid in NT dollars will be equal to the U.S. dollar value of the NT dollars paid, calculated by reference to the exchange rate in effect on the date the payment is received by the depository (in the case of ADSs) or by a U.S. Holder (in the case of common shares), regardless of whether the payment is in fact converted into U.S. dollars on the date of receipt. If a U.S. Holder does not convert the amount of any dividend income received into U.S. dollars on the date of receipt and subsequently realizes gain or loss on a sale or other disposition of NT dollars, such gain or loss generally will be U.S. source ordinary income or loss. The amount of any taxable distribution of property other than cash will be the fair market value of such property on the date of distribution. The amount of any dividend will not be eligible for the dividends-received deduction generally available to U.S. corporations under the Code.

Subject to applicable limitations and the discussion above regarding concerns expressed by the U.S. Treasury, under current law, certain dividends paid by qualified foreign corporations to certain noncorporate U.S. Holders in taxable years beginning before January 1, 2013 are taxable at a maximum rate of 15%. A foreign corporation is treated as a qualified foreign corporation with respect to dividends paid on stock that is readily tradable on a securities market in the United States, such as the New York Stock Exchange, where our ADSs are traded.

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U.S. Holders should consult their tax advisers to determine whether the favorable rates may apply to dividends they receive and whether they are subject to any special rules that limit their ability to be taxed at this favorable rate.

Subject to applicable limitations and restrictions and the discussion above regarding concerns expressed by the U.S. Treasury, the ROC taxes withheld from dividend distributions, reduced by any credit against the withholding tax which is paid by the Company on account of the 10% retained earnings tax, will be eligible for credit against the U.S. Holder's U.S. federal income tax liability. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. The rules governing foreign tax credits are complex and, therefore, U.S. Holders should consult their tax advisers regarding the availability of foreign tax credits in their particular circumstances. Instead of claiming a credit, U.S. Holders may, at their election, deduct such otherwise creditable ROC taxes in computing their taxable income, subject to generally applicable limitations under U.S. law.

Certain pro rata distributions of common shares by a company to its shareholders, including holders of ADSs, will not be subject to U.S. federal income tax. Accordingly, these distributions will not give rise to U.S. federal income against which the ROC tax imposed on these distributions may be credited. U.S. Holders should consult their tax advisers as to whether any ROC tax imposed on these pro rata distributions of common shares may be creditable against their foreign source income from other sources.

### Capital Gains

U.S. Holders generally will recognize U.S.-source capital gain or loss for U.S. federal income tax purposes on the sale or exchange of common shares or ADSs, which will be long-term capital gain or loss if the common shares or ADSs were held for more than one year. The amount of gain or loss will be equal to the difference between their tax basis in the common shares or ADSs disposed of and the amount realized on disposition, in each case as determined in U.S. dollars. A U.S. Holder's basis in its common shares or ADSs will generally equal the U.S. Holder's cost of such ADSs or common shares. If a U.S. Holder receives common stock or ADSs in a non-taxable pro rata distribution with respect to its ADSs or common shares ("new securities"), the basis of such new securities must be determined by allocating the basis of the ADS or common shares with respect to which the new securities were issued ("old securities") between the old securities and new securities in proportion to their fair market values on the date of distribution. U.S. Holders should consult their tax advisers about the treatment of capital gains, which may be taxed at lower rates than ordinary income for non-corporate taxpayers, and capital losses, the deductibility of which may be limited.

### Passive Foreign Investment Company Rules

We believe that we were not a passive foreign investment company, or PFIC, for U.S. federal income tax purposes for our 2011 taxable year. However, since PFIC status depends upon the composition of a company's income and assets and the market value of its assets (including, among others, less than 25 percent owned equity investments) from time to time, there can be no assurance that we will not be considered a PFIC for any taxable year.

If we were treated as a PFIC for any taxable year during which a U.S. Holder held a common share or an ADS, certain adverse consequences could apply to that U.S. Holder. If we were a PFIC for any taxable year during which a U.S. Holder held a common share or an ADS, such U.S. Holder may be required to file report with the Internal Revenue Service containing such information as the U.S. Treasury may require.

### Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding unless (i) the U.S. Holder is an exempt recipient or (ii) in the case of backup withholding, the U.S. Holder provides a

correct taxpayer identification number and certifies that it is not subject to backup withholding.

The amount of any backup withholding from a payment to you will be allowed as a credit against your United States federal income tax liability and may entitle you to a refund, provided that the required information is timely furnished to the Internal Revenue Service.

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Certain U.S. Holders who are individuals may be required to report information relating to the ownership of securities of a non-U.S. person, subject to certain exceptions (including an exception for securities held in certain accounts maintained by U.S. financial institutions). U.S. Holders should consult their tax advisers regarding their reporting obligations with respect to the common shares or ADSs.

DIVIDENDS AND PAYING AGENTS

Not applicable.

STATEMENT BY EXPERTS

Not applicable.

DOCUMENTS ON DISPLAY

We file annual reports on Form 20-F and periodic reports on Form 6-K with the SEC. You can read and copy these reports and other information at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. You can also request copies of the documents, upon payment of a duplicating fee, by writing to the Public Reference Section of the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. The reports and other information we file electronically with the SEC are also available to the public from the SEC's website at <http://www.sec.gov>.

SUBSIDIARY INFORMATION

Not applicable.

Item 11. Quantitative and Qualitative Disclosures about Market Risk

Market Risk

Our exposure to financial market risks relates primarily to changes in interest rates and foreign currency exchange rates. To mitigate these risks we utilize derivative financial instruments, the application of which is primarily to manage these exposures and not for speculative purposes.

**Interest Rate Risk.** Our exposure to interest rate risks relates primarily to our long-term floating rate loans, which is normally incurred to support our corporate activities and capital expenditures.

We entered into several interest rate swap contracts to mitigate the interest rate risk on our long-term loans. In August 2008, we entered into a set of contracts in the amount of NT\$12,000.0 million, all of which will expire in March 2013. In February 2009, we entered into another set of contracts in the amount of NT\$5,500.0 million, all of which will expire in March 2013. The notional amounts as of December 31, 2011 for the two sets of interest rate swap contracts are NT\$5,220.0 million and NT\$2,392.5 million, respectively. We also entered into a set of contracts in April 2009 in the amount of US\$200.0 million, all of which expired in May 2011. Interest receipt and payment were based on a floating rate of 0.861% and fixed rates of 0.96% to 2.48% as of December 31, 2011. See note 26(h) to our consolidated financial statements for details of these contracts.

The fair value of these contracts as of December 31, 2011 was negative NT\$58.3 million (US\$1.9 million) and we recognized them as hedging derivative liabilities-noncurrent with an adjustment to shareholders' equity.



The tables below set forth information relating to our significant obligations, including interest rate swap, short-term borrowings, long-term bank loans and capital lease obligations, that are sensitive to interest rate fluctuations as of December 31, 2011.

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	Expected Maturity Date						Total	Fair Value
	2012	2013	2014	2015	2016	Thereafter		
	(in millions, except percentage)							
<b>Interest Rate Swaps</b>								
Variable to Fixed (NT\$)	5,075.0	2,537.5	–	–	–	–	7,612.5	(58.3 )
Average pay rate	2.00%	2.00%	–	–	–	–	2.00%	
Average receive rate	0.83%	0.94%	–	–	–	–	0.88%	

	Expected Maturity Date						Total	Fair Value
	2012	2013	2014	2015	2016	Thereafter		
	(in millions, except percentages)							
<b>Short-term borrowings:</b>								
Variable rate (NT\$)	100.0	–	–	–	–	–	100.0	100.0
Average interest rate	0.96%	–	–	–	–	–	0.96%	
Variable rate (US\$)	560.5	–	–	–	–	–	560.5	560.5
Average interest rate	3.01%	–	–	–	–	–	3.01%	
Variable rate (RMB)	1,203.9	–	–	–	–	–	1,203.9	1,203.9
Average interest rate	4.17%	–	–	–	–	–	4.17%	
Variable rate (EUR)	2.8	–	–	–	–	–	2.8	2.8
Average interest rate	2.67%	–	–	–	–	–	2.67%	

**Long-term bank loans and capital lease obligations:**

Variable rate (NT\$)	7,691.0	8,542.0	3,801.9	1,126.4	82.8	116.7	21,360.8	21,360.8
Average interest rate	1.79%	1.54%	1.60%	1.87%	1.88%	1.92%	1.66%	
Fixed rate (NT\$)	0.3	0.0	0.0	0.1	8,000.0	–	8,000.4	7,783.9
Average interest rate	8.34%	10.59%	10.59%	10.59%	1.45%	–	1.45%	
Variable rate (US\$)	163.0	290.4	218.4	34.3	–	–	706.2	706.2
Average interest rate	1.39%	1.85%	3.44%	2.32%	–	–	2.26%	
Fixed rate (US\$)	1.4	0.7	0.0	0.1	–	–	2.2	2.2
Average interest rate	1.22%	0.91%	5.04%	5.04%	–	–	1.24%	
Fixed rate (RMB)	–	–	150.0	–	500.0	–	650.0	643.6
Average interest rate	–	–	3.13%	–	4.25%	–	3.27%	

**Foreign Currency Exchange Rate Risk.** Our foreign currency exposure gives rise to market risk associated with exchange rate movements against the NT dollar, our functional currency. Currently, the majority of our revenues are denominated in U.S. dollars, with a portion denominated in NT dollars and Japanese yen. Our costs of revenues and operating expenses are incurred in several currencies, primarily in NT dollars, U.S. dollars and Chinese yuan, as well as, to a lesser extent, Japanese yen, Korean won and Malaysian ringgit. In addition, a substantial portion of our capital expenditures, primarily for the purchase of packaging and testing equipment, has been, and is expected to continue to be, denominated primarily in U.S. dollars with the remainder in Japanese yen. The majority of our borrowings are denominated in NT dollars and U.S. dollars, as well as, to a lesser extent, Chinese yuan. Fluctuations in exchange rates, primarily among the U.S. dollar, the NT dollar, the Chinese yuan and the Japanese yen, will affect our costs and operating margins and could result in exchange losses and increased costs in NT dollar and other local currency terms.

Despite hedging and mitigating techniques implemented by us, fluctuations in exchange rates have affected, and may continue to affect, our financial condition and results of operations. We recorded net foreign exchange gains of NT\$4.2 million, NT\$317.6 million and NT\$36.2 million (US\$1.2 million) in 2009, 2010 and 2011, respectively. In 2009, 2010 and 2011, the average exchange rate of the NT dollar to the U.S. dollar was 32.96, 31.40 and 29.42, respectively, calculated based on the statistical release by the Federal Reserve Board. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign currency exchange rates, we utilize currency forward contracts, swap contracts and cross currency swap contracts from time to time to reduce the impact of foreign currency fluctuations on our results of operations. Our policy is to account for these contracts on a mark-to-market rate basis.

The table below sets forth the outstanding cross currency swap contracts as of December 31, 2011, which will expire in 2012.

Notional Amount	NT\$ Interest Rate Received %	US\$ Interest Rate Paid %	Fair Value
US\$30.0 million/NT\$869.4 million	(0.94) – (0.96)	0.29	US\$(1.3) million

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The table below sets forth our outstanding forward exchange contracts and swap contracts, for which the expected maturity dates are in 2012, in aggregate terms by type of contract as of December 31, 2011.

## Forward Exchange Contracts and Swap Contracts

	Forward Exchange Contracts	Swap Contracts
<b>Sell US\$ against NT\$</b>		
Notional Amount	US\$68.0 million	US\$96.5 million
Weighted Average Strike Price	US\$/NT\$30.225	US\$/NT\$29.579
Fair Value	Negative US\$0.045 million	Negative US\$2.122 million
<b>Buy US\$ against NT\$</b>		
Notional Amount	-	US\$677.6 million
Weighted Average Strike Price	-	US\$/NT\$29.422
Fair Value	-	US\$14.981 million
<b>Sell US\$ against JP¥</b>		
Notional Amount	US\$31.5 million	US\$72.3 million
Weighted Average Strike Price	US\$/JP¥77.913	US\$/JP¥77.498
Fair Value	US\$0.082 million	US\$0.310 million
<b>Sell US\$ against MYR</b>		
Notional Amount	US\$16.0 million	-
Weighted Average Strike Price	US\$/MYR3.158	-
Fair Value	Negative US\$0.136 million	-
<b>Sell US\$ against SGD</b>		
Notional Amount	US\$5.5 million	-
Weighted Average Strike Price	US\$/SGD1.298	-
Fair Value	Negative US\$0.006 million	-
<b>Sell US\$ against KRW</b>		
Notional Amount	US\$42.0 million	-
Weighted Average Strike Price	US\$/KRW 1,153.233	-
Fair Value	Negative US\$0.076 million	-
<b>Sell US\$ against EUR</b>		
Notional Amount	US\$2.4 million	US\$2.0 million
Weighted Average Strike Price	EUR/US\$1.308	EUR/US\$1.328
Fair Value	Negative US\$0.026 million	Negative US\$0.052 million
<b>Buy US\$ against EUR</b>		
Notional Amount	US\$2.0 million	-
Weighted Average Strike Price	EUR/US\$1.364	-
Fair Value	US\$0.103 million	-

**Other Market Risk.** Our exposure to other market risk relates primarily to our investments in publicly-traded stock, private-placement shares and open-end mutual funds. The value of these investments may fluctuate based on



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various factors including prevailing market conditions. Moreover, the fair value of investments in unlisted securities may be significantly different from their carrying value. Of our investments in publicly-traded stocks and open-end mutual funds held as of December 31, 2011, NT\$217.4 million (US\$7.2 million) were classified as financial assets held for trading and NT\$221.9 million (US\$7.3 million) were classified as available-for-sale financial assets. If the fair values of these investments fluctuate by 1%, our profit will increase or decrease by approximately NT\$4.4 million (US\$0.1 million) for the same period. In addition, fluctuations in gold prices may also affect the price at which we have been able to purchase gold wire. How this will impact the results of our operations depends on whether such costs can be transferred onto our customers.

## Item 12. Description of Securities Other Than Equity Securities

## Item 12A. Debt Securities.

None.

## Item 12B. Warrants and Rights.

None.

## Item 12C. Other Securities.

Not applicable.

## Item 12D. American Depositary Shares.

## Depositary Fees and Charges

Under the terms of the amended and restated deposit agreement dated September 29, 2000 among Citibank, N.A., as depositary, holders and beneficial owners of ADSs and us, which was filed as an exhibit to our registration statement on Form F-6 on September 16, 2003, and its two amendments, which were filed as an exhibit to our registration statement on post-effective amendment No. 1 to Form F-6 on April 3, 2006 and our registration statement on post-effective amendment No. 2 to Form F-6 on October 25, 2006, respectively, (collectively, the "Deposit Agreement") for our ADSs, an ADS holder may have to pay the following service fees to the depositary bank:

Service	Fees
Issuance of ADSs	Up to US\$5.00 per 100 ADSs (or fraction thereof) issued
Delivery of deposited securities against surrender of ADSs	Up to US\$5.00 per 100 ADSs (or fraction thereof) surrendered
Distribution of cash dividends or other cash distributions	Up to US\$5.00 per 100 ADSs (or fraction thereof) held, unless prohibited by the exchange upon which the ADSs are listed
Distribution of ADSs pursuant to (i) stock dividends or other free stock distributions, or (ii) exercises of rights to purchase additional ADSs	Up to US\$5.00 per 100 ADSs (or fraction thereof) held, unless prohibited by the exchange upon which the ADSs are listed
Distribution of securities other than ADSs or rights to purchase additional ADSs	Up to US\$5.00 per 100 ADSs (or fraction thereof) held

Depository Services

Up to US\$5.00 per 100 ADSs (or fraction thereof) held, unless prohibited by the exchange upon which the ADSs are listed

Transfer of ADRs

US\$1.50 per certificate presented for transfer

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An ADS holder will also be responsible to pay certain fees and expenses incurred by the depository bank and certain taxes and governmental charges such as:

- taxes (including applicable interest and penalties) and other governmental charges;
- such registration fees as may from time to time be in effect for the registration of shares or other deposited securities on the share register and applicable to transfers of shares or other deposited securities to or from the name of the custodian, the depository or any nominees upon the making of deposits and withdrawals, respectively;
- such cable, telex and facsimile transmission and delivery expenses as are expressly provided in the Deposit Agreement to be at the expense of the person depositing or withdrawing shares or holders and beneficial owners of ADSs;
- the expenses and charges incurred by the depository in the conversion of foreign currency;
- such fees and expenses as are incurred by the depository in connection with compliance with exchange control regulations and other regulatory requirements applicable to shares, deposited securities, ADSs and ADRs; and
- the fees and expenses incurred by the depository, the custodian or any nominee in connection with the servicing or delivery of deposited securities.

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

Depository fees payable in connection with distributions of cash or securities to ADS holders and the depository services fee are charged by the depository bank to the holders of record of ADSs as of the applicable ADS record date. Depository fees payable for cash distributions are generally deducted from the cash being distributed. In case of distributions other than cash (i.e., stock dividends, rights offerings), the depository bank charges the applicable fee to the ADS record date holders concurrent with the distribution. In the case of ADSs registered in the name of the investor (whether certificated or un-certificated in direct registration), the depository bank sends invoices to the applicable record date ADS holders. In case of ADSs held in brokerage and custodian accounts via the central clearing and settlement system, The Depository Trust Company (DTC), the depository bank generally collects its fees through the systems provided by DTC (whose nominee is the registered holder of the ADSs held in DTC) from the brokers and custodians holding ADSs in their DTC accounts. The brokers and custodians who hold their clients' ADSs in DTC accounts in turn charge their clients' accounts the amount of the fees paid to the depository banks.

In the event of refusal to pay depository fees, the depository bank may, under the terms of the Deposit Agreement, refuse the requested service until payment is received or may set-off the amount of the depository fees from any distribution to be made to the ADS holder. Note that the fees and charges you may be required to pay may vary over time and may be changed by us and by the depository bank. You will receive prior notice of such changes.

## Depository Payments

In 2011, we received US\$1.7 million from Citibank, N.A., the depository bank for our ADR programs. The table below sets forth details of the amount we received from Citibank, N.A.





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## Depository Payments

Reimbursement of proxy process expenses	US\$ 12,335.87
Reimbursement of ADR holders identification expenses	US\$ 26,777.63
Reimbursement of legal fees	US\$ 2,839.50
Direct reimbursement	US\$ 1,671,095.27
Net payment received by us(1)	US\$ 1,713,048.27

(1) net of U.S. withholding tax.

## PART II

## Item 13. Defaults, Dividend Arrearages and Delinquencies

Not applicable.

## Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

Not applicable.

## Item 15. Controls and Procedures

## Disclosure Controls and Procedures

As of December 31, 2011, we, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15(d)-15(e) under the Exchange Act. Our management necessarily applied its judgment in assessing the costs and benefits of such controls and procedures, which by their nature can provide only reasonable assurance regarding management's control objectives. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective for recording, processing, summarizing and reporting, within the time periods specified in the SEC's rules and forms, information required to be disclosed in the reports we file or submit under the Exchange Act, and for accumulating and communicating such information to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

## Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) and 15d-15(f) promulgated under the Securities Exchange Act of 1934.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2011. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework.

Based on this assessment, management concluded that, as of December 31, 2011, our internal control over financial reporting is effective based on those criteria.

Our independent registered public accounting firm, Deloitte & Touche, independently assessed the effectiveness of our internal control over financial reporting. Deloitte & Touche has issued an attestation report, which is included below.

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Report of the Independent Registered Public Accounting Firm

To: the Board of Directors and Shareholders of  
Advanced Semiconductor Engineering, Inc.

We have audited the internal control over financial reporting of Advanced Semiconductor Engineering, Inc. and its subsidiaries (the "Company") as of December 31, 2011, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2011, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with auditing standards generally accepted in the Republic of China and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of the Company as of and for the year ended December 31, 2011 and our report dated April 11, 2012 expressed an unqualified opinion on those financial statements and included explanatory paragraphs regarding (i) the reconciliation

to accounting principles generally accepted in the United States of America; and (ii) the convenience translation of New Taiwan dollar amounts into U.S. dollar amounts.

/s/ Deloitte & Touche  
Taipei, Taiwan  
The Republic of China  
April 11, 2012

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## Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during the period covered by this annual report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## Item 16. [Reserved]

## Item 16A. Audit Committee Financial Expert

Our board of directors determined that Shen-Fu Yu and Ta-Lin Hsu are audit committee financial experts as defined under the applicable rules of the SEC issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002 and is independent for the purposes of Rule 10A-3 of the Exchange Act.

## Item 16B. Code of Ethics

We have adopted a code of ethics that satisfies the requirements of Item 16B of Form 20-F and applies to all employees, officers, supervisors and directors of our company and our subsidiaries, including our Chief Executive Officer and Chief Financial Officer. We have posted our code of ethics on our website at <http://www.aseglobal.com>.

## Item 16C. Principal Accountant Fees and Services

## Policy on Pre-Approval of Audit and Non-Audit Services of Independent Registered Public Accounting Firm

Our audit committee, which was established on July 22, 2005, pre-approves all audit and non-audit services provided by our independent registered public accounting firm, including audit services, audit-related services, tax services and other services, on a case-by-case basis.

## Independent Registered Public Accounting Firm's Fees

The following table sets forth the aggregate fees by categories specified below in connection with certain professional services rendered by Deloitte & Touche. We did not pay any other fees to our independent registered public accounting firm during the periods indicated below.

	For the Year Ended December 31,		
	2010	2011	
	NT\$	NT\$	US\$
	(in thousands)		
Audit fees(1)	147,430.7	161,804.8	5,345.4
Tax fees(2)	10,767.1	14,147.3	467.4
All other fees(3)	34,186.2	43,256.7	1,429.0
Total	192,384.0	219,208.8	7,241.8

(1) Audit fees are defined as the standard audit and review work that needs to be performed each year in order to issue an opinion on our consolidated financial statements and to issue reports on the local statutory financial statements. It also includes services that can only be provided by our auditor such as statutory audits required by the Tax Bureau of the ROC and the Customs Bureau of the ROC, consents and comfort letters and any other audit services required for SEC or other regulatory filings.

(2)

Tax fees consist of professional services rendered by Deloitte & Touche for tax compliance and tax advice. The services for the fees disclosed under this category include tax return preparation and technical tax advice.

- (3) Other fees primarily consist of fees for assistance with IFRS implementation, agreed-upon procedures as required by the ROC government for capital investments in the PRC, amalgamation fee and assistance with the bond issuance.

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## Item 16D. Exemptions from the Listing Standards for Audit Committees.

Not applicable.

## Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers.

On November 29, 2010, we announced a share repurchase program, or Third Share Repurchase, to repurchase up to 37.0 million of our common shares at prices between NT\$25.0 to NT\$41.0 per share during the period from November 30, 2010 to January 28, 2011. This share repurchase program concluded on December 6, 2010, when a total of 37.0 million of our common shares had been repurchased pursuant to this program. As of January 19, 2011, all of these common shares we repurchased had been cancelled. On August 15, 2011, we announced a share repurchase program, or Fourth Share Repurchase, to repurchase up to 34.0 million of our common shares at prices between NT\$20.0 to NT\$45.0 per share during the period from August 16, 2011 to October 15, 2011. This share repurchase program concluded on August 29, 2011, when a total of 34.0 million of our common shares had been repurchased pursuant to this program. On September 1, 2011, we announced a share repurchase program, or Fifth Share Repurchase, to repurchase up to 50.0 million of our common shares at prices between NT\$20.0 to NT\$42.0 per share during the period from September 2, 2011 to November 1, 2011. This share repurchase program concluded on September 16, 2011, when a total of 50.0 million of our common shares had been repurchased pursuant to this program. On September 20, 2011, we announced a share repurchase program, or Sixth Share Repurchase, to repurchase up to 30.0 million of our common shares at prices between NT\$22.0 to NT\$40.0 per share during the period from September 21, 2011 to November 20, 2011. This share repurchase program concluded on November 20, 2011, when a total of 21.475 million of our common shares had been repurchased pursuant to this program. As of January 19, 2012, all of these common shares we repurchased had been cancelled.

The table below sets forth certain information about the repurchase of our common shares under these share repurchase programs.

Period	(a) Total Number of Common Shares Purchased	(b) Average Price Paid Per Common Share	(c) Total Number of Common Shares Purchased as Part of Publicly Announced Programs	(d) Maximum Number (or Approximate Dollar Value) of Common Shares that May Yet Be Purchased Under the Programs
<b>Third Share Repurchase</b>				
November 2010 (November 30, 2010)	7,300,000	31.48	7,300,000	29,700,000
December 2010 (December 1, 2010 – December 6, 2010)	29,700,000	32.17	29,700,000	-
<b>Total</b>	<b>37,000,000</b>	<b>32.03</b>	<b>37,000,000</b>	<b>-</b>
<b>Fourth Share Repurchase</b>				
August 2011 (August 16, 2011 – August 29, 2011)	34,000,000	25.72	34,000,000	-
<b>Fifth Share Repurchase</b>				
September 2011 (September 2, 2011 – September 16, 2011)	50,000,000	26.68	50,000,000	-
<b>Sixth Share Repurchase</b>				
	6,488,000	27.15	6,488,000	23,512,000



September 2011 (September 21, 2011 – September 30, 2011)				
October 2011 (October 1, 2011 – October 31, 2011)	14,316,000	25.85	20,804,000	9,196,000
November 2011 (November 1, 2011 – November 20, 2011)	671,000	26.72	21,475,000	8,525,000
Total	21,475,000	26.27	21,475,000	8,525,000

Item 16F. Change In Registrant’s Certifying Accountant

Not applicable.

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Item 16G. Corporate Governance

As a company listed on the New York Stock Exchange, or the NYSE, we are subject to certain corporate governance rules of the NYSE. The application of the NYSE's corporate governance rules is limited for foreign private issuers, recognizing that they have to comply with domestic requirements. As a foreign private issuer, we must comply with the following NYSE corporate governance rules: 1) satisfy the audit committee requirements of the SEC; 2) chief executive officer must promptly notify the NYSE in writing upon becoming aware of any material non-compliance with applicable NYSE corporate governance rules; 3) submit annual and interim affirmations to the NYSE regarding compliance with applicable NYSE corporate governance requirements; and 4) provide a brief description of any significant differences between our corporate governance practices and those required of U.S. companies under the NYSE listing standards. The table below sets forth the significant differences between our corporate governance practices and those required of U.S. companies under the NYSE listing standards.

New York Stock Exchange Corporate Governance Rules Applicable to U.S. Companies

Description of Significant Differences between Our Governance Practices and the NYSE Corporate Governance Rules Applicable to U.S. Companies

Director independence

Listed companies must have a majority of independent directors, as defined under the NYSE listing standards.

Two members of our board of directors are independent as defined in Rule 10A-3 under the Exchange Act. We do not assess the independence of our directors under the independence requirements of the NYSE listing standards.

Pursuant to relevant laws and regulations of the ROC, we have two independent directors on our board of directors that were elected through the candidate nomination system at our annual general shareholders meeting on June 25, 2009.

To empower non-management directors to serve as a more effective check on management, the non-management directors of each company must meet at regularly scheduled executive sessions without management.

All of our directors attend the meetings of the board of directors. Our non-management directors do not meet at regularly scheduled executive sessions without management. The ROC Company Law does not require companies incorporated in the ROC to have their non-management directors meet at regularly scheduled executive sessions without management.

Nominating/Corporate governance committee

Listed companies must have a nominating/corporate governance committee composed entirely of independent directors and governed by a written charter that provides for certain responsibilities of the committee set out in the NYSE listing standards.

We do not have a nominating/corporate governance committee. The ROC Company Law does not require companies incorporated in the ROC to have a nominating/corporate governance committee. Currently, our board of directors performs the duties of a corporate governance committee and regularly reviews our corporate governance principles and practices. The ROC Company Law requires that directors be elected by shareholders. Under ROC law and regulations, companies that have independent directors are required to adopt a candidate nomination system for the election of independent directors. Our two independent directors

were elected through the candidate nomination system provided in our articles of incorporation. All of our non-independent directors

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were elected directly by our shareholders at our shareholders meetings without a nomination process.

Compensation committee

Listed companies must have a compensation committee composed entirely of independent directors and governed by a written charter that provides for certain responsibilities of the committee set out in the NYSE listing standards.

We have established a compensation committee on September 29, 2011 which was required by the regulations promulgated by the FSC, in March 2011. The charter of such committee contains similar responsibilities as those provided under NYSE listing standards.

Audit committee

Listed companies must have an audit committee that satisfies the requirements of Rule 10A-3 under the Exchange Act.

We have an audit committee that satisfies the requirements of Rule 10A-3 under the Exchange Act. Pursuant to the ROC Securities and Exchange Law, beginning January 1, 2007, public companies shall either establish an audit committee satisfying specified requirements or install supervisors. Under certain circumstances, public companies may be required by the FSC to establish an audit committee. In addition to our Rule 10A-3 audit committee, we currently have supervisors pursuant to the ROC Securities and Exchange Law.

The audit committee must have a minimum of three members.

We currently have two members on our audit committee. Our audit committee members satisfy the independence requirements of Rule 10A-3 under the Exchange Act. We do not assess the independence of our audit committee member under the independence requirements of the NYSE listing standards.

In addition to any requirement of Rule 10A-3(b)(1), all audit committee members must satisfy the independence requirements for independent directors set out in the NYSE listing standards.

Our audit committee charter provides for the audit committee to assist our board of directors in its oversight of (i) the integrity of our financial statements, (ii) the qualifications, independence and performance of our independent auditor and (iii) our compliance with legal and regulatory requirements and provides for the duties and responsibilities set out in Rule 10A-3. Our audit committee charter does not address all the matters required by the NYSE listing standards beyond the requirements of Rule 10A-3.

The audit committee must have a written charter that provides for the duties and responsibilities set out in Rule 10A-3 and addresses certain other matters required by the NYSE listing standards.

Because the appointment and retention of our independent auditor are the responsibility of our entire board of directors under ROC law and regulations, our audit committee charter provides that the audit committee shall make recommendations to the board of directors with respect to these matters.

Each listed company must have an internal audit function.

We have an internal audit function. Under the ROC Regulations for the Establishment of Internal Control Systems by Public Companies, a public company is required to set out its internal control systems in writing,

including internal audit implementation rules, which must be approved by the board of directors.

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	<p>Our entire board of directors and the Chief Executive Officer are responsible for the establishment of the internal audit functions, compliance with the internal audit implementation rules and oversight of our internal control systems, including the appointment and retention of our independent auditor.</p>
<p>Equity compensation plans</p>	
<p>Shareholders must be given the opportunity to vote on all equity-compensation plans and material revisions thereto, except for employment inducement awards, certain grants, plans and amendments in the context of mergers and acquisitions, and certain specific types of plans.</p>	<p>We comply with the corresponding requirements of the ROC Company Law, the ROC Securities and Exchange Law, and the ROC Criteria Governing the Offering and Issuance of Securities by Securities Issuers, which require shareholders' approval for the distribution of employee bonuses, while the board of directors has authority to approve employee stock option plans by a majority vote of the board of directors at a meeting where at least two-thirds of all directors are present and to grant options to employees pursuant to such plans, subject to the approval of the Securities and Futures Bureau of the FSC, and to approve treasury stock programs and the transfer of shares to employees under such programs by a majority vote of the board of directors in a meeting where at least two-thirds of all directors are present.</p>
<p>Corporate governance guidelines</p>	
<p>Listed companies must adopt and disclose corporate governance guidelines.</p>	<p>We currently comply with the domestic non-binding Corporate Governance Best-Practice Principles for Taiwan Stock Exchange and GreTai Stock Market Listed Companies promulgated by the Taiwan Stock Exchange and the GreTai Stock Market, and we provide an explanation of differences between our practice and the principles, if any, in our ROC annual report.</p>
<p>Code of ethics for directors, officers and employees</p>	
<p>Listed companies must adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers.</p>	<p>We have adopted a code of ethics that satisfies the requirements of Item 16B of Form 20-F and applies to all employees, officers, supervisors and directors of our company and our subsidiaries and will disclose any waivers of the code as required by Item 16B of Form 20-F. We have posted our code of ethics on our website.</p>
<p>Description of significant differences</p>	
<p>Listed foreign private issuers must disclose any significant ways in which their corporate governance practices differ from those followed by domestic companies under NYSE listing standards.</p>	<p>This table contains the significant differences between our corporate governance practices and those required of U.S. companies under the NYSE listing standards.</p>
<p>CEO certification</p>	
<p>Each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the</p>	<p>As a foreign private issuer, we are not required to comply with this rule; however, our Chief Executive Officer</p>

company of NYSE corporate governance listing standards, qualifying the certification to the

provides certifications under Sections 302 and 906 of the Sarbanes-Oxley Act.

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extent necessary.

Each listed company CEO must promptly notify the NYSE in writing after any executive officer of the listed company becomes aware of any material non-compliance with any applicable provisions of Section 303A.

We intend to comply with this requirement.

Each listed company must submit an executed Written Affirmation annually to the NYSE. In addition, each listed company must submit an interim Written Affirmation each time a change occurs to the board or any of the committees subject to Section 303A. The annual and interim Written Affirmations must be in the form specified by the NYSE.

We have complied with this requirement to date and intend to continue to comply going forward.

Website

Listed companies must have and maintain a publicly accessible website

We have and maintain a publicly accessible website.

Item 16H. Mine Safety Disclosure

Not applicable.

PART III

Item 17. Financial Statements

The Company has elected to provide financial statements for fiscal year 2011 and the related information pursuant to Item 18.

Item 18. Financial Statements

Reference is made to pages F-1 to F-86 of this annual report.

The consolidated financial statements of the Company and the report thereon by its independent registered public accounting firm listed below are attached hereto as follows:

- (a) Report of Independent Registered Public Accounting Firm of the Company dated April 11, 2012 (page F-1 to F-2).
- (b) Consolidated Balance Sheets of the Company and subsidiaries as of December 31, 2010 and 2011 (page F-3).
- (c) Consolidated Statements of Income of the Company and subsidiaries for the years ended December 31, 2009, 2010 and 2011 (page F-4 to F-5).
- (d) Consolidated Statements of Changes in Shareholders' Equity of the Company and subsidiaries for the years ended December 31, 2009, 2010 and 2011 (page F-6).
- (e) Consolidated Statements of Cash Flows of the Company and subsidiaries for the years ended December 31, 2009, 2010 and 2011 (pages F-7 to F-9).



- (f) Notes to Consolidated Financial Statements of the Company and subsidiaries (pages F-10 to F-86).

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Item 19. Exhibits

1. Articles of Incorporation of the Registrant (English translation of Chinese).
2. (a) Amended and Restated Deposit Agreement dated as of September 29, 2000 among ASE Inc., Citibank N.A., as depositary, and Holders and Beneficial Holders of American Depositary Shares evidenced by American Depositary Receipts issued thereunder, including the form of American Depositary Receipt (incorporated by reference to Exhibit (a) to our registration statement on Form F-6 (File No. 333-108834) filed on September 16, 2003).  
  
(b) Letter Agreement dated as of February 1, 2001 by and between ASE Inc. and Citibank N.A., as depositary for the sole purpose of accommodating the surrender of ASE Inc.'s Rule 144A Global Depositary Shares, the issuance of American Depositary Shares and the delivery of American Depositary Receipts in the context of the termination of ASE Inc.'s Rule 144A Depositary Receipts Facility (incorporated by reference to Exhibit (b)(i) to our registration statement on Post-Effective Amendment No. 1 to Form F-6 (File No. 333-108834) filed on April 3, 2006).  
  
(c) Letter Agreement dated as of September 25, 2003 by and between ASE Inc. and Citibank N.A., as depositary for the sole purpose of accommodating the issuance of American Depositary Shares upon ASE Inc.'s deposit of its shares with the depositary following the conversion of certain bonds issued by ASE Inc. in accordance with, and subject to, the terms and conditions of the indenture governing such bonds (incorporated by reference to Exhibit (b)(ii) to our registration statement on Post-Effective Amendment No. 1 to Form F-6 (File No. 333-108834) filed on April 3, 2006).  
  
(d) Amendment No. 1 to Amended and Restated Deposit Agreement dated as of April 6, 2006 among ASE Inc., Citibank N.A., as depositary, and Holders and Beneficial Holders of American Depositary Shares evidenced by American Depositary Receipts issued thereunder, including the form of American Depositary Receipt (incorporated by reference to Exhibit (a)(ii) to our registration statement on Post-Effective Amendment No. 2 to Form F-6 (File No. 333-108834) filed on October 25, 2006).  
  
(e) Form of Amendment No. 2 to Amended and Restated Deposit Agreement among ASE Inc., Citibank N.A., as depositary, and Holders and Beneficial Holders of American Depositary Shares evidenced by American Depositary Receipts issued thereunder, including the form of American Depositary Receipt (incorporated by reference to Exhibit (a)(iii) to our registration statement on Post-Effective Amendment No. 2 to Form F-6 (File No. 333-108834) filed on October 25, 2006).
4. (a) Asset Purchase Agreement dated as of July 3, 1999 among ASE (Chung Li) Inc., ASE Inc., Motorola Electronics Taiwan, Ltd. and Motorola, Inc. (incorporated by reference to Exhibit 10.2 to ASE Test's registration statement on Form F-3 (File No. 333-10892) filed on September 27, 1999 (the "ASE Test 1999 Form-3")).  
  
(b) Agreement dated as of June 5, 2002 among ASE (Chung Li) Inc., ASE Inc., Motorola Electronics Taiwan, Ltd. and Motorola, Inc. amending certain earn-out arrangements provided for in Section 2.09(b)(ii)(D) of the Asset Purchase Agreement dated as of July 3, 1999 among the same parties (incorporated by reference to Exhibit 4(b) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2002 filed on June 30, 2003).  
  
(c) Stock Purchase Agreement dated as of July 3, 1999 among ASE Investment (Labuan) Inc., ASE Inc., Motorola Asia Ltd. and Motorola, Inc. relating to the purchase and sale of 100.0% of the common stock of Motorola Korea Ltd. (incorporated by reference to Exhibit 10.3 to the ASE Test 1999 Form F-3).

(d)†BGA Immunity Agreement dated as of January 25, 1994 between ASE Inc. and Motorola, Inc. (incorporated by reference to Exhibit 10.6 to the Form F-1).

(e)†Amendment dated March 18, 2003 renewing the BGA Immunity Agreement dated as of January 25, 1994 between ASE Inc. and Motorola, Inc. (incorporated by reference to Exhibit 4(g) to our annual

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report on Form 20-F (File No. 001-16125) for the year ended December 31, 2003 filed on June 30, 2004).

- (f) Consent dated June 10, 2004 to the Assignment of the BGA Immunity Agreement between ASE Inc. and Motorola, Inc. dated January 25, 1994 (incorporated by reference to Exhibit 4(h) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2003 filed on June 30, 2004).
- (g) Asset Purchase Agreement by and among Flextronics Manufacturing (M) Sdn Bhd, as Buyer, ASE Electronics (M) Sdn. Bhd. as Company, dated as of October 3, 2005 (incorporated by reference to Exhibit 4(g) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2005 filed on June 19, 2006).
- (h) Joint Venture Agreement dated as of July 14, 2006 among Advanced Semiconductor Engineering, Inc. and Powerchip Semiconductor Corp. relating to the establishment of, and our investment of 60.0% in, PowerASE (incorporated by reference to Exhibit 4(r) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2006 filed on June 25, 2007, as amended).
- (i) Sale and Purchase Agreement dated January 11, 2007 among J&R Holding Limited and Seacoast Profits Limited relating to our acquisition of 100% of GAPT (incorporated by reference to Exhibit 4(s) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2006 filed on June 25, 2007, as amended).
- (j) Equity Interests Transfer Agreement dated August 6, 2007 by and among NXP B.V., NXP Semiconductors Suzhou Ltd. and J&R Holding Limited relating to our acquisition of 60% of ASEN, our joint venture with NXP Semiconductors (incorporated by reference to Exhibit 4(j) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2008 filed on June 24, 2009).
- (k) Scheme Implementation Agreement dated September 4, 2007 between Advanced Semiconductor Engineering, Inc. and ASE Test Limited relating to our acquisition of all the outstanding ordinary shares of, and the privatization of, ASE Test (incorporated by reference to Appendix A to Exhibit (a)(1) to Schedule 13E-3 (File No. 005-55723) filed by ASE Test on January 4, 2008).
- (l) Syndicated Loan Agreement in the amount of NT\$24,750 million dated March 3, 2008 among Advanced Semiconductor Engineering, Inc., Citibank, N.A., Taipei Branch and the banks and banking institutions listed on Schedule I thereto relating to our acquisition of all the outstanding ordinary shares of, and the privatization of, ASE Test (incorporated by reference to Exhibit 4(l) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2008 filed on June 24, 2009).
  - (m) Equity Purchase Agreement dated March 17, 2008 between Aimhigh Global Corp., TCC Steel and J&R Holding Limited in respect of Weihai Aimhigh Electronic Co. Ltd. relating to our acquisition of 100% of ASE (Weihai), Inc. (incorporated by reference to Exhibit 4(m) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2008 filed on June 24, 2009).
- (n) Syndicated Loan Agreement in the amount of US\$200 million dated May 29, 2008 among Advanced Semiconductor Engineering, Inc., Citibank, N.A., Taipei Branch and the banks and banking institutions listed on Schedule I thereto relating to our acquisition of all the outstanding ordinary shares of, and the privatization of, ASE Test (incorporated by reference to Exhibit 4(n) to our annual report on Form 20-F (File No. 001-16125) for the year ended December 31, 2008 filed on June 24, 2009).
- (o) Equity Purchase Agreement dated October 25, 2011 between PowerASE Technology, Inc. and certain shareholders of Lu-Chu Development Corporation relating to our acquisition of 72.97% of all the outstanding ordinary shares of Lu-Chu Development Corporation



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- (p) Equity Purchase Agreement dated October 25, 2011 between PowerASE Technology, Inc. and shareholders of Lu-Chu Development Corporation listed on Schedule I thereto relating to our acquisition of 9.3% of all the outstanding ordinary shares of Lu-Chu Development Corporation
- (q) Equity Purchase Agreement dated November 17, 2011 between ASE Assembly & Test (Shanghai) Limited and Kunshan Ding Yao Real Estate Development Co., Ltd. relating to our acquisition of 10% equity of Shanghai Ding Hui Real Estate Development Co., Ltd.
- (r) Equity Purchase Agreement dated January 13, 2012 between Advanced Semiconductor Engineering, Inc. and shareholders of Yang Ting Tech Co., Ltd. listed on Schedule I thereto relating to our acquisition of 61.63% of all the outstanding ordinary shares of Yang Ting Tech Co., Ltd.
- (s) Equity Purchase Agreement dated January 13, 2012 between Advanced Semiconductor Engineering, Inc. and shareholders of Yang Ting Tech Co., Ltd. listed on Schedule I thereto relating to our acquisition of 38.37% of all the outstanding ordinary shares of Yang Ting Tech Co., Ltd.
8. List of Subsidiaries.
12. (a) Certification of Jason C.S. Chang, required by Rule 13a-14(a) of the Exchange Act.
- (b) Certification of Joseph Tung, required by Rule 13a-14(a) of the Exchange Act.
13. Certification of the Chief Executive Officer and the Chief Financial Officer of Advanced Semiconductor Engineering, Inc. required by Rule 13a-14(b) of the Exchange Act and Section 1350 of Chapter 63 of Title 18 of the United States Code.
15. (a) Consent of Deloitte & Touche.

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† Does not contain portions for which confidential treatment has been granted.

The Company agrees to furnish to the Securities and Exchange Commission upon request a copy of any instrument which defines the rights of holders of long-term debt of the Company and its consolidated subsidiaries.

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SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

ADVANCED SEMICONDUCTOR  
ENGINEERING, INC.

By: /s/ Joseph Tung  
Name: Joseph Tung  
Title: Chief Financial Officer

Date: April 20, 2012

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Advanced Semiconductor Engineering,  
Inc. and Subsidiaries

Consolidated Financial Statements as of  
December 31, 2010 and 2011 and for the  
Years Ended December 31, 2009, 2010 and 2011 and  
Report of Independent Registered Public Accounting Firm

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders  
Advanced Semiconductor Engineering, Inc.

We have audited the accompanying consolidated balance sheets of Advanced Semiconductor Engineering, Inc. (a corporation incorporated under the laws of the Republic of China) and its subsidiaries (collectively, the “Company”) as of December 31, 2010 and 2011, and the related consolidated statements of income, changes in shareholders’ equity and cash flows for each of the three years in the period ended December 31, 2011, all expressed in New Taiwan dollars. These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2010 and 2011, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2011, in conformity with accounting principles generally accepted in the ROC.

As discussed in Note 2 to the consolidated financial statements, the Company completed the tender offerings for the common shares of Universal Scientific Industrial Co., Ltd. (“USI”) in February and August 2010, respectively. Upon the completion of the tender offerings, USI became a subsidiary of the Company. As a result, the consolidated results of operations of USI and its subsidiaries from the date of acquisition had been included in the consolidated financial statements referred to above.

Accounting principles generally accepted in the ROC differ in certain significant respects from accounting principles generally accepted in the United States of America. Information relating to the nature and effect of such differences is presented in Note 33 to the consolidated financial statements.

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Our audits also comprehended the translation of New Taiwan dollar amounts into U.S. dollar amounts and, in our opinion, such translation has been made in conformity with the basis stated in Note 2 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of the readers.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2011, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 11, 2012 expressed an unqualified opinion on the Company's internal control over financial reporting.

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

April 11, 2012

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS  
(Amounts in Thousands, Except Par Value)

ASSETS	2010	December 31	
	NT\$	NT\$	US\$ (Note 2)
<b>CURRENT ASSETS</b>			
Cash (Note 4)	\$23,397,557	\$24,421,789	\$806,798
Financial assets at fair value through profit or loss - current (Notes 2 and 5)	1,195,273	706,755	23,348
Available-for-sale financial assets - current (Notes 2, 6 and 11)	338,094	48,794	1,612
Hedging derivative assets - current (Notes 2 and 26)	163,670	-	-
Bond investments with no active market - current (Notes 2 and 7)	-	90,825	3,001
Accounts receivable, net (Notes 2, 3 and 8)	33,381,917	30,475,788	1,006,799
Other receivables	1,078,537	693,016	22,894
Inventories (Note 2 and 9)	13,170,779	13,920,757	459,886
Inventories related to construction business (Notes 2, 10 and 28)	10,125,370	16,149,498	533,515
Deferred income tax assets - current (Notes 2 and 23)	919,261	1,135,525	37,513
Other current assets (Note 28)	1,828,467	2,488,943	82,225
<b>Total current assets</b>	<b>85,598,925</b>	<b>90,131,690</b>	<b>2,977,591</b>
<b>LONG-TERM INVESTMENTS</b>			
Available-for-sale financial assets - noncurrent (Notes 2 and 6)	310,426	173,085	5,718
Financial assets carried at cost - noncurrent (Notes 2, 7 and 11)	843,740	893,283	29,511
Bond investments with no active market - noncurrent (Notes 2 and 7)	87,420	-	-
Equity method investments (Notes 2 and 12)	1,158,498	1,154,360	38,135
<b>Total long-term investments</b>	<b>2,400,084</b>	<b>2,220,728</b>	<b>73,364</b>
<b>PROPERTY, PLANT AND EQUIPMENT (Notes 2, 13, 28 and 29)</b>			
<b>Cost</b>			
Land	3,065,169	3,075,183	101,592
Buildings and improvements	50,322,341	55,738,712	1,841,385
Machinery and equipment	157,001,044	175,652,291	5,802,851
Transportation equipment	247,876	291,694	9,636
Furniture and fixtures	5,097,742	4,965,374	164,036
Leased assets and leasehold improvements	436,640	666,370	22,014
<b>Total cost</b>	<b>216,170,812</b>	<b>240,389,624</b>	<b>7,941,514</b>
Less: Accumulated depreciation	(122,437,240)	(137,123,072)	(4,529,999)
Accumulated impairment	(191,210 )	(313,969 )	(10,372 )

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	93,542,362	102,952,583	3,401,143
Construction in progress	1,773,002	4,059,709	134,116
Machinery in transit and prepayments	4,538,548	4,766,744	157,474
Property, plant and equipment, net	99,853,912	111,779,036	3,692,733
<b>INTANGIBLE ASSETS (Notes 2 and 14)</b>			
Goodwill	10,408,023	10,374,501	342,732
Land use rights	2,173,907	3,420,700	113,006
Other intangible assets	2,666,190	1,977,214	65,320
Total intangible assets	15,248,120	15,772,415	521,058
<b>OTHER ASSETS</b>			
Idle assets (Notes 2 and 15)	1,249,047	1,114,054	36,804
Guarantee deposits	78,453	99,779	3,296
Deferred charges (Note 2)	1,381,510	1,045,356	34,534
Deferred income tax assets - noncurrent (Notes 2 and 23)	2,067,877	1,459,103	48,203
Restricted assets (Note 28)	236,516	218,178	7,208
Other	25,321	37,756	1,248
Total other assets	5,038,724	3,974,226	131,293
<b>TOTAL</b>	<b>\$208,139,765</b>	<b>\$223,878,095</b>	<b>\$7,396,039</b>

	2010	December 31	
	NT\$	NT\$	US\$ (Note 2)
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>			
<b>CURRENT LIABILITIES</b>			
Short-term borrowings (Note 16)	\$14,154,518	\$22,965,133	\$758,676
Financial liabilities at fair value through profit or loss - current (Notes 2 and 5)	488,818	134,274	4,436
Hedging derivative liabilities - current (Notes 2 and 26)	457,494	-	-
Accounts payable	24,389,249	21,191,923	700,096
Income tax payable (Note 2)	2,739,711	2,400,592	79,306
Accrued expenses (Notes 17 and 20)	7,843,657	8,939,719	295,333
Payable for properties	4,085,408	5,699,504	188,289
Advance real estate receipts (Note 2)	41,375	47,667	1,575
Current portion of long-term bank loans (Notes 19 and 28)	2,990,176	3,418,799	112,943
Current portion of capital lease obligations (Note 2)	28,838	42,161	1,393
Other current liabilities	2,515,258	1,922,113	63,499
Total current liabilities	59,734,502	66,761,885	2,205,546
<b>LONG-TERM LIABILITIES</b>			
Hedging derivative liabilities - noncurrent (Notes 2 and 26)	159,279	58,279	1,925
Bonds payable (Note 18)	-	10,876,538	359,318

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Long-term bank loans (Notes 19 and 28)	52,363,718	39,266,414	1,297,206
Capital lease obligations (Note 2)	10,782	23,925	790
<b>Total long-term liabilities</b>	<b>52,533,779</b>	<b>50,225,156</b>	<b>1,659,239</b>
<b>OTHER LIABILITIES</b>			
Accrued pension cost (Notes 2 and 20)	3,250,439	3,304,841	109,179
Deferred income tax liabilities - noncurrent (Notes 2 and 23)	372,525	624,740	20,639
Other	409,195	678,979	22,430
<b>Total other liabilities</b>	<b>4,032,159</b>	<b>4,608,560</b>	<b>152,248</b>
<b>Total liabilities</b>	<b>116,300,440</b>	<b>121,595,601</b>	<b>4,017,033</b>
<b>EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT</b>			
Capital stock (Note 21)			
Common Stock - at par value of NT\$10 each			
Authorized - 8,000,000 thousand shares and 9,500,000 thousand shares as of December 31, 2010 and 2011, respectively			
Issued - 6,051,987 thousand shares and 6,753,563 thousand shares as of December 31, 2010 and 2011, respectively			
	60,519,872	67,535,632	2,231,108
Capital received in advance	299,698	35,693	1,179
<b>Total capital stock</b>	<b>60,819,570</b>	<b>67,571,325</b>	<b>2,232,287</b>
Capital surplus (Notes 2, 21 and 22)			
Capital in excess of par value	1,197,845	1,615,449	53,368
Treasury stock transactions	2,136,353	1,402,632	46,337
Long-term investments	3,527,240	3,522,280	116,362
Employee stock options	319,147	857,120	28,316
<b>Total capital surplus</b>	<b>7,180,585</b>	<b>7,397,481</b>	<b>244,383</b>
Retained earnings (Note 21)	24,972,944	27,809,126	918,703
Other equity adjustments (Notes 2, 20 and 21)			
Unrealized gain on financial instruments	246,303	235,088	7,766
Cumulative translation adjustments	(1,120,618 )	3,353,938	110,801
Unrecognized pension cost	(398,103 )	(465,681 )	(15,384 )
Treasury stock - 151,792 thousand shares and 233,456 thousand shares as of December 31, 2010 and 2011, respectively			
	(3,144,312 )	(4,731,741 )	(156,318 )
<b>Total other equity adjustments</b>	<b>(4,416,730 )</b>	<b>(1,608,396 )</b>	<b>(53,135 )</b>
<b>Total equity attributable to shareholders of the parent</b>	<b>88,556,369</b>	<b>101,169,536</b>	<b>3,342,238</b>
<b>MINORITY INTEREST</b>			
<b>Total shareholders' equity</b>	<b>91,839,325</b>	<b>102,282,494</b>	<b>3,379,006</b>
<b>TOTAL</b>	<b>\$208,139,765</b>	<b>\$223,878,095</b>	<b>\$7,396,039</b>

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

(With Deloitte & Touche audit report dated April 11, 2012)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF INCOME

(Amounts in Thousands, Except Per Share Data)

	Year Ended December 31			US\$ (Note 2)
	2009	2010	2011	
	NT\$	NT\$	NT\$	
<b>NET REVENUES (Note 2)</b>				
Packaging	\$67,935,456	\$101,071,294	\$102,677,289	\$3,392,048
Testing	15,795,108	21,956,997	21,932,231	724,553
Electronic manufacturing service	-	59,577,374	57,850,415	1,911,147
Other	2,044,750	6,137,132	2,887,271	95,384
<b>Total net revenues</b>	<b>85,775,314</b>	<b>188,742,797</b>	<b>185,347,206</b>	<b>6,123,132</b>
<b>COST OF REVENUES (Notes 9, 10 and 24)</b>				
Packaging	55,387,593	79,750,674	82,470,911	2,724,510
Testing	11,342,103	13,711,338	14,953,679	494,010
Electronic manufacturing service	-	53,095,183	51,499,967	1,701,353
Other	703,948	1,641,029	1,413,846	46,708
<b>Total cost of revenues</b>	<b>67,433,644</b>	<b>148,198,224</b>	<b>150,338,403</b>	<b>4,966,581</b>
<b>GROSS PROFIT</b>	<b>18,341,670</b>	<b>40,544,573</b>	<b>35,008,803</b>	<b>1,156,551</b>
<b>OPERATING EXPENSES (Notes 24 and 27)</b>				
Research and development	3,611,950	6,162,191	7,117,964	235,149
Selling	1,209,199	2,909,643	2,770,045	91,511
General and administrative	4,310,692	7,373,733	8,299,543	274,184
<b>Total operating expenses</b>	<b>9,131,841</b>	<b>16,445,567</b>	<b>18,187,552</b>	<b>600,844</b>
<b>INCOME FROM OPERATIONS</b>	<b>9,209,829</b>	<b>24,099,006</b>	<b>16,821,251</b>	<b>555,707</b>
<b>NON-OPERATING INCOME AND GAINS</b>				
Interest income (Note 26)	173,870	215,228	330,674	10,924
Gain on valuation of financial assets, net (Notes 2 and 5)	934,938	1,169,434	1,118,488	36,950
Foreign exchange gain, net (Note 2)	4,203	317,553	36,203	1,196
Equity in earnings of equity method investments (Notes 2 and 12)	330,117	72,980	96,938	3,202
Dividend income (Note 2)	4,345	11,551	621,488	20,532
Gain on disposal of property, plant and equipment (Note 2)	-	-	82,485	2,725



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Others	615,849	770,201	772,432	25,518
Total non-operating income and gains	2,063,322	2,556,947	3,058,708	101,047
<b>NON-OPERATING EXPENSES AND LOSSES</b>				
Interest expense (Notes 2, 10, 13 and 26)	1,508,023	1,386,011	1,666,325	55,049
Loss on valuation of financial liabilities, net (Notes 2 and 5)	645,774	1,092,316	250,435	8,273
Impairment loss (Notes 2, 6, 12, 13, 14 and 15)	11,117	251,402	448,056	14,802
Loss on disposal of property, plant and equipment (Note 2)	26,208	445,276	-	-
Others	693,639	657,319	517,982	17,112
Total non-operating expenses and losses	2,884,761	3,832,324	2,882,798	95,236
<b>INCOME BEFORE INCOME TAX</b>	<b>8,388,390</b>	<b>22,823,629</b>	<b>16,997,161</b>	<b>561,518</b>
<b>INCOME TAX EXPENSE (Notes 2 and 23)</b>	<b>1,484,922</b>	<b>3,628,740</b>	<b>3,018,212</b>	<b>99,709</b>
<b>NET INCOME</b>	<b>\$6,903,468</b>	<b>\$19,194,889</b>	<b>\$13,978,949</b>	<b>\$461,809</b>
<b>ATTRIBUTABLE TO</b>				
Shareholders of the parent	\$6,744,546	\$18,337,500	\$13,725,958	\$453,451
Minority interest	158,922	857,389	252,991	8,358
	\$6,903,468	\$19,194,889	\$13,978,949	\$461,809

(Continued)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF INCOME

(Amounts in Thousands, Except Per Share Data)

	Year Ended December 31			
	2009	2010	2011	
	NT\$	NT\$	NT\$	US\$ (Note 2)
<b>EARNINGS PER SHARE (Note 25)</b>				
Basic earnings per share				
Before income tax	\$1.21	\$2.89	\$2.28	\$0.08
After income tax	\$1.07	\$2.78	\$2.08	\$0.07
Diluted earnings per share				
Before income tax	\$1.20	\$2.83	\$2.23	\$0.07
After income tax	\$1.05	\$2.73	\$2.03	\$0.07
<b>EARNINGS PER ADS (Note 25)</b>				
Basic earnings per ADS				
Before income tax	\$6.06	\$14.45	\$11.42	\$0.38
After income tax	\$5.33	\$13.92	\$10.41	\$0.34
Diluted earnings per ADS				
Before income tax	\$5.98	\$14.16	\$11.14	\$0.37
After income tax	\$5.26	\$13.64	\$10.16	\$0.34

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

(With Deloitte & Touche audit report dated April 11, 2012)

(Concluded)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(Amounts in Thousands)

	Capital Stock	Capital Received in Advance	Capital Surplus	Legal Reserve	Special Reserve	Retained Earnings Unappropriated Earnings	Total	Unrealized Gain (Loss) on Financial Instrument
New Taiwan Dollars								
BALANCE, JANUARY 1, 2009	\$56,904,278	\$3,387	\$6,373,287	\$2,915,029	\$-	\$6,306,375	\$9,221,404	\$(439,438)
Appropriations of 2008 earnings								
Legal reserve	-	-	-	616,005	-	(616,005 )	-	-
Cash dividends - 5.0%	-	-	-	-	-	(2,736,568 )	(2,736,568 )	-
Adjustment of equity method investments	-	-	1,369	-	-	27	27	380,464
Cash dividends received by subsidiaries from parent company	-	-	160,895	-	-	-	-	-
Change in unrealized gain (loss) on cash flow hedging financial instruments	-	-	-	-	-	-	-	84,472
Stock options exercised by employees	74,245	131,818	32,726	-	-	-	-	-
Net income in 2009	-	-	-	-	-	6,744,546	6,744,546	-
Cumulative translation	-	-	-	-	-	-	-	-

adjustments

Change in net loss not recognized as pension cost	-	-	-	-	-	-	-	-
Acquisition of treasury stock - 109,274 thousand shares	-	-	-	-	-	-	-	-
Retirement of treasury stock - 217,974 thousand shares	(2,179,740 )	-	(234,522 )	-	-	-	-	-
Changes in minority interest	-	-	-	-	-	-	-	-
<b>BALANCE, DECEMBER 31, 2009</b>	<b>54,798,783</b>	<b>135,205</b>	<b>6,333,755</b>	<b>3,531,034</b>	<b>-</b>	<b>9,698,375</b>	<b>13,229,409</b>	<b>25,498</b>
Appropriations of 2009 earnings (Note 21)								
Legal reserve	-	-	-	674,455	-	(674,455 )	-	-
Stock dividends - 8.4%	4,615,775	-	-	-	-	(4,615,775 )	(4,615,775 )	-
Cash dividends - 3.6%	-	-	-	-	-	(1,978,190 )	(1,978,190 )	-
Issuance of common stock from capital surplus	879,195	-	(879,195 )	-	-	-	-	-
Adjustment of equity method investments	-	-	(9,510 )	-	-	-	-	124,744
Change in unrealized gain (loss) on available-for-sale financial assets	-	-	-	-	-	-	-	(9,290)
Disposal of treasury stock held by subsidiaries	-	-	1,271,532	-	-	-	-	-
Disposal of equity method investments	-	-	(1,472 )	-	-	-	-	-
Cash dividends received by subsidiaries from parent company	-	-	37,536	-	-	-	-	-
	-	-	-	-	-	-	-	105,351

Change in unrealized gain (loss) on cash flow hedging financial instruments									
Compensation recognized for employee stock options granted	-	-	319,147	-	-	-	-	-	-
Stock options exercised by employees	226,119	164,493	108,792	-	-	-	-	-	-
Net income in 2010	-	-	-	-	-	18,337,500	18,337,500	-	-
Cumulative translation adjustments	-	-	-	-	-	-	-	-	-
Change in net loss not recognized as pension cost	-	-	-	-	-	-	-	-	-
Acquisition of treasury stock - 37,000 thousand shares	-	-	-	-	-	-	-	-	-
Changes in minority interest	-	-	-	-	-	-	-	-	-
Changes in minority interest from acquisition of subsidiaries	-	-	-	-	-	-	-	-	-
<b>BALANCE, DECEMBER 31, 2010</b>	<b>60,519,872</b>	<b>299,698</b>	<b>7,180,585</b>	<b>4,205,489</b>	<b>-</b>	<b>20,767,455</b>	<b>24,972,944</b>	<b>246,303</b>	
Appropriations of 2010 earnings (Note 21)									
Legal reserve	-	-	-	1,833,750	-	(1,833,750)	-	-	-
Special reserve	-	-	-	-	1,272,417	(1,272,417)	-	-	-
Stock dividends - 11.5%	6,957,357	-	-	-	-	(6,957,357)	(6,957,357)	-	-
Cash dividends - 6.5%	-	-	-	-	-	(3,932,419)	(3,932,419)	-	-
Adjustment of equity method investments	-	-	(4,960)	-	-	-	-	-	(174,005)
Cash dividends received by subsidiaries from	-	-	74,160	-	-	-	-	-	-

parent company									
Change in unrealized gain (loss) on available-for-sale financial assets	-	-	-	-	-	-	-	-	9,290
Change in unrealized gain (loss) on cash flow hedging financial instruments	-	-	-	-	-	-	-	-	153,500
Compensation recognized for employee stock options granted	-	-	537,973	-	-	-	-	-	-
Stock options exercised by employees	428,403	(264,005)	424,928	-	-	-	-	-	-
Net income in 2011	-	-	-	-	-	13,725,958	13,725,958	-	-
Cumulative translation adjustments	-	-	-	-	-	-	-	-	-
Change in net loss not recognized as pension cost	-	-	-	-	-	-	-	-	-
Acquisition of treasury stock - 105,475 thousand shares	-	-	-	-	-	-	-	-	-
Retirement of treasury stock - 37,000 thousand shares	(370,000 )	-	(815,205 )	-	-	-	-	-	-
Changes in minority interest	-	-	-	-	-	-	-	-	-
Changes in minority interest from acquisition of subsidiaries	-	-	-	-	-	-	-	-	-
BALANCE, DECEMBER 31, 2011	\$67,535,632	\$35,693	\$7,397,481	\$6,039,239	\$1,272,417	\$20,497,470	\$27,809,126	\$235,088	
BALANCE, DECEMBER 31, 2011 (U.S. Dollars (Note 2))	\$2,231,108	\$1,179	\$244,383	\$199,512	\$42,036	\$677,155	\$918,703	\$7,766	

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

(With Deloitte & Touche audit report dated April 11, 2012)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in Thousands)

	Year Ended December 31			
	2009	2010	2011	US\$ (Note 2)
	NT\$	NT\$	NT\$	
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>				
Net income	\$6,903,468	\$19,194,889	\$13,978,949	\$461,809
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation	16,775,929	18,473,333	21,319,438	704,309
Amortization	862,153	1,381,140	1,625,958	53,715
Compensation cost for employee stock options granted	-	319,147	537,973	17,772
Provision for inventory valuation and obsolescence	191,904	340,268	433,418	14,318
Equity in earnings of equity method investments	(330,117 )	(72,980 )	(96,938 )	(3,202 )
Cash dividends received from equity method investments	82,299	20,589	27,452	907
Deferred income taxes	229,744	55,764	460,403	15,210
Impairment loss	11,117	251,402	448,056	14,802
Loss (gain) on disposal of property, plant and equipment	26,208	445,276	(82,485 )	(2,725 )
Others	380,208	(783,535 )	683,748	22,588
Changes in operating assets and liabilities				
Financial assets for trading	(487,231 )	(75,120 )	488,518	16,139
Accounts receivable	(6,564,102 )	(1,472,061 )	765,343	25,284
Other receivables	(35,730 )	(394,236 )	376,945	12,453
Inventories	(1,509,143 )	(2,171,624 )	(1,191,659 )	(39,368 )
Inventories related to construction business	(6,107,080 )	(2,874,177 )	(3,908,426 )	(129,119 )
Other current assets	(411,045 )	(132,716 )	(697,969 )	(23,058 )
Financial liabilities for trading	(8,346 )	410,778	(354,544 )	(11,713 )
Accounts payable	3,786,668	1,656,567	(3,197,294 )	(105,626 )
Income tax payable	(83,789 )	1,462,879	(339,119 )	(11,203 )
Accrued expenses	259,250	2,239,267	1,095,081	36,177
Advance real estate receipts	1,507,472	(1,466,097 )	6,292	208
Other current liabilities and other liabilities	37,391	156,341	(442,434 )	(14,616 )
Net cash provided by operating activities	15,517,228	36,965,094	31,936,706	1,055,061
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>				
Acquisition of available-for-sale financial assets	(42,695,001)	(16,670,994)	(1,700,000 )	(56,161 )
Proceeds from disposal of available-for-sale financial assets	38,971,185	20,883,928	2,078,725	68,673



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Acquisition of bond investments with no active market	(97,740 )	-	-	-
Proceeds from disposal of bond investments with no active market	450,000	-	-	-
Acquisition of financial assets carried at cost	(154,544 )	(42,892 )	(97,130 )	(3,209 )
Cash received from return of capital by financial assets carried at cost	3,203	28,556	24,308	803
Acquisition of equity method investments	(84,000 )	-	(285,709 )	(9,439 )
Acquisition of subsidiaries	-	(6,181,583 )	(2,106,203 )	(69,581 )
Cash received from return of capital by equity method investments	-	3,169	267,478	8,836
Acquisition of property, plant and equipment	(11,445,621)	(34,109,113)	(29,417,906)	(971,850 )
Proceeds from disposal of property, plant and equipment	93,116	261,010	1,292,012	42,683
Decrease (increase) in guarantee deposits	(246,280 )	255,260	(40,405 )	(1,335 )
Decrease (increase) in other receivables	(450,000 )	450,000	-	-
Decrease (increase) in restricted assets	13,851	(17,834 )	55,505	1,834

(Continued)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in Thousands)

	Year Ended December 31			
	2009	2010	2011	
	NT\$	NT\$	NT\$	US\$ (Note 2)
Acquisition of intangible assets	\$(1,020 )	\$(231,813 )	\$(1,158,835 )	\$(38,283 )
Increase in other assets	(337,864 )	(713,149 )	(942,537 )	(31,138 )
Net cash used in investing activities	(15,980,715 )	(36,085,455 )	(32,030,697 )	(1,058,167 )
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>				
Proceeds from (repayments of):				
Short-term borrowings	4,245,726	(2,714,111 )	8,810,615	291,067
Bonds payable	(1,375,000 )	-	-	-
Proceeds from long-term bank loans	31,145,664	32,586,219	29,852,451	986,206
Repayments of long-term bank loans and net changes in capital lease obligations	(33,385,917)	(25,792,377)	(43,757,641)	(1,445,578)
Issuance of bonds payable	-	-	10,841,834	358,171
Increase (decrease) in guarantee deposits received	28,800	(2,269 )	(6,789 )	(224 )
Cash dividends, net of cash dividends received by subsidiaries	(2,575,673 )	(1,940,654 )	(3,858,259 )	(127,461 )
Proceeds from exercise of stock options by employees	238,789	499,404	589,326	19,469
Repurchase of treasury stock	(1,314,273 )	(1,185,205 )	(2,772,634 )	(91,597 )
Increase (decrease) in minority interest	213,335	250,448	(41,537 )	(1,372 )
Net cash provided by (used in) financing activities	(2,778,549 )	1,701,455	(342,634 )	(11,319 )
EFFECT OF EXCHANGE RATE CHANGES	(339,400 )	(1,741,031 )	1,460,857	48,261
NET INCREASE (DECREASE) IN CASH	(3,581,436 )	840,063	1,024,232	33,836
CASH, BEGINNING OF YEAR	26,138,930	22,557,494	23,397,557	772,962
CASH, END OF YEAR	\$22,557,494	\$23,397,557	\$24,421,789	\$806,798
<b>SUPPLEMENTAL INFORMATION</b>				
Interest paid	\$1,832,333	\$1,683,056	\$1,784,181	\$58,943
Less: Capitalized interest	(173,169 )	(296,827 )	(263,307 )	(8,699 )
Interest paid (excluding capitalized interest)	\$1,659,164	\$1,386,229	\$1,520,874	\$50,244
Income tax paid	\$1,338,967	\$2,110,097	\$2,896,928	\$95,703

## Cash paid for acquisition of property, plant and equipment

Acquisition of property, plant and equipment	\$12,631,932	\$34,761,050	\$31,032,002	\$1,025,173
Increase in payable	(1,186,311 )	(651,937 )	(1,614,096 )	(53,323 )
	\$11,445,621	\$34,109,113	\$29,417,906	\$971,850

## Cash received from disposal of property, plant and equipment

Proceeds from disposal of property, plant and equipment	\$115,263	\$290,165	\$1,283,436	\$42,400
Decrease (increase) in other receivables	(22,147 )	(29,155 )	8,576	283
	\$93,116	\$261,010	\$1,292,012	\$42,683

## FINANCING ACTIVITIES NOT AFFECTING CASH FLOWS

Current portion of long-term bank loans	\$923,284	\$2,990,176	\$3,418,799	\$112,943
Current portion of capital lease obligations	12,055	28,838	42,161	1,393
Payable to minority interest	-	718,023	-	-

(Continued)

In addition to the disclosures in Note 2 to the consolidated financial statements, the supplemental information regarding the acquisitions of newly consolidated subsidiaries is shown as follows:

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a. Advanced Semiconductor Engineering, Inc. (“ASE Inc.” or including its subsidiaries, collectively the “Company”), and its subsidiaries acquired shareholdings of Universal Scientific Industrial Co., Ltd. (“USI”) in February 2010 and the net cash receipts and fair values of acquired assets and liabilities of USI at acquisition date were shown as follows:

	NT\$
Current assets	\$ 29,599,348
Long-term investments	497,508
Property, plant and equipment, net	6,866,077
Other assets	4,743,627
Current liabilities	(19,490,014)
Long-term bank loans (including current portion)	(100,000 )
Other liabilities	(365,877 )
	21,750,669
Percentage of acquired shareholdings	60.07 %
	13,065,626
Goodwill (Note 14)	409,430
Total consideration	13,475,056
Less: Acquired through delivery of treasury stock	(5,246,916 )
	8,228,140
Less: Cash received of acquired company at acquisition date	(8,842,323 )
Net cash inflow from the acquisition	\$ (614,183 )

b. The Company acquired 100% shareholdings of EEMS Test Singapore Pte. Ltd. from its parent company, EEMS Asia Pte. Ltd. in August 2010. The net cash payments and fair values of acquired assets and liabilities of EEMS Test Singapore Pte. Ltd. at the acquisition date were shown as follows:

	NT\$
Current assets	\$ 659,669
Property, plant and equipment, net	1,472,944
Other assets	145,694
Current liabilities	(102,192 )
Long-term bank loans (including current portion)	(108,077 )
	2,068,038
Goodwill (Note 14)	236,287
Total consideration	2,304,325
Less: Cash received of acquired company at acquisition date	(175,676 )
Net cash outflow from the acquisition	\$ 2,128,649

c. Power ASE Technology Inc. (“PowerASE”) acquired 84.25% shareholdings of Lu - Chu Development Corporation (“Luchu”) from Powerchip Technology Corporation (“PSC”) and its affiliates in October and November 2011. The net cash payments and fair values of acquired assets and liabilities of Luchu at the acquisition date were shown as follows:

	NT\$	US\$ (Note 2)
Current assets	\$ 1,636,455	\$ 54,062
Other assets	4	-
Current liabilities	(981 )	(32 )
Long-term bank loans	(60,000 )	(1,982 )
	1,575,478	52,048
Percentage of acquired shareholdings	84.25 %	84.25 %
	1,327,339	43,850
Goodwill (Note 14)	38,899	1,285
Total consideration	1,366,238	45,135
Less : Cash received of acquired company at acquisition date	(13,709 )	(453 )
Credit by accounts receivable	(1,000,000)	(33,036 )
Other payables under "other liabilities – other"	(200,000 )	(6,607 )
Net cash outflow from the acquisition	\$ 152,529	\$ 5,039

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

(With Deloitte & Touche audit report dated April 11, 2012) (Concluded)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 FOR THE YEARS ENDED DECEMBER 31, 2009, 2010 AND 2011  
 (Amounts in Thousands, Except Per Share Data and Unless Otherwise Stated)

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## 1. ORGANIZATION

ASE Inc., a corporation incorporated under the laws of the Republic of China (the “ROC”), offers a comprehensive range of IC packaging, testing service, and electronic manufacturing services (“EMS”). The common shares of ASE Inc. are traded on the Taiwan Stock Exchange (the “TSE”) under the symbol “2311”. Since September 2000, the common shares of ASE Inc. have been traded on the New York Stock Exchange under the symbol “ASX” in the form of American depository shares (“ADS”).

As of December 31, 2010 and 2011, the Company had approximately 48,900 and 51,400 employees, respectively.

## 2. SIGNIFICANT ACCOUNTING POLICIES

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the Republic of China (“ROC GAAP”). Significant accounting policies are summarized as follows:

## Basis of Presentation

The Company prepares its consolidated financial statements pursuant to ROC GAAP with a reconciliation to accounting principles generally accepted in the United States of America (“U.S. GAAP”) (Note 33). The accompanying consolidated balance sheets are presented as of December 31, 2010 and 2011, and the accompanying consolidated statements of income, changes in shareholders’ equity and cash flows are presented for each of the three years in the period ended December 31, 2011.

## Basis of Consolidation

The consolidated financial statements include the accounts of all directly and indirectly majority owned subsidiaries of ASE Inc. All significant intercompany balances and transactions are eliminated upon consolidation.

The consolidated entities of the Company were as follows:

Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
ASE Inc.	A.S.E. Holding Limited (“ASE Holding”)	100.0	100.0	Holding company
	J&R Holding Limited (“J&R Holding”)	100.0	100.0	Holding company

Innosource Limited ("Innosource")	100.0	100.0	Holding company
Omniquest Industrial Limited ("Omniquest")	70.6	70.6	Holding company (Continued)

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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
	ASE Marketing & Service Japan Co., Ltd.	100.0	100.0	Engaged in marketing and sales services
	ASE Test, Inc.	100.0	100.0	Engaged in the testing of semiconductors
	PowerASE	55.7	99.6	Engaged in the packaging and testing of memory integrated circuits
	USI	74.2	74.2	Engaged in the manufacturing, processing and sale of computer peripherals, computers and related accessories
PowerASE	Luchu	-	84.3	Will engage in the development of real estate properties
ASE Test, Inc.	Alto Enterprises Limited (“Alto”)	100.0	100.0	Holding company
	Super Zone Holdings Limited (“Super Zone”)	100.0	100.0	Holding company
Alto	ASE (Kun Shan) Inc. (“ASE Kun Shan”)	24.5	47.1	Engaged in the packaging and testing of semiconductors
Super Zone	Advanced Semiconductor Engineering (China) Ltd.	100.0	100.0	Will engage in the packaging and testing of semiconductors
ASE Holding	ASEP Realty Corporation	100.0	100.0	In the process of liquidation
	ASE Holding Electronics (Philippines), Incorporated	100.0	100.0	In the process of liquidation
	ASE Investment (Labuan) Inc.	70.0	70.0	Holding company
	ASE Test Limited (“ASE Test”)	10.2	10.2	Holding company
	USI	1.5	1.5	As aforementioned
ASE Investment (Labuan) Inc.	ASE (Korea) Inc. (“ASE Korea”)	100.0	100.0	Engaged in the packaging and testing of semiconductors
ASE Korea	ASE WeiHai Inc.	100.0	100.0	Engaged in the packaging and testing of semiconductors
J&R Holding	J&R Industrial Inc.	100.0	100.0	Engaged in the leasing equipment and investing activity
	ASE Japan Co., Ltd. (“ASE Japan”)	100.0	100.0	Engaged in the packaging and testing of semiconductors

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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
	ASE (U.S.) Inc.	100.0	100.0	After-sales service and sales support
	Global Advanced Packaging Technology Limited, Cayman Islands (“GAPT Cayman”)	100.0	100.0	Holding company
	Suzhou ASEN Semiconductors Co., Ltd. (“ASEN”)	60.0	60.0	Engaged in the packaging and testing of semiconductors
	Omniquest	8.5	8.5	Holding company
	ASE Test	89.8	89.8	Holding company
	USI	8.2	8.2	As aforementioned
	Anstock Limited	-	100.0	Established in June 2011 and engaged in financing activity
Innosource	ASE Module (Shanghai) Inc. (“ASE Module Shanghai”)	100.0	100.0	Will engage in the production of electronic components and printed circuit boards
	Omniquest	20.9	20.9	Holding company
ASE Module Shanghai	ASE (Shanghai) Inc. (“ASE Shanghai”)	0.6	0.6	Engaged in the production of substrates
Omniquest	ASE Corporation	100.0	100.0	Holding company
ASE Corporation	ASE Mauritius Inc.	100.0	100.0	Holding company
	ASE Labuan Inc.	100.0	100.0	Holding company
ASE Mauritius Inc.	ASE Hi-Tech (Shanghai) Inc.	100.0	100.0	In the development stage and will be merged into ASE Shanghai
	ASE Kun Shan	75.5	52.9	As aforementioned
	ASE Shanghai	98.8	98.8	As aforementioned
	ASE Module (Kunshan) Inc.	100.0	100.0	Will engage in the production of electronic components
ASE Shanghai	Shanghai Ding Hui Real Estate Development Co., Ltd. (“Shanghai DH”)	20.4	13.5	Engaged in the development, construction and sale of real estate properties
	Advanced Semiconductor Engineering (HK) Limited	100.0	100.0	Engaged in trading

(Continued)

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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
	Universal Scientific Industrial (Shanghai) Co., Ltd. (“USISH”)	0.5	1.0	Engaged in the designing, manufacturing and sale of new electronic components and the additional 0.5% ownership was restructured from USI Electronics (Shenzhen) Co., Ltd. (“USISZ”) in January 2011
Shanghai DH	Shanghai Ding Wei Real Estate Development Co., Ltd.	100.0	100.0	Engaged in the development, construction and leasing of real estate properties
	Shanghai Ding Yu Real Estate Development Co., Ltd.	100.0	100.0	Engaged in the development, construction and leasing of real estate properties
ASE Labuan Inc.	ASE Electronics Inc. (“ASE Electronics”)	100.0	100.0	Engaged in the production of substrates
ASE Test	ASE Test Holdings, Ltd.	100.0	100.0	Holding company
	ASE Holdings (Singapore) Pte Ltd	100.0	100.0	Holding company
	ASE Test Finance Limited	100.0	100.0	Engaged in financing activity
	ASE Investment (Labuan) Inc.	30.0	30.0	Holding company
	ASE Singapore Pte. Ltd. (“ASE Singapore”)	100.0	100.0	Engaged in the testing of semiconductors
	USI	15.2	15.2	As aforementioned
ASE Test Holdings, Ltd.	ISE Labs, Inc.	100.0	100.0	Engaged in the testing of semiconductors
ASE Holdings (Singapore) Pte LtdBhd.	ASE Electronics (M) Sdn.	100.0	100.0	Engaged in the packaging and testing of semiconductors
ASE Singapore	ASE Singapore II Pte. Ltd.	100.0	-	Engaged in the testing of semiconductors
GAPT Cayman	ASE Assembly & Test (HK) Limited	100.0	100.0	In the process of liquidation
	ASE Assembly & Test (Shanghai) Limited (“ASESH AT”)	100.0	100.0	Engaged in the packaging and testing of semiconductors
ASESH AT	Shanghai Wei Yu Hong Xin Semiconductors Inc.	100.0	100.0	In the development stage

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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
	ASE Shanghai	0.6	0.6	As aforementioned
	Shanghai DH	69.6	86.5	As aforementioned
USI	Huntington Holdings International Co., Ltd. (“HHI”)	100.0	100.0	Holding company
	Senetex Investment Co., Ltd.	100.0	100.0	Engaged in the investing activity
	Ta-Chi Investment Co., Ltd.	100.0	100.0	Engaged in the investing activity
HHI	Universal Scientific Industrial De Mexico S.A. De C.V. (“USI Mexico”)	100.0	-	Engaged in the assembling of motherboards and computer components and 100% ownership was restructured to be held by Universal Global Technology Co., Limited (“UG”) and Universal Global Industrial Co., Limited (“UGHK”) in April 2011
	Universal Scientific Industrial Co. (UK) Limited	100.0	100.0	After-sales service
	Unitech Holdings International Co., Ltd.	100.0	100.0	Holding company
	USI Japan Co., Ltd.	100.0	-	Engaged in the manufacturing and sale of computer peripherals, integrated chip and other related accessories and was restructured to be held by UG in February 2011
	Real Tech Holdings Limited (“RTH”)	100.0	100.0	Holding company
	USI International Limited	100.0	100.0	Engaged in the sale of motherboards and computer peripherals
	USI@Work, Inc.	100.0	-	After-sales service and was restructured to be held by UG in February 2011
	Universal ABIT Holding Co., Ltd. (“UABIT Holding”)	100.0	100.0	Holding company
	Rising Capital Investment Limited (“RCI”)	-	100.0	Holding company and was established in February 2011 (Continued)



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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
	Rise Accord Limited (“RA”)	-	100.0	Holding company and was established in August 2011
RCI	e-Cloud Corporation	-	100.0	Engaged in trading of computer systems and was established in March 2011
RA	Cubuy Corporation	-	100.0	Will engage in trading of computer systems and was established in December 2011
RTH	USISZ	100.0	-	Engaged in the designing, manufacturing and sale of motherboards, computer peripherals and other related accessories and was restructured to be held by USISH and UG in March 2011
	Universal Scientific Industrial (Kunshan) Co., Ltd.	100.0	100.0	Engaged in the manufacturing and sale of computer assistance system and related peripherals
	Universal Electronics Holding Co., Ltd. (“UEHC”)	100.0	-	Holding company and was dissolved in May 2011 and transferred its ownership of USI Enterprise Limited (“USIE”) to RTH
	USIE	-	100.0	Holding company
USISZ	USISH	0.5	-	As aforementioned
UEHC	USIE	100.0	-	As aforementioned
USIE	USISH	99.0	99.0	As aforementioned
USISH	UG	100.0	100.0	Holding company
	Universal Global Technology (Kunshan) Co., Ltd.	-	100.0	Engaged in the designing and manufacturing of electronic components and was established in July 2011
	Universal Global Technology (Shenzhen) Co., Ltd. (“UGSZ”)	50.0	50.0	Engaged in the research and development of computer peripherals
	USISZ	-	50.0	As aforementioned
UG	UGSZ	50.0	50.0	As aforementioned

(Continued)





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Name of Investor	Name of Investee	Percentage of Ownership December 31		Remark
		2010	2011	
	UGHK	100.0	100.0	Engaged in the manufacturing, trading and investing activities
	Universal Global Scientific Industrial Co., Ltd.	100.0	100.0	Engaged in the manufacturing of components of telecomm and cars and provision of related R&D services
	USI Manufacturing Service, Inc.	100.0	100.0	Engaged in the manufacturing and processing of motherboards and wireless network communication and provision of related technical service
	USI Japan Co., Ltd.	-	100.0	As aforementioned
	USI @ Work, Inc.	-	100.0	As aforementioned
	USISZ	-	50.0	As aforementioned
	USI Mexico	-	99.9	As aforementioned
UGHK	USI Mexico	-	0.1	As aforementioned
UABIT Holding	Universal ABIT NL B.V.	100.0	-	Engaged in the trading of motherboards and computer peripherals and was dissolved in November 2011 (Concluded)

## Changes in consolidated entities or shareholdings

## a.USI Acquisition

In February 2010, in order to enhance the technical and business cooperation relationship, the Company had launched a cash and stock tender offer to buy the additional outstanding common shares of USI not owned by the Company at a fixed price of NT\$21 per share, which was comprised of a fixed 0.34 share of ASE Inc.'s common shares owned by the subsidiaries, J&R Holding and ASE Test, and a cash consideration determined pursuant to the formula (equivalent to NT\$21 less 0.34 multiplied by the lowest of the average closing price of ASE Inc.'s common shares for the last one, three and five trading days prior to the last day of the tender offer period). The total consideration was NT\$13,475,056 thousand of which 218,167 thousand shares of ASE Inc. were delivered by the subsidiaries (Note 21). In addition, ASE Inc. continued to acquire additional outstanding common shares of USI not owned by the Company with a total consideration of NT\$4,667,117 thousand in August 2010.

## b.EEMS Test Singapore Pte. Ltd. Acquisition

The Company, through ASE Singapore, acquired 100% shareholdings of EEMS Test Singapore Pte. Ltd. from its parent company, EEMS Asia Pte. Ltd., in August 2010 with a total consideration of US\$ 72,163 thousand. EEMS Test Singapore Pte. Ltd. was renamed to ASE Singapore II Pte. Ltd. and subsequently merged into ASE Singapore on January 1, 2011.

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## c.Acquisition of Outstanding Shareholdings of Subsidiaries

ASE Inc. had launched a cash tender offer to buy 106,808 thousand shares of PowerASE during November and December 2011 with a total consideration of NT\$1,972,194 thousand (US\$65,153 thousand) of which NT\$1,081,071 thousand (US\$35,714 thousand) was offset by accounts receivable due from PSC, purchased from PowerASE. In addition, the Company acquired 50 thousand outstanding shares of ASE Test, Inc. for NT\$4,282 thousand (US\$141 thousand) in December 2011. Moreover, the Company, through ASEAT SH, acquired 10% outstanding shareholdings of Shanghai DH for NT\$1,058,269 thousand (US\$34,961 thousand, the amount in transaction currency was CNY221,500 thousand) in November 2011 (Note 27).

## d.Luchu Acquisition

The Company acquired 84.25% shareholdings of Luchu from PSC and its affiliates in October and November 2011 with a total consideration of NT\$1,366,238 thousand (US\$45,135 thousand) of which NT\$1,000,000 thousand (US\$33,036 thousand) was credited by the accounts receivable due from PSC.

The abovementioned acquisitions were accounted for as a purchase as prescribed by ROC Statement of Financial Accounting Standards (“SFAS”) No. 25, “Business Combinations-Accounting Treatment under Purchase Method” (“ROC SFAS No. 25”), and the purchase price has been reflected in the Company’s consolidated financial statements since acquisition date. These acquisitions resulted in stepping up acquirees’ net assets to fair value for the acquired interests.

Had the Company acquired the abovementioned shareholdings on January 1, 2010, the pro forma information is as follows:

	Year Ended December 31		
	2010 NT\$	2011 NT\$	2011 US\$ (Note 2)
Net Revenue	194,099,705	185,347,206	6,123,132
Net Income	19,203,446	13,675,798	451,794
Attributable to			
Shareholders of the parent	19,141,187	13,654,783	451,100
Minority interest	62,259	21,015	694
	19,203,446	13,675,798	451,794
Earnings Per Share			
Basic EPS (in dollar)	2.89	2.07	0.07
Diluted EPS (in dollar)	2.83	2.02	0.07

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

The functional and reporting currency of ASE Inc. is New Taiwan dollars, while the functional currencies of its major foreign subsidiaries are their local currencies, namely, the U.S. dollar, Japanese yen, Korea Won, PRC Renminbi and Malaysia Ringgit, respectively.

The financial statements of foreign subsidiaries are translated into New Taiwan dollars at the following exchange rates:

a.Assets and liabilities - at exchange rates prevailing on the balance sheet date;

b.Shareholders' equity - at historical exchange rates; and

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### c. Income and expenses - at average exchange rates during the year.

Exchange differences arising from the translation of the financial statements of foreign subsidiaries are recognized as a separate component of shareholders' equity.

Non-derivative foreign-currency transactions are recorded in local currencies at the rates of exchange in effect when the transactions occur. Exchange differences arising from settlement of foreign-currency assets and liabilities are recognized in profit or loss.

At the balance sheet date, foreign-currency monetary assets and liabilities are revalued using prevailing exchange rates and the exchange differences are recognized in profit or loss.

At the balance sheet date, foreign-currency nonmonetary assets (such as equity instruments) and liabilities that are measured at fair value are revalued using prevailing exchange rates. When a gain or loss on a nonmonetary item is recognized in shareholders' equity, any exchange component of that gain or loss shall be recognized in shareholders' equity. Conversely, when a gain or loss on a nonmonetary item is recognized in earnings, any exchange component of that gain or loss shall be recognized in earnings.

Foreign-currency nonmonetary assets and liabilities that are carried at cost continue to be stated at exchange rates at trade dates.

### Accounting Estimates

The preparation of consolidated financial statements in conformity with the guidelines and ROC GAAP as aforementioned requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Actual results may differ from these estimates.

### Current and Noncurrent Assets and Liabilities

Current assets include cash, and those assets held primarily for trading purposes or to be realized, sold or consumed within twelve months from the balance sheet date. All other assets such as property, plant and equipment and intangible assets are classified as noncurrent. Current liabilities are obligations incurred for trading purposes or to be settled within twelve months from the balance sheet date. All other liabilities are classified as noncurrent.

Because the Company's real estate business has an operating cycle greater than one year, its classification of current or noncurrent assets and liabilities related to the real estate business is based on its operating cycle.

### Financial Assets and Liabilities at Fair Value through Profit or Loss

The Company recognizes a financial asset or financial liability on its balance sheet when the Company becomes a party to the contractual provisions of the financial instrument. A financial asset is derecognized when the Company has lost control of its contractual rights over the financial asset. A financial liability is derecognized when the obligation specified in the relevant contract is discharged, cancelled or expired.

Financial instruments at fair value through profit or loss ("FVTPL") are initially measured at fair value. Transaction costs directly attributable to the acquisition of financial assets at FVTPL are recognized immediately in profit or loss. At each balance sheet date subsequent to initial recognition, financial assets or financial liabilities at FVTPL are remeasured at fair value, with changes in fair value recognized directly in profit or loss in the year in which they arise. Cash dividends received subsequently (including those received in the year of investment) are recognized as

income for the year. On derecognition of a financial asset or a financial liability, the difference between its carrying amount and the sum of the consideration received and receivable or consideration paid and payable is recognized in profit or loss. A regular way purchase or sale of financial assets is recognized and derecognized on a settlement date basis.

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A derivative that does not qualify for hedge accounting is classified as a financial asset or a financial liability held for trading. If the fair value of the derivative is positive, the derivative is recognized as a financial asset; otherwise, the derivative is recognized as a financial liability.

Fair value is determined as follows: publicly traded stocks - the closing-price at the balance sheet date; Open-end mutual funds - the net asset value; bonds and other financial instruments with no quoted price in an active market - using valuation techniques.

### Available-for-sale Financial Assets

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

The recognition, derecognition and the basis for fair value of available-for-sale financial assets are the same with those of financial assets at FVTPL.

Cash dividends are recognized on the ex-dividend date. Stock dividends are not recognized as investment income but are recorded as an increase in the number of shares. The total number of shares subsequent to the increase is used for recalculation of cost per share.

If certain objective evidence indicates that an available-for-sale financial asset is impaired, a loss is recognized currently; if, in a subsequent period, the amount of the impairment loss decreases, for equity securities, the previously recognized impairment loss is reversed to the extent of the decrease and recorded as an adjustment to shareholders' equity; for debt securities, the amount of the decrease is recognized in earnings, provided that the decrease is clearly attributable to an event which occurred after the impairment loss was recognized.

### Hedging Accounting

Derivatives that are designated and effective as hedging instruments are measured at fair value, with subsequent changes in fair value recognized either in profit or loss, or in shareholders' equity, depending on the nature of the hedging relationship.

Hedge accounting recognizes the offsetting effects on profit or loss of changes in the fair values of the hedging instrument and the hedged item as follows:

#### a.Fair value hedge

The gain or loss from remeasuring the hedging instrument at fair value and the gain or loss on the hedged item attributable to the hedged risk are recognized in profit or loss.

#### b.Cash flow hedge

The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized in shareholders' equity. The amount recognized in shareholders' equity is recognized in profit or loss in the same year or years during which the hedged forecasted transaction or an asset or liability arising from the hedged forecasted transaction affects profit or loss. However, if all or a portion of a loss recognized in shareholders' equity is not

expected to be recovered in the future, the amount that is not expected to be recovered is reclassified into profit or loss.

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### Financial Assets Carried at Cost

Investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are carried at their original cost. The accounting for dividends on financial assets carried at cost is the same with that for dividends on available-for-sale financial assets. If certain objective evidence indicates that such a financial asset is impaired, a loss is recognized currently. A subsequent reversal of such impairment loss is not allowed.

### Bond Investments with No Active Market

Bond investments with fixed or determinable payments and with no quoted prices in an active market are carried at amortized cost using the effective interest method. Those financial assets are initially measured at fair value plus transaction costs that are directly attributable to the acquisition. Gains or losses are recognized when the financial assets are derecognized, impaired or amortized.

If certain objective evidence indicates that a bond investment with no active market is impaired, a loss is recognized currently. If, in a subsequent period, the amount of the impairment loss decreases and the decrease is clearly attributable to an event which occurred after the impairment loss was recognized, the previously recognized impairment loss is reversed to the extent of the decrease. The reversal may not result in a carrying amount that exceeds the amortized cost that would have been determined as if no impairment loss had been recognized.

### Impairment of Accounts Receivable

As discussed in Note 3 to the consolidated financial statements, the Company adopted the newly revised SFAS No. 34, "Financial Instruments: Recognition and Measurement" ("SFAS No. 34"). Accounts receivable are assessed for impairment at the end of each reporting period. The Company first assesses whether objective evidence of impairment exists individually for accounts receivable, then includes in a group basis with historical collective experience and similar credit risk characteristics and collectively assesses them for impairment.

The carrying amount of the accounts receivable is reduced through the use of an allowance account. The amount of the impairment loss recognized is the difference between the carrying amount and the present value of estimated future cash flows discounted at the receivable's original effective interest rate.

### Impairment of Assets

When an asset's (primarily property, plant and equipment, intangible assets and equity method investments) recoverable amount is lower than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount by recording an impairment loss. When the recoverable amount subsequently increases, the impairment loss previously recognized is reversed and recorded as a gain. However, the carrying amount of an asset (other than goodwill) after the reversal of the impairment loss should not exceed the carrying amount of the asset that would have been determined, net of depreciation or amortization, as if no impairment loss had been recognized.

### Allowances for Sales Discount

Allowances for sales discounts are recorded in the same year the related revenue is recognized on the basis of historical experience, management's judgment, and relevant factors.



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### Inventories and Inventories Related to Construction Business

Inventories, including raw materials (materials received from customers for processing, mainly semiconductor wafers, are excluded from inventories as title and risk of loss remain with the customers), supplies, work in process, finished goods, and materials and supplies in transit, are stated at the lower of cost or net realizable value. Inventory write-downs are made on an item by item basis. Net realizable value is the estimated selling price of inventories less all estimated costs to complete production and selling expenses necessary to make the sale. Raw materials and supplies are recorded at moving average cost; work in process and finished goods are recorded at standard cost and adjusted to the approximate weighted average cost at the balance sheet date.

Inventory related to construction business includes buildings and land held for sale, land held for construction, construction in progress and prepayment for land use rights. Land held for development is recorded as land held for construction upon obtaining the title of ownership. The prepayment is recorded as prepayment for land use rights before obtaining the title of ownership. Prior to the completion, borrowing costs directly attributable to construction in progress are capitalized as part of the cost of the asset. Construction in progress is transferred to buildings and land held for sale upon completion of the construction. Construction in progress, buildings and land held for sale and land held for construction are stated at the lower of cost or net realizable value and related write-downs are made on an item by item basis. The amounts received in advance of real estate property are first recorded as advance receipts and then recognized as revenue when the construction is completed and the title and significant risk of the real estate property are transferred to customers. Cost of sales of buildings and land held for sale are recognized based on the ratio of property sold to the total property developed.

### Equity Method Investments

Investments in companies of which the Company owns at least 20% of the outstanding voting shares or where the Company exercises significant influence over the investee companies' operating and financial policy decisions are accounted for using the equity method. The acquisition cost is allocated to the assets acquired and liabilities assumed based on their fair values at the date of acquisition, and the excess of the acquisition cost over the fair value of the identifiable net assets acquired, representing goodwill, shall not be amortized.

Gains or losses from downstream or upstream transactions with equity method investees are eliminated in proportion to the Company's percentage of ownership in the investee.

When the Company subscribes for additional investees' shares at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment in the investees differs from the amount of the Company's share in the investee's net equity. The Company records such a difference as an adjustment to equity method investments with the corresponding amount charged or credited to capital surplus. When the adjustment should be debited to capital surplus, but the capital surplus arising from long-term investment is insufficient, the difference is debited to retained earnings.

### Business Combination

Acquisitions are accounted for using the purchase method of accounting under ROC SFAS No. 25. The cost of the acquisition is measured at the aggregate of the fair values, at the date of acquisition, of assets given and liabilities incurred or assumed, by the Company in exchange for control of the acquiree, plus any costs directly attributable to the business combination. The acquiree's identifiable assets and liabilities are recognized at their fair values at the acquisition date.

Goodwill arising on acquisition is recognized as an asset and initially measured at cost, being the excess of the cost of acquisition over the Company's interest in the fair value of the identifiable net assets.

The interest of minority shareholders in the acquiree is measured at historical cost.

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### Property, Plant and Equipment and Idle Assets

Except for land, which is stated at cost, property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment. Borrowing costs directly attributable to the acquisition or construction of property, plant and equipment are capitalized as part of the cost of those assets. Major additions and improvements to property, plant and equipment are capitalized, while maintenance and repairs are expensed as incurred.

Assets held under capital leases are initially recognized as assets of the Company at the lower of their fair value at the inception of the lease or the present value of the minimum lease payments; the corresponding liability is included in the balance sheet as capital lease obligations. The interest included in lease payments is expensed when paid.

Depreciation is computed using the straight-line method over estimated service lives, which range as follows: buildings and improvements, 2 to 60 years; machinery and equipment, transportation equipment and furniture and fixtures, 2 to 10 years; and leased assets and leasehold improvements, 3 to 6 years.

Idle assets are stated at the lower of fair value or carrying amount. The carrying amount in excess of the fair value is recognized as an impairment loss. The remaining book value is depreciated using the straight-line method.

When property, plant and equipment and idle assets are retired or disposed of, their cost, accumulated depreciation and accumulated impairment are removed from the accounts and any gain or loss is credited or charged to non-operating income or losses.

### Intangible Assets

Patents, land use rights and other intangible assets purchased are initially recorded at cost. Land use rights, patents, acquired special technology, customer relationships and other intangible assets arising from business acquisitions are initially recorded at fair value at the date of acquisition.

Intangible assets are amortized based on the pattern in which the economic benefits are consumed or using the straight-line method over the estimated service lives, which range as follows: land use rights, 50 to 60 years; and others, 3 to 20 years.

Goodwill represents the excess of the consideration paid for an acquisition over the fair value of identifiable net assets acquired. Effective January 1, 2006, goodwill is no longer amortized and instead is tested for impairment annually. If an event occurs or circumstances change which indicates that the fair value of goodwill is below its carrying amount, an impairment loss is recognized. A subsequent reversal of such impairment loss is not allowed.

### Deferred Charges

Deferred charges mainly consist of tools and computer systems software. Amortization of deferred charges is computed on a straight-line basis over 2 to 5 years. For the years ended December 31, 2009, 2010 and 2011, the amortization expense was NT\$579,281 thousand, NT\$704,089 thousand and NT\$883,470 thousand (US\$29,186 thousand), respectively.

### Pension Cost

Pension cost under defined benefit plans are determined by actuarial valuations. Contributions made under defined contribution plans are recognized as pension cost during the period in which employees render services.

Curtailment or settlement gains or losses of the defined benefit plans are recognized as part of the net pension cost for the year.

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### Income Taxes

The Company applies intra-period and inter-period allocations to its income tax, whereby deferred income tax assets and liabilities are recognized for (1) the items adjusted directly in shareholders' equity and (2) the tax effects of temporary differences, loss carryforwards and unused tax credits. Valuation allowances are provided to the extent, if any, that it is more likely than not that deferred income tax assets will not be realized. A deferred tax asset or liability is classified as current or noncurrent in accordance with the classification of its related asset or liability. However, if a deferred tax asset or liability does not relate to an asset or liability in the financial statements, then it is classified as either current or noncurrent based on the expected length of time before it is realized or settled.

The taxable temporary differences between the book value and tax basis of equity method investments in foreign subsidiaries are not recognized as deferred income tax liabilities since the Company could control the timing of reversal of the temporary differences and would not reverse them in the foreseeable future and will, in effect, exist indefinitely.

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

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

Income tax on undistributed earnings is recorded by ASE Inc. and subsidiaries under jurisdiction of ROC at the rate of 10% and is recorded as an expense in the year shareholders resolve the distribution of earnings.

### Stock-based Compensation

Employee stock options granted on or after January 1, 2008 are accounted for under ROC SFAS No. 39, "Accounting for Share-based Payment." Under the statement, the value of the stock options granted, which is equal to the best available estimate of the number of stock options expected to vest multiplied by the grant-date fair value, is expensed on a straight-line basis over the vesting period, with a corresponding adjustment to capital surplus - employee stock options. The estimate is revised if subsequent information indicates that the number of stock options expected to vest differs from previous estimates.

Employee stock options granted on or before December 31, 2007 were accounted for under the interpretations issued by the ROC Accounting Research and Development Foundation ("ARDF"). The Company adopted the intrinsic value method under which compensation cost was recognized on a straight-line basis over the vesting period.

### Treasury Stock

Treasury stock is stated at cost and shown as a deduction in shareholders' equity. When ASE Inc. retires treasury stock, the treasury stock account is reduced and the common stock as well as the capital surplus - capital in excess of par value are reversed on a pro rata basis. When the book value of the treasury stock exceeds the sum of the par value and capital surplus - capital in excess of par value, the difference is charged to capital surplus - treasury stock transactions and to retained earnings for any remaining amount. When treasury stock is disposed of, the book value of the treasury stock is removed from the accounts. When the selling price of the treasury stock exceeds the book value of the treasury stock, the difference is credited to capital surplus - treasury stock transactions.

ASE Inc.'s shares held by its subsidiaries are accounted for as treasury stock and, accordingly, the cost of such shares is reclassified from equity method investments to treasury stock. Cash dividends received by subsidiaries from ASE Inc. are recorded as capital surplus - treasury stock transactions.

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### Revenue Recognition

Revenues from semiconductor packaging and testing services are recognized upon completion of the services or shipment. Revenue from electronic manufacturing services is recognized when the Company has transferred to the buyer the significant risks and rewards of ownership of the goods, primarily upon shipment. The amounts received in advance of real estate property are first recorded as advance receipts and then recognized as revenue when the construction is completed and the title and significant risk of the real estate property are transferred to customers. Revenue from others is recognized upon completion of the services or delivery of goods because the earnings process has been completed and the economic benefits associated with the transaction have been realized or are realizable.

Revenues are determined using the fair value taking into account related sales discounts agreed by the Company and customers. Since the receivables from sales are collectible within one year and such transactions are frequent, the fair value of receivables is equivalent to the nominal amount of cash received or receivable.

### Research and Development Costs

Research and development costs are charged to expenses as incurred.

### U.S. Dollar Amounts

The Company prepares its consolidated financial statements in New Taiwan dollars. A translation of the consolidated financial statements into U.S. dollars is included solely for the convenience of the reader, and has been translated from New Taiwan dollars at the exchange rate as set forth in the statistical release of the Federal Reserve Board, which was NT\$30.27 to US\$1.00 as of December 30, 2011. The translation should not be construed as a representation that the New Taiwan dollar amounts have been, could have been, or could in the future be, converted into U.S. dollars at this or any other rate of exchange.

## 3. ACCOUNTING CHANGE

### Recognition and Measurement of Financial Instruments

From January 1, 2011, the Company adopted the newly revised ROC SFAS No. 34. The main revisions require that loans and receivables originated by the Company are now covered by ROC SFAS No. 34. This accounting change did not have a material impact on the Company's consolidated financial statements as of and for the year ended December 31, 2011.

### Operating Segments

From January 1, 2011, the Company adopted the newly issued ROC SFAS No. 41, "Operating Segments" ("ROC SFAS No. 41"). The statement requires that segment information be disclosed based on the information regarding the components of the Company that management uses to make decisions regarding operating matters. ROC SFAS No. 41 requires identification of operating segments on the basis of internal reports that are regularly reviewed by the Company's chief operating decision maker in order to allocate resources to the segments and assess their performance. This statement supersedes ROC SFAS No. 20, "Segment Reporting". The Company conformed to the disclosure requirements as of and for the year ended December 31, 2011. The information for the years ended December 31, 2009 and 2010 has been recast to reflect the new segment reporting requirement.

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4.	CASH		
		December 31	
	2010	2011	US\$
	NT\$	NT\$	(Note 2)
Cash on hand	8,474	10,240	338
Checking and saving accounts	14,790,560	13,879,155	458,512
Time deposits	8,598,523	10,532,394	347,948
	23,397,557	24,421,789	806,798

## 5. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

		December 31	
	2010	2011	US\$
	NT\$	NT\$	(Note 2)
Financial assets for trading - current			
Swap contracts	173,389	478,504	15,808
Open-end mutual funds	590,168	170,581	5,635
Quoted stocks	94,661	46,858	1,548
Forward exchange contracts	48,569	10,812	357
Financial notes	288,486	-	-
	1,195,273	706,755	23,348
Financial liabilities for trading - current			
Swap contracts	394,747	81,450	2,691
Cross currency swap contracts	80,314	38,880	1,284
Forward exchange contracts	13,757	13,944	461
	488,818	134,274	4,436

The Company entered into derivative contracts to manage exposures to foreign exchange and interest rate risks. The derivative contracts entered into by the Company did not meet the criteria for hedge accounting except those described in Note 26h.

Information on such derivative transactions not qualified for hedge accounting is as follows:

## a. Swap contracts

The outstanding swap contracts of the Company as of December 31, 2010 and 2011 were as follows:

Currency	Maturity Period	Contract Amount (In Thousands)
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December 31, 2010

NT\$/US\$	2011.01-2011.12	NT\$10,888,924/US\$363,000
US\$/NT\$	2011.01-2011.02	US\$151,143/NT\$4,545,445
US\$/JPY	2011.12	US\$49,264/JPY4,100,000

(Continued)

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Currency	Maturity Period	Contract Amount (In Thousands)
December 31, 2011		
NT\$/US\$	2012.01-2012.12	NT\$19,936,501/US\$677,600
US\$/NT\$	2012.01-2012.03	US\$96,500/NT\$2,854,357
US\$/JPY	2012.01-2012.12	US\$72,260/JPY5,600,000
US\$/EUR	2012.01	US\$1,992/EUR1,500

(Concluded)

## b. Forward exchange contracts

The outstanding forward exchange contracts of the Company as of December 31, 2010 and 2011 were as follows:

Currency	Maturity Period	Contract Amount (In Thousands)
December 31, 2010		
US\$/JPY	2011.01	US\$23,550/JPY1,958,459
US\$/NT\$	2011.01	US\$58,250/NT\$1,715,329
US\$/MYR	2011.01-2011.03	US\$13,000/MYR40,706
NT\$/US\$	2011.01	NT\$714,996/US\$24,000
US\$/CNY	2011.01	US\$13,000/CNY86,490
US\$/SGD	2011.01	US\$4,300/SGD5,633
US\$/EUR	2011.01	US\$1,325/EUR1,000
EUR/US\$	2011.01-2011.02	EUR2,900/US\$3,911
December 31, 2011		
US\$/JPY	2012.01	US\$31,500/JPY2,454,249
US\$/NT\$	2012.01-2012.03	US\$68,000/NT\$2,055,270
US\$/MYR	2012.01-2012.03	US\$16,000/MYR50,522
US\$/EUR	2012.01	US\$2,354/EUR1,800
US\$/KRW	2012.01	US\$42,000/KRW48,435,800
US\$/SGD	2012.01-2012.02	US\$5,500/SGD7,141
EUR/US\$	2012.01-2012.02	EUR1,500/US\$2,046

## c. Cross currency swap contracts

As of December 31, 2010 and 2011, the notional amount of the outstanding contract of the Company was NT\$953,940 thousand against US\$30,000 thousand and US\$30,000 thousand against NT\$869,400 thousand, respectively. Interest receipt and payment are based on stated interest rates. The maturity date of the contracts is September 2011 and August 2012, respectively.

For the years ended December 31, 2009, 2010 and 2011, the gain on valuation of financial assets held for trading was NT\$934,938 thousand, NT\$1,169,434 thousand and NT\$1,118,488 thousand (US\$36,950 thousand), respectively; the

loss on valuation of financial liabilities held for trading was NT\$645,774 thousand, NT\$1,092,316 thousand and NT\$250,435 thousand (US\$8,273 thousand), respectively.

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## 6. AVAILABLE-FOR-SALE FINANCIAL ASSETS

	2010 NT\$	December 31	
		2011 NT\$	US\$ (Note 2)
Quoted stocks (Note 11)	234,660	197,052	6,510
Private-placement shares	102,790	24,827	820
Open-end mutual funds	311,070	-	-
	648,520	221,879	7,330
Current portion	(338,094)	(48,794 )	(1,612 )
Noncurrent portion	310,426	173,085	5,718

For the years ended December 31, 2009, 2010 and 2011, the other-than-temporary loss on impairment of available-for-sale financial assets was nil, NT\$2,680 thousand and NT\$87,253 thousand (US\$2,882 thousand), respectively.

## 7. BOND INVESTMENTS WITH NO ACTIVE MARKET - CURRENT AND NONCURRENT

The bond investment was a 3-year unsecured convertible corporate bond with a coupon rate of 3.00% issued by SiPhoton, Inc. with a face value of US\$3,000 thousand and warrants. The debt host contract of the investment will mature in October 2012 and was reclassified from bond investments with no active market – noncurrent into bond investments with no active market - current. In 2011, the Company exercised the warrants to purchase 544,800 common shares in the amount of US\$1,500 thousand and recorded as financial assets carried at cost - noncurrent (Note 11).

## 8. ACCOUNTS RECEIVABLE, NET

	2010 NT\$	December 31	
		2011 NT\$	US\$ (Note 2)
Accounts receivable	33,686,006	30,727,988	1,015,130
Allowance for doubtful accounts	(134,002 )	(128,869 )	(4,257 )
Allowance for sales returns and discounts	(170,087 )	(123,331 )	(4,074 )
	33,381,917	30,475,788	1,006,799

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The factored accounts receivable of the Company were as follows:

Counter-parties	Receivables Sold (In Thousands)	Amounts Collected (In Thousands)	Advances Received at Year-End (In Thousands)	Interest Rates on Advances Received (%)	Revolving Credit Line (In Thousands)
Year ended December 31, 2010					
Citi bank	US\$ 57,887	US\$ 29,447	US\$ 28,440	1.01	US\$ 108,000
	NT\$ 2,028,208	NT\$ 1,621,146	NT\$ 407,062	1.35	
Year ended December 31, 2011					
Citi bank	US\$ 204,324	US\$ 150,846	US\$ 53,478	1.50	US\$ 95,000
	NT\$ 447,415	NT\$ 447,415	NT\$ -	-	
Taishin bank	US\$ 8,141	US\$ 8,141	US\$ -	-	US\$ 9,300

Pursuant to the factoring agreement, the losses from disputes (such as sales returns and discounts) shall be borne by the Company, while losses from credit risk shall be borne by the banks. As of December 31, 2010 and 2011, the Company has issued a promissory note of US\$28,000 thousand and US\$28,930 thousand, respectively, as collateral.

9. INVENTORIES

	December 31		US\$ (Note 2)
	2010 NT\$	2011 NT\$	
Finished goods	2,530,432	3,616,381	119,471
Work in process	1,743,018	1,563,509	51,652
Raw materials	7,548,133	7,715,521	254,890
Supplies	509,789	515,069	17,016
Materials and supplies in transit	839,407	510,277	16,857
	13,170,779	13,920,757	459,886

The cost of inventories sold recognized as cost of revenues for the years ended December 31, 2009, 2010 and 2011 was NT\$67,433,644 thousand, NT\$146,829,805 thousand and NT\$150,269,610 thousand (US\$4,964,308 thousand), respectively, which included NT\$191,904 thousand, NT\$340,268 thousand and NT\$433,418 thousand (US\$14,318 thousand), respectively, due to write-downs of inventories.

10. INVENTORIES RELATED TO CONSTRUCTION BUSINESS

	December 31	
	2010	2011



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	NT\$	NT\$	US\$ (Note 2)
Buildings and land held for sale	583,761	633,078	20,914
Construction in progress related to construction business	9,541,609	11,753,404	388,286
Land held for construction	-	1,616,743	53,411
Prepayment for land use rights	-	2,146,273	70,904
	10,125,370	16,149,498	533,515

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A portion of buildings and land held for sale in Shanghai Zhangjiang was completed and sold in 2010 and 2011 and the construction profit of NT\$1,037,318 thousand and the construction loss of NT\$37,771 thousand (US\$1,248 thousand) was recognized for the years ended December 31, 2010 and 2011, respectively. The remaining projects are expected to be completed before the end of 2013. Land held for construction was from the newly acquired subsidiary, Luchu, as stated in Note 2. The capitalized interest expense for the years ended December 31, 2009, 2010 and 2011 is presented in Note 13.

## 11. FINANCIAL ASSETS CARRIED AT COST - NONCURRENT

	December 31		US\$ (Note 2)
	2010 NT\$	2011 NT\$	
Unquoted common shares (Note 7)	299,817	384,193	12,692
Unquoted preferred shares	120,532	61,978	2,048
Limited partnership	423,391	447,112	14,771
	843,740	893,283	29,511

There was no quoted price from an active market for these investments and fair value was not readily available. In addition, the Company owns less than 20% of each of these investments and cannot exercise significant influence. Therefore, these investments are carried at cost.

Unquoted preferred shares of Sequans Communications S.A. ("Sequans") held by the Company were all converted into common shares and reclassified to available-for-sale financial assets – noncurrent (Note 6) since the common shares of Sequans are listed on the New York Stock Exchange from April 2011.

## 12. EQUITY METHOD INVESTMENTS

	2010		December 31		2011	
	NT\$	% of Owner - ship	NT\$	US\$ (Note 2)	% of Owner - ship	
Listed company						
Hung Ching Development & Construction Co. ("HCDC")	1,106,338	26.2	1,124,692	37,155	26.2	
Unlisted companies						
Hung Ching Kwan Co.	332,224	27.3	329,817	10,896	27.3	
StarChips Technology Inc. ("SCT")	61,824	33.3	47,856	1,581	33.3	
	1,500,386		1,502,365	49,632		
Deferred gain on transfer of land	(300,149 )		(300,149 )	(9,916 )		
	(41,739 )		(47,856 )	(1,581 )		

Accumulated impairment -  
SCT

1,158,498	1,154,360	38,135
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Market values of the listed equity method investments as of December 31, 2010 and 2011 were NT\$1,314,260 thousand and NT\$775,517 thousand (US\$25,620 thousand), respectively.

In March and April 2011, Shanghai DH, invested CNY64,500 thousand (US\$10,236 thousand) in CP Mingchuang Enterprise Development Fund which were scheduled to engage in the development of real estate properties. However, the limited partnership agreement was cancelled in November 2011, and Shanghai DH received CNY60,000 thousand (US\$9,522 thousand) as the return of capital.

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The Company recorded equity in earnings of equity method investments and the details were as follows:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
HCDC	47,135	57,640	131,546	4,346
USI	300,936	27,986	-	-
Others	(17,954 )	(12,646 )	(34,608 )	(1,144 )
	330,117	72,980	96,938	3,202

## 13. PROPERTY, PLANT AND EQUIPMENT

Accumulated depreciation consisted of:

	December 31		US\$ (Note 2)
	2010 NT\$	2011 NT\$	
Buildings and improvements	16,742,731	18,608,406	614,747
Machinery and equipment	101,247,714	114,013,568	3,766,553
Transportation equipment	159,513	197,510	6,525
Furniture and fixtures	3,946,121	3,888,329	128,455
Leased assets and leasehold improvements	341,161	415,259	13,719
	122,437,240	137,123,072	4,529,999

Information about capitalized interest expense was as follows:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
Total interest expense including capitalized interest	1,681,192	1,682,838	1,929,632	63,748
Less: Capitalized interest				
Included in inventories related to construction business	(111,855 )	(196,669 )	(130,283 )	(4,304 )
Included in property, plant and equipment	(61,314 )	(100,158 )	(133,024 )	(4,395 )
Interest expense	1,508,023	1,386,011	1,666,325	55,049
Capitalization rate				

Inventories related to construction business	4.78%-5.70%	4.78%-5.31%	4.78%-6.72%
Property, plant and equipment	1.10%-4.80%	0.71%-3.65%	1.26%-4.68%

For the years ended December 31, 2009, 2010 and 2011, the loss on impairment of property, plant and equipment was nil, NT\$169,860 thousand and NT\$234,301 thousand (US\$7,740 thousand), respectively.

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## 14. INTANGIBLE ASSETS

The movements of intangible assets other than deferred pension cost were as follows:

	Other Intangible Assets				
	Goodwill NT\$	Land Use Rights NT\$	Patents NT\$	Acquired Special Technology NT\$	Customer Relationship and Others NT\$
Balance at January 1, 2010	9,419,005	1,385,144	101,716	484,544	783,839
Additions					
Purchase	-	231,813	-	-	-
From acquisition	1,142,250	587,341	820,707	-	1,068,238
Amortization	-	(33,715 )	(198,667)	(141,818)	(302,851 )
Reclassification	-	112,291	-	-	-
Translation adjustment	(153,232 )	(108,967 )	(1,847 )	-	-
Balance at December 31, 2010	10,408,023	2,173,907	721,909	342,726	1,549,226
Additions					
Purchase	-	1,142,234	7,700	-	8,901
From acquisition	59,534	-	-	-	-
Amortization	-	(44,247 )	(245,484)	(141,818)	(310,939 )
Impairment	(38,899 )	-	-	-	-
Reclassification	(125,097 )	(5,141 )	414	-	-
Translation adjustment	70,940	153,947	3,216	-	329
Balance at December 31, 2011	10,374,501	3,420,700	487,755	200,908	1,247,517

	Other Intangible Assets				
	Goodwill US\$ (Note 2)	Land Use Rights US\$ (Note 2)	Patents US\$ (Note 2)	Acquired Special Technology US\$ (Note 2)	Customer Relationship and Others US\$ (Note 2)
Balance at January 1, 2011	343,840	71,817	23,849	11,322	51,180
Additions					
Purchase	-	37,735	254	-	294
From acquisition	1,967	-	-	-	-
Amortization	-	(1,462 )	(8,110 )	(4,685 )	(10,272 )
Impairment	(1,285 )	-	-	-	-
Reclassification	(4,133 )	(170 )	14	-	-
Translation adjustment	2,343	5,086	106	-	11
Balance at December 31, 2011	342,732	113,006	16,113	6,637	41,213

The goodwill arising from acquisition in 2011 was related to the acquisition of PowerASE, Luchu and Shanghai DH. Up to date, the Company has not yet completed the purchase price allocation for the PowerASE Acquisition. The excess of the acquisition price over the carrying value of the acquired net assets, NT\$3,823 thousand

(US\$126 thousand), has been temporarily classified as goodwill. The Company had completed the purchase price allocation of ASE Singapore II Pte. Ltd. and reclassified the purchase premium from goodwill to related assets.

The intangible assets arising from acquisition in 2010 were mainly related to the USI Acquisition. The acquired patent arising from the USI Acquisition represented the existing registered patent technologies in a current product offering. A portion of the purchase price was allocated to customer relationship and others as the Company can exploit revenue associated with the existing customer relationships and production projects. The valuation of acquired intangible assets was determined based on management's estimates.

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## 15. IDLE ASSETS

	December 31		
	2010	2011	US\$
	NT\$	NT\$	(Note 2)
Cost			
Land	232,681	232,681	7,687
Buildings and improvements	1,490,763	1,304,970	43,111
Machinery and equipment	551,294	399,849	13,209
Other	19,353	119,715	3,955
	2,294,091	2,057,215	67,962
Accumulated depreciation	(816,254 )	(820,115 )	(27,093 )
Accumulated impairment	(228,790 )	(123,046 )	(4,065 )
	1,249,047	1,114,054	36,804

Idle assets included USI's Nankuan plant and ASE Electronics' Flip-chip production line. The Company recognized an impairment loss of NT\$11,117 thousand, NT\$37,123 thousand and NT\$81,486 thousand (US\$2,692 thousand) for the years ended December 31, 2009, 2010 and 2011, respectively.

## 16. SHORT-TERM BORROWINGS

Short-term borrowings represented revolving bank loans with annual interest rates of 0.72%-5.90% and 0.96%-7.32% as of December 31, 2010 and 2011, respectively.

## 17. ACCRUED EXPENSES

	December 31		
	2010	2011	US\$
	NT\$	NT\$	(Note 2)
Accrued salaries and bonus	2,515,826	3,288,844	108,650
Accrued employee bonus and compensation to directors and supervisors	2,248,099	1,719,333	56,800
Others	3,079,732	3,931,542	129,883
	7,843,657	8,939,719	295,333



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## 18. BONDS PAYABLE

	December 31, 2011	
	NT\$	US\$ (Note 2)
Secured domestic bonds	8,000,000	264,288
Secured by banks, repayable at maturity in August 2016; interest paid annually with interest rate 1.45%		
Secured overseas bonds – secured by ASE Inc.		
CNY150,000 thousand, repayable at maturity in September 2014; interest paid semi-annually with annual interest rate 3.13%	720,730	23,810
CNY500,000 thousand, repayable at maturity in September 2016; interest paid semi-annually with annual interest rate 4.25%	2,402,435	79,367
	11,123,165	367,465
Unamortized issuance cost	(246,627 )	(8,147 )
	10,876,538	359,318

## 19. LONG-TERM BANK LOANS

Long-term bank loans consisted of the following:

	2010 NT\$	December 31	
		2011 NT\$	US\$ (Note 2)
Loans for specified purposes	18,529,844	8,460,200	279,491
Working capital bank loans	36,919,357	33,636,543	1,111,217
Mortgage loans	-	643,106	21,246
	55,449,201	42,739,849	1,411,954
Current portion	(2,990,176 )	(3,418,799 )	(112,943 )
	52,459,025	39,321,050	1,299,011
Unamortized arrangement fee	(95,307 )	(54,636 )	(1,805 )
	52,363,718	39,266,414	1,297,206

## a. Loans for specified purposes

	2010 NT\$	December 31	
		2011 NT\$	US\$ (Note 2)
Syndicated bank loan (Led by Citi bank)			
Repayable through March 2013 in semi-annual installments, annual interest rate was 1.96% and 2.08% as of December 31, 2010 and 2011,	12,687,500	7,612,500	251,487

respectively			
US\$200,000 thousand, repaid in May 2011, annual interest rate was 1.02%	5,828,000	-	-
Others, annual interest rate was 1.75% and 1.78%-2.15% as of December 31, 2010 and 2011, respectively	14,344	847,700	28,004
	18,529,844	8,460,200	279,491

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Pursuant to the syndicated loan agreements led by Citi bank, ASE Inc. should hold no less than 51%, directly or indirectly, of ASE Test's shareholdings and maintain control over ASE Test at all time.

## b. Working capital bank loans

	December 31		US\$ (Note 2)
	2010	2011	
	NT\$	NT\$	
Syndicated bank loans - repayable through June 2015, annual interest rate was 0.95%-1.56% and 1.05%-1.54% as of December 31, 2010 and 2011, respectively			
ASE Inc.	16,539,800	14,466,000	477,899
ASESH AT	4,283,580	2,670,255	88,215
Others - repayable from January 2012 to November 2014, annual interest rate was 0.70%-4.40% and 0.95%-6.05% as of December 31, 2010 and 2011, respectively			
ASE Inc.	12,243,040	7,576,400	250,294
ASE Kun Shan	138,268	3,481,625	115,019
USI	1,384,375	2,729,036	90,156
ASESH AT	581,894	1,320,577	43,627
Others	1,748,400	1,392,650	46,007
	36,919,357	33,636,543	1,111,217

## c. Mortgage loans

	December 31, 2011	
	NT\$	US\$ (Note 2)
Repayable from January 2012 to June 2018, annual interest rate was 1.36%-2.42%		
USI	583,106	19,264
Luchu	60,000	1,982
	643,106	21,246

Pursuant to the above loan agreements, the Company should maintain certain financial ratios. Such financial ratios are calculated based on annual audited consolidated financial statements or semi-annual reviewed consolidated financial statements. As of December 31, 2010 and 2011, the Company was in compliance with all of the loan covenants.

As of December 31, 2010 and 2011, loans of NT\$14,331,571 thousand and NT\$9,208,143 thousand (US\$304,200 thousand), respectively, would mature within one year. The Company, however, had obtained new long term credit lines to refinance the loans on a long-term basis before December 31, 2010 and 2011, respectively, and therefore such loans were not classified as current portion of long-term bank loans.

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As of December 31, 2011, the future maturities of bonds payable and long-term bank loans were as follows:

	Amount	
	NT\$	US\$ (Note 2)
2012	12,626,942	417,143
2013	17,333,574	572,632
2014	11,136,073	367,892
2015	2,164,405	71,503
2016 and thereafter	10,602,020	350,249
	53,863,014	1,779,419

Long-term bank loans by currencies were summarized as follows:

	December 31	
	2010	2011
New Taiwan dollars	NT\$ 36,851,875	NT\$ 21,360,808
U.S. dollars	US\$ 638,206	US\$ 706,162

## 20. PENSION PLANS

### Defined Contribution Pension Plans

- a. Based on the pension plan under the ROC Labor Pension Act, the Company makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.
- b. According to local regulations, the subsidiaries in China, USA, Malaysia, Singapore and Mexico also make contributions to local governments.

Under defined contribution plans, the Company recognized pension costs of NT\$450,466 thousand, NT\$649,616 thousand and NT\$872,440 thousand (US\$28,822 thousand) for the years ended December 31, 2009, 2010 and 2011, respectively.

### Defined Benefit Pension Plans

- a. The Company has a defined benefit pension plan under the ROC Labor Standards Law ("LS Law"). The pension benefits are calculated based on the length of service and average base salary in the six months prior to retirement. The Company contributes a certain percentage of monthly salaries of its ROC employees to a retirement fund, which is deposited with the Bank of Taiwan.

Under the LS Law, the government is responsible for the administration of the fund and determination of the investment strategies and policies.

As of December 31, 2010 and 2011, the asset allocation in the retirement fund was primarily in cash, equity securities and debt securities. Furthermore, under the LS Law, the rate of return on assets shall not be less than the average

interest rate on a two-year time deposit published by local banks. The government is responsible for any shortfall in the event that the rate of return is less than the required rate of return.

b.ASE Japan has a pension plan under which eligible employees with more than ten years of service are entitled to receive pension benefits based on their length of service and salary at the time of termination. In August 2011, part of the plan had been amended as a defined contribution pension plan which

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resulted in reduces in projected benefit obligation and plan assets. In addition, ASE Korea has a pension plan under which eligible employees and directors with more than one year of service are entitled to receive a lump-sum payment upon termination of their service with ASE Korea, based on their length of service and salary at the time of termination.

c. In addition, ASE Inc., ASE Test, Inc. and ASE Electronics maintain pension plans for executive managers.

Pension costs for the plans were NT\$22,474 thousand, NT\$44,844 thousand and NT\$8,174 thousand (US\$270 thousand) for the years ended December 31, 2009, 2010 and 2011, respectively. Pension payments were NT\$15,966 thousand, NT\$2,666 thousand and NT\$2,666 thousand (US\$88 thousand) for the years ended December 31, 2009, 2010 and 2011, respectively. As of December 31, 2010 and 2011, accrued pension costs were NT\$203,791 thousand and NT\$209,299 thousand (US\$6,914 thousand), respectively.

Information about defined benefit pension plans is summarized as follows:

a. Pension costs for these entities consist of:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
Service cost	369,833	371,242	435,880	14,400
Interest	106,430	124,386	108,305	3,578
Projected return on plan assets	(35,621 )	(29,836 )	(32,397 )	(1,070 )
Amortization	61,487	52,828	82,713	2,732
Curtailment and settlement gain	(19,787 )	-	(56,419 )	(1,864 )
	482,342	518,620	538,082	17,776

b. Other pension information based on actuarial calculations of the plans is as follows:

	December 31		US\$ (Note 2)
	2010 NT\$	2011 NT\$	
Benefit obligation			
Vested benefit obligation	2,824,794	2,315,106	76,482
Non-vested benefit obligation	2,453,188	2,593,589	85,682
Accumulated benefit obligation	5,277,982	4,908,695	162,164
Additional benefit based on future salaries	1,598,372	1,479,244	48,868
Projected benefit obligation	6,876,354	6,387,939	211,032
Fair value of plan assets	(2,366,254)	(1,961,355)	(64,795 )
Funded status	4,510,100	4,426,584	146,237
Unrecognized net transition obligation	(54,014 )	(40,859 )	(1,350 )
Unrecognized prior service cost	(10,165 )	(126,017 )	(4,163 )
Unrecognized net actuarial loss	(1,849,887)	(1,755,244)	(57,986 )
Additional pension liability	458,072	511,274	16,890
Recorded under accrued expenses	(10,517 )	(10,939 )	(361 )

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Recorded under prepaid pension cost	3,059	90,743	2,998
Accrued pension cost	3,046,648	3,095,542	102,265
c. Vested benefit	2,915,762	2,396,409	79,168

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## d. Actuarial assumptions used:

	December 31	
	2010	2011
Discount rate	1.75% - 5.00%	1.50% - 5.38%
Increase in future salary level	2.00% - 5.00%	2.00% - 5.54%
Expected rate of return on plan assets	2.00% - 2.50%	2.00% - 3.99%

	Year Ended December 31			
	2009 NT\$	2010 NT\$	2011 NT\$	US\$ (Note 2)
e. Contributions to the funds	194,889	316,813	269,660	8,908
f. Payments from the funds	220,541	57,826	58,593	1,936

g. The Company expects to make contributions of NT\$151,390 thousand (US\$5,001 thousand) to its defined benefit pension plans in 2012.

## h. Expected benefit payments:

Year of Payments	Amount	
	NT\$	US\$ (Note 2)
2012	247,664	8,182
2013	281,727	9,307
2014	288,237	9,522
2015	329,680	10,891
2016	343,190	11,338
2017 and thereafter	2,103,186	69,480

Plan assets and obligations reflected herein were measured as of December 31, 2010 and 2011.

## 21. SHAREHOLDERS' EQUITY

## Common Stock

The authorized capital stock was NT\$95,000,000 thousand of which NT\$6,000,000 thousand and NT\$8,000,000 thousand were reserved for convertible bonds and employee stock option plans, respectively. For the years ended December 31, 2009, 2010 and 2011, employees exercised options and paid NT\$238,789 thousand (16,061 thousand shares), NT\$499,404 thousand (28,563 thousand shares) and NT\$589,326 thousand (30,083 thousand shares), of which NT\$299,698 thousand (14,902 thousand shares) and NT\$35,693 thousand (2,145 thousand shares) were

recorded as “capital received in advance” as of December 31, 2010 and 2011, respectively.

In addition to the appropriation of retained earnings, the shareholders’ meetings held in June 2010 resolved to distribute stock dividends out of capital surplus in the amount of NT\$879,195 thousand (87,920 thousand shares). In January 2011, the Company made capital reductions of NT\$370,000 thousand (37,000 thousand shares) through the retirement of treasury stock. The Company has completed the registration formalities for all the above-mentioned increases and reductions of capital.

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### American Depositary Shares

ASE Inc. issued ADS, each ADS representing five common shares. As of December 31, 2010 and 2011, 53,110 thousand and 89,126 thousand ADS were outstanding and represented approximately 265,552 thousand and 445,628 thousand common shares of ASE Inc., respectively.

### Capital Surplus

Under the ROC Company Law, capital surplus from paid-in capital in excess of par value and treasury stock transactions may be transferred to capital, subject to a specified percentage of paid-in capital. Under the revised ROC Company Law issued on January 4, 2012, the aforementioned capital surplus also may be distributed in cash if the Company doesn't have a deficit.

Capital surplus from equity method investments may not be used for any purpose.

### Appropriation of Retained Earnings

The Articles of Incorporation of ASE Inc. provide that the annual net income shall be distributed in the following order:

a.Replenishment of losses;

b.10.0% as legal reserve;

c.Special reserve in accordance with laws or regulations set forth by the authorities concerned;

d.An amount equal to the excess of the income from equity method investments over cash dividends as special reserve;

e.Not more than 2.0% of the remainder from a. to d. as compensation to directors and supervisors;

f.Between 7.0% to 10.0% of the remainder from a. to d. as a bonus to employees, of which 7.0% shall be distributed in accordance with the employee bonus plan and the excess shall be distributed to specified employees as decided by the board of directors; and

g.The remainder from a. to f. as dividends to shareholders.

Employees referred to in f. above include employees of subsidiary companies that meet certain conditions, which are to be prescribed by the board of directors.

The Company is currently in the business stability stage. To meet the capital needs for business development now and in the future and satisfy the requirements of shareholders for cash inflow, the Company shall use residual dividend policy to distribute dividends, of which the cash dividend distribution rate is not lower than 30% of the total dividend amount, with the remainder to be distributed as stock dividends. A distribution plan is also to be made by the board of directors and passed by resolution of the shareholders' meeting.

For the years ended December 31, 2010 and 2011, the bonus to employees of ASE Inc. was NT\$1,523,133 thousand and NT\$1,362,578 thousand (US\$45,014 thousand), respectively, and the compensation to directors and supervisors of ASE Inc. was NT\$304,627 thousand and NT\$272,516 thousand (US\$9,003 thousand), respectively. The bonus to

employees and compensation to directors and supervisors represented 10% and 2%, respectively, of net income (net of the bonus and compensation). Significant differences between such estimated amounts and the amounts proposed by the board of directors in the following year are adjusted for in the current year. If the actual amounts subsequently resolved by the shareholders differ from the proposed amounts, the differences are recorded in the year of shareholders' resolution as a change in accounting estimate. If a share bonus is resolved to be distributed to employees,

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the number of shares is determined by dividing the amount of the share bonus by the closing price (after considering the effect of cash and stock dividends) of the shares of the day immediately preceding the shareholders' meeting.

Based on a directive issued by the Securities and Futures Bureau, an amount equal to the net debit balance of certain shareholders' equity accounts (including unrealized loss on financial instruments, cumulative transaction adjustments and net loss not recognized as pension cost) shall be transferred from unappropriated earnings to a special reserve. In addition, the excess of book value over market value of treasury shares held by subsidiaries shall be also transferred from unappropriated earnings to a special reserve based on the proportion owned by ASE Inc. Any special reserve appropriated may be reversed to the extent of the decrease in the net debit balance.

According to the ROC Company Law, legal reserve shall be appropriated until it has reached the Company's paid-in capital. The reserve may be used to offset a deficit. Under the revised ROC Company Law issued on January 4, 2012, when the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash if the Company doesn't have a deficit.

The appropriations of earnings for 2009 and 2010 resolved at the Company's annual shareholders' meetings in June 2010 and 2011, respectively and the appropriation of 2011 earnings proposed by the Company's directors and to be resolved by the Company's annual shareholders' meeting were as follow:

	2009 NT\$	2010 NT\$	2011 NT\$	US\$ (Note 2)
Legal reserve	674,455	1,833,750	1,372,596	45,345
Special reserve	-	1,272,417	-	-
Stock dividends - NT\$0.84, NT\$1.15 and NT\$1.40 in 2009, 2010 and 2011, respectively	4,615,775	6,957,357	9,315,995	307,763
Cash dividends - NT\$0.36, NT\$0.65 and NT\$0.65 in 2009, 2010 and 2011, respectively	1,978,190	3,932,419	4,325,284	142,890
	7,268,420	13,995,943	15,013,875	495,998

In addition to the 2009 and 2010 earnings appropriations listed above, the shareholders also resolved to distribute the bonus to employees and compensation to directors and supervisors in cash. In addition to the 2011 earnings appropriation listed above, the directors also proposed to distribute the bonus to employees and compensation to directors and supervisors in cash. The information was as follows:

	2009 NT\$	2010 NT\$	2011 NT\$	US\$ (Note 2)
Bonus to employees	607,009	1,523,133	1,235,336	40,811
Compensation to directors and supervisors	120,000	304,200	246,000	8,127

The differences between the approved amounts of the bonus to employees and compensation to directors and supervisors and the accrual amounts reflected in the consolidated financial statements for the years ended December 31, 2009 and 2010 were primarily due to changes in estimates. The differences were NT\$1,402 thousand and NT\$427

thousand and had been adjusted in earnings for the years ended December 31, 2010, and 2011, respectively.

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Information about the appropriations of earnings, bonus to employees and compensation to directors and supervisors is available on the Market Observation Post System website of the TSE.

## Unrealized Gain (Loss) on Financial Instruments

Movements of the unrealized gain (loss) on financial instruments for the years ended December 31, 2010 and 2011 were as follows:

	Available- for-sale Financial Assets NT\$	Equity Method Investments NT\$	Cash Flow Hedges (Note 26) NT\$	NT\$	Total US\$ (Note 2)
Balance at January 1, 2010	-	332,721	(307,223)	25,498	842
Recognized directly in shareholders' equity	(9,117 )	124,744	(169,399)	(53,772 )	(1,777 )
Removed from shareholders' equity and recognized in earnings	(173 )	-	274,750	274,577	9,071
Balance at December 31, 2010	(9,290 )	457,465	(201,872)	246,303	8,136
Recognized directly in shareholders' equity	(77,901 )	(174,005)	9,828	(242,078)	(7,997 )
Removed from shareholders' equity and recognized in earnings	87,191	-	143,672	230,863	7,627
Balance at December 31, 2011	-	283,460	(48,372 )	235,088	7,766

## Treasury Stock (Shares in Thousands)

	Beginning Shares	Addition	Retirement/ Decrease	Ending Shares
Year ended December 31, 2010				
Parent company shares held by subsidiaries	322,532	10,427	218,167	114,792
Repurchase under share buyback plan	-	37,000	-	37,000
	322,532	47,427	218,167	151,792
Year ended December 31, 2011				
Parent company shares held by subsidiaries	114,792	13,189	-	127,981
Repurchase under share buyback plan	37,000	105,475	37,000	105,475
	151,792	118,664	37,000	233,456





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As of December 31, 2010 and 2011, information regarding treasury stock held by subsidiaries was as follows:

	Shares Held By Subsidiaries	Book Value NT\$	Book Value US\$ (Note 2)	Market Value NT\$	Market Value US\$ (Note 2)
December 31, 2010					
ASE Test	69,403	1,380,721		2,342,339	
J&R Holding	36,750	381,709		1,240,311	
ASE Test, Inc.	8,639	196,677		291,563	
	114,792	1,959,107		3,874,213	
December 31, 2011					
ASE Test	77,377	1,380,721	45,614	2,004,060	66,206
J&R Holding	40,972	381,709	12,610	1,061,186	35,057
ASE Test, Inc.	9,632	196,677	6,497	249,456	8,241
	127,981	1,959,107	64,721	3,314,702	109,504

ASE Inc. issued common shares in connection with its merger with its subsidiaries. The shares held by its subsidiaries were reclassified from equity method investments to treasury stock on the proportion owned by ASE Inc.

In addition, as discussed in Note 2 to the consolidated financial statements, 218,167 thousand shares of ASE Inc. held by subsidiaries, J&R Holding and ASE Test, were used as the consideration of NT\$5,246,916 thousand for the USI Acquisition in February 2010. The difference between the consideration and the book value of the treasury stock, amounting to NT\$1,271,532 thousand, was recorded under capital surplus - treasury stock transactions. Stock dividends received in 2009, 2010 and 2011 by the subsidiaries from ASE Inc. were, nil, 10,427 thousand shares and 13,189 thousand shares, respectively.

According to the ROC Securities and Exchange Act, the number of shares bought back under the share buyback plan may not exceed 10% of the total number of issued and outstanding shares of the Company. The total amount of the shares bought back may not exceed the total amount of retained earnings, paid - in capital and realized capital surplus.

In addition, under the ROC Securities and Exchange Act, the Company shall neither pledge treasury stock nor exercise shareholders' rights on these shares, such as rights to dividends and to vote. The subsidiaries holding treasury stock, however, retain shareholders' rights, except the rights to participate in any share issuance for cash and to vote.

22.

## EMPLOYEE STOCK OPTION PLANS

### ASE Inc. Option Plans

In order to attract, retain and reward employees, ASE Inc. has four employee stock option plans, including the 2010 plan authorized to grant 200,000 thousand units. Each unit represents the right to purchase one share of common

stock of ASE Inc. when exercised. Under the terms of the plans, stock option rights are granted at an exercise price equal to or not less than the closing price of the common shares listed on the TSE on the date of grant. The option rights of these plans are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date.

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Information regarding stock options for the years ended December 31, 2009, 2010 and 2011 was as follows:

	Year Ended December 31					
	2009		2010		2011	
	Number of Options  (In Thousands)	Weighted Average Exercise Price Per Share (NT\$)	Number of Options  (In Thousands)	Weighted Average Exercise Price Per Share (NT\$)	Number of Options  (In Thousands)	Weighted Average Exercise Price Per Share (NT\$)
Beginning outstanding balance	271,838	20.2	246,566	20.8	397,627	22.3
Options granted	-	-	187,720	23.3	12,280	25.8
Options forfeited	(9,211 )	21.7	(8,096 )	23.5	(8,790 )	22.9
Options exercised	(16,061 )	14.9	(28,563 )	17.5	(30,083 )	19.6
Ending outstanding balance	246,566	20.8	397,627	22.3	371,034	22.8
Ending exercisable balance	140,003	18.3	144,815	20.3	145,154	21.6
Grant date fair value of the options granted during the year (NT\$)	-		6.2-6.3		8.0-8.1	

The exercise prices have been adjusted to reflect the dilution attributable to the distribution of stock dividends in accordance with the terms of the plans.

The weighted average stock price at the date of exercise for stock options exercised for the years ended December 31, 2009, 2010 and 2011 was NT\$20.5, NT\$27.2 and NT\$29.8 (US\$0.98), respectively.

Information regarding outstanding and exercisable stock options as of December 31, 2011 was as follows:

Range of Exercise Price (NT\$)	Number of Options (In Thousands)	Outstanding		Exercisable		
		Weighted Average Exercise Price (NT\$)	Weight Average Remaining Contractual Life (Years)	Number of Options (In Thousands)	Weighted Average Exercise Price (NT\$)	Weight Average Remaining Contractual Life (Years)
7.0	4,894	7.0	1.0	4,854	7.0	1.0
10.3-15.4	30,173	14.9	2.6	30,146	14.9	2.6
23.3-25.8	335,967	23.7	7.4	110,154	24.1	6.0
	371,034	22.8		145,154	21.6	

As of December 31, 2011, the number of options that were expected to vest was 199,588 thousand units.

As of December 31, 2011, the aggregate intrinsic value of outstanding and exercisable stock options was NT\$1,154,070 thousand (US\$38,126 thousand) and NT\$622,584 thousand (US\$20,568 thousand), respectively.

Total intrinsic value of options exercised for the years ended December 31, 2009, 2010 and 2011 was NT\$160,669 thousand, NT\$300,776 thousand and NT\$386,877 thousand (US\$12,781 thousand), respectively.

#### ASE Mauritius Inc. Option Plan

ASE Mauritius Inc. has an employee stock option plan which granted 30,000 thousand units in December 2007. Under the terms of the plan, each unit represents the right to purchase one share of common stock of ASE Mauritius Inc. when exercised. The options are valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date.

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Information regarding stock options for the years ended December 31, 2009, 2010 and 2011 was as follows:

	2009		Year Ended December 31 2010		2011	
	Number of Options (In Thousands)	Exercise Price Per Share (US\$)	Number of Options (In Thousands)	Exercise Price Per Share (US\$)	Number of Options (In Thousands)	Exercise Price Per Share (US\$)
Beginning outstanding balance	29,620	1.7	29,420	1.7	29,120	1.7
Options forfeited	(200 )	1.7	(300 )	1.7	(350 )	1.7
Ending outstanding balance	29,420	1.7	29,120	1.7	28,770	1.7
Ending exercisable balance	11,236	1.7	17,672	1.7	23,156	1.7

As of December 31, 2011, the remaining contractual life is six years. As of December 31, 2011, the number of options that were expected to vest was 5,508 thousand units.

## USI Option Plan

USI had employee stock option plans in place prior to its acquisition by the Company. Under the terms of the plans, each unit represented the right to purchase one share of common stock of USI when exercised. The option rights of these plans were valid for ten years and exercisable at certain percentages subsequent to the second anniversary of the grant date. In June 2010, USI reached an agreement with its employees to cancel unexercised options with cash compensation at a fixed amount per unit. Compensation cost of NT\$138,507 thousand was recognized for the year ended December 31, 2010.

The weighted average stock price at the date of exercise for stock options exercised for the year ended December 31, 2010 was NT\$20.3.

## USIE Option Plan

The terms of the plans issued by USIE were the same with that of the USI option plans.

Information regarding stock options for the year ended December 31, 2010 and 2011 was as follows:

	Year Ended December 31 2010		2011	
	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (US\$)	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (US\$)

Beginning outstanding balance	18,722	1.5	26,869	1.8
Options granted	8,800	2.4	8,800	2.9
Options forfeited	(653 )	1.5	(207 )	1.5
Ending outstanding balance	26,869	1.8	35,462	2.1

(Continued)

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	Year Ended December 31			
	2010		2011	
	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (US\$)	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (US\$)
Ending exercisable balance	10,900	1.5	14,299	1.5
Grant date fair value of the options granted during the year (US\$)	0.88-1.06		0.83-0.95	
			(Concluded)	

Information regarding outstanding and exercisable stock options as of December 31, 2011 was as follows:

Exercise Range of Price (US\$)	Number of Options (In Thousands)	Outstanding Weighted Average Exercise Price (US\$)	Remaining Contractual Life (Years)	Number of Options (In Thousands)	Exercisable Weighted Average Exercise Price (US\$)	Remaining Contractual Life (Years)
1.5	17,862	1.5	6.0	14,299	1.5	6.0
2.4-2.9	17,600	2.7	8.9	-	-	-
	35,462	2.1		14,299	1.5	

As of December 31, 2011, the number of options that were expected to vest was 19,848 thousand units.

As of December 31, 2011 the aggregate intrinsic value of outstanding and exercisable stock options was nil.

For those options granted before December 31, 2007, no compensation cost was recognized under the intrinsic value method for the years ended December 31, 2009, 2010 and 2011.

In addition, options granted by ASE Inc. and USIE during the year ended December 31, 2010 and 2011 were valued using the Hull & White Model (2004) with Ritchken's Trinomial Tree Model (1995) and the inputs for the model were as follows:

	ASE Inc.	USIE
Assumptions:		
Share price/market price at grant date	NT\$28.60-28.75	US\$2.49-2.62
Exercise price	NT\$28.60-28.75	US\$2.42-2.94
Expected volatility	28.59%-36.08%	32.48%-35.63%
Expected life	10 years	10 years
Expected dividend yield	4.00%	-

Risk free interest rate

1.5620%-1.8087% 1.6306%-1.7997%

Expected volatility of ASE Inc. and USIE is based on the historical stock price volatility over the past 10 years of ASE Inc. and the comparable companies of USIE, respectively. To allow for the effects of early exercise, ASE Inc. and USIE assumed that employees would exercise the options after vesting date when the stock price was 1.58-1.69 times the exercise price.

For the year ended December 31, 2010 and 2011, termination of employment that resulted in forfeiture of stock options granted on or after January 1, 2008 of ASE Inc. and USIE were 2,099 thousand units and 4,933 thousand units, respectively. As of December 31, 2011, the estimated percentage of forfeiture due

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to termination of employment over the remaining vesting period of ASE Inc. and USIE was 1.8%-4.0%.

Compensation cost recognized by the Company for the options granted after January 1, 2008 was nil, NT\$319,147 thousand and NT\$537,973 thousand (US\$17,772 thousand) for the years ended December 31, 2009, 2010 and 2011, respectively.

For purposes of pro forma disclosure, the estimated fair values of the options granted before December 31, 2007 are amortized to expense over the option vesting periods. Had the Company recorded compensation cost based on the estimated grant date fair values which were determined using the Black-Scholes option pricing model, the pro forma information for the years ended December 31, 2009, 2010 and 2011 would have been as follows:

Assumptions:

	ASE Inc.	ASE Mauritius Inc.	USI	USIE
Expected dividend yield	3.00%	-	7.0%-11.5%	-
Expected volatility	46.0%-59.0%	47.21%	42.0%-44.0%	39.0%
Risk free interest rate	1.80%-2.51%	4.17%	2.49%-3.12%	4.28%
Expected life	5.0-6.5 years	6.5 years	6.525 years	6.525 years

	2009 NT\$	Year Ended December 31		2011 US\$ (Note 2)
		2010 NT\$	2011 NT\$	
Net income attributable to shareholders of the parent	6,127,405	17,804,442	13,177,782	435,341
Basic earnings per share	0.97	2.70	2.00	0.07

## 23. INCOME TAX

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

	2009 NT\$	Year Ended December 31		2011 US\$ (Note 2)
		2010 NT\$	2011 NT\$	
Tax expense based on pre-tax income at statutory rates				
Domestic entities	1,799,140	2,037,332	2,557,117	84,477
Foreign entities	362,969	3,204,662	1,147,666	37,914
	2,162,109	5,241,994	3,704,783	122,391

Add (less) tax effects of:

Permanent differences				
Tax-exempt income	(654,839 )	(979,020 )	(656,601 )	(21,691 )
Others	271,352	118,588	152,366	5,034
Temporary differences				
Unrealized foreign exchange loss (gain)	(108,357 )	(129,884 )	153,649	5,076

(Continued)

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	Year Ended December 31			
	2009 NT\$	2010 NT\$	2011 NT\$	US\$ (Note 2)
Loss (gain) on valuation of financial instruments	(148,735 )	60,270	(113,259 )	(3,742 )
Others	34,296	162,375	313,429	10,354
	1,555,826	4,474,323	3,554,367	117,422
Loss carryforwards	(13,357 )	(61,984 )	-	
Income tax on undistributed earnings	284,576	-	434,156	14,342
Credits for investments and research and development expenditures	(599,070 )	(819,712 )	(1,467,739)	(48,488 )
Adjustment of prior year's income tax	27,203	(19,651 )	37,025	1,223
Current income tax	1,255,178	3,572,976	2,557,809	84,499
Deferred income tax	229,744	55,764	460,403	15,210
Income tax expense	1,484,922	3,628,740	3,018,212	99,709

(Concluded)

In January 2009, the ROC Legislative Yuan passed the amendment of Article 39 of the ROC Income Tax Law, which extends the operating loss carryforwards period from five years to ten years. Additionally, in May 2010, the ROC Legislative Yuan passed the amendment of Article 5 of the ROC Income Tax Law, which reduced a profit-seeking enterprise's income tax rate from 20% to 17%, effective January 1, 2010.

Under Article 10 of the ROC Statute for Industrial Innovation passed by the ROC Legislative Yuan in April 2010, a profit-seeking enterprise may deduct up to 15% of its research and development expenditures from its income tax payable for the fiscal year in which these expenditures are incurred, but this deduction should not exceed 30% of the income tax payable for that fiscal year. This incentive took effect from January 1, 2010 and is effective till December 31, 2019.

b. Deferred income tax assets (liabilities) were as follows:

	December 31		
	2010 NT\$	2011 NT\$	US\$ (Note 2)
Deferred income tax assets - current			
Unused tax credits	796,142	827,306	27,331
Provision for inventory valuation and obsolescence	83,704	98,576	3,256
Unrealized foreign exchange loss (gain)	(46,100 )	82,279	2,718

Others	374,634	181,007	5,980
	1,208,380	1,189,168	39,285
Valuation allowance	(289,119 )	(53,643 )	(1,772 )
	919,261	1,135,525	37,513

(Continued)

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	December 31		
	2010	2011	US\$
	NT\$	NT\$	(Note 2)
Deferred income tax assets - noncurrent			
Unused tax credits	1,824,803	729,476	24,099
Accrued pension cost	639,078	524,619	17,331
Loss carryforwards	548,125	391,568	12,936
Depreciation	(85,812 )	120,696	3,987
Others	328,992	473,218	15,634
	3,255,186	2,239,577	73,987
Valuation allowance	(1,187,309)	(780,474 )	(25,784 )
	2,067,877	1,459,103	48,203
Deferred income tax liabilities - noncurrent			
Primarily from depreciation	(372,525 )	(624,740 )	(20,639 )
		(Concluded)	

The decrease in the valuation allowance for 2011 was mainly due to the utilization of tax credits, which had previously been fully provided for, to offset income tax on undistributed earnings and the expiration of certain tax credits and loss carry forwards which had also been fully provided for. In assessing the realizability of deferred income tax assets, the Company considers its future taxable earnings and expected timing of the reversal of temporary differences. In addition, in the event future taxable earnings do not materialize as forecasted, the Company will consider executing certain tax planning strategies available to realize the deferred income tax assets. The valuation allowance is provided to reduce the gross deferred income tax assets to an amount which the Company believes will more likely than not be realized. Deferred income tax assets and liabilities are classified in the consolidated balance sheets based on the classification of the related assets or liabilities or the expected timing of the reversal of temporary differences.

c. The tax holidays for the Company are as follows:

- 1) A portion of ASE Inc.'s income from packaging of semiconductors is exempt from income tax for five years ending December 2013. A portion of ASE Chung Li branch's income from manufacturing, processing and testing of semiconductors was exempt from income tax for five years ended December 2011.
- 2) A portion of ASE Test, Inc. and PowerASE's income is exempt from income tax for five years ended December 2015.
- 3) Some China subsidiaries were eligible to enjoy the five-year tax holiday (two-year tax exemption and subsequent three-year 50% reduction of applicable tax rate), or qualified as high technology enterprises which are entitled to research and development tax credits and a reduced tax rate of 15%, or were eligible to deduct certain times of research and development expenses from their taxable income.

Under new income tax laws, the distribution of China-sourced income generated after January 1, 2008 is subject to a 10% withholding tax, and enterprises originating from those countries that have tax treaties with China may apply for

lower withholding tax rates.

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4) ASE Singapore has been granted pioneer status under the provisions of the Economic Expansion Incentives (Relief from Income Tax) Act for all income arising from pioneer status activities is exempt from income tax ending August 2013.

The per share effect of these tax holidays was NT\$0.10, NT\$0.15 and NT\$0.10 (US\$0.003) per share for the years ended December 31, 2009, 2010 and 2011, respectively.

d. As of December 31, 2011, unused tax credits, which may be utilized to offset future income tax, were set forth below:

Year of Expiry	Amount	
	NT\$	US\$ (Note 2)
2012	232,561	7,683
2013	452,123	14,936
2014	587,670	19,414
2015	284,428	9,397
	1,556,782	51,430

e. Loss carryforwards as of December 31, 2011 comprised of:

Year of Expiry	Amount	
	NT\$	US\$ (Note 2)
2014	39,985	1,321
2015	76,420	2,525
2016	29,750	983
2017	148,573	4,908
2018 and thereafter	96,840	3,199
	391,568	12,936

f. Income tax returns of ASE Inc. have been examined by the ROC tax authorities through 2007. ASE Inc. disagreed with the result of an examination relating to its income tax returns from 2002 to 2007 and applied for related tax appeals and procedures. ASE Inc. has recognized the related income tax expense in the year upon completion of examinations. Income tax returns of other subsidiaries have been examined by the tax authorities through 2002 to 2010.

g. Information regarding Imputation Tax System

As of December 31, 2010 and 2011, the balance of the Imputation Credit Account ("ICA") amounted to NT\$430,107 thousand and NT\$502,789 thousand (US\$16,610 thousand), respectively. The creditable ratio for the distribution of 2010 and 2011 earnings is 6.04% (actual) and 6.32% (estimated), respectively.





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Under the Integrated Income Tax System, ROC resident shareholders are allowed a tax credit for their proportionate share of the income tax paid in the ROC by the Company on earnings generated since January 1, 1998. Non-resident shareholders are allowed only a tax credit from the 10% income tax on undistributed earnings, which can be used to reduce the withholding income tax on dividends. An ICA is maintained by the Company for such income tax and the tax credit allocated to each shareholder. The maximum credit available for allocation to each shareholder cannot exceed the balance shown in the ICA on the date of distribution of dividends. The expected creditable ratio for the 2011 earnings may be adjusted, depending on the ICA balance on the date of dividend distribution.

## 24. PERSONNEL EXPENDITURE, DEPRECIATION AND AMORTIZATION

	Year Ended December 31, 2009			Year Ended December 31, 2010		
	Cost of Revenues NT\$	Operating Expenses NT\$	Total NT\$	Cost of Revenues NT\$	Operating Expenses NT\$	Total NT\$
Personnel						
Salary	10,353,640	4,449,980	14,803,620	16,423,462	8,453,317	24,876,779
Pension cost	716,876	264,652	981,528	826,288	386,792	1,213,080
Labor and health insurance	786,049	304,170	1,090,219	1,139,682	461,092	1,600,774
Others	1,071,270	312,026	1,383,296	2,060,375	832,527	2,892,902
	12,927,835	5,330,828	18,258,663	20,449,807	10,133,728	30,583,535
Depreciation	15,800,086	975,843	16,775,929	17,303,405	1,169,928	18,473,333
Amortization	410,522	451,631	862,153	764,999	616,141	1,381,140

	Year Ended December 31, 2011			
	Cost of Revenues NT\$	Operating Expenses NT\$	Total NT\$	Total US\$ (Note 2)
Personnel				
Salary	17,730,232	9,122,024	26,852,256	887,091
Pension cost	1,020,657	398,039	1,418,696	46,868
Labor and health insurance	1,390,850	631,386	2,022,236	66,807
Others	2,238,244	1,187,560	3,425,804	113,175
	22,379,983	11,339,009	33,718,992	1,113,941
Depreciation	19,940,273	1,379,165	21,319,438	704,309
Amortization	926,664	699,294	1,625,958	53,715

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## 25. EARNINGS PER SHARE

EPS is computed as follows:

	Amounts (Numerator)		Number of Shares (Denominator) (In Thousands)	EPS	
	Before Income  Tax NT\$	After Income  Tax NT\$		Before Income  Tax NT\$	After Income  Tax NT\$
Year ended December 31, 2009					
Basic EPS					
Income attributable to shareholders of the parent	7,667,691	6,744,546	6,331,192	1.21	1.07
Effect of dilutive potential common stock					
Bonus to employees	-	-	32,353		
Employee stock options issued by ASE Inc.	-	-	22,451		
Bonus to employees and employee stock options issued by subsidiaries	(26,472 )	(26,472 )	-		
Diluted EPS					
Income attributable to shareholders of the parent plus effect of potential dilutive common stock	7,641,219	6,718,074	6,385,996	1.20	1.05
Year ended December 31, 2010					
Basic EPS					
Income attributable to shareholders of the parent	19,032,589	18,337,500	6,585,329	2.89	2.78
Effect of dilutive potential common stock					
Bonus to employees	-	-	40,793		
Employee stock options issued by ASE Inc.	-	-	42,945		
Bonus to employees and employee stock options issued by subsidiaries	(144,397 )	(144,397 )	-		
Diluted EPS					
	18,888,192	18,193,103	6,669,067	2.83	2.73

Income attributable to  
shareholders of the parent plus  
effect of potential dilutive  
common stock

Year ended December 31,  
2011

Basic EPS

Income attributable to shareholders of the parent	15,052,588	13,725,958	6,592,541	2.28	2.08
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Effect of dilutive potential  
common stock

Bonus to employees	-	-	55,841		
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Employee stock options issued by ASE Inc.	-	-	106,735		
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Diluted EPS

Income attributable to shareholders of the parent plus effect of potential dilutive common stock	15,052,588	13,725,958	6,755,117	2.23	2.03
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	Amounts (Numerator)		Number of Shares (Denominator) (In Thousands)	EPS	
	Before Income Tax US\$ (Note 2)	After Income Tax US\$ (Note 2)		Before Income Tax US\$ (Note 2)	After Income Tax US\$ (Note 2)
Year ended December 31, 2011					
Basic EPS					
Income attributable to shareholders of the parent	497,277	453,451	6,592,541	0.08	0.07
Effect of dilutive potential common stock					
Bonus to employees	-	-	55,841		
Employee stock options issued by ASE Inc.	-	-	106,735		
Diluted EPS					
Income attributable to shareholders of the parent plus effect of potential dilutive common stock	497,277	453,451	6,755,117	0.07	0.07

(Concluded)

For purposes of the ADS calculation, the denominator represents the above-mentioned weighted average outstanding shares divided by five (one ADS represents five common shares). The numerator was the same.

If the Company may settle the bonus to employees by cash or shares, the Company should presume that the entire amount of the bonus will be settled in shares and the resulting potential shares should be included in the weighted average number of shares outstanding used in the calculation of diluted EPS, if the shares have a dilutive effect. The number of shares is estimated by dividing the entire amount of the bonus by the closing price (after consideration of the dilutive effect of dividends) of the shares at the balance sheet date. Such dilutive effect of the potential shares needs to be included in the calculation of diluted EPS until the shareholders resolves the number of shares to be distributed to employees at their meeting in the following year.

The weighted average number of shares outstanding for EPS calculation has been retroactively adjusted for the issuance of stock dividends and common stock issued from capital surplus. This adjustment caused the basic EPS after income tax for the years ended December 31, 2009 and 2010 to decrease from NT\$1.19 to NT\$1.07 and from NT\$3.10 to NT\$2.78, respectively. This adjustment caused the diluted EPS after income tax for the year ended December 31, 2009 and 2010 to decrease from NT\$1.17 to NT\$1.05 and from NT\$3.04 to NT\$2.73, respectively.

26.

## DISCLOSURES FOR FINANCIAL INSTRUMENTS

a. Fair values of financial instruments were as follows:

		December 31	
2010		2011	
Carrying Amount	Fair Value	Carrying Amount	Fair Value

	NT\$	NT\$	NT\$	US\$ (Note 2)	NT\$	US\$ (Note 2)
Non-derivative financial instrument						
Assets						
Financial assets at fair value through profit or loss - current	973,315	973,315	217,439	7,183	217,439	7,183

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	2010		December 31			
	Carrying Amount NT\$	Fair Value NT\$	Carrying Amount NT\$	US\$ (Note 2)	Carrying Amount NT\$	Fair Value US\$ (Note 2)
Available-for-sale financial assets - current and noncurrent	648,520	648,520	221,879	7,330	221,879	7,330
Bond investments with no active market - current and noncurrent	87,420	87,420	90,825	3,001	90,825	3,001
Financial assets carried at cost - noncurrent	843,740		893,283	29,511		
Guarantee deposits (including current portion)	93,367	93,367	133,775	4,419	133,775	4,419
Restricted assets (including current portion)	286,307	286,307	230,801	7,625	230,801	7,625
Liabilities						
Long-term bank loans (including current portion)	55,353,894	55,353,894	42,685,213	1,410,149	42,685,213	1,410,149
Capital lease obligations (including current portion)	39,620	39,620	66,086	2,183	66,086	2,183
Bonds payable	-	-	10,876,538	359,318	10,901,737	360,150
Derivative financial instruments						
Assets						
Swap contracts	173,389	173,389	478,504	15,808	478,504	15,808
Forward exchange contracts	48,569	48,569	10,812	357	10,812	357
Cross currency swap contracts	163,670	163,670	-	-	-	-
Liabilities						
Swap contracts	394,747	394,747	81,450	2,691	81,450	2,691
Interest rate swap contract	189,541	189,541	58,279	1,925	58,279	1,925
	507,546	507,546	38,880	1,284	38,880	1,284

Cross currency  
swap contracts

Forward exchange  
contracts

13,757	13,757	13,944	461	13,944	461
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(Concluded)

b. Methods and assumptions used in the estimation of fair values of financial instruments were as follows:

- 1) The aforementioned financial instruments do not include cash, accounts receivable, other receivables, short-term borrowings, accounts payable, accrued expenses and payable for properties. Due to their short term nature, these financial instruments' carrying amounts approximate their fair values.
- 2) Fair values of financial assets at FVTPL and available-for-sale financial assets, except private-placement shares, were determined using their quoted market prices in an active market. Fair values of financial notes, private-placement shares and derivatives were determined using valuation techniques incorporating estimates and assumptions which are similar with those generally used by other market participants to price financial instruments.
- 3) Financial assets carried at cost have no quoted prices in an active market and entail an unreasonably high cost to obtain verifiable fair values. Therefore, no fair value is presented.
- 4) The carrying amounts of guarantee deposits and restricted assets reflect their fair values due to their short term nature.
- 5) The interest rates of long-term bank loans were mainly floating and, therefore, their fair values approximate carrying amounts. Fair value of secured domestic bonds was determined using its quoted market price in ROC Gre Tai Securities Market. Fair value of secured overseas bonds were estimated using present value of the future cash flows with the discount rates equal to the prevailing rates of return for financial instruments having substantially the same terms and characteristics.

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c. Valuation gains from changes in fair value of financial instruments determined using valuation techniques were NT\$361,085 thousand, NT\$66,384 thousand and NT\$869,899 thousand (US\$28,738 thousand) for the years ended December 31, 2009, 2010 and 2011, respectively.

d. As of December 31, 2010 and 2011, financial assets exposed to fair value interest rate risk amounted to NT\$110,585 thousand and NT\$47,963 thousand (US\$1,585 thousand), respectively, financial liabilities exposed to fair value interest rate risk amounted to NT\$10,781 thousand and NT\$10,900,463 thousand (US\$360,108 thousand), respectively, financial assets exposed to cash flow interest rate risk amounted to NT\$16,144,099 thousand and NT\$18,894,790 thousand (US\$624,208 thousand), respectively, and financial liabilities exposed to cash flow interest rate risk amounted to NT\$69,508,413 thousand and NT\$65,650,346 thousand (US\$2,168,825 thousand), respectively.

e. For the years ended December 31, 2009, 2010 and 2011, interest income of NT\$173,870 thousand, NT\$215,228 thousand and NT\$330,674 thousand (US\$10,924 thousand), and interest expense (including capitalized interest) of NT\$1,680,978 thousand, NT\$1,682,838 thousand and NT\$1,929,632 thousand (US\$63,748 thousand) were associated with financial assets or liabilities other than those at FVTPL.

f. Strategy for financial risk

The derivative instruments employed by the Company are to mitigate risks arising from ordinary business operation. All derivative transactions entered into by the Company are designated as either hedging or trading, which are governed by separate internal guidelines and controls. Derivative transactions entered into for hedging purposes must hedge risk against fluctuations in foreign exchange and interest rates arising from operating activities. The currency and the amount of derivative instruments held by the Company must match its assets and liabilities.

g. Information about financial risk

1) Market risk

All derivative financial instruments are mainly held to hedge the exchange rate fluctuations of foreign-currency-denominated assets and liabilities and interest rate fluctuations on its floating rate long-term loans. Exchange gains or losses on these derivative contracts are likely to be offset by gains or losses on the hedged assets and liabilities. Interest rate risks are also controlled because the expected cost of capital is fixed. Thus, market risk for derivative contracts is believed to be immaterial.

The Company holds quoted stocks, open-end mutual funds and financial notes which are subject to market risk. The fair value of these investments will decrease by NT\$4,000 thousand (US\$132 thousand) if their market price decreases by 1%.

2) Credit risk

Credit risk represents the potential loss that would be incurred by the Company if counter-parties or third parties breached contracts. Credit risk represents the positive fair values of contracts as of the balance sheet date. The counter-parties to the foregoing financial instruments are reputable financial institutions and business organizations. Management does not expect the Company's exposure to default by those parties to be material.

3) Liquidity risk



The Company's operating funds are deemed sufficient to meet cash flow demand; therefore, the Company's liquidity risk is not considered to be significant.

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The Company's investments in open-end mutual funds, financial notes and quoted stocks are traded in active markets and can be quickly disposed of at close to their fair values. The Company's bond investments with no active market, private-placement shares recorded as available-for-sale financial assets and financial assets carried at cost have no active markets and therefore liquidity risk for such assets is expected to be high.

## 4) Cash flow interest rate risk

The Company's loans, except bonds payable, are mainly floating interest rate debts. When the market interest rate increases by 1%, the Company's annual cash outflows will increase by NT\$657,000 thousand (US\$21,705 thousand).

## h. Fair value hedge and cash flow hedge

The Company entered into interest rate swap contracts and cross currency swap contracts to hedge exposures from fluctuations in both foreign exchange and interest rates arising from its long-term loans and its receivables from affiliates.

- 1) The fair value of the above interest rate swap contracts which qualified for hedge accounting as of December 31, 2010 and 2011 were losses of NT\$189,541 thousand and NT\$58,279 thousand (US\$1,925 thousand), respectively. The outstanding interest rate swap contracts of the Company as of December 31, 2010 and 2011 were as follows:

Maturity Period	Notional Amount (In Thousands)	Interest Rates Paid (%)	Interest Rate Received (%)	Expected Period for Further Cash Demand	Expected Period for the Recognition of Gains or Losses from Hedge
December 31, 2010					
2013.03	NT\$8,700,000	2.45-2.48	0.625	2011-2013	2011-2013
2013.03	NT\$3,987,500	0.96-0.99	0.625	2011-2013	2011-2013
2011.05	US\$ 200,000	1.48-1.55	0.261	2011	2011
December 31, 2011					
2013.03	NT\$5,220,000	2.45-2.48	0.861	2012-2013	2012-2013
2013.03	NT\$2,392,500	0.96-0.99	0.861	2012-2013	2012-2013

- 2) The fair value of the above cross currency swap contracts which qualified for hedge accounting as of December 31, 2010 was a loss of NT\$263,562 thousand. The outstanding cross currency swap contracts of the Company as of December 31, 2010 were as follows:

Notional Amount	NT\$ Interest Rate Paid (Received)	US\$ Interest Rate Received	Expected Period for	Expected Period for the Recognition
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Maturity Period	(In Thousands)	(%)	(%)	Further Cash Demand	of Gains or Losses from Hedge
2011.03-2011.09	NT\$4,338,920/US\$136,000	(0.55)-(0.22)	0.262-0.265	2011	2011
2011.04-2011.05	US\$65,000/NT\$2,054,330	-	0.35-0.83	2011	2011

The changes in unrealized gain (loss) on cash flow hedging financial instruments are disclosed in Note 21.

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## 27. RELATED PARTY TRANSACTIONS

The related parties and their relationships with the Company are disclosed in Note 12, except Hung Ching Shin Investment Co., a subsidiary of one of ASE Inc.'s equity method investments, and Kunshan Ding Yao Real Estate Development Co., Ltd. ("Kunshan Ding Yao"), of which the chairman of the board of directors is also the Company's general manager. Additionally, PSC, before November 22, 2011, and NXP B.V. continue to exercise significant influence over PowerASE and ASEN, respectively, and therefore are related parties of PowerASE and ASEN, respectively.

For the years ended December 31, 2009, 2010 and 2011, the Company had no significant transactions with related parties except the Company, through ASEAT SH, acquired 10% shareholdings of Shanghai DH from Kunshan Ding Yao in November 2011 as stated in Note 2.

Information regarding compensation to directors, supervisors and management personnel was as follows:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
Salary, incentives and other compensations	402,520	724,752	905,423	29,911
Bonus	81,806	139,910	118,130	3,903
	484,326	864,662	1,023,553	33,814

## 28. ASSETS PLEDGED OR MORTGAGED

In addition to Note 8, the following assets have been pledged or mortgaged as collateral for bank loans, import duties for raw materials and as guarantee deposits for employment of foreign labor, etc.:

	December 31		US\$ (Note 2)
	2010 NT\$	2011 NT\$	
Inventory - land held for construction	-	1,616,743	53,411
Property, plant and equipment			
Land	452,558	777,858	25,697
Buildings and improvements	1,770,197	3,111,856	102,803
Restricted assets (including current portion)	286,307	230,801	7,625
	2,509,062	5,737,258	189,536

## 29. COMMITMENTS AND CONTINGENCIES

a.

The Company leases the land on which their buildings are situated under various operating lease agreements with the ROC government expiring on various dates through August 2020. The agreements grant these entities the option to renew the leases and reserve the right for the lessor to adjust the lease payments upon an increase in the assessed value of the land and to terminate the leases under certain conditions. In addition, the Company leases buildings, machinery and equipment under non-cancelable operating leases.

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Future minimum lease payments under the above-mentioned operating leases as of December 31, 2011 were as follows:

	Amount	
	NT\$	US\$ (Note 2)
2012	270,566	8,938
2013	82,179	2,715
2014	57,038	1,884
2015	42,624	1,408
2016 and thereafter	290,075	9,583
<b>Total minimum lease payments</b>	<b>742,482</b>	<b>24,528</b>

b. As of December 31, 2011, unused letters of credit of the Company were approximately NT\$331,000 thousand (US\$10,935 thousand).

c. As of December 31, 2011, outstanding commitments to purchase machinery and equipment of the Company were approximately NT\$5,073,000 thousand (US\$167,592 thousand), of which NT\$251,899 thousand (US\$8,322 thousand) had been prepaid.

d. As of December 31, 2011, outstanding commitments related to construction of facilities of the Company were approximately NT\$2,783,000 thousand (US\$91,939 thousand), of which NT\$1,263,117 thousand (US\$41,728 thousand) had been prepaid.

e. The Company entered into technology license agreements with foreign companies which will expire on various dates through 2013. Pursuant to the agreements, the Company shall pay royalties based on specified percentages of sales volume and licensing fees to the counter parties. Royalties and licensing fees paid for the years ended December 31, 2009, 2010 and 2011 were NT\$200,590 thousand, NT\$335,756 thousand and NT\$85,452 thousand (US\$2,823 thousand), respectively.

f. Tessera Inc. ("Tessera") filed an amended complaint in the United States District Court for the Northern District of California in February 2006 adding the Company to a suit alleging that the Company infringed patents owned by Tessera (the "California Litigation"). The district court in the California Litigation has lifted the stay in January 2012 and set a case management schedule to begin in April 2014. The United States Patent and Trademark Office have also instituted reexamination proceedings on all the patents Tessera has asserted in the California Litigation and the ITC Investigation.

Up to date, the impact of the California Litigation or the ITC Investigation cannot be estimated.

### 30. INFORMATION OF FOREIGN-CURRENCY FINANCIAL ASSETS AND LIABILITIES

The information for significant foreign assets and liabilities of the Company were summarized as follows (in thousands of foreign currency):

	December 31	
	2010	2011

Financial assets

Monetary items

US\$	\$ 1,840,267	\$ 1,889,719
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(Continued)

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	December 31	
	2010	2011
CNY	\$ 1,209,135	\$ 2,484,573
JPY	10,739,943	11,286,401
<b>Financial liabilities</b>		
<b>Monetary items</b>		
US\$	2,026,001	2,281,512
CNY	1,278,379	2,763,228
JPY	4,703,435	5,089,272
<b>Exchange rate</b>		
US\$	US\$1=NT\$29.14	US\$1=NT\$30.275
CNY	CNY1=NT\$4.40	CNY1=NT\$4.80
JPY	JPY1=NT\$0.3584	JPY1=NT\$0.3906

(Concluded)

## 31. OPERATING SEGMENT INFORMATION

## a. Segment revenues and results

The Company had three reportable segments prior to 2010: packaging, testing, and others. Upon the acquisition of USI in February 2010, the Company has four reportable segments: packaging, testing, EMS and others. The restatement of the 2009 segment information is not applicable as USI and its subsidiaries have only been included in the consolidated financial statements since February 2010, the date of acquisition. The Company packages bare semiconductors into finished semiconductors with enhanced electrical and thermal characteristics; provides testing services, including front-end engineering testing, wafer probing and final testing services; provides electronics manufacturing services; and engages in other activities.

The accounting policies for segments are the same as those described in Note 2. The Company changed the measure of segment profit or loss from operating income to income before income tax as the chief operating decision maker changed the measurement basis for resources allocation and performance evaluation for the year ended December 31, 2011. For the comparative purpose, the segment information for the years ended December 31, 2009 and 2010 was revised in conformity with the presentation for the year ended December 31, 2011.

Segment information for the years ended December 31, 2009, 2010 and 2011 was as follows:

	Packaging NT\$	Testing NT\$	Others NT\$	Total NT\$
2009				
Revenue from external customers	67,935,456	15,795,108	2,044,750	85,775,314
Inter-segment revenues	3,309,104	85,605	11,445,929	14,840,638
Interest income	96,409	58,309	19,152	173,870



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Interest expense	(1,258,295 )	(23,156 )	(226,572 )	(1,508,023 )
Depreciation and amortization	(10,093,653)	(5,775,612)	(1,768,817)	(17,638,082)
Impairment loss	-	-	(11,117 )	(11,117 )
Segment income before income tax	5,598,301	2,757,516	32,573	8,388,390
Segment assets	91,684,623	43,106,391	27,183,781	161,974,795
Expenditures for segment assets	9,427,126	3,013,536	191,270	12,631,932

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	Packaging NT\$	Testing NT\$	EMS NT\$	Others NT\$	Total NT\$
2010					
Revenue from external customers	101,071,294	21,956,997	59,577,374	6,137,132	188,742,797
Inter-segment revenues	4,821,334	352,290	43,614,139	11,166,482	59,954,245
Interest income	83,846	30,307	74,426	26,649	215,228
Interest expense	(1,217,743 )	(38,674 )	(90,774 )	(38,820 )	(1,386,011 )
Depreciation and amortization	(10,794,362 )	(5,885,730 )	(1,564,025 )	(1,610,356 )	(19,854,473 )
Impairment loss	(170,682 )	(60,896 )	(1,414 )	(18,410 )	(251,402 )
Segment income before income tax	11,645,249	5,655,268	2,333,002	3,190,110	22,823,629
Segment assets	102,027,572	40,613,527	43,731,297	21,767,369	208,139,765
Expenditures for segment assets	23,104,455	10,035,170	1,009,991	611,434	34,761,050

## 2011

Revenue from external customers	102,677,289	21,932,231	57,850,415	2,887,271	185,347,206
Inter-segment revenues	1,923,714	90,032	43,050,376	7,720,823	52,784,945
Interest income	150,323	20,857	135,456	24,038	330,674
Interest expense	(1,305,245 )	(19,200 )	(222,108 )	(119,772 )	(1,666,325 )
Depreciation and amortization	(13,384,345 )	(6,422,129 )	(1,687,390 )	(1,451,532 )	(22,945,396 )
Impairment loss	(363,076 )	(37,322 )	-	(47,658 )	(448,056 )
Segment income before income tax	10,080,121	4,768,128	1,949,055	199,857	16,997,161
Segment assets	113,792,384	38,582,345	39,522,545	31,980,821	223,878,095
Expenditures for segment assets	22,193,888	6,849,722	708,991	1,279,401	31,032,002

Packaging	Testing	EMS	Others	Total
US\$ (Note 2)	US\$ (Note 2)	US\$ (Note 2)	US\$ (Note 2)	US\$ (Note 2)

## 2011

Revenue from external customers	3,392,048	724,553	1,911,147	95,384	6,123,132
Inter-segment revenues	63,552	2,974	1,422,213	255,065	1,743,804
Interest income	4,966	689	4,475	794	10,924
Interest expense	(43,120 )	(634 )	(7,338 )	(3,957 )	(55,049 )
Depreciation and amortization	(442,165 )	(212,161 )	(55,745 )	(47,953 )	(758,024 )
Impairment loss	(11,995 )	(1,233 )	-	(1,574 )	(14,802 )
	333,007	157,520	64,389	6,602	561,518

Segment income before  
income tax

Segment assets	3,759,246	1,274,607	1,305,667	1,056,519	7,396,039
Expenditures for segment assets	733,197	226,287	23,422	42,267	1,025,173

b.Revenue from major products and services

	Years Ended December 31			US\$ (Note 2)
	2009	2010	2011	
	NT\$	NT\$	NT\$	
Leadframe-based and substrate-based packaging service	63,959,178	92,375,710	93,065,326	3,074,507
Wafer probing and final testing service	15,333,685	21,473,806	21,469,472	709,266
Electronic and car components manufacturing service	-	56,777,818	57,233,787	1,890,776
Others	6,482,451	18,115,463	13,578,621	448,583
	85,775,314	188,742,797	185,347,206	6,123,132

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## c.Geographical information

	1) Net revenues						
	2009		2010		2011		
	NT\$	% of Total Revenues	NT\$	% of Total Revenues	NT\$	US\$ (Note 2)	% of Total Revenues
America	45,109,107	52	105,507,488	56	107,597,312	3,554,586	58
Taiwan	17,815,026	21	37,214,850	20	37,150,070	1,227,290	20
Asia	12,050,672	14	25,578,735	13	21,019,332	694,395	11
Europe	10,800,509	13	20,441,724	11	19,580,492	646,861	11
	85,775,314	100	188,742,797	100	185,347,206	6,123,132	100

## 2) Noncurrent assets, excluding financial instruments, deferred pension cost and deferred income tax assets

	December 31		
	2010 NT\$	2011 NT\$	2011 US\$ (Note 2)
Taiwan	61,279,745	64,374,970	2,126,692
China	32,842,659	41,142,070	1,359,170
Others	23,583,177	24,190,543	799,158
	117,705,581	129,707,583	4,285,020

## d.Major customers

For the years ended December 31, 2009, 2010 and 2011, the Company did not have a single customer to which the net revenues exceeded 10% of total net revenues.

## 32. PRE-DISCLOSURE FOR ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS

Under Rule No. 0990004943 issued by the ROC Financial Supervisory Commission (“FSC”) on February 2, 2010, the Company pre-discloses the following information on the adoption of International Financial Reporting Standards (“IFRSs”) as follows:

- a. On May 14, 2009, the ROC FSC announced the “Framework for Adoption of International Financial Reporting Standards by Companies in the ROC.” In this framework, starting 2013, companies with shares listed on the TSE or traded on the Taiwan Gre Tai Securities Market or Emerging Stock Market should prepare their consolidated financial statements in accordance with the Guidelines Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards, International Accounting Standards, and the

Interpretations as well as related guidance translated by the ARDF and issued by the ROC FSC. To comply with this framework, the Company has set up a project team and made a plan to adopt the IFRSs. Leading the implementation of this plan is Joseph Tung, Chief Financial Officer. The main contents of the plan, anticipated schedule and status of execution as of December 31, 2011 were as follows:

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Contents of Plan	Responsible Department	Plan Progress
1) Establish the IFRSs taskforce	A c c o u n t i n g Department	Completed
2) Set up the work plan for IFRSs adoption	A c c o u n t i n g Department	Completed
3) Complete the identification of GAAP differences and impact	A c c o u n t i n g Department	Completed
4) Complete the identification of consolidated entities under IFRSs	A c c o u n t i n g Department	Completed
5) Complete the impact evaluation of optional exemptions in IFRS 1 “First-time Adoption of International Financial Reporting Standard”	A c c o u n t i n g Department	Completed
6) Complete the impact evaluation of the IT systems	Accounting and IT Department	The impact evaluation of the IT system was completed. And the system enhancement and testing are in process
7) Complete the impact evaluation of the modification to the relevant internal controls	Accounting and Internal Audit Department	The impact valuation was completed. And the consequent modification is in process
8) Determine IFRSs accounting policies	A c c o u n t i n g Department	The preliminary selection was completed. The consequent analysis and confirmation is in process
9) Determine the selection of optional exemptions in IFRS 1 “First-time Adoption of International Financial Reporting Standard”	A c c o u n t i n g Department	The preliminary selection was completed. The consequent analysis is in process
10) Complete the preparation of the opening date balance sheet under IFRSs	A c c o u n t i n g Department	In progress according to the plan

- |  |  |   |
|--|--|---|
| 11) Prepare comparative financial information under IFRSs for 2012   | A c c o u n t i n g<br>Department            | In progress according to the plan   |
| 12) Complete the modification of the relevant internal controls (including financial reporting process and related IT systems) | Accounting, IT and Internal Audit Department | The preliminary selection was completed. The consequent revision and confirmation is in process |

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b.As of December 31, 2011, the Company had assessed the material differences, shown below, between the existing accounting policies under ROC GAAP and the accounting policies to be adopted under IFRSs:

1) Business combination

Under ROC GAAP, the cost of the acquisition includes any costs directly attributable to the business combination. After adopting IFRSs, the direct acquisition cost should be expensed in current earnings.

In addition, under ROC GAAP, the interest of minority shareholders in the acquiree is measured at historical cost. After adopting IFRSs, the acquirer shall measure any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets.

Under ROC GAAP, the business combinations achieved in stages are accounted for using the purchase method of accounting under ROC SFAS No. 25 and the acquirer shall not remeasure its previously held equity interest in the acquiree at the acquisition-date. Furthermore, changes in the Company's ownership interest while retaining controlling interest in its subsidiary are also accounted for using the purchase method of accounting under ROC SFAS No. 25. After adopting IFRSs, the acquirer shall remeasure its previously held equity interest in the acquiree at its acquisition-date fair value and recognize related gains or losses. Furthermore, the changes in the Company's ownership interest while retaining controlling interest in its subsidiary shall be accounted for as equity transactions.

2) Employee benefit

The Company had previously applied an actuarial valuation on its defined benefit obligation and recognized the related pension cost and retirement benefit obligation in conformity with ROC GAAP. Under IFRSs, the Company should carry out actuarial valuation on defined benefit obligation in accordance with IAS No. 19, "Employee Benefits."

Under ROC GAAP, it is not allowed to recognize actuarial gains and losses from defined benefit plans directly to equity; instead, actuarial gains and losses should be accounted for under the corridor approach which resulted in the deferral of gains and losses. When using the corridor approach, actuarial gains and losses should be amortized over the expected average remaining working lives of the participating employees. Under IAS No. 19, "Employee Benefits," the Company will recognize actuarial gains and losses immediately in full in the period in which they occur, as other comprehensive income. The subsequent reclassification to earnings is not permitted.

Under ROC GAAP, if the accrued pension cost is below than the minimum pension liability, the Company should recognize the additional pension liability. Under IFRSs, there is no requirement for the minimum pension liability.

3) Classifications of deferred income tax asset/liability and valuation allowance

Under ROC GAAP, a deferred tax asset or liability is classified as current or non-current in accordance with the classification of its related asset or liability. However, if a deferred income tax asset or liability does not relate to an asset or liability in the financial statements, it is classified as either current or non-current based on the expected length of time before it is realized or settled. Under IFRSs, a deferred tax asset or liability is classified as non-current asset or liability.

In addition, under ROC GAAP, deferred tax assets are recognized in full and then reduced by a valuation allowance if it is more likely than not that some or all of the deferred tax assets will not be realized. Under IFRSs, deferred tax assets are only recognized to the extent that it is probable that





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there will be sufficient taxable profits and the valuation allowance account is no longer used.

4) Share-based payment

Employee stock options granted on or before December 31, 2007 were accounted for the intrinsic value method under ROC GAAP. After adopting IFRSs, for those share options that were granted and had not yet vested at January 1, 2012 (the date of transition to IFRSs), the Company should apply IFRS 2 “Share-based Payment” and recognize stock-based compensation expense.

5) Idle assets

Under ROC GAAP, idle assets are classified under other assets. Under IFRSs, idle assets are classified as property, plant and equipment according to their nature.

6) Land use rights

Under ROC GAAP, the land use rights are recorded as intangible assets while after adopting IFRSs, the land use rights will be reclassified as long-term prepayment for lease.

The material differences between ROC GAAP and IFRSs mentioned above may not have material impact at the date of transition to IFRSs since the Company may choose the optional exemptions in accordance with IFRS 1 “First-time Adoption of International Financial Reporting Standards”.

c. The Company has prepared the above assessments in compliance with (a) the 2010 version of the IFRSs translated by the ROC ARDF and issued by the ROC FSC and (b) the Guidelines Governing the Preparation of Financial Reports by Securities Issuers amended and issued by the ROC FSC on December 22, 2011. These assessments may be changed as the FSC may issue new rules governing the adoption of IFRSs, and as other laws and regulations may be amended to comply with the adoption of IFRSs. Actual results may differ from these assessments.

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

The Company’s consolidated financial statements have been prepared in accordance with ROC GAAP, which differs in the following respects from U.S. GAAP:

a. Pension benefits

The Company adopted the U.S. guidance relating to employers’ accounting for pensions on January 1, 1987, which requires the Company to determine the accumulated pension obligation and the pension expense on an actuarial basis.

The U.S. guidance relating to employers’ accounting for pensions was amended on September 29, 2006 to require employers to recognize the overfunded or underfunded status of a defined benefit pension plan as an asset or liability in its statement of financial position and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. Specifically, the amended U.S. GAAP guidance defines the funded status of a benefit plan as the difference between the fair value of the plan assets and the projected benefit obligation. In addition, it requires companies to recognize actuarial gains or losses, prior service costs or credits, and the transition

asset or obligation remaining that were unrecognized as of the initial adoption date of the amended U.S. GAAP guidance.

ROC SFAS No. 18, "Accounting for Pensions" ("ROC SFAS No. 18") is similar in many respects to the U.S. guidance relating to employers' accounting for pensions and was adopted by the Company in 1996. However, ROC SFAS No. 18 does not require a company to recognize the overfunded or

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underfunded status of a defined benefit pension plan as an asset or liability in the statement of financial position. Also, the difference in the dates of adoption gives rise to a U.S. GAAP difference in the actuarial computation for transition obligation and the related amortization.

b. Bonuses to employees, directors and supervisors

According to ROC regulations and the Articles of Incorporation of ASE Inc., a portion of distributable earnings is required to be set aside as bonuses to employees, directors and supervisors. Bonuses to directors and supervisors are always paid in cash. However, bonuses to employees may be granted in cash (“cash bonuses”) or stock (“stock bonuses”) or both. Prior to January 1, 2008, all of these appropriations, including stock bonuses which were valued at par value of NT\$10, were charged against retained earnings under ROC GAAP after approval by the shareholders in the following year.

Under U.S. GAAP, such bonuses are charged to earnings in the year earned. Shares issued as part of these bonuses are recorded at fair value. Since the amount and form of such bonuses are not usually determinable until the shareholders’ meeting in the subsequent year, the total amount of the aforementioned bonuses is initially accrued based on management’s estimate regarding the amount to be paid based on the Articles of Incorporation. Any difference between the initially accrued amount and the fair value of any shares issued as bonuses is recognized in the year of approval by the shareholders.

Effective January 1, 2008, the Company adopted Interpretation 96-052, “Accounting for Bonuses to Employees, Directors and Supervisors” issued in March 2007 by the ROC ARDF, which requires companies to record bonuses paid to employees, directors and supervisors as an expense rather than as an appropriation of earnings. The amount of compensation expense related to stock bonuses is determined based on the market value of ASE Inc.’s common stock at the date immediately preceding the shareholders’ meeting.

The U.S. GAAP reconciling adjustment for the year ending December 31, 2009 was the estimate difference for 2008. Starting from January 1, 2009, the U.S. GAAP reconciling adjustment for the bonuses paid in stock will be the difference of the fair value of the stock bonuses between the date of stock distribution (U.S. GAAP) and the date immediately preceding the shareholders’ meeting (ROC GAAP). For the years ended December 31, 2009, 2010 and 2011, all the bonuses to employees were paid in cash. Therefore, the U.S. GAAP reconciling adjustment for the bonuses paid in stock was not required.

c. Depreciation of buildings

Under ROC GAAP, buildings may be depreciated over their estimated life based on ROC practices and tax regulations. For U.S. GAAP purposes, buildings are depreciated over their estimated economic useful life.

d. Depreciation on the excess of book value of buildings transferred between subsidiaries

ASE Test, Inc. purchased buildings and facilities from ASE Technologies Inc. in 1997. The purchase price was based on market value, which meant the portion of the purchase price in excess of book value of NT\$17,667 thousand was capitalized by ASE Test, Inc. as allowed under ROC GAAP. Under U.S. GAAP, transfers of assets between entities under common control are recorded at historical cost. Therefore, depreciation on the capitalized excess amount recorded under ROC GAAP is reversed under U.S. GAAP until the buildings and facilities are fully depreciated or disposed of.

e. Gain on sales of subsidiary’s stock

The carrying value of stock investments in ASE Test by J&R Holding under ROC GAAP is different from that under U.S. GAAP. Therefore, differences in the amount of related gains upon the sale of such stock investments have been recorded in the equity reconciliation.

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f. Effects of U.S. GAAP adjustments on equity method investments

The carrying amounts of equity method investments and the investment income (loss) recognized by the equity method are reflected in the consolidated financial statements under ROC GAAP. The financial statements of these equity method investees prepared under ROC GAAP differs from the financial statements of such equity method investees prepared under U.S. GAAP. Therefore, the investment income (loss) has been adjusted to reflect the differences between ROC GAAP and U.S. GAAP in the investees' financial statements.

g. Impairment of long-lived assets

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

Under ROC GAAP, for purposes of evaluating the recoverability of long-lived assets, assets purchased for use in the business but subsequently determined to have no use were written down to fair value and recorded as idle assets. Under ROC GAAP, the Company is required to recognize an impairment loss when an indication is identified that the carrying amount of an asset or a group of assets is not recoverable from the expected discounted future cash flows. However, if the recoverable amount increases in a future period, the amount previously recognized as impairment would be reversed and recognized as a gain. The adjusted amount may not exceed the carrying amount that would have been determined, net of depreciation, if no impairment loss had been recognized.

In 2006, the Company reversed impairment loss recognized in 2005 under ROC GAAP after a careful analysis of the increase in the estimated service potential of the production line and facilities by an external specialist. Such reversal is prohibited under U.S. GAAP. As such, differences in the cost basis of these impaired machinery and equipment, associated depreciation expense, gain or loss on disposal and gain on recoveries related to restoration of such impaired machinery and equipment between ROC GAAP and U.S. GAAP are reflected in the reconciliation.

h. Stock dividends

Under ROC GAAP, stock dividends are recorded at par value with a charge to retained earnings. Under U.S. GAAP, if the ratio of distribution is less than 25 percent of the same class of shares outstanding, the fair value of the shares issued should be charged to retained earnings. The difference for stock dividends paid in 2010 and 2011 was treated as an additional reduction to retained earnings and an increase to capital surplus of NT\$7,201 million and NT\$11,132 million (US\$368 million), respectively. However, no stock dividends were paid in 2009.

i. Stock-based compensation

Under U.S. GAAP, stock-based compensation expense for the year ended December 31, 2006 includes compensation expense for all unvested stock-based compensation awards granted prior to January 1, 2006 that are expected to vest, based on the grant-date fair value estimated in accordance with the transition method and the original provision of the U.S. guidance relating to accounting for stock-based compensation. Upon an employee's termination, unvested awards are forfeited, which affects the quantity of options to be included in the calculation of stock-based compensation expense. Forfeitures do not include vested options that expire unexercised. Stock-based compensation expense for all stock-based compensation awards granted after January 1, 2006 is based on the grant-date fair value estimated in accordance with the provisions of the U.S. guidance relating to share-based payment. The Company recognizes

compensation expense using the graded vesting method over the requisite

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service period of the award, which is generally the option vesting term of five years. See Note 34d for a further discussion on stock-based compensation.

Certain characteristics of the stock options granted under the ASE 2002 Option Plan made the fair values of these options not reasonably estimable using appropriate valuation methodologies as prescribed under the U.S. guidance relating to accounting for stock-based compensation; therefore, these options have been accounted for using the intrinsic value method. Upon the adoption of the U.S. guidance relating to share-based payment, the Company continued to account for these stock options based on their intrinsic value, remeasured at each reporting date through the date of exercise or other settlement.

Under ROC GAAP, employee stock option plans that were granted or modified in the period from January 1, 2004 to December 31, 2007 are accounted for by the interpretations 92-070~072 and 93-073 issued by the ROC ARDF. The Company adopted the intrinsic value method and any compensation expense determined using this method is recognized over the vesting period.

Effective January 1, 2008, the Company adopted ROC SFAS No. 39, "Accounting for Share-based Payment", which is similar in many respects to the U.S. guidance relating to share-based payment and requires companies to record share-based payment transactions in the financial statements at fair value for the employee stock options that were granted or modified after December 31, 2007. Under ROC GAAP, the Company granted employee stock options in 2010 and 2011 and recognized compensation expense of NT\$319,147 thousand and NT\$537,973 thousand (US\$17,772 thousand) using the graded vesting method over the requisite service period for each separately vesting portion for the year ended December 31, 2010 and 2011, respectively. No stock-based compensation expense was recognized for the years ended December 31, 2009, 2010 and 2011 for the options granted on or before December 31, 2007 under ROC GAAP.

j. Goodwill and intangible assets

Before January 1, 2006, under ROC GAAP, the Company amortized goodwill arising from acquisitions over 10 years. Effective January 1, 2006, the Company adopted ROC SFAS No. 25 (revised in 2005), "Business Combinations - Accounting Treatment under Purchase Method" which is similar to the U.S. guidance relating to goodwill and other intangible assets. The Company reviews goodwill for impairment in accordance with the provision of the standards under ROC and U.S. GAAP. Under U.S. GAAP, the Company recognized an impairment charge of nil for the years ended December 31, 2009 and 2010 and NT\$6,934 thousand (US\$229 thousand) for the year ended December 31, 2011.

Under U.S. GAAP, the Company adopted the U.S. guidance relating to goodwill and other intangible assets on January 1, 2002, which requires the Company to review goodwill for possible impairment on at least an annual basis. As a result, for U.S. GAAP purposes, the Company ceased to amortize goodwill effective January 1, 2002. Definite-lived intangible assets continue to be amortized over their estimated useful lives.

The determination of whether or not goodwill is impaired under the U.S. guidance relating to goodwill and other intangible assets is made by first estimating the fair value of the reporting unit and comparing the fair value of a reporting unit with its carrying amount, including goodwill. If the carrying amount of a reporting unit exceeds its fair value, the Company calculates an implied fair value of the goodwill based on an allocation of the fair value of the reporting unit to the underlying assets and liabilities. If the carrying amount of the reporting unit's goodwill exceeds the implied fair value of that goodwill, an impairment loss shall be recognized in an amount equal to that excess.

k. Undistributed earnings tax



In the ROC, a 10% tax is imposed on unappropriated earnings. For ROC GAAP purposes, the Company records the 10% tax on unappropriated earnings in the year of shareholders' approval. In 2002, the American Institute of Certified Public Accountants International Practices Task Force

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concluded that in accordance with the U.S. guidance relating to accounting for tax credits related to dividends in accordance with accounting for income taxes, the 10% tax on unappropriated earnings should be accrued under U.S. GAAP during the period the earnings arise and adjusted to the extent that distributions are approved by the shareholders in the following year.

l.Impairment loss on equity method investments

ROC GAAP and U.S. GAAP require an assessment of impairment of long-term investments whenever events or circumstances indicate a decline in value that may be other than temporary. The criteria for determining whether or not an impairment charge is required are similar under ROC GAAP and U.S. GAAP; however, the methods to measure the amount of impairment may be based on different estimates of fair values depending on the circumstances. When impairment is determined to have occurred, U.S. GAAP generally requires the market price to be used, if available, to determine the fair value of the long-term investment and measure the amount of impairment at the reporting date. Under ROC GAAP, if the investments have an inactive market, another measure of fair value may be used. The Company recognized an impairment charge of nil, NT\$41,739 thousand and NT\$6,117 thousand (US\$203 thousand) under U.S. GAAP for the years ended December 31, 2009, 2010 and 2011, respectively. The accumulated GAAP difference was decreased by NT\$1,195,000 thousand as a result of the USI Acquisition in 2010. As of December 31, 2011, the accumulated GAAP difference was NT\$883,620 thousand (US\$29,191 thousand) which was caused by the impairment charges recorded in 2002.

m.Uncertainty in income taxes

Under ROC GAAP, uncertainty in income taxes or adjustments of prior years' income taxes is recorded as current year's income tax expense. Under U.S. GAAP, the Company accounts for uncertainties in income taxes in accordance with the U.S. guidance relating to accounting for uncertainty in income taxes. The U.S. guidance clarifies the accounting for uncertainty in income taxes by prescribing the recognition threshold a tax position is required to meet before being recognized in the consolidated financial statements. It also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition.

n.Earnings per share

For employee bonus under ROC GAAP that may be distributed in shares, the number of shares to be distributed is taken into consideration assuming the distribution will be made entirely in shares when calculating diluted earnings per share. For employee bonus under U.S. GAAP, it shall be presumed that the employee bonuses will be settled in shares and the resulting potential common shares included in diluted EPS if the effect is more dilutive. The presumption that the employee bonuses will be settled in shares may be overcome if past experience or a stated policy provides a reasonable basis to believe that the employee bonuses will be paid partially or wholly in cash. The aforementioned presumption is overcome as the Company paid out the employee bonuses wholly in cash based on the past experience.

For diluted earnings per share, unvested stock options are included in the calculation using the treasury stock method if the inclusion of such would be dilutive under both ROC GAAP and U.S. GAAP. The U.S. guidance on applying the treasury stock method for equity instruments granted in share-based payment transactions in determining diluted earnings per share states that the assumed proceeds shall be the sum of (a) the exercise price, (b) the amount of compensation cost attributed to future services and not yet recognized, and (c) the amount of excess tax benefits that would be credited to additional paid-in capital assuming exercise of the options. Prior to January 1, 2006, the Company used the intrinsic value method to account for its stock-based compensation under the U.S. guidance, and had no unrecognized compensation cost to be included in the assumed proceeds. However, upon adoption of the U.S. guidance relating to share-based payment, the Company has unrecognized compensation cost, and therefore, the

number of shares included in the diluted earnings per share calculation under U.S. GAAP is different from that under ROC GAAP.

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o. Business combination and noncontrolling interest

Under ROC GAAP, acquisitions are accounted for using the purchase method of accounting under ROC SFAS No. 25. The cost of the acquisition is measured at the aggregate of the fair values, at the date of acquisition, of assets acquired and liabilities incurred or assumed, by the Company in exchange for control of the acquiree, plus any costs directly attributable to the business combination. The acquiree's identifiable assets and liabilities are stepped up to their fair values limited to the percentage of the interest acquired at the acquisition date. Goodwill arising on acquisition is recognized as an asset and initially measured at cost, being the excess of the cost of acquisition over the Company's interest in the fair value of the identifiable net assets. The interest of minority shareholders in the acquiree is measured at historical cost.

For the business combinations consummated on or after January 1, 2009, the new U.S. guidance relating to business combinations requires (a) most of the assets acquired and liabilities assumed in the business combination to be measured at fair value as of the acquisition date, (b) the direct acquisition cost should be expensed in current earnings, (c) the negative goodwill will no longer be a reduction of assets but should be recorded as an ordinary gain in the period of acquisition, (d) the net assets of noncontrolling interests' share of the acquired subsidiaries should be recognized at fair value. In a business combination achieved in stages, the acquirer shall remeasure its previously held equity interest in the acquiree at its acquisition-date fair value, reclassify the amount recognized in other comprehensive income from prior reporting period and recognize the resulting gain or loss in earnings.

Furthermore, under U.S. GAAP, changes in the Company's ownership interest while retaining controlling interest in its subsidiary shall be accounted for as equity transactions. The carrying amount of the noncontrolling interest shall be adjusted to reflect the change in its ownership interest in the subsidiary. Any difference between the fair value of the consideration paid and the amount by which the noncontrolling interest is adjusted shall be recognized in equity attributable to the parent.

For the USI Acquisition in February 2010, the Company remeasured the fair value of equity method investments in USI held before the acquisition and recognized a non-operating gain of NT\$1,462,692 thousand under U.S. GAAP. The acquisition information under U.S. GAAP was discussed in Note 34k.

For the additional common shares acquisition of USI from the noncontrolling interest in August 2010 and the additional shares of PowerASE and Shanghai DH acquired in 2011, the Company recognized the difference of NT\$567,302 thousand and NT\$303,748 thousand (US\$10,035 thousand), respectively, between the cash consideration and the carrying amount of the additional common shares as a deduction of capital surplus under U.S. GAAP for the year ended December 31, 2010 and 2011, respectively.

Besides, for the EEMS Test Singapore Pte. Ltd. Acquisition, the Company completed the initial accounting in 2011 and recognized adjustments to the provisional amounts as if the accounting for the business combination had been completed at the acquisition date, August 1 2010. Thus, the Company revised comparative information for the year ended December 31, 2010 presented in consolidated financial statements.

The following schedule reconciles net income and shareholders' equity under ROC GAAP as reported in the consolidated financial statements to the net income and shareholders' equity amounts as determined under U.S. GAAP, giving effect to adjustments for the differences listed above.

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	2009	Year Ended December 31		2011	US\$ (Note 2)
	NT\$	2010	NT\$	NT\$	
Net income					
Net income based on ROC GAAP	6,903,468	19,194,889	13,978,949	461,809	
Adjustments:					
a.Pension benefits	(10,692 )	17,632	66,042	2,182	
b.Bonuses to employees, directors and supervisors	(3,394 )	-	-	-	
c.Depreciation of buildings	(115,766 )	(105,239 )	(85,912 )	(2,838 )	
d.Depreciation on the excess of book value of buildings transferred between subsidiaries	432	432	432	14	
f.Effect of U.S. GAAP adjustments on equity method investments	(59,876 )	57,954	(5,138 )	(170 )	
g.Impairment of long-lived assets					
Depreciation and gain on recoveries related to restoration of impaired machinery and equipment	97,598	73,368	150,935	4,986	
i.Stock-based compensation	(983,309 )	(580,237 )	(264,537 )	(8,739 )	
k.Undistributed earnings tax	(213,418 )	(916,335 )	160,766	5,311	
o.Business combination and noncontrolling interest	-	1,192,100	(106,075 )	(3,504 )	
Income tax effect of U.S. GAAP adjustments	(94,666 )	(33,620 )	(115,076 )	(3,802 )	
Net decrease in net income	(1,383,091 )	(293,945 )	(198,563 )	(6,560 )	
Net income based on U.S. GAAP	5,520,377	18,900,944	13,780,386	455,249	
Attributable to					
Shareholders of the parent	5,317,509	18,158,180	13,532,514	447,060	
Noncontrolling interest	202,868	742,764	247,872	8,189	
	5,520,377	18,900,944	13,780,386	455,249	
Earnings per share (Note 34h)					
Basic	0.84	2.76	2.05	0.07	
Diluted	0.83	2.73	2.04	0.07	
Earnings per ADS (Note 34h)					
Basic	4.20	13.79	10.26	0.34	
Diluted	4.16	13.64	10.18	0.34	
Number of weighted average outstanding shares (in thousand shares) (Note 34h)					

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Basic	6,331,192	6,585,329	6,592,541
Diluted	6,352,994	6,617,188	6,646,040
Number of ADS (in thousand shares) (Note 34h)			
Basic	1,266,238	1,317,066	1,318,508
Diluted	1,270,599	1,323,438	1,329,208

	December 31			US\$ (Note 2)
	2009	2010	2011	
	NT\$	NT\$	NT\$	
Shareholders' equity				
Shareholders' equity based on ROC				
GAAP	74,713,694	91,839,325	102,282,494	3,379,006
Adjustments:				
a.Pension benefits and additional liability				
Pension benefits	53,828	71,460	137,502	4,543
Unrecognized pension cost on adoption of the amended U.S. guidance relating to pension	(613,362 )	(613,362 )	(613,362 )	(20,263 )
Defined benefit pension plan adjustment	(596,400 )	(808,762 )	(818,361 )	(27,035 )
c.Depreciation of buildings	(932,021 )	(1,037,260 )	(1,123,172 )	(37,105 )
d.Depreciation on the excess of book value of buildings transferred between subsidiaries	(12,303 )	(11,871 )	(11,439 )	(378 )
e.Gain on sale of subsidiary's stock	(8,619 )	(8,619 )	(8,619 )	(285 )

(Continued)

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	December 31			US\$ (Note 2)
	2009	2010	2011	
	NT\$	NT\$	NT\$	
f.Effects of U.S. GAAP adjustments on equity method investments	259,879	(158,977 )	(164,115 )	(5,422 )
g.Impairment loss reversal, net	(1,498,287 )	(1,424,919 )	(1,273,984 )	(42,088 )
i.Stock-based compensation	(908,661 )	(908,661 )	(908,661 )	(30,019 )
j.Goodwill	1,265,869	1,265,869	1,265,869	41,819
k.Undistributed earnings tax	(607,009 )	(1,523,344 )	(1,362,578 )	(45,014 )
l.Impairment loss on equity method investments	(2,078,620 )	(883,620 )	(883,620 )	(29,191 )
o.Business combination and noncontrolling interest	-	210,769	(229,139 )	(7,570 )
Income tax effect of U.S. GAAP adjustments	477,757	444,137	329,061	10,871
Net decrease in shareholders' equity	(5,197,949 )	(5,387,160 )	(5,664,618 )	(187,137 )
Shareholders' equity based on U.S. GAAP	69,515,745	86,452,165	96,617,876	3,191,869

	Year Ended December 31			US\$ (Note 2)
	2009	2010	2011	
	NT\$	NT\$	NT\$	
Changes in shareholders' equity based on U.S. GAAP				
Balance, beginning of year	67,405,720	69,515,745	86,452,165	2,856,034
Net income for the year	5,520,377	18,900,944	13,780,386	455,249
Adjustment for stock option compensation	983,309	899,384	802,510	26,512
Translation adjustment	(1,164,331 )	(4,479,649 )	4,568,156	150,914
Adjustment from changes in ownership percentages of subsidiaries	1,396	(9,510 )	(4,960 )	(164 )
Unrealized gain on available-for-sale financial assets	380,464	115,454	(158,162 )	(5,225 )
Unrealized gain on cash flow hedging financial instruments	84,472	105,351	153,500	5,071
Stock options exercised by employees	238,789	499,404	589,326	19,469
Cash dividends	(2,736,568 )	(1,978,190 )	(3,932,419 )	(129,911 )
Cash dividends received by subsidiaries from parent company	160,895	37,536	74,160	2,450
Effects of U.S. GAAP adjustments on equity method investments	(274,528 )	(48,372 )	-	-

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Change in noncontrolling interest	213,335	(459,161 )	(42,685 )	(1,410 )
Change in noncontrolling interest from acquisition of subsidiaries	-	(345,186 )	(2,814,290 )	(92,973 )
Defined benefit pension plan adjustment	16,688	(361,824 )	(77,177 )	(2,550 )
Acquisition of treasury stock	(1,314,273 )	(1,185,205 )	(2,772,634 )	(91,597 )
Disposal of subsidiaries	-	(1,472 )	-	-
Disposal of treasury stock held by subsidiaries	-	5,246,916	-	-
Balance, end of year	69,515,745	86,452,165	96,617,876	3,191,869
Attributable to				
Shareholders of the parent	66,555,528	82,959,008	95,334,374	3,149,467
Noncontrolling interest	2,960,217	3,493,157	1,283,502	42,402
	69,515,745	86,452,165	96,617,876	3,191,869

(Concluded)

The following U.S. GAAP condensed consolidated balance sheets as of December 31, 2010 and 2011, and consolidated statements of income for the years ended December 31, 2009, 2010 and 2011 have been derived from the audited consolidated financial statements and reflect the adjustments presented above.



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	December 31		
	2010 NT\$	2011 NT\$	2011 US\$ (Note 2)
Current assets	85,598,925	89,609,964	2,960,356
Long-term investments	1,343,370	1,185,581	39,167
Property, plant and equipment, net	99,216,883	110,927,450	3,664,600
Intangible assets	15,360,872	15,896,234	525,148
Other assets	3,453,143	2,472,118	81,669
<b>Total assets</b>	<b>204,973,193</b>	<b>220,091,347</b>	<b>7,270,940</b>
Current liabilities	60,496,158	67,443,174	2,228,053
Long-term liabilities	58,024,870	56,030,297	1,851,018
<b>Total liabilities</b>	<b>118,521,028</b>	<b>123,473,471</b>	<b>4,079,071</b>
Equity attributable to shareholders of the parent	82,959,008	95,334,374	3,149,467
Noncontrolling interest in consolidated subsidiaries	3,493,157	1,283,502	42,402
<b>Total liabilities and shareholders' equity</b>	<b>204,973,193</b>	<b>220,091,347</b>	<b>7,270,940</b>

	Year Ended December 31			
	2009 NT\$	2010 NT\$	2011 NT\$	2011 US\$ (Note 2)
Net revenues	85,775,314	188,742,797	185,347,206	6,123,132
Cost of revenues	68,350,929	148,887,478	150,793,721	4,981,623
Gross profit	17,424,385	39,855,319	34,553,485	1,141,509
Operating expenses	9,431,512	16,877,296	18,450,852	609,542
Income from operations	7,992,873	22,978,023	16,102,633	531,967
Net non-operating income (expenses)	(679,490 )	504,526	647,365	21,386
Income before income tax	7,313,383	23,482,549	16,749,998	553,353
Income tax expense	1,793,006	4,581,605	2,969,612	98,104
<b>Net income</b>	<b>5,520,377</b>	<b>18,900,944</b>	<b>13,780,386</b>	<b>455,249</b>
Attributable to				
Shareholders of the parent	5,317,509	18,158,180	13,532,514	447,060
Noncontrolling interest	202,868	742,764	247,872	8,189
	<b>5,520,377</b>	<b>18,900,944</b>	<b>13,780,386</b>	<b>455,249</b>

The Company applies ROC SFAS No. 17, "Statement of Cash Flows". Its objectives and principles are similar to those set out in the U.S. guidance relating to statement of cash flows. Summarized cash flow data by operating, investing and financing activities in accordance with the U.S. GAAP are as follows:

Year Ended December 31

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	2009	2010	2011	US\$
	NT\$	NT\$	NT\$	(Note 2)
Net cash inflow (outflow) from:				
Operating activities	15,517,228	36,964,711	31,936,706	1,055,061
Investing activities	(15,980,715)	(31,418,338)	(30,077,023)	(993,625 )
Financing activities	(2,778,549 )	(2,965,662 )	(2,296,308 )	(75,861 )
				(Continued)

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	Year Ended December 31			
	2009	2010	2011	
	NT\$	NT\$	NT\$	US\$ (Note 2)
Net increase (decrease) in cash	(3,242,036 )	2,580,711	(436,625 )	(14,425 )
Cash, beginning of year	26,138,930	22,557,494	23,397,557	772,962
Effect of exchange rate changes	(339,400 )	(1,740,648 )	1,460,857	48,261
Cash, end of year	22,557,494	23,397,557	24,421,789	806,798 (Concluded)

The significant reclassifications for U.S. GAAP cash flow statements pertained to the equity transactions with the noncontrolling interest shown in the financing activities under U.S. GAAP as opposed to investing activities under ROC GAAP.

#### 34. ADDITIONAL DISCLOSURES REQUIRED BY U.S. GAAP

##### a. Recently issued accounting standards

In September 2009, the FASB issued an accounting standard update which provides guidance on how to separate consideration in multiple-deliverable arrangements and significantly expands disclosure requirements. The standard establishes a hierarchy for determining the selling price of a deliverable, eliminates the residual method of allocation and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method. The update is effective for annual reporting periods beginning on or after June 15, 2010. This guidance is effective for the Company for the year ending December 31, 2011. The adoption of the guidance did not have a material effect on the Company's results of operations, financial position and cash flows.

In January 2010, the FASB issued an accounting update that amended guidance and clarified the disclosure requirements about fair market value measurement. These amended standards require new disclosures for significant transfers of assets or liabilities between Level 1 and Level 2 in the fair value hierarchy; separate disclosures for purchases, sales, issuance and settlements of Level 3 fair value items on a gross, rather than net basis; and more robust disclosure of the valuation techniques and inputs used to measure Level 2 and Level 3 assets and liabilities. Except for the detailed disclosures of changes in Level 3 items, which are effective for the Company as of January 1, 2011, the remaining new disclosure requirements were effective for the Company as of January 1, 2010. The Company has included these new disclosures, as applicable, in Note 34j.

In April 2010, the FASB issued an accounting update that provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for certain research and development transactions. Under this new standard, a company can recognize as revenue consideration that is contingent upon achievement of a milestone in the period in which it is achieved, only if the milestone meets all criteria to be considered substantive. This standard is effective for the Company on a prospective basis as of January 1, 2011. The adoption of the guidance did not have a material effect on the Company's results of operations, financial position and cash flows.

In April 2010, the FASB issued an accounting update to clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades

must not be considered to contain a market, performance, or service condition. Therefore, an entity should not classify such an award as a liability if it otherwise qualifies for classification in equity. This guidance is effective for annual periods beginning on or after December 15, 2010, and will be applied prospectively. Affected entities will be required to record a cumulative catch-up adjustment to the opening balance of retained earnings for all awards outstanding as of the

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beginning of the annual period in which the guidance is adopted. Earlier application is permitted. This guidance is effective for the Company for the year ending December 31, 2011. The adoption of the guidance did not have a material effect on the Company's results of operations, financial position and cash flows.

In December 2010, the FASB issued an accounting update to require that supplemental pro forma information disclosures pertaining to acquisitions should be presented as if the business combination(s) occurred as of the beginning of the prior annual period when comparative financial statements are presented. This guidance also expands the supplemental pro forma disclosures to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings. This guidance is effective for business combinations consummated in periods beginning after December 15, 2010. Early adoption is permitted. This guidance is effective for the Company for the year ending December 31, 2011. The Company has included these new disclosures in Note 34k.

In December 2010, the FASB issued an accounting update to modify Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. In determining whether it is more likely than not that a goodwill impairment exists, an entity should consider whether there are any adverse qualitative factors indicating that an impairment may exist. For public entities, this guidance is effective for impairment tests performed during entities' fiscal years that begin after December 15, 2010. Early application will not be permitted. This guidance is effective for the Company for the year ending December 31, 2011. The adoption of the guidance did not have a material effect on the Company's results of operations, financial position and cash flows.

In May 2011, the FASB issued an accounting update to amend the fair value measurement guidance and include some enhanced disclosure requirements. The most significant change in disclosures is an expansion of the information required for Level 3 measurements based on unobservable inputs. The standard is effective for fiscal years beginning after December 15, 2011. Early adoption is not permitted. The Company does not expect the adoption will have a material impact on the Company's results of operations, financial position or cash flows.

In June and December 2011, the FASB issued accounting updates to eliminate the current option to report other comprehensive income and its components in the statement of shareholders' equity. Instead, an entity will be required to present items of net income and other comprehensive income in one continuous statement or in two separate, but consecutive, statements. The new requirements do not change which components of comprehensive income are recognized in net income or other comprehensive income, or when an item of other comprehensive income must be reclassified to net income. This guidance must be applied retroactively and is effective for fiscal years beginning after December 15, 2011. Earlier application is permitted. The Company is currently evaluating which presentation option it will elect, but the adoption of these provisions will have no effect on its results of operations, financial position or cash flows.

In September 2011, the FASB issued an accounting update, which is intended to reduce the cost and complexity of the annual goodwill impairment test by providing entities an option to perform a "qualitative" assessment to determine whether further impairment testing is necessary. Specifically, an entity has the option to first assess qualitative factors to determine whether it is necessary to perform the current two-step test. If an entity believes, as a result of its qualitative assessment, that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is required. Otherwise, no further testing is required. This standard is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011. Earlier adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's results of operations, financial position or cash flows.

In December 2011, the FASB issued an accounting update, which creates new disclosure requirements

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regarding the nature of an entity's rights of setoff and related arrangements associated with its financial instruments and derivative instruments. Certain disclosures of the amounts of certain instruments subject to enforceable master netting arrangements or similar agreements would be required, irrespective of whether the entity has elected to offset those instruments in the statement of financial position. The disclosure requirements are effective for annual reporting periods beginning on or after January 1, 2013 with retrospective application required. Since this standard impacts disclosure requirements only, its adoption is not expected to have a material impact on the Company's results of operations, financial condition or cash flows.

## b.Pension

In December 2008, the FASB issued new guidance relating to the disclosure requirements for defined benefit plans, which provides guidance on an employer's disclosures about plan assets of a defined benefit pension or other postretirement plan. As discussed in Note 20, pension funds are administered by the Labor Pension Fund Supervisory Committee ("the Committee") and the investment policies, strategies and plan assets allocation is under the Committee's control. In addition, the Committee does not provide detailed information to the public for the investment portfolios of the pension plan assets. Therefore, the Company cannot meet the pension plan asset disclosure requirements included in the new guidance.

Set forth below is pension information about the defined benefit plans disclosed in accordance with the U.S. guidance related to employers' disclosures about pensions and other postretirement benefits:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
<b>Components of net periodic benefit cost</b>				
Service cost	369,833	371,242	435,880	14,400
Interest cost	106,430	124,386	108,305	3,578
Expected return on plan assets	(35,621 )	(29,836 )	(32,397 )	(1,070 )
Amortization	55,718	47,555	70,641	2,334
Curtailment and settlement gain	-	(12,359 )	(110,389 )	(3,647 )
<b>Net periodic benefit cost</b>	<b>496,360</b>	<b>500,988</b>	<b>472,040</b>	<b>15,595</b>
<b>Changes in benefit obligation</b>				
Benefit obligation at beginning of year	5,773,799	5,770,146	6,876,354	227,167
Addition from USI Acquisition	-	491,273	-	-
Service cost	369,833	371,242	435,880	14,400
Interest cost	106,430	124,386	108,305	3,578
Curtailment effect	(57,266 )	(6,907 )	(232,080 )	(7,667 )
Settlement effect	-	-	(553,207 )	(18,276 )
Actuarial gain	13,295	382,837	41,627	1,375
Benefits paid	(403,267 )	(248,814 )	(379,680 )	(12,543 )
Translation adjustment	(32,678 )	(7,809 )	90,740	2,998
<b>Benefit obligation at end of year</b>	<b>5,770,146</b>	<b>6,876,354</b>	<b>6,387,939</b>	<b>211,032</b>

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	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
Change in plan assets				
Fair value of plan assets at beginning of year	2,055,781	2,097,594	2,366,254	78,172
Addition from USI Acquisition	-	7,529	-	-
Actual return on plan assets	70,896	33,704	44,916	1,484
Employer contribution	194,889	316,813	269,660	8,908
Benefits paid	(220,541 )	(57,826 )	(58,593 )	(1,936 )
Settlement effect	-	-	(686,530 )	(22,680 )
Translation adjustment	(3,431 )	(31,560 )	25,648	847
Fair value of plan assets at end of year	2,097,594	2,366,254	1,961,355	64,795
Unfunded status	3,672,552	4,510,100	4,426,584	146,237 (Concluded)

## Actuarial assumptions:

	December 31		
	2009	2010	2011
Discount rate	2.25% - 4.92%	1.75% - 5.00%	1.50% - 5.38%
Increase in future salary level	2.50% - 5.00%	2.00% - 5.00%	2.00% - 5.54%
Expected rate of return on plan assets	1.50% - 2.50%	2.00% - 2.50%	2.00% - 3.99%

The Company has no other post-retirement or post-employment benefit plans.

## c. Marketable securities

As of December 31, 2010 and 2011, marketable securities by category were as follows:

	December 31, 2010			Fair Value NT\$
	Cost NT\$	Unrealized Holding Gross Gains NT\$	Unrealized Holding Gross Losses NT\$	
Available-for-sale				
Open-end mutual funds	310,016	1,054	-	311,070
Quoted stocks	47,595	188,224	(1,159 )	234,660
Convertible bonds	87,420	-	-	87,420

445,031	189,278	(1,159 )	633,150
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	December 31, 2011							
	Cost		Unrealized Holding Gross Gains		Unrealized Holding Gross Losses (Within One Year)		Fair Value	
	NT\$	US\$ (Note 2)	NT\$	US\$ (Note 2)	NT\$	US\$ (Note 2)	NT\$	US\$ (Note 2)
Available-for-sale								
Quoted stocks	105,480	3,485	93,376	3,085	(1,804)	(60 )	197,052	6,510
Convertible bonds	90,825	3,001	-	-	-	-	90,825	3,001
	196,305	6,486	93,376	3,085	(1,804)	(60 )	287,877	9,511

Bond investments with no active market under ROC GAAP (Note 7) were reclassified as available-for-sale financial assets under U.S. GAAP since the Company doesn't intend to hold to maturity.

The Company uses the average cost method for financial assets held for trading and available-for-sale financial assets when determining their cost basis. Proceeds from sales of available-for-sale financial assets for the years ended December 31, 2009, 2010 and 2011 were NT\$38,971,185 thousand, NT\$20,883,928 thousand and NT\$2,078,725 thousand (US\$68,673 thousand), respectively. Gross realized gains on these sales for the years ended December 31, 2009, 2010 and 2011 were NT\$8,235 thousand, NT\$40,496 thousand and NT\$50,089 thousand (US\$1,655 thousand), respectively. Gross realized losses on these sales for the years ended December 31, 2009, 2010 and 2011 were NT\$27,673 thousand, NT\$1,824 thousand and NT\$1,606 thousand (US\$53 thousand), respectively. For the years ended December 31, 2009, 2010 and 2011, the other-than-temporary loss on impairment of available-for-sale financial assets was nil, NT\$2,680 thousand and nil, respectively.

#### d. Employee stock option plans

Effective January 1, 2006, the Company adopted the fair value recognition provisions of the U.S. guidance relating to share-based payment. In addition, the stock-based compensation expense also includes the intrinsic value of certain outstanding share-based awards for which it was not possible to reasonably estimate their grant-date fair value under the requirement of the U.S. guidance relating to accounting for stock-based compensation. Stock-based compensation expense for all share-based payment awards granted after January 1, 2006 is based on the grant-date fair value estimated in accordance with the provision of the U.S. guidance relating to share-based payment. The Company recognizes the compensation costs using the graded vesting method over the requisite service period of the award, which is generally a five-year vesting period.

The options granted in 2010 and 2011 were measured at fair value using the Hull & White Model (2004) with Ritchken's Trinomial Tree Model (1995) (Note 22) which was changed from the Black-Scholes Model previously used because the Company could generate reliable data of historical option information granted to develop reasonable and supportable estimates for each of the input factors and the underlying assumptions by separate vesting portions and this change results in a better estimate of fair value.

Information regarding the Company's stock option plans is as follows:

#### ASE Inc. Option Plan

The grant date fair value for the employee stock option granted in 2010 and 2011 was NT\$6.26 and NT\$8.06 (US\$0.27) per unit, respectively. Other information regarding these employee stock option plans is provided in Note 22.

ASE Mauritius Inc. and USI Option Plan

Information regarding these employee stock option plans is provided in Note 22.

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## USIE Option Plan

The grant date fair value for the employee stock option granted in 2010 and 2011 was US\$0.95 and US\$0.87 per unit, respectively. Other information regarding these employee stock option plans is provided in Note 22.

As of December 31, 2011, there was NT\$1,600,459 thousand (US\$52,873 thousand) of total unrecognized compensation expense related to stock-based compensation plans of the Company. The unrecognized compensation expense of the Company is expected to be recognized over a weighted average period of 2.6 years.

e. In accordance with the U.S. guidance relating to reporting comprehensive income, the statements of comprehensive income for the years ended December 31, 2009, 2010 and 2011 are presented below:

	Year Ended December 31			
	2009 NT\$	2010 NT\$	2011 NT\$	US\$ (Note 2)
Net income based on U.S. GAAP	5,520,377	18,900,944	13,780,386	455,249
Other comprehensive income (loss), net of tax:				
Translation adjustments	(1,164,331)	(4,479,649 )	4,568,156	150,914
Unrealized gain (loss) on financial instruments	464,936	220,805	(4,662 )	(154 )
Unrecognized pension cost	16,688	(361,824 )	(77,177 )	(2,550 )
<b>Comprehensive income</b>	<b>4,837,670</b>	<b>14,280,276</b>	<b>18,266,703</b>	<b>603,459</b>
Attributable to				
Shareholders of the parent	4,198,139	13,620,418	17,923,130	592,109
Noncontrolling interest	639,531	659,858	343,573	11,350
	4,837,670	14,280,276	18,266,703	603,459

The tax adjustment for comprehensive income for the years ended December 31, 2009, 2010 and 2011 was nil, NT\$38,464 thousand and NT\$28,557 thousand (US\$943 thousand), respectively.

The components of accumulated other comprehensive income (loss) of the parent were as follows:

	December 31		
	2010 NT\$	2011 NT\$	US\$ (Note 2)
Cumulative translation adjustment	(1,120,235)	3,352,220	110,744
Unrealized gain on financial instruments	246,303	241,641	7,983
Actuarial loss and transition obligation	(1,709,026)	(1,783,122)	(58,907 )
<b>Accumulated other comprehensive income (loss)</b>	<b>(2,582,958)*</b>	<b>1,810,739</b>	<b>59,820</b>

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\*This amount has been revised from the prior year presentation to correct a mathematical error resulting from the actuarial loss and transition obligation being added as opposed to subtracted to arrive at the total accumulated other comprehensive income (loss) balance as of December 31, 2010. The total accumulated other comprehensive income as reflected in the prior year disclosure was NT\$834,711 thousand. This change does not have any impact to the net income or shareholders equity under US GAAP reconciliations disclosed in Note 33 or impact any other US GAAP disclosures.

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## f. Goodwill

As of December 31, 2010 and 2011, the Company had goodwill of NT\$10,184,862 thousand and NT\$10,244,285 thousand (US\$338,430 thousand), respectively, primarily included in the testing segment.

Changes in the carrying amount of goodwill for the years ended December 31, 2010 and 2011, by segment, were as follows:

	Packaging NT\$	Testing NT\$	EMS NT\$	Other NT\$	Total NT\$	US\$ (Note 2)
Balance as of January 1, 2010	1,480,369	7,775,590	-	511,635	9,767,594	322,682
Goodwill acquired	-	242,495	328,005	-	570,500	18,847
Translation adjustment	(37,217 )	(114,618 )	-	(1,397 )	(153,232 )	(5,062 )
Balance as of December 31, 2010	1,443,152	7,903,467	328,005	510,238	10,184,862	336,467
Goodwill acquired	-	-	-	6,934	6,934	229
Goodwill impaired	-	-	-	(6,934 )	(6,934 )	(229 )
Translation adjustment	14,616	44,258	-	549	59,423	1,963
Balance as of December 31, 2011	1,457,768	7,947,725	328,005	510,787	10,244,285	338,430

Goodwill represents the excess of the purchase price over the estimated fair values of the net tangible and intangible assets. The factors that contributed to the recognition of goodwill primarily relate to expansion into new product areas and potential synergies created from combined capabilities. None of goodwill is expected to be deductible for tax purpose.

As of December 31, 2010 and 2011, the accumulated impairment loss of goodwill for the packaging and EMS segments was nil. The accumulated impairment loss of goodwill for the testing segment was NT\$1,600,618 thousand (US\$52,878 thousand) as of December 31, 2010 and 2011.

## g. Intangible assets other than goodwill

Information of the intangible assets subject to amortization was as follows:

	December 31		
2010 NT\$	2011 NT\$	2011 US\$	

(Note 2)

Cost			
Land use rights	2,449,030	3,725,163	123,064
Customer relationship	1,704,635	1,704,635	56,314
Patents	1,185,409	1,228,165	40,574
Acquired special technology	709,088	709,088	23,425
Projects in progress	493,000	493,000	16,287
Others	-	9,238	305
	6,541,162	7,869,289	259,969
Accumulated amortization			
Land use rights	166,290	198,293	6,551
Customer relationship	415,434	661,985	21,870
Patents	326,683	659,626	21,791
Acquired special technology	366,362	508,180	16,788
Projects in progress	90,383	188,983	6,243
Others	-	273	8
	1,365,152	2,217,340	73,251
	5,176,010	5,651,949	186,718

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The aggregate amortization expense for the years ended December 31, 2009, 2010 and 2011 was NT\$282,872 thousand, NT\$828,980 thousand and NT\$835,318 thousand (US\$27,596 thousand), respectively.

As of December 31, 2011, the future estimated aggregate amortization expense for each of the five succeeding fiscal years is as follows:

	Amount	
	NT\$	US\$ (Note 2)
2012	790,050	26,100
2013	627,692	20,736
2014	300,181	9,917
2015	201,564	6,659
2016	186,833	6,172

## h.Earnings per share

The U.S. guidance relating to earnings per share requires the presentation of basic and diluted earnings per share. Basic earnings per share was computed based on the weighted average number of common shares outstanding during the year. Diluted earnings per share included the effect of dilutive potential common shares (such as stock options issued calculated using the treasury stock method).

The following table presents the calculation of basic and diluted earnings per share:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
<b>Basic EPS</b>				
Income attributable to shareholders of the parent	5,317,509	18,158,180	13,532,514	447,060
Effect of subsidiaries' stock option plans	(26,411 )	(102,700 )	-	-
<b>Diluted EPS</b>				
Income attributable to shareholders of the parent plus effect of potential dilutive common stock	5,291,098	18,055,480	13,532,514	447,060
<b>Weighted average outstanding shares (in thousands)</b>				
Basic	6,331,192	6,585,329	6,592,541	
Effect of dilutive potential common stock	21,802	31,859	53,499	
Diluted	6,352,994	6,617,188	6,646,040	

For the years ended December 31, 2009, 2010 and 2011, no options or convertible bonds were excluded from the calculation of diluted EPS.

The denominator used for purposes of calculating earnings per ADS was the above-mentioned weighted average outstanding shares divided by five (one ADS represents five common shares). The numerator was the same as mentioned in the above EPS calculation.

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## i.Uncertainty in income taxes

In accordance with disclosure requirements under the U.S. guidance relating to accounting for uncertainty in income taxes, the following table summarizes the activity related to the gross unrecognized tax benefits for the years ended December 31, 2009, 2010 and 2011:

	Year Ended December 31			US\$ (Note 2)
	2009 NT\$	2010 NT\$	2011 NT\$	
Balance, beginning of year	19,820	19,319	17,576	581
Increase related to current year tax position	-	-	48,570	1,605
Translation adjustment	(501 )	(1,743 )	682	22
Balance, end of year	19,319	17,576	66,828	2,208

Upon adoption of the above-mentioned U.S. guidance, the Company recorded interest expense and penalties as interest expense and other non-operating expense, respectively. For the years ended December 31, 2009 and 2010, the total amount of interest expense and penalties related to tax uncertainty was approximately NT\$2,375 thousand and NT\$766 thousand, respectively. For the year ended December 31, 2011, NT\$7,065 thousand (US\$233 thousand) of interest expense and penalties related to tax uncertainty was reversed. The total amount of interest and penalties recognized as of December 31, 2010 and 2011 was NT\$20,565 thousand and NT\$13,500 thousand (US\$446 thousand), respectively. As of December 31, 2011, the company did not expect any material change to the amount of unrecognized tax benefit during the next twelve months.

## j.Fair value disclosure

On January 1, 2008, the Company adopted the U.S. guidance relating to fair value measurements, which defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements.

The U.S. guidance relating to fair value measurements defines fair value as the price that would be received upon sale of an asset or paid upon transfer of a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the Company.

In addition to defining fair value, the U.S. guidance relating to fair value measurements expands the disclosure requirements around fair value and establishes a fair value hierarchy for valuation inputs. The hierarchy prioritizes the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of the three levels which are determined by the lowest level input that is significant to the fair value measurement in its entirety. These levels are:

Level 1 - Use unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 - Use observable inputs other than Level 1 prices such as quoted prices for identical or similar instruments in markets that are not active, quoted prices for similar instruments in active markets, and model-based valuation in which all significant inputs are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 - Use inputs that are generally unobservable and reflect the use of significant management judgments and estimates.

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The following section describes the valuation methodologies we use to measure financial assets and liabilities at fair value.

The Company uses quoted prices in active markets for identical assets to determine fair value for the Level 1 investments such as open-end mutual funds and quoted stocks.

For derivative financial instruments and financial notes, fair values are estimated using industry standard valuation models. These models use market-based observable inputs including interest rate curves, foreign exchange rates, and forward and spot prices for currencies to project fair value. The abovementioned financial instruments are included in Level 2.

For convertible bonds, an estimate of the fair value has not been obtained since the cost of an independent valuation appears excessive, considering the materiality of the investment to the Company. The abovementioned convertible bonds were measured and disclosed at cost and included in Level 3.

The following table presents our assets and liabilities measured at fair value on a recurring basis as of December 31, 2010 and 2011:

	Level 1 NT\$	Level 2 NT\$	Level 3 NT\$	Total NT\$
December 31, 2010				
Assets				
Derivative financial assets				
Swap contracts	-	173,389	-	173,389
Cross currency swap contracts	-	163,670	-	163,670
Forward exchange contracts	-	48,569	-	48,569
Marketable securities - trading				
Open-end mutual funds	590,168	-	-	590,168
Financial notes	-	288,486	-	288,486
Quoted stocks	94,661	-	-	94,661
Marketable securities - available-for-sale				
Open-end mutual funds	311,070	-	-	311,070
Quoted stocks	234,660	-	-	234,660
Convertible bonds	-	-	87,420	87,420
	1,230,559	674,114	87,420	1,992,093
Liabilities				
Derivative financial liabilities				
Cross currency swap contracts	-	507,546	-	507,546
Swap contracts	-	394,747	-	394,747
Interest rate swap contracts	-	189,541	-	189,541
Forward exchange contracts	-	13,757	-	13,757

	-	1,105,591	-	1,105,591
December 31, 2011				
Assets				
Derivative financial assets				
Swap contracts	-	478,504	-	478,504
Forward exchange contracts	-	10,812	-	10,812

(Continued)

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	Level 1 NT\$	Level 2 NT\$	Level 3 NT\$	Total NT\$
Marketable securities - trading				
Open-end mutual funds	170,581	-	-	170,581
Quoted stocks	46,858	-	-	46,858
Marketable securities - available-for-sale				
Quoted stocks	197,052	-	-	197,052
Convertible bonds	-	-	90,825	90,825
	414,491	489,316	90,825	994,632
Liabilities				
Derivative financial liabilities				
Swap contracts	-	81,450	-	81,450
Interest rate swap contracts	-	58,279	-	58,279
Cross currency swap contracts	-	38,880	-	38,880
Forward exchange contracts	-	13,944	-	13,944
	-	192,553	-	192,553
			(Concluded)	
	Level 1 US\$ (Note 2)	Level 2 US\$ (Note 2)	Level 3 US\$ (Note 2)	Total US\$ (Note 2)

December 31, 2011

## Assets

Derivative financial assets				
Swap contracts	-	15,808	-	15,808
Forward exchange contracts	-	357	-	357
Marketable securities - trading				
Open-end mutual funds	5,635	-	-	5,635
Quoted stocks	1,548	-	-	1,548
Marketable securities - available-for-sale				
Quoted stocks	6,510	-	-	6,510
Convertible bonds	-	-	3,001	3,001
	13,693	16,165	3,001	32,859
Liabilities				
Derivative financial liabilities				
Swap contracts	-	2,691	-	2,691

Interest rate swap contracts	-	1,925	-	1,925
Cross currency swap contracts	-	1,284	-	1,284
Forward exchange contracts	-	461	-	461
	-	6,361	-	6,361

The table below sets out the balances for those assets required to be measured at fair value on a nonrecurring basis and the associated losses recognized for the years ended December 31, 2010 and 2011:

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	Balance NT\$	Level 1 NT\$	Level 2 NT\$	Level 3 NT\$	Total Losses NT\$
December 31, 2010					
Property, plant and equipment, net	43,394	-	-	43,394	206,983
Equity method investments - SCT	20,085	-	-	20,085	41,739
	63,479	-	-	63,479	248,722

December 31, 2011

Property, plant and equipment, net	27,708	-	-	27,708	315,787
Financial assets carried at cost - noncurrent	24,827	-	-	24,827	87,253
Goodwill	10,244,285	-	-	10,244,285	6,934
Equity method investments - SCT	-	-	-	-	6,117
	10,296,820	-	-	10,296,820	416,091

	Balance US\$ (Note 2)	Level 1 US\$ (Note 2)	Level 2 US\$ (Note 2)	Level 3 US\$ (Note 2)	Total Losses US\$ (Note 2)
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December 31, 2011

Property, plant and equipment, net	915	-	-	915	10,432
Financial assets carried at cost - noncurrent	820	-	-	820	2,882
Goodwill	338,430	-	-	338,430	229
Equity method investments - SCT	-	-	-	-	203
	340,165	-	-	340,165	13,746

The fair value measurements of the property, plant and equipment are determined based on observable inputs by reference to comparable sales data and substitute costs with insignificant adjustment. For the years ended December 31, 2010 and 2011, respectively, total carrying amount of property, plant and equipment of NT\$250,377 thousand and NT\$343,495 thousand (US\$11,347 thousand) were written down to their fair value, NT\$43,394 thousand and NT\$27,708 thousand (US\$915 thousand), resulting in NT\$206,983 thousand and NT\$315,787 thousand (US\$10,432 thousand) impairment charge, included in earnings for the period.

As discussed in Note 6, the Company recognized an impairment loss for private-placement shares which were accounted as available-for-sale financial assets and reclassified as financial assets carried at cost - noncurrent under U.S. GAAP due to certain restrictions related to the Company's ability to sell the shares. The fair value of the private-placement shares was determined using the quoted market price in the Gre Tai Securities Market as the basis and then adjusted for the market discount of the selling restrictions for the lock-up period using the Black-Scholes Model.

As discussed in Note 12, the Company recognized an impairment loss for the equity method investments on SCT. Due to the absence of quoted market price, the fair value of the unlisted equity method instruments was determined using the discounted cash flow model, considering the investee's current and future expected operating performance, industry trends, and competitive advantages.

Reconciliation of the beginning and ending balance of marketable securities - available-for-sale classified as Level 3 and measured at fair value on a recurring basis for the years ended December 31, 2010 and 2011, respectively:

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	Year Ended December 31		
	2010 NT\$	2011 NT\$	US\$ (Note 2)
Balance, beginning of year	96,090	87,420	2,888
Translation adjustment	(8,670 )	3,405	113
Balance, end of year	87,420	90,825	3,001

## k.Business combination

## USI Acquisition

As discussed in Note 2, the Company acquired additional outstanding common shares of USI in February 2010. The USI Acquisition was accounted for in accordance with the new U.S. guidance relating to business combination and noncontrolling interest in consolidated financial statements.

The following table summarizes the consideration paid for the USI common shares and the amounts of the assets acquired and liabilities assumed recognized at the acquisition date, as well as the fair value at the acquisition date of the noncontrolling interest in USI.

	As of Acquisition Date NT\$
Fair value of total consideration transferred	13,475,056
Fair value of the Company's equity interest in USI held before the business combination	3,870,461
	17,345,517
Recognized amounts of identifiable assets acquired and liabilities assumed:	
Current assets	29,599,349
Long-term investments	497,508
Property, plant and equipment, net	6,866,077
Other assets	1,613,584
Identifiable intangible assets	3,016,043
Liabilities assumed	(20,113,548)
	21,479,013
Noncontrolling interest in USI	(4,461,501 )
Goodwill	328,005
	17,345,517

Acquisition-related costs (included in operating expenses) of the USI Acquisition for the year ended December 31, 2010 were NT\$25,441 thousand.

Current assets, long-term investments, property, plant and equipment, other assets and liabilities were recorded at fair value. The excess of the purchase price over the fair value of net assets acquired was allocated to goodwill. The valuation of acquired intangible assets was determined based on management's estimates. The identifiable intangible assets acquired were as follows:

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- 1) NT\$1,033,000 thousand for patents that represent registered patent technologies in a current product offering and are amortized over the estimated residual useful life of 3.8 years.
- 2) NT\$789,000 thousand for customer relationships that represents what a firm would be willing to pay USI in order to exploit revenue associated with existing customer relationships and are amortized over the estimated useful life of 8.3 years, following the pattern in which the expected benefits will be consumed.
- 3) NT\$701,043 thousand for land use rights that are amortized over the remaining contractual period of 42.2 years.
- 4) NT\$493,000 thousand for projects in-progress and are amortized over the estimated product useful life of 5 years.

The fair value of the noncontrolling interest in USI, a listed company, was measured by the market price. In addition, under the acquisition method of accounting, as the acquisition was achieved in stages, the Company recognized a non-operating gain of NT\$1,462,692 thousand as a result of remeasuring to fair value for its 18.06% equity interest in USI held before the business combination.

The amounts of USI's revenues and earnings included in the Company's consolidated statement of income for U.S. GAAP purposes for the period from the acquisition date to December 31, 2010 were NT\$59,577,374 thousand and NT\$2,116,325 thousand, respectively.

**EEMS Test Singapore Pte. Ltd. Acquisition**

As discussed in Note 2, the Company, through ASE Singapore, acquired 100% shareholdings of EEMS Test Singapore Pte. Ltd. in August 2010 with a total consideration of US\$72,163 thousand to enhance the testing segment. The EEMS Test Singapore Pte. Ltd. Acquisition was accounted for in accordance with the new U.S. guidance relating to business combinations in the consolidated financial statements.

Acquisition-related costs (included in operating expenses) of the EEMS Test Singapore Pte. Ltd. Acquisition for the year ended December 31, 2010 were NT\$87,770 thousand. The amounts of EEMS Test Singapore Pte. Ltd.'s revenues and net loss attributable to the Company included in the Company's consolidated statement of income for U.S. GAAP purposes for the period from the acquisition date to December 31, 2010 were NT\$561,075 thousand and NT\$24,416 thousand, respectively.

The Company had completed the initial accounting for the EEMS Test Singapore Pte. Ltd. Acquisition in 2011 and recognized adjustments mainly related to property, plant and equipment to the provisional amounts as if the accounting for the EEMS Test Singapore Pte. Ltd. Acquisition had been completed at the acquisition date.

The carrying amount of property, plant, and equipment as of December 31, 2010 was increased by NT\$93,542 thousand. That adjustment is measured as the fair value adjustment at the acquisition date of NT\$120,732 thousand less the additional depreciation for 5 months, the adjustment related to assets disposed of and the effect of exchange rate changes that would have been recognized had the asset's fair value at the acquisition date been recognized from that date.

Depreciation expense and loss on disposed assets for 2010 was increased by NT\$16,504 thousand.

The carrying amount of goodwill as of December 31, 2010 was decreased by NT\$113,675 thousand.

**Luchu Acquisition**

As discussed in Note 2 and for long-term investment purpose, the Company acquired 84.25% shareholdings of Luchu in October and November 2011 with a total consideration of N\$1,366,238 thousand (US\$45,135 thousand). Luchu Acquisition was accounted for in accordance with the new

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U.S. guidance relating to business combinations in the consolidated financial statements.

The following table summarizes the consideration paid for Luchu common shares and the amounts of the assets acquired and liabilities assumed recognized at the acquisition date, as well as the fair value at the acquisition date of the noncontrolling interest in Luchu.

	As of Acquisition Date	
	NT\$	US\$
		(Note 2)
Fair value of total consideration transferred		
Cash paid	166,238	5,492
Credit by accounts receivable	1,000,000	33,036
Other payables under "other liabilities - other"	200,000	6,607
	1,366,238	45,135
Recognized amounts of identifiable assets acquired and liabilities assumed:		
Current assets	1,636,455	54,062
Other assets	4	-
Liabilities assumed	(60,981 )	(2,014 )
	1,575,478	52,048
Noncontrolling interest in Luchu	(216,174 )	(7,142 )
Goodwill	6,934	229
	1,366,238	45,135

Current assets, other assets and liabilities were recorded at fair value. The excess of the purchase price over the fair value of net assets acquired was allocated to goodwill.

Luchu generated no revenue in 2011. The amounts of Luchu's net loss attributable to the Company included in the Company's consolidated statement of income for U.S. GAAP purposes for the period from the acquisition date to December 31, 2011 were NT\$577 thousand (US\$19 thousand).

The following unaudited pro forma information is for illustrative purposes only and presents the results of operations for the years ended December 31, 2010 and 2011 and under U.S. GAAP as though the USI Acquisition, EEMS Test Singapore Pte. Ltd. Acquisition and Luchu Acquisition had occurred at the beginning of each of the periods presented. The unaudited pro forma financial information is not necessarily indicative of the consolidated results of operations in future periods or the results that actually would have been realized had the Company, USI, EEMS Test Singapore Pte. Ltd. and Luchu been a combined company during the specified periods. The unaudited pro forma financial information under U.S. GAAP does not reflect any operating efficiencies or cost savings the Company may achieve as a result of the acquisitions.

	Year Ended December 31		
	2010	2011	US\$
	NT\$	NT\$	(Note 2)
Net revenues	194,099,705	185,347,206	6,123,132
Net income	18,999,879	13,445,270	444,178

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## 1. Net income attributable to shareholders of the parent and transfers to noncontrolling interest

	Year Ended December 31		US\$ (Note 2)
	2010 NT\$	2011 NT\$	
Net income attributable to shareholders of the parent	18,158,180	13,532,514	447,060
Transfers to noncontrolling interest:			
Decrease in the parent's capital surplus for the purchase of subsidiaries' common shares from noncontrolling interest	(567,302 )	(303,748 )	(10,035 )
Change from net income attributable to shareholders of the parent and transfers from noncontrolling interest	17,590,878	13,228,766	437,025

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