

ADVANCED SEMICONDUCTOR ENGINEERING INC

Form F-3

May 30, 2002

As filed with the Securities and Exchange Commission on May 30, 2002

Registration No. 333-

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**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

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**FORM F-3**  
**REGISTRATION STATEMENT UNDER**  
**THE SECURITIES ACT OF 1933**

*(Exact name of Registrant as specified in its charter)*

**ADVANCED SEMICONDUCTOR ENGINEERING, INC.**

*(Translation of Registrant's name into English)*

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**Republic of China**  
*(State of other jurisdiction of incorporation or organization)*

**3674**  
*(Primary Standard Industrial Classification Code Number)*

**Not Applicable**  
*(I.R.S. Employer Identification No.)*

**26 Chin Third Road**  
**Nantze Export Processing Zone**  
**Nantze, Kaohsiung, Taiwan**  
**Republic of China**  
**(8867) 361-7131**

*(Address, including zip code, and telephone number including area code, of Registrant's principal executive offices)*

**CT Corporation System**  
**111 Eighth Avenue**  
**New York, New York 10011**  
**(212) 894-8940**

*(Name, address, including zip code, and telephone number, including area code, of agent for service)*

**With copies to:**

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**81-3-3213-6140**

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**Approximate date of commencement of proposed sale to the public:** As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

## CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Aggregate Offering Price per Unit(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Common Shares, par value NT\$10 per share(2)(3)	183,788,000	US\$0.91	US\$167,247,080	US\$15,386.73

- (1) Includes (a) 21,420,000 common shares represented by 4,284,000 American depositary shares that the underwriters have the option to purchase to cover over-allotments, if any, and (b) all common shares initially offered and sold outside the United States that may be resold from time to time in the United States either as part of the distribution or within 40 days after the later of the effective date of this registration statement and the date the securities are first bona fide offered to the public. The common shares are not being registered for the purpose of sales outside the United States.
- (2) Estimated solely for the purpose of determining the amount of the registration fee in accordance with Rule 457(c) under the Securities Act of 1933. On the basis of the average of the high and the low prices of the common shares represented by the American depositary shares on the New York Stock Exchange on May 28, 2002.
- (3) American depositary shares evidenced by American depositary receipts issuable upon deposit of the common shares registered hereby have been registered pursuant to a separate registration statement on Form F-6 filed with the Commission on August 31, 2000 (File No. 333-12468). Each American depositary share represents five common shares.

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion. Dated May 30, 2002.

## Advanced Semiconductor Engineering, Inc.

(Incorporated as a company limited by shares in the Republic of China)

32,473,600  
American Depositary Shares  
Representing  
162,368,000 Common Shares

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This is a global offering of 32,473,600 American depositary shares, or ADSs, of Advanced Semiconductor Engineering, Inc., or ASE Inc. The selling shareholders named on page 28 are selling all of the ADSs being offered in this offering. ASE Inc. will receive all of the net proceeds from the sale of ADSs in this offering by ASE Investment Inc., a wholly-owned subsidiary of ASE Inc. ASE Inc. will also receive all of the net proceeds from the sale of ADSs by ASE Capital Inc., a wholly-owned subsidiary of ASE Inc., if the underwriters' option to purchase additional ADSs is exercised. The ADSs are not being offered in the Republic of China. Each ADS represents five common shares, par value NT\$10 per share, of ASE Inc. The ADSs are evidenced by American depositary receipts, or ADRs.

Our ADSs are listed on the New York Stock Exchange under the symbol *ASX*. The last reported sale price of our ADSs on the New York Stock Exchange on May 29, 2002 was US\$4.25 per ADS. ASE Inc.'s outstanding common shares are listed on the Taiwan Stock Exchange under the symbol *2311*. The closing price of the common shares on the Taiwan Stock Exchange on May 29, 2002 was NT\$29.10 per share, which is equivalent to approximately US\$0.85, assuming an exchange rate of NT\$34.21 = US\$1.00.

*See Risk Factors* beginning on page 7 to read about factors you should consider before buying the ADSs.

**Neither the United States Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.**

	Per ADS	Total
Initial price to public	US\$	US\$
Underwriting discount	US\$	US\$
Proceeds, before expenses, to the selling shareholders	US\$	US\$

ASE Capital Inc. has granted the underwriters an option exercisable within 30 days from the date of this prospectus to purchase up to an additional 4,284,000 ADSs at the initial price to public less the underwriting discount.

The underwriters expect to deliver the ADSs through the book-entry transfer facilities of The Depository Trust Company against payment in U.S. dollars in New York, New York on \_\_\_\_\_, 2002.

**Goldman Sachs International**

Prospectus dated \_\_\_\_\_, 2002.

**These securities may not be offered or sold, directly or indirectly, in the Republic of China, except as permitted by applicable laws of the Republic of China.**

The ADSs may only be offered, sold, transferred or delivered in or from The Netherlands, as part of their initial distribution or as part of any re-offering, and neither this prospectus nor any other document in respect of this offering may be distributed or circulated in The Netherlands, other than to individuals or legal entities which include, but are not limited to, banks, brokers, dealers, institutional investors and undertakings with a treasury department, who or which trade or invest in securities in the conduct of a business or profession.

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**In connection with this offering, Goldman Sachs International or any person acting for it may over-allot or effect transactions with a view to supporting the market price of the ADSs and, subject to applicable laws of the Republic of China, the common shares at a level higher than that which might otherwise prevail for a limited period of time after the issue date. However, there may be no obligation on Goldman Sachs International or its agent to do this. Such stabilization, if commenced, may be discontinued at any time, and must be brought to an end after a limited period. See Underwriting .**

*Unless otherwise specified, the information contained herein assumes that the underwriters' option to purchase additional ADSs has not been exercised.*

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## PROSPECTUS SUMMARY

*The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and financial statements appearing elsewhere or incorporated by reference in this prospectus. In addition to this summary, we urge you to read the entire prospectus carefully, especially the discussion of the risks of investing in our ADSs under "Risk Factors", before deciding to buy our ADSs.*

### Business

We are one of the world's largest independent providers of semiconductor packaging services and, together with our subsidiary ASE Test Limited, or ASE Test, the world's largest independent provider of semiconductor testing services. Our services include semiconductor packaging, design and production of interconnect materials, front-end engineering testing, wafer probing and final testing services. We offer packaging and testing services on both stand-alone and turnkey bases. Turnkey services consist of the integrated packaging, testing and direct shipment of semiconductors to end users designated by our customers.

We believe that we are better positioned than our competitors to meet the requirements of semiconductor companies worldwide for outsourced packaging and testing services across a wide range of end use applications because of:

our ability to provide a broad range of advanced semiconductor packaging and testing services on a large scale turnkey basis;

our expertise in developing and providing advanced packaging and testing technologies and solutions;

our geographic presence in key centers of outsourced semiconductor and electronics manufacturing;

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; and

our long-term relationships with providers of complementary semiconductor manufacturing services, including our strategic alliance with Taiwan Semiconductor Manufacturing Company Limited, or TSMC, the world's largest dedicated semiconductor foundry.

We believe that the trend for semiconductor companies to outsource their packaging and testing requirements is accelerating as semiconductor companies increasingly rely on independent providers of foundry and advanced packaging and testing 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. We believe that our expertise and scale in advanced technology and our ability to integrate our broad range of solutions into turnkey 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, in addition, 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 requirements of our customers.

We have a global base of over 200 customers, including:

Advanced Micro Devices, Inc.

Altera Corporation

ATI Technologies Inc.

Cambridge Silicon Radio

Cirrus Logic, Inc.

Conexant Systems, Inc.

LSI Logic Corporation

Motorola, Inc.

NVIDIA Corporation

ON Semiconductor Corp.

Koninklijke Philips Electronics N.V.

Qualcomm Incorporated

Silicon Integrated Systems Corp.

STMicroelectronics N.V.

VIA Technologies, Inc.

### **Strategy**

Our objective is to provide leading-edge semiconductor packaging and testing solutions 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:

maintain our focus on providing a complete range of semiconductor packaging and testing services;

continue to focus on advanced technological, processing and materials capabilities;

strategically expand production capacity;

continue to leverage our presence in key centers of semiconductor and electronics manufacturing; and

strengthen and develop strategic relationships with providers of complementary manufacturing services.





### Our Corporate Structure

The following chart illustrates our corporate structure and our effective equity interest in each of our principal operating subsidiaries and affiliates as of April 30, 2002. The following chart does not include wholly-owned intermediate holding companies.

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- (1) The common shares of ASE Inc. are listed on the Taiwan Stock Exchange under the symbol 2311 . The ADSs of ASE Inc. are listed on the New York Stock Exchange under the symbol ASX .
  - (2) The ordinary shares of ASE Test Limited are quoted for trading on the Nasdaq National Market under the symbol ASTSF .
  - (3) The common shares of Universal Scientific Industrial Co., Ltd. are listed on the Taiwan Stock Exchange under the symbol 2350 .
  - (4) The common shares of Hung Ching Development & Construction Co. Ltd. are listed on the Taiwan Stock Exchange under the symbol 2527 .
  - (5) The remaining shares of ASE Material Inc. are owned by the management and employees of ASE Material Inc., the management and employees of ASE Inc. and its affiliates, as well as a strategic investor.

As of December 31, 2001, we held 51.0% of the outstanding shares of ASE Test which, as of April 30, 2002, had decreased to 49.97% as a result of the exercise of employee stock options in ASE Test shares. We continue to consolidate ASE Test because we effectively control ASE Test. We are evaluating alternatives to increase our ownership of ASE Test to greater than 50%, including open market purchases of ASE Test shares.

We are incorporated under the laws of the Republic of China. Our principal executive offices are located at 26 Chin Third Road, Nantze Export Processing Zone, Nantze, Kaohsiung, Taiwan, Republic of China and our telephone number at the above address is (8867) 361-7131.

### The Offering

The following information assumes that the underwriters do not exercise the option to purchase additional ADSs granted by ASE Capital Inc., or ASE Capital, a wholly-owned subsidiary of ASE Inc., to purchase additional ADSs in the offering, unless otherwise indicated. Please see Underwriting .

Offering price	US\$      per ADS
Selling shareholders	The selling shareholders are ASE Investment Inc., or ASE Investment, our wholly-owned subsidiary, and Hung Ching Development & Construction Co. Ltd., or Hung Ching, our unconsolidated affiliate. If the underwriters' option to purchase additional ADSs is exercised, ASE Capital will also sell ADSs in this offering.
ADSs offered by the selling shareholders	32,473,600 ADSs
ADSs outstanding as of May 29, 2002	42,076,558 ADSs
Common shares outstanding after this offering	3,254,800,000 common shares
ADS : common share ratio	1 : 5
Over-allotment option	ASE Capital, a wholly-owned subsidiary of ASE Inc., has granted the underwriters an option, exercisable within 30 days from the date hereof, to purchase up to an additional 4,284,000 ADSs.
Trading market for the common shares	The only trading market for the common shares is the Taiwan Stock Exchange. The common shares have been listed on the Taiwan Stock Exchange since 1989 under the symbol 2311 .
New York Stock Exchange symbol for ADSs	ASX
Use of proceeds	We will receive all of the net proceeds from the sale of ADSs by ASE Investment, our wholly-owned subsidiary, which will be approximately US\$115.0 million, after we deduct underwriting and estimated offering expenses. If the underwriters' option to purchase additional ADSs is exercised in full, we will receive all of the net proceeds from the sale of ADSs by ASE Capital, our wholly-owned subsidiary, which will be approximately US\$17.5 million, after we deduct underwriting and estimated offering expenses. We intend to use the net proceeds to reduce or retire our indebtedness and for working capital and general corporate purposes. See Use of Proceeds .
Timing and settlement for ADSs	The ADSs are expected to be delivered against payment on                      , 2002. The ADRs evidencing the ADSs will be deposited with a custodian for, and registered in the name of a nominee of, The Depository Trust Company, or DTC, in New York, New York. In general, beneficial interests in the ADSs will be shown on, and transfers of these beneficial interests will be effected only through, records maintained by DTC and its direct and indirect participants.

## SUMMARY CONSOLIDATED FINANCIAL INFORMATION

The following summary consolidated financial data have been derived from our consolidated financial statements. Our statements of income for the years ended December 31, 1999, 2000 and 2001 and our balance sheets as of December 31, 2000 and 2001 have been audited by T.N. Soong & Co., independent accountants. The report of T.N. Soong & Co. on those financial statements is included in this prospectus, and the summary consolidated financial information for those periods and as of those dates are qualified by reference to those financial statements and that report, and should be read in conjunction with them and with Management's Discussion and Analysis of Financial Condition and Results of Operations. Effective April 22, 2002, T.N. Soong & Co. became an associate member firm of Deloitte Touche Tohmatsu. T.N. Soong & Co. was formerly a member firm of Andersen Worldwide SC. The summary consolidated statement of income data for the years ended December 31, 1997 and 1998 and summary consolidated balance sheet data as of December 31, 1997, 1998 and 1999 set forth below are derived from our audited consolidated financial statements not included in this prospectus. These financial statements were also audited by T.N. Soong & Co. Our consolidated financial statements are prepared and presented in accordance with generally accepted accounting principles in the Republic of China, or ROC GAAP, which differ in material respects from generally accepted accounting principles in the United States, or US GAAP. Notes 27 and 28 of our consolidated financial statements contain additional disclosures required under US GAAP and provide descriptions of the significant differences between ROC GAAP and US GAAP and reconciliations of net income to US GAAP for the years ended December 31, 1999, 2000 and 2001 and reconciliations of shareholders' equity to US GAAP as of December 31, 2000 and 2001.

## Year Ended and as of December 31,

	1997	1998	1999	2000	2001	2001
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except share, ADS and earnings per share and per ADS data)					
<b>Income Statement Data:</b>						
ROC GAAP:						
Net revenues	19,088.2	20,762.4	32,609.6	50,893.4	38,367.8	1,096.2
Cost of revenues	(13,758.5)	(15,468.1)	(23,959.6)	(35,567.3)	(32,957.0)	(941.6)
Gross profit	5,329.7	5,294.3	8,650.0	15,326.1	5,410.8	154.6
Operating expenses:						
Selling	(733.5)	(744.7)	(924.3)	(1,020.5)	(877.9)	(25.1)
General and administrative(1)	(648.7)	(909.4)	(1,655.0)	(2,606.2)	(2,797.6)	(79.9)
Goodwill amortization(2)	(53.2)	(345.7)	(507.8)	(559.8)	(692.9)	(19.8)
Research and development	(372.9)	(453.6)	(714.3)	(1,262.5)	(1,504.5)	(43.0)
Operating income (loss)	3,521.4	2,840.9	4,848.6	9,877.1	(462.1)	(13.2)
Net non-operating income (expense):						
Investment income (loss) on long-term investment net(1)(3)	114.2	54.6	329.9	195.7	(868.8)	(24.8)
Goodwill amortization(4)	(155.1)	(155.1)	(279.3)	(363.0)	(378.0)	(10.8)
Gain (loss) on sale of investments net	4,870.9	606.9	5,544.2	91.7	50.7	1.4
Foreign exchange gain (loss) net	(133.8)	(935.5)	(538.4)	302.7	247.5	7.1
Interest income (expense) net(5)	(85.9)	(380.4)	(1,046.6)	(1,538.0)	(1,739.3)	(49.7)
Others net(6)	11.0	(50.1)	204.0	(162.6)	164.5	4.7
Income (loss) before tax	8,142.7	1,981.3	9,062.4	8,403.6	(2,985.5)	(85.3)
Income tax benefit (expense)	(374.9)	150.8	(459.5)	(1,065.8)	199.2	5.7
Income (loss) before minority interest	7,767.8	2,132.1	8,602.9	7,337.8	(2,786.3)	(79.6)
Income before acquisition			(65.1)			
Extraordinary loss					(144.6)	(4.1)
Minority interest in net loss (income) of subsidiary	(364.3)	(528.1)	(743.1)	(1,500.6)	788.7	22.5

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Net income (loss)	7,403.5	1,604.0	7,794.7	5,837.2	(2,142.2)	(61.2)
<b>Earnings per common share:</b>						
Simple	N/A	N/A	N/A	N/A	(0.66)	(0.02)
Primary(7)	2.33	0.49	2.46	1.82	N/A	N/A
Fully diluted(7)	2.33	0.49	2.45	1.80	N/A	N/A
Dividends per common share(8)	3.80	7.20	1.07	3.15	1.70	0.05
<b>Earnings per pro forma equivalent ADS:</b>						
Simple	N/A	N/A	N/A	N/A	(3.29)	(0.09)
Primary(7)	11.65	2.43	12.28	9.12	N/A	N/A
Fully diluted(7)	11.65	2.43	12.27	9.01	N/A	N/A
Number of common shares(9)	3,135,196,466	3,135,196,466	3,135,196,466	3,166,809,827	3,254,800,000	3,254,800,000
Number of pro forma equivalent ADSs	627,039,293	627,039,293	627,039,293	633,361,965	650,960,000	650,960,000

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Year Ended and as of December 31,

	1997	1998	1999	2000	2001	2001
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except share, ADS and earnings per share and per ADS data)					
<b>US GAAP:</b>						
Net income		298.9	4,641.3	3,930.0	(4,046.6)	(115.6)
<b>Earnings per common share:</b>						
Basic		0.10	1.56	1.31	(1.31)	(0.04)
Diluted		0.09	1.53	1.27	(1.31)	(0.04)
<b>Earnings per pro forma equivalent ADS:</b>						
Basic		0.51	7.81	6.54	(6.55)	(0.19)
Diluted		0.44	7.65	6.33	(6.55)	(0.19)
Number of common shares(9)	2,971,874,700	2,971,874,700	2,971,874,700	3,006,422,245	3,090,677,964	3,090,677,964
Number of pro forma equivalent ADSs	594,374,940	594,374,940	594,374,940	601,284,449	618,135,593	618,135,593
<b>Balance Sheet Data:</b>						
<b>ROC GAAP:</b>						
<b>Current assets:</b>						
Cash and cash equivalents	10,869.8	8,173.9	11,809.1	14,166.5	11,770.7	336.3
Short-term investments	4,008.0	647.2	216.3	1,682.7	4,601.2	131.5
Notes and accounts receivable	4,094.3	3,636.7	7,463.4	9,260.6	7,126.1	203.6
Inventories	2,059.0	1,744.8	2,449.7	3,246.3	2,768.4	79.1
Other	705.5	771.9	1,411.8	2,431.6	3,383.2	96.7
Total	21,736.6	14,974.5	23,350.3	30,787.7	29,649.6	847.2
Long-term investments	5,501.7	7,317.0	9,674.4	10,712.2	9,530.4	272.3
Properties	16,363.1	20,356.8	38,107.5	60,566.2	60,555.1	1,730.1
Other assets	1,557.7	4,363.2	6,198.6	6,275.1	6,591.2	188.3
Total assets	45,159.1	47,011.5	77,330.8	108,341.2	106,326.3	3,037.9
<b>Liabilities and minority interest:</b>						
Short-term bank borrowings/loans	5,946.0	6,810.2	9,868.2	13,768.0	13,983.1	399.5
Long-term bank borrowings/loans	11,872.9	12,235.0	24,551.5	25,976.9	30,674.3	876.4
Other liabilities and minority interest	6,306.5	6,091.5	12,854.1	24,927.1	19,722.6	563.5
Total liabilities and minority interest	24,125.4	25,136.7	47,273.8	64,672.0	64,380.0	1,839.4
Shareholders' equity	21,033.7	21,874.8	30,057.0	43,669.2	41,946.3	1,198.5
<b>US GAAP:</b>						
Shareholders' equity		17,675.2	26,569.7	40,729.1	37,960.3	1,084.6
<b>Segment Data:</b>						
<b>Net revenues:</b>						
Packaging	15,334.3	16,867.4	24,523.0	38,028.8	28,898.2	825.7
Testing	2,383.4	3,131.3	7,793.2	12,768.4	9,459.2	270.2
Other	1,370.5	763.7	293.4	96.2	10.4	0.3
<b>Gross profit:</b>						
Packaging	3,990.5	3,693.8	5,753.0	10,016.9	4,625.8	132.2

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Testing	1,148.7	1,484.6	3,105.2	5,294.4	782.8	22.4
Other	190.5	115.9	(208.2)	14.8	2.2	0.1
<b>Other Data:</b>						
Net cash outflow from acquisition of fixed assets	(8,030.1)	(6,945.0)	(9,869.2)	(30,063.6)	(11,565.7)	(330.4)
Depreciation and amortization	2,301.6	3,237.2	5,554.4	8,593.8	11,127.3	317.9
Net cash inflow (outflow) from operations	2,185.3	5,194.2	7,017.2	17,618.3	11,707.2	334.5
Net cash inflow (outflow) from sale of investments	5,495.0	290.5	7,889.3			
Net cash inflow (outflow) from investing activities(10)	(5,067.7)	(8,558.3)	(11,782.7)	(33,550.4)	(15,180.0)	(433.7)
Net cash inflow (outflow) from financing activities(11)	11,290.3	589.3	8,569.0	17,607.3	603.5	17.2

- (1) Excludes goodwill amortization for purposes of this table only.
- (2) Included in general and administrative expenses in our consolidated financial statements.
- (3) Derived by netting investment income under equity method in non-operating income and investment loss under equity method in non-operating expenses in our consolidated financial statements.
- (4) Included in investment loss under equity method in non-operating expenses in our consolidated financial statements.
- (5) Derived by netting interest in non-operating income and interest in non-operating expenses in our consolidated financial statements.
- (6) Derived by netting others in non-operating income and others in non-operating expenses in our consolidated financial statements.
- (7) The numerator of both primary and fully diluted earnings per share is calculated with consideration of the adjustment of ASE Test's primary and fully diluted earnings per share. See note 20 to our consolidated financial statements.
- (8) Dividends per common share issued as a stock dividend.
- (9) Represents the weighted average number of shares after retroactive adjustments to give effect to stock dividends and employee stock bonuses.
- (10) Includes proceeds from the sale of common shares, including common shares represented by global depositary shares, by affiliates of ASE Inc. and proceeds from the sale of ordinary shares of ASE Test by ASE Inc.
- (11) Includes proceeds from primary offerings of common shares, including common shares represented by ADSs, and ordinary shares by ASE Inc. and ASE Test, respectively.

## RISK FACTORS

*You should carefully consider the risks described below before making an investment decision. In particular, as we are a non-U.S. company, there are risks associated with investing in our ADSs that are not typical with investments in the shares of U.S. companies. Before making an investment decision, you should carefully consider all of the information contained in this prospectus, including the following risk factors.*

### Risks Relating to Our Business

***Since we are dependent on the highly cyclical semiconductor industry and conditions in the markets for the end use applications of our products, our revenues and earnings may fluctuate significantly.***

Our semiconductor packaging and testing business is affected by market conditions in the highly cyclical semiconductor industry. All 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 earnings. From time to time, the semiconductor industry has experienced significant, and sometimes prolonged, downturns. As our business is, and will continue to be, dependent on the requirements of semiconductor companies for independent packaging and testing services, any future downturn in the semiconductor industry would reduce demand for our services. For example, a worldwide slowdown in demand for semiconductors led to excess capacity and increased competition beginning in early 1998. As a result, price declines in 1998 accelerated more rapidly and, together with a significant decrease in demand, adversely affected our operating results in 1998. Prices for packaging and testing services improved due to an upturn in the industry in the second half of 1999 that continued through the third quarter of 2000, but have fallen since an industry downturn commencing in the fourth quarter of 2000 that continued through 2001. This most recent worldwide downturn resulted in an even more significant deterioration in the average selling prices, as well as demand, for our services in 2001, and significantly and adversely affected our operating results in 2001. We expect this industry downturn to continue to exert downward pressure on the average selling prices for our packaging and testing services. If we cannot reduce our costs to sufficiently offset any decline in average selling prices, our profitability will suffer and we may incur losses.

Market conditions in the semiconductor industry depend to a large degree on conditions in the markets for the end use applications of semiconductor products, such as communications, personal computer and consumer electronics products. Any deterioration of conditions in the markets for the end use applications of the semiconductors we package and test would reduce demand for our services, and would likely have a material adverse effect on our financial condition and results of operations. In 2001, approximately 71.5% of our net revenues were attributable to the packaging and testing of semiconductors used in personal computer and communications applications. Both industries are subject to intense competition and significant shifts in demand, which could put pricing pressure on the packaging and testing services provided by us and adversely affect our revenues and earnings.

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

In recent years, semiconductor manufacturers that have their own in-house packaging and testing capabilities, known as integrated device manufacturers, have increasingly outsourced stages of the semiconductor production process, including packaging and testing, to independent companies to reduce costs and shorten production cycles. 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 that outsource their manufacturing, packaging and testing requirements to independent

companies. We cannot assure you that these integrated device manufacturers and fabless semiconductor companies will continue to outsource their packaging and testing requirements to third parties like us. 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.

***If we are unable to compete favorably in the highly competitive semiconductor packaging and testing markets, our revenues and earnings may decrease.***

The semiconductor packaging and testing markets are very competitive. We face competition from a number of sources, including other independent semiconductor packaging and testing companies, especially those which offer turnkey packaging and testing services. We believe that the principal competitive factors in the markets for our products and services are:

- ability to provide total solutions to our customers;
- technological expertise;
- range of package types and testing platforms available;
- ability to work closely with customers at the product development stage;
- responsiveness and flexibility;
- capacity;
- production cycle time;
- production yield; and
- price.

We face increasing competition from other packaging and testing companies. In particular, most of our customers obtain packaging or testing services from more than one source. Furthermore, some of our competitors may have access to more advanced technologies and greater financial and other resources than we do. Many of our competitors have shown a willingness to quickly and sharply reduce prices, as they did in 1998 and in 2001, in order to maintain capacity utilization in their facilities during periods of reduced demand. Although prices have stabilized, any renewed erosion in the prices for our packaging and testing services could cause our revenues and earnings 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 on 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 ADSs and common shares. Among the more important factors affecting our quarterly and annual operating results are the following:

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

our ability to quickly adjust to unanticipated declines or shortfalls in demand and market prices for our packaging and testing services, due to our high percentage of fixed costs;

timing of capital expenditures in anticipation of future orders;

changes in prices of our packaging and testing services;

volume of orders relative to our packaging and testing capacity;

our ability to obtain adequate packaging and testing equipment on a timely basis;

changes in costs and availability of raw materials, equipment and labor; and

earthquakes, drought and other natural disasters, as well as industrial accidents.

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

***Due to our high percentage of fixed costs, we will be unable to maintain our profitability 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 as a result of our previous 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 can 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. In periods of low demand, we experience relatively low capacity utilization rates in our operations due to relatively low growth in demand, which leads to reduced margins during that period. During 2001, 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 led to reduced margins during that period. Although our capacity utilization rates have improved recently, we cannot assure you that we will be able to maintain or surpass our past profitability levels if we cannot consistently achieve or maintain relatively high capacity utilization rates.

***If we are unable to manage our expansion effectively, our growth prospects may be limited and our future profitability may be affected.***

We have significantly expanded our packaging and testing operations in recent years, and expect to continue to expand our operations in the future, including the expansion of our interconnect materials operations. In particular, we intend to provide total solutions covering all stages of the semiconductor manufacturing process to attract new customers and broaden our product range to include products packaged and tested for a variety of end use applications. In the past, we have expanded through both internal growth and the acquisition of new operations. Rapid expansion puts strain on our managerial, technical, financial, operational and other resources. As a result of our expansion, we have implemented and will continue to need 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.

***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.***

Our capital requirements are difficult to plan in our highly cyclical and rapidly changing industry. We will need capital to fund the expansion of our facilities as well as research and development activities in order to remain competitive. We believe that our existing cash and cash equivalents, short-term investments, expected cash flow from operations and existing credit lines under our short-term 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 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 the agreements governing our existing debt 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 and encumber or dispose of assets. In the event of a prolonged downturn in the demand for our services as a result of a downturn in the worldwide semiconductor industry or otherwise, 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. Furthermore, a default under one agreement 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, and our operations could be significantly disrupted or harmed. An event of default under any agreement 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.

As a result of the reduced levels of operating cash flow due primarily to the recent downturn in the worldwide semiconductor industry, we had on occasion during 2001 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. We have obtained waivers from the relevant lenders relating specifically to such non-compliance. In addition, we have repaid or refinanced all amounts owed under agreements containing cross-default provisions that we have identified which may have been triggered by such non-compliance. Such non-compliance has not had any significant effect on our ability to repay or refinance amounts due in respect of our existing debt. For these and other reasons, including our financial condition and our relationship with our lenders, no lender has to date sought and we do not believe that any of our lenders would seek

to declare a default or enforce remedies in respect of our existing debt, as a result of cross-default provisions or otherwise, although we cannot provide any assurance in this regard.

***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 particular, 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 the semiconductor 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. 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 import of foreign workers were to become significantly more restrictive or if we are otherwise unable to attract or retain these workers at reasonable cost.

Criminal charges were brought in December 1998 by the district attorney for Taipei against Jason C.S. Chang, our Chairman, Richard H.P. Chang, our Vice Chairman and Chief Executive Officer, and Chang Yao Hung-ying, our director, and others for alleged breach of fiduciary duties owed to Hung Ching, an affiliate of ASE Inc., in their capacity as directors and officer of Hung Ching relating to a sale of land. ASE Inc. is not a party to these proceedings and we do not expect that these charges will result in any liability to us. In January 2001, the District Court of Taipei rendered a judgment finding Jason C.S. Chang and Chang Yao Hung-ying guilty of forgery of corporate and other documents and breach of fiduciary duties and Richard H.P. Chang not guilty. In January 2002, the High Court of Taiwan, the Republic of China, or ROC, rendered a judgment relating to the appeal of the judgment by the District Court, and found Jason C.S. Chang and Chang Yao Hung-ying guilty and Richard H.P. Chang not guilty. In order to comply with the Singapore Companies Act, Jason C.S. Chang and Chang Yao Hung-ying have both resigned as directors of our subsidiary, ASE Test. Neither Jason C.S. Chang nor Chang Yao Hung-ying believes that he or she committed any offense in connection with such transactions, and they are appealing the decision to the Supreme Court of Taiwan, ROC. If the convictions are not overturned on appeal, they will be required under ROC law to resign as directors and Jason C.S. Chang will be required to resign as Chairman of ASE Inc. See Business Legal Proceedings .

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

We expect that we will need to offer more advanced interconnect materials designs and production processes in order to respond to competitive industry conditions and customer requirements. In particular, our competitive position will depend to a significant extent on our ability to design and produce interconnect materials that are comparable 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 further develop our in-house expertise and enhance our design and production capabilities. We expect to continue making investments in our subsidiary ASE Material Inc., or ASE Material, which focuses on the design and production of interconnect materials. In particular, we intend to further develop our in-house interconnect materials

capabilities with a view to sourcing a majority of our substrate requirements by value from ASE Material by the end of 2002. If we are unable to maintain and enhance our in-house interconnect materials expertise to offer advanced interconnect materials that meet the requirements of our customers, we may become less competitive and our margins and profitability may suffer as a result.

***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 business is capital intensive and requires 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 this equipment from a limited number of suppliers, including, in the case of wire bonders, Kulicke & Soffa Industries Inc., and in the case of testers, Advantest Corporation, Agilent Technologies, Inc., Credence Systems Corporation, LTX Corporation, Schlumberger Limited and Teradyne, Inc. 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 requires 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.

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

Currently, the majority of our revenues from packaging and testing services are denominated in U.S. dollars and NT dollars. Our costs of revenues and operating expenses associated with packaging and testing services, on the other hand, are incurred in several currencies, including NT dollars, U.S. dollars, Malaysian ringgit, Korean won, Philippine pesos, Singapore dollars and Hong Kong dollars. 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 much of the remainder in Japanese yen. Fluctuations in exchange rates, primarily among the U.S. dollar, the NT dollar and the Japanese yen, 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.

***The loss of a major customer or termination of our strategic alliance and 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, due in part to the concentration of market share in the semiconductor industry, 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. Our five largest customers together accounted for approximately 40%, 44% and 41% of our net revenues in 1999, 2000 and 2001, respectively. Other than Motorola, Inc. in 1999, and Motorola, Inc. and VIA Technologies, Inc. in 2000 and 2001, no other customer accounted for more than 10% of our net revenues in 1999, 2000 and 2001. The demand for our services from each customer is directly

dependent upon that customer's level of business activity, which could vary significantly from year to year. The loss of a major customer may adversely affect our revenues and profitability.

Our strategic alliance with TSMC, the world's largest dedicated semiconductor foundry, 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. This strategic alliance and any of our other commercial arrangements may be terminated at any time. A termination of this strategic alliance and other commercial arrangements, and our failure to enter into substantially similar alliances and commercial arrangements, may adversely affect our competitiveness and our revenues and profitability.

All of our key customers operate in the cyclical semiconductor business and have in the past, and may in the future, vary 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 cyclical nature 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 prior 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 reduce our 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.

***We depend on our agents for sales and customer service in North America and Europe. Any serious interruption in our relationship with these agents, or substantial loss in their effectiveness, could significantly reduce our revenues and profitability.***

We depend on non-exclusive agents for sales and customer service in North America and Europe. Our sales agents help us identify customers, monitor delivery acceptance and payment by customers and, within parameters set by us, help us negotiate price, delivery and other terms with our customers. Purchase orders are placed directly with us by our customers. Our customer service agents provide customer service and after-sales support to our customers.

Currently, our sales and customer service agents perform services only for us and our subsidiaries but they are not owned or controlled by us. These agents are free to perform sales and support services for others, including our competitors. In particular, we may not be able to find an adequate replacement for these agents or to develop sufficient capabilities internally on a timely basis. Any serious interruption in our relationship with these agents or substantial loss in their effectiveness in performing their sales and customer service functions could significantly reduce 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 packaging operations require that we obtain adequate supplies of raw materials on a timely basis. Shortages in the supply of raw materials experienced by the semiconductor industry have in the past resulted in occasional price increases and delivery delays. For example, in 1999 and the first half of 2000, the industry experienced a shortage in the supply of advanced substrates used in ball grid array, or BGA, packaging. We established ASE Material in 1997 to partially reduce this risk. However, we do not expect ASE Material to be able to provide sufficient raw materials to meet all of our requirements. Consequently, we will remain dependent on market supply and demand for our raw materials. We cannot assure you that we will be able to obtain adequate supplies of raw materials in a timely manner and at a reasonable price. Our revenues and earnings could decline if we were unable to obtain adequate supplies of high quality raw materials in a timely manner or if there were significant increases in the costs of raw materials that we could not pass on to our customers.

***Any environmental claims or failure to comply with any present or future environmental regulations may require us to spend additional funds and may materially and adversely affect our financial condition and results of operations.***

We are subject to a variety of 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 process. 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. Any failure on our part to control the use of, 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.

***Our controlling 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 controlling interest in our outstanding common shares. See **Principal Shareholders** . Accordingly, these shareholders will continue to have the ability to exercise a controlling 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 are a ROC company and, because the rights of shareholders under ROC law differ from those under U.S. law, 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 Republic of China. 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. As a result, public shareholders of ROC companies may have more difficulty in protecting their interest in connection with actions taken by management or members of the board of directors than they would as public shareholders of a U.S. corporation.

***Any impairment charges required under US GAAP may have a material adverse effect on our net income on a US GAAP reconciled basis.***

Under currently effective US GAAP, we are required to evaluate our equipment, goodwill 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. We can give no assurance that impairment charges will not be required in periods subsequent to December 31, 2001. Please see note 27 to our consolidated financial statements for a discussion of the criteria which, if met, may require impairment charges.

As a result of new standards under US GAAP that became effective on January 1, 2002, we are no longer permitted to amortize remaining goodwill. Total goodwill amortization expenses amounted to NT\$1,070.9 million (US\$70.6 million) under ROC GAAP for the year ended December 31, 2001. Starting from January 2002, all goodwill must be periodically tested for impairment. As of December 31, 2001, the goodwill under US GAAP amounted to NT\$6,882.7 million (US\$196.6 million). We currently are not able to estimate the extent and timing of any goodwill impairment charge for future years. Any goodwill impairment charge

required under US GAAP may have a material adverse effect on our net income for periods subsequent to December 31, 2001 on a US GAAP reconciled basis. Please see note 28h to our consolidated financial statements for a discussion of the new standards under US GAAP.

The determination of an impairment charge at any given time is based significantly on our expected results of operation over a number of years subsequent to that time. As a result, an impairment charge is more likely to occur during a period when our operating results are otherwise already depressed.

#### **Risks Relating to Taiwan, Republic of China**

***Strained relations between the Republic of China and the People's Republic of China could negatively affect our business and the market value of your investment.***

Our principal executive offices and our principal packaging and testing facilities are located in Taiwan and approximately 77% of our net revenues in 2001 from packaging and testing services are derived from our operations in Taiwan. The Republic of China has a unique international political status. The People's Republic of China asserts sovereignty over all of China, including Taiwan. The People's Republic of China government does not recognize the legitimacy of the Republic of China government. Although significant economic and cultural relations have been established in recent years between the Republic of China and the People's Republic of China, relations have often been strained and the government of the People's Republic of China has indicated that it may use military force to gain control over Taiwan in some circumstances, such as the declaration of independence by the Republic of China. Relations between the Republic of China and the People's Republic of China have been particularly strained in recent years. Past developments in relations between the Republic of China and the People's Republic of China have on occasion depressed the market price of the securities of ROC companies. Relations between the Republic of China and the People's Republic of China 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 ADSs and common shares.

In July 2000, our shareholders approved a resolution which authorizes our board of directors to make investments in the People's Republic of China. However, the Republic of China government currently restricts certain investments by ROC companies in the People's Republic of China. We do not know when or if such laws and policies governing investment in the People's Republic of China will be amended, and we cannot assure you that any such amendments to the Republic of China investment laws and policies will permit us to make an investment that we consider beneficial to us in the People's Republic of China in the future. As a result, our growth prospects and profitability may be adversely affected if we are restricted from making investments in the People's Republic of China and are not able to fully capitalize on the growth of the semiconductor industry in the People's Republic of China.

***As a substantial portion of our business and operations are located in Taiwan, we are vulnerable to earthquakes, drought and other natural disasters, which could severely disrupt the normal operation of our business and adversely affect our earnings.***

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. These earthquakes damaged production facilities and adversely affected the operations of many companies involved in the semiconductor and other industries. We experienced no structural damage to our facilities and no damage to our machinery and equipment as a result of these earthquakes. There were, however, interruptions to our production schedule primarily as a result of power outage caused by the earthquakes. In addition, many areas in Taiwan are experiencing a severe drought. As of May 3, 2002, the

Taiwan authorities announced water rationing measures in the northern parts of Taiwan. If the drought continues and the authorities are unable to source water from alternative sources in sufficient quantities, we may be required to temporarily shut down or substantially reduce the operations of our facilities in the affected areas, which would seriously affect our operations.

While we maintain several insurance policies relating to our business, we do not currently carry any insurance coverage for interruptions in public utility services or any other business interruption insurance except in connection with fire. Should these interruptions occur, we will be exposed to substantial risks and may be liable for the full amount of any losses.

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 drought or other natural disasters, it could result in a decline in the demand for our packaging and testing services. If our suppliers and providers of complementary semiconductor manufacturing services are affected, our production schedule could be interrupted or delayed. As a result, a major earthquake, drought, or other natural disasters in Taiwan could severely disrupt the normal operation of business and have a material adverse effect on our financial condition and results of operations.

### **Risks Relating to Ownership of ADSs**

***If an active market for our ADSs fails to be sustained, the price of our ADSs may fall.***

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. 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 ADR 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.

***As a holder of ADSs, your voting rights are limited by the terms of the deposit agreement. You will not be able to exercise your voting rights on an individual basis.***

As a holder of ADRs evidencing ADSs, you will not be able to exercise voting rights on an individual basis. You may exercise your voting rights with respect to the underlying common shares only in accordance with the provisions of the deposit agreement. In particular, for any resolution to be proposed at a shareholders meeting, only holders who (1) have provided voting instructions in a timely manner in accordance with the provisions of the deposit agreement, and (2) together own at least 51% of the outstanding ADSs voting in the same manner, will be able to vote the common shares representing their ADSs in the manner set forth in their voting instructions. In all other cases, holders will be deemed to have authorized and directed the depositary to give a discretionary proxy to our Chairman or his designee to vote the common shares represented by their ADSs in any manner he or his designee may wish, which may not be in the interests of the holders.

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

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. Under the deposit agreement, the depositary will not distribute rights to holders of



ADSs unless the distribution and sale of rights and the securities to which these rights relate are either exempt from registration under the U.S. Securities Act of 1933, as amended, or the Securities Act, with respect to all holders of ADSs, or are registered under the provisions of the Securities Act. We can give no assurances that we can establish an exemption from registration under the Securities Act, and we are under no obligation to file a registration statement with respect to these rights or underlying securities or to endeavor to have a registration statement declared effective. Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

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

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

The ability to deposit our common shares into our ADR facility is restricted by ROC law. A significant number of withdrawals of our common shares underlying our ADSs would reduce the liquidity of our ADSs by reducing the number of ADRs 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 into our ADR facility without specific approval of the ROC Securities and Futures Commission except where:

- (1) we pay stock dividends on our common shares;
- (2) we make a free distribution of our common shares;
- (3) you exercise preemptive rights in the event of a capital increase for cash; or
- (4) you purchase our common shares, directly or through the depositary, on the Taiwan Stock Exchange, and deliver our common shares to the custodian for deposit into our ADR facility. The depositary may issue ADSs against the deposit of our 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 Securities and Futures Commission, plus any additional ADSs issued pursuant to the events described in (1) through (3) above.

In addition, in the case of a deposit of common shares requested as described above, the depositary may refuse to accept our common shares for deposit if such deposit is not permitted under any restriction notified by us to the depositary from time to time. These restrictions may include blackout periods during which deposits may not be made and as well as limitations on the size and frequencies of deposits.

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

Except for the sale of ADSs to the underwriters, the selling shareholders have agreed with the underwriters not to dispose of any of our common shares or securities convertible into or exchangeable for common shares, including ADSs, during the period beginning from the date of this prospectus continuing through the date 90 days after the date of this prospectus, except with the prior written consent of the representative of the underwriters. Each of Jason C.S. Chang, Richard H.P. Chang, Chang Yao Hung-ying and Feng Mei-Jean has also entered into a similar 90-day lock-up agreement. In addition, we have agreed, subject to certain exceptions, not to issue any of our common shares, including common shares represented by ADSs, during the period beginning from the date of this prospectus continuing through the date 90 days after the date of this prospectus, except with the prior written consent of the representative. We have also

agreed to cause each of our subsidiaries and controlled affiliates not to dispose of any of our common shares or securities convertible into or exchangeable for common shares, including ADSs, during the period beginning from the date of the prospectus continuing through the date 90 days after the date of this prospectus, except with the written consent of the representative. The representative may, in its discretion, waive or terminate these restrictions. See [Common Shares Eligible for Future Sale](#) for a more detailed discussion of restrictions that may apply to future sales of our ADSs or common shares.

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, following completion of this offering, several of our subsidiaries and affiliates will continue to hold common shares, depository shares representing common shares and options to purchase common shares or ADSs. We or they may decide to sell those securities in the future. See [Principal 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 ADSs or common shares, or the availability of ADSs or common shares for future sale, will have on the market price of ADSs or common shares prevailing from time to time. Sales of substantial amounts of ADSs or common shares in the public market, or the perception that such sales may occur, could depress the prevailing market prices of our ADSs or common shares.

***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 depository, without obtaining further approvals from the Central Bank of China or any other governmental authority or agency of the ROC, may convert NT dollars into other currencies, including U.S. dollars, for:

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

In addition, the depository may also convert into NT dollars incoming payments for purchases of common shares for deposit in the ADR facility against the creation of additional ADSs. The depository may be required to obtain foreign exchange approval from the Central Bank of China 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 China 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, without obtaining further approval from the Central Bank of China, 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 depository receipt facility or received as a stock dividend; and
- any cash dividends or distribution received.

However, such holder may be required to obtain foreign exchange approval from the Central Bank of China on a payment-by-payment basis for conversion from NT dollars to foreign currencies of the proceeds from the sale of subscription rights for new common shares. Although the Central Bank of China 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 others, 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 market value of your investment may fluctuate due to the volatility of the ROC securities market.***

The ROC securities market is smaller and more volatile than the securities markets in the United States and in other 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 May 29, 2002, the Taiwan Stock Exchange Index closed at 5,623.2. The Taiwan Stock Exchange has experienced problems such as market manipulation, insider trading and payment defaults. The recurrence of these or similar problems could have a material adverse effect on the market price and liquidity of the securities of ROC companies, including our ADSs and common shares, in both the domestic and the international markets.

***Purchasers of 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 from time to time bonuses in the form of common shares valued at par under our employee stock bonus plan. In addition, under the revised ROC Company Law we may, upon approval from our board of directors and the ROC Securities and Futures Commission, establish an employee stock option plan. The issuance of these shares pursuant to stock bonuses or stock options may have a dilutive effect on your ADSs.

### FORWARD-LOOKING STATEMENTS

This prospectus and information incorporated by reference includes forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the U.S. Securities Exchange Act of 1934, as amended, or the Exchange Act. Our forward-looking statements contain information regarding, among other things, our financial condition, results of operations, future expansion plans and business strategy. We have based these forward-looking statements on our current expectations about future events. Although we believe these expectations are reasonable, these forward-looking statements are inherently subject to risks, uncertainties and assumptions about us and events and circumstances that affect our business, including:

the highly competitive semiconductor industry;

our ability to introduce new packaging and testing technologies in order to remain competitive;

our ability to successfully integrate future acquisitions;

risks associated with international business activities;

our business strategy;

general economic and political conditions;

possible disruptions in commercial activities caused by natural disasters or industrial accidents;

our future expansion plans and capital expenditures;

fluctuations in foreign currency exchange rates; and

other risks identified in the Risk Factors section of this prospectus.

The words anticipate, believe, estimate, expect, intend, plan and similar expressions, as they relate to us, are intended to identify the forward-looking statements in this prospectus. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this prospectus. These forward-looking statements are based on our own information and on information from other sources we believe to be reliable. Some of these forward-looking statements are derived from projections made and published by Dataquest and Electronic Trend Publications. We were not involved in the preparation of these projections. Our actual results may be materially less favorable than those expressed or implied by these forward-looking statements as a result of risks and other factors noted above and throughout this prospectus. We do not intend to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

### USE OF PROCEEDS

ASE Investment, one of the selling shareholders named in the Selling Shareholders section of this prospectus, is our wholly-owned subsidiary. The net proceeds to ASE Investment from the sale of ADSs will be approximately US\$115.0 million (assuming an initial offering price of US\$4.25 per ADS, which is based on the closing price of the ADSs on the New York Stock Exchange on May 29, 2002), after deducting underwriting and estimated offering expenses. ASE Capital, which has granted the underwriters an option to purchase additional ADSs, is also our wholly-owned subsidiary. If the underwriters' option to purchase additional ADSs is exercised in full, the net proceeds to ASE Capital from the sale of ADSs will be approximately US\$17.5 million (assuming an initial offering price of US\$4.25 per ADS, which is based on the closing price of the ADSs on the New York Stock Exchange on May 29, 2002), after deducting underwriting and estimated offering expenses.

ASE Investment intends to use the net proceeds from the sale of ADSs to retire its indebtedness. The following table sets forth the principal amount, the interest rate and the maturity of the borrowings that ASE Investment intends to repay by using NT\$1,025.0 million (US\$29.3 million) of the net proceeds from the sale of ADSs.

Principal Amount	Interest Rate	Maturity
(in millions)		
NT\$ 110.0	6.00%	within one year
NT\$ 300.0	5.58%	within one year
NT\$ 300.0	5.68%	within one year
NT\$ 97.0	5.75%	within one year
NT\$ 250.0	6.63%	within one year

If the underwriters' option to purchase additional ADSs is exercised in full, ASE Capital intends to use the net proceeds from the sale of the ADSs to retire its indebtedness. The following table sets forth the principal amount, the interest rate and the maturity of the borrowings that ASE Capital intends to repay by using NT\$80.0 million (US\$2.3 million) of the net proceeds from the sale of ADSs.

Principal Amount	Interest Rate	Maturity
(in millions)		
NT\$20.0	4.58%	within one year
NT\$70.0	5.58%	within one year

The remainder of the net proceeds from the sale of ADSs by ASE Investment, and if the underwriters' option to purchase additional ADSs is exercised in full, from the sale of ADSs by ASE Capital, will be used to reduce the indebtedness of ASE Inc. The following table sets forth the principal amount, the interest rate and maturity of the borrowings we intend to reduce.

Principal Amount	Interest Rate	Maturity
(in millions)		
US\$98.1	6.372%	within one year
NT\$6,000.0	5.885%	within three years

Pending these uses, we expect to invest the net proceeds in short-term, interest-bearing securities or may use a portion of the funds temporarily for working capital or general corporate purposes.

We will not receive any of the proceeds from the sale of ADSs by Hung Ching, which is one of our affiliates.

### MARKET PRICE INFORMATION FOR OUR COMMON SHARES

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 April 30, 2002, there were an aggregate of 3,254,800,000 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.

	Closing Price per Share		Adjusted Closing Price per Share <sup>(1)</sup>		Average Daily Trading Volume	Taiwan Stock Exchange Index	
	High	Low	High	Low	(in thousands of shares)	High	Low
1997	158.00	52.00	53.94	12.86	109,038	10,116.8	6,820.3
1998	191.00	47.00	65.76	27.60	54,727	9,277.1	6,251.4
1999	117.00	51.00	72.80	29.94	43,438	8,608.9	5,474.8
2000	123.00	22.60	79.95	19.32	22,279	10,202.2	4,614.6
First Quarter	123.00	91.00	79.95	59.15	40,946	10,202.2	8,448.8
Second Quarter	119.50	89.50	77.67	58.17	18,974	10,186.2	8,120.9
Third Quarter	95.00	43.10	61.75	36.84	12,496	8,585.5	6,432.4
Fourth Quarter	43.00	22.60	36.84	19.32	18,282	6,432.4	4,614.6
2001	38.80	14.00	34.20	14.00	22,799	6,104.2	3,446.3
First Quarter	38.80	22.50	33.16	19.23	34,321	6,104.2	4,743.9
Second Quarter	29.60	21.00	25.30	17.95	16,275	5,797.9	4,768.5
Third Quarter	22.60	14.00	20.20	14.00	14,249	4,886.9	3,493.8
Fourth Quarter	34.20	14.40	34.20	14.40	27,237	5,551.2	3,446.3
October	18.20	14.40	18.20	14.40	12,788	4,065.1	3,446.3
November	24.90	17.60	24.90	17.60	24,901	4,608.3	3,929.7
December	34.20	23.70	34.20	23.70	43,145	5,551.2	4,441.1
2002	38.50	26.00	38.50	26.00	26,881	6,462.3	5,443.2
First Quarter	35.80	26.00	35.80	26.00	32,486	6,242.6	5,488.3
January	33.70	27.80	33.70	27.80	27,923	6,007.3	5,488.3
February	28.90	26.00	28.90	26.00	17,280	5,968.6	5,499.8
March	35.80	27.00	35.80	27.00	45,956	6,242.6	5,680.8
Second Quarter (through May 29)	38.50	29.70	38.50	29.70	18,748	6,462.3	5,443.2
April	38.50	33.00	38.50	33.00	23,511	6,462.3	6,059.2
May (through May 29)	34.10	29.70	34.10	29.70	13,483	6,065.7	5,443.2

(1) As adjusted retroactively by the Taiwan Stock Exchange to give effect to stock dividends paid in the periods indicated. See 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. See Annex A The Securities Markets of the ROC The Taiwan Stock Exchange .

**MARKET PRICE INFORMATION FOR OUR ADSs**

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 April 30, 2002, a total of 43,022,558 ADSs were outstanding. The table below shows, 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 May 29, 2002 was US\$4.25 per ADS.

	Closing Price per ADS		Adjusted Closing Price per ADS <sup>(1)</sup>		Average Daily Trading Volume  (In thousands of ADSs)	New York Stock Exchange Index	
	High	Low	High	Low		High	Low
	US\$	US\$	US\$	US\$			
2000	6.75	3.06	5.77	2.62	28	667.87	624.12
Fourth Quarter	6.75	3.06	5.77	2.62	28	667.87	624.12
2001	6.05	1.75	5.17	1.75	97	666.57	504.21
First Quarter	6.05	3.06	5.17	2.62	90	666.57	566.35
Second Quarter	4.55	2.99	3.89	2.56	128	663.56	572.08
Third Quarter	3.25	1.75	3.00	1.75	47	627.27	504.21
Fourth Quarter	5.07	2.15	5.07	2.15	114	594.38	542.05
October	2.66	2.15	2.66	2.15	122	566.58	542.05
November	3.59	2.64	3.59	2.64	88	588.23	555.96
December	5.07	3.35	5.07	3.35	129	594.38	569.27
2002	5.54	3.75	5.54	3.75	134	609.53	557.49
First Quarter	5.35	3.75	5.35	3.75	122	609.53	557.49
January	4.97	3.92	4.97	3.92	99	596.57	564.93
February	4.15	3.75	4.15	3.75	49	579.20	557.49
March	5.35	4.15	5.35	4.15	216	609.53	588.63
Second Quarter (through May 29)	5.54	4.25	5.54	4.25	146	598.38	565.35
April	5.54	4.66	5.54	4.66	165	598.38	568.43
May (through May 29)	5.00	4.25	5.00	4.25	125	585.78	565.35

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

The ADSs offered in this offering will be fully fungible with, will be identified by the same CUSIP number and will be eligible for trading under the same New York Stock Exchange trading symbol as, the existing ADSs.



**DIVIDENDS AND DIVIDEND POLICY**

To date we have not paid cash dividends on our common shares, and we expect that we will continue to pay a substantial portion, if not all, of our dividends in the form of shares. We have paid annual stock dividends on our common shares since 1989. We do not expect to pay dividends in 2002 with respect to the results of the preceding fiscal year because of our net loss in 2001.

The following table sets forth the aggregate number of outstanding common shares entitled to dividends, as well as the stock dividends paid during each of the years indicated. The stock dividends per common share represent dividends paid in the fiscal year for common shares outstanding on the record date applicable to the payment of these dividends.

	Stock Dividends		Total Common Shares	Outstanding Common	Percentage of
	Per Common Share <sup>(1)</sup>		Issued as Stock Dividends	Shares on Record Date <sup>(2)</sup>	Outstanding Common Shares Represented by Stock Dividends
1995	NT\$3.60	US\$0.14	93,600,000	260,000,000	36.0%
1996	8.00	0.29	319,840,000	399,800,000 <sup>(3)</sup>	80.0
1997	3.80	0.14	277,020,000	729,000,000	38.0
1998	7.20	0.21	732,240,000	1,017,000,000	72.0
1999	1.07	0.03	190,460,000	1,780,000,000	10.7
2000	3.15	0.10	623,811,852	1,980,355,086	31.5
2001	1.70	0.05	467,840,000	2,752,000,000	17.0

- (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.
- (3) Includes 43,000,000 common shares issued in connection with an offering of global depository shares in July 1995.

We have historically paid stock dividends on our common shares with respect to the results of the preceding year after approval by our shareholders at the annual general meeting of shareholders. The form, frequency and amount of future cash or stock dividends on our common shares and ADSs will depend upon our earnings, cash flow, financial condition and other factors. See Description of Common Shares Dividends and Distributions and note 15 to our consolidated financial statements.

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 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 any gains on the disposal of fixed assets, prior years losses and legal and special reserves, if any) should be paid to our directors and supervisors as compensation; and

between 5% and 7% of the annual net income (less any gains on the disposal of fixed assets, prior years losses and legal and special reserves, if any) should be paid to our employees as bonuses; the 5% portion is to be distributed to all employees in accordance with our employee bonus plan, while any portion exceeding 5% 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.

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 described under [Description of American Depositary Receipts](#) [Dividends and Distributions](#) [Distributions of Cash](#) , 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 described under [Description of American Depositary Receipts](#) [Dividends and Distributions](#) [Distributions of Shares](#) , 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. Accordingly, purchasers of ADSs holding outstanding ADSs on the relevant dividend record date will, subject to the terms of the deposit agreement, be entitled to the full amount of any dividend declared at our next general meeting of the shareholders.

For information relating to ROC withholding taxes payable on dividends, see [Taxation](#) [ROC Taxation](#) [Dividends](#) . For information relating to ROC foreign exchange approvals required for the conversion by the depositary of dividends on common shares from NT dollars into U.S. dollars for the payment to holders of ADSs, see [Annex B](#) [Foreign Investment and Exchange Controls in the ROC](#) [Depositary Receipts](#) .

**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 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.

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

	<b>NT Dollars per U.S. Dollar Noon Buying Rate</b>			
	<b>Average</b>	<b>High</b>	<b>Low</b>	<b>Period-End</b>
1997	NT\$ 29.06	NT\$ 33.25	NT\$ 27.34	NT\$ 32.80
1998	33.54	35.00	32.05	32.27
1999	32.28	33.40	31.39	31.39
2000	31.37	33.25	30.35	33.17
2001	33.91	35.13	32.23	35.00
November	34.50	34.55	34.44	34.47
December	34.68	35.13	34.46	35.00
2002	34.98	35.11	34.57	34.59
First Quarter	35.04	35.11	34.94	35.00
January	35.03	35.08	34.94	34.99
February	35.07	35.11	34.99	35.11
March	35.02	35.10	34.95	35.00
Second Quarter (through May 29)	34.71	35.01	34.21	34.21
April	34.92	35.01	34.72	34.72
May (through May 29)	34.49	34.72	34.21	34.21

Source: Federal Reserve Statistical Release H10(512), 1997-2002, Board of Governors of the Federal Reserve System.

On May 29, 2002, the noon buying rate was NT\$34.21 to US\$1.00.

For information relating to ROC foreign exchange approvals required for the conversion by the depositary of dividends on common shares or proceeds from the sale of common shares from NT dollars into U.S. dollars and the payment to holders of ADSs, see Annex B Foreign Investment and Exchange Controls in the ROC Depositary Receipts .

We publish our financial statements in NT dollars, the lawful currency of the ROC. This prospectus contains translations of NT dollar amounts into U.S. dollars at specific rates solely for the convenience of the reader. Unless otherwise noted, all translations from NT dollars to U.S. dollars and from U.S. dollars to NT dollars were made at the noon buying rate in The City of New York for cable transfers in NT dollars per U.S. dollar as certified for customs purposes by the Federal Reserve Bank of New York as of December 31, 2001, which was NT\$35.00 to US\$1.00 on that date. No representation is made that the NT dollar or U.S. dollar amounts referred to in this prospectus could have been or could be converted into U.S. dollars or NT dollars, as the case may be, at any particular rate or at all.

## CAPITALIZATION

The following table sets forth our consolidated short-term debt and capitalization as of December 31 2001 and as adjusted to give effect to the net proceeds received by our company from the sale of ADSs by ASE Investment (assuming an initial offering price of US\$4.25 per ADS, which is based on the closing price of the ADSs on the New York Stock Exchange on May 29, 2002) after deducting underwriting and estimated offering expenses. Except as set forth below, there has been no material change in our consolidated short-term debt and capitalization since December 31, 2001. This table should be read in conjunction with our consolidated financial statements.

	As of December 31, 2001			
	Actual		As Adjusted	
	(in millions)			
	NT\$	US\$	NT\$	US\$
Short-term debt (including current portions of long-term debt and long-term payable for investments)	13,983.1	399.5	12,958.1	370.2
Long-term debt (excluding current portion of long-term debt)				
Unguaranteed and unsecured long-term debt	15,100.4	431.4	12,099.2	345.7
Unguaranteed and secured long-term debt	3,332.8	95.2	3,332.8	95.2
Guaranteed and unsecured long-term debt	7,936.9	226.8	7,936.9	226.8
Guaranteed and secured long-term debt	1,509.3	43.1	1,509.3	43.1
Long-term payable for investments	2,794.9	79.9	2,794.9	79.9
Shareholders' equity:				
Capital stock, par value NT\$10, 4,150.0 million shares authorized, 3,254.8 million shares issued and outstanding	32,548.0	929.9	32,548.0	929.9
Capital surplus	6,851.5	195.8	6,851.5	195.8
Retained earnings	1,015.7	29.0	1,015.7	29.0
Unrealized loss on long-term investments in shares of stock	(442.2)	(12.6)	(442.2)	(12.6)
Cumulative translation adjustments	1,973.4	56.4	1,973.4	56.4
Total shareholders' equity	41,946.3	1,198.5	41,946.3	1,198.5
Total capitalization	86,603.7	2,474.4	82,577.5	2,359.4

### SELLING SHAREHOLDERS

All of the ADSs being offered in this offering are being offered by the selling shareholders listed below. As of April 30, 2002, these selling shareholders held an aggregate of 181,904,649 of our common shares, representing 5.6% of the total common shares outstanding. Following this offering, the selling shareholders will own an aggregate of 19,536,649 of our common shares, representing 0.6% of the total common shares outstanding. The table below sets forth the beneficial ownership of our common shares of each of the selling shareholders prior to this offering and after giving effect to the sale of all of the ADSs offered in this offering.

Name	Before This Offering (as of April 30, 2002)		After This Offering (Assuming the Underwriters Do Not Exercise Their Option to Purchase Additional ADS)		After This Offering (Assuming the Underwriters Fully Exercise Their Option to Purchase Additional ADS)	
	Number of Common Shares	Percentage of Total Outstanding Common Shares	Number of Common Shares	Percentage of Total Outstanding Common Shares	Number of Common Shares	Percentage of Total Outstanding Common Shares
ASE Investment	142,368,827	4.4%	827	0.0%	827	0.0%
Hung Ching	39,535,822	1.2%	19,535,822	0.6%	19,535,822	0.6%

In the event the underwriters exercise their option to purchase additional ADSs, ASE Capital will sell up to a total of 4,284,000 ADSs, and ASE Capital will, after such sale, own 317 of our common shares, representing 0.0% of the total common shares outstanding.

The principal executive offices of ASE Investment and ASE Capital are located at TWTC International Trade Building, 19th Floor, No. 333, Keelung Rd., Sec. 1, Taipei, Taiwan. The principal executive office of Hung Ching is located at 10th Floor, No. 420, Keelung Rd., Sec. 1, Taipei, Taiwan.

## SELECTED CONSOLIDATED FINANCIAL INFORMATION

The following selected consolidated financial data have been derived from our consolidated financial statements. Our statements of income for the years ended December 31, 1999, 2000 and 2001 and our balance sheets as of December 31, 2000 and 2001 have been audited by T.N. Soong & Co., independent accountants. Our consolidated financial statements, and the report of T.N. Soong & Co. on those financial statements, are included in this prospectus. The selected consolidated financial information for those periods and as of those dates are qualified by reference to those financial statements and that report, and should be read in conjunction with them and with Management's Discussion and Analysis of Financial Condition and Results of Operations. Effective April 22, 2002, T.N. Soong & Co. became an associate member firm of Deloitte Touche Tohmatsu. T.N. Soong & Co. was formerly a member firm of Andersen Worldwide SC. The selected consolidated statement of income data for the years ended December 31, 1997 and 1998 and selected consolidated balance sheet data as of December 31, 1997, 1998 and 1999 set forth below are derived from our audited consolidated financial statements not included in this prospectus. These financial statements were also audited by T.N. Soong & Co. Our consolidated financial statements are prepared and presented in accordance with generally accepted accounting principles in the ROC, or ROC GAAP, which differ in material respects from generally accepted accounting principles in the United States, or US GAAP. Notes 27 and 28 to our consolidated financial statements contain additional disclosures required under US GAAP and provide descriptions of the significant differences between ROC GAAP and US GAAP and reconciliations of net income to US GAAP for the years ended December 31, 1999, 2000 and 2001 and reconciliations of shareholders' equity to US GAAP as of December 31, 2000 and 2001.

## Year Ended and as of December 31,

	1997	1998	1999	2000	2001	2001
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except share, ADS and earnings per share and per ADS data)					
<b>Income Statement Data:</b>						
ROC GAAP:						
Net revenues	19,088.2	20,762.4	32,609.6	50,893.4	38,367.8	1,096.2
Cost of revenues	(13,758.5)	(15,468.1)	(23,959.6)	(35,567.3)	(32,957.0)	(941.6)
Gross profit	5,329.7	5,294.3	8,650.0	15,326.1	5,410.8	154.6
Operating expenses:						
Selling	(733.5)	(744.7)	(924.3)	(1,020.5)	(877.9)	(25.1)
General and administrative, excluding goodwill amortization(1)	(648.7)	(909.4)	(1,655.0)	(2,606.2)	(2,797.6)	(79.9)
Goodwill amortization(2)	(53.2)	(345.7)	(507.8)	(559.8)	(692.9)	(19.8)
Research and development	(372.9)	(453.6)	(714.3)	(1,262.5)	(1,504.5)	(43.0)
Operating income (loss)	3,521.4	2,840.9	4,848.6	9,877.1	(462.1)	(13.2)
Net non-operating income (expense):						
Investment income (loss) on long-term investment net(1)(3)	114.2	54.6	329.9	195.7	(868.8)	(24.8)
Goodwill amortization(4)	(155.1)	(155.1)	(279.3)	(363.0)	(378.0)	(10.8)
Gain (loss) on sale of investments net	4,870.9	606.9	5,544.2	91.7	50.7	1.4
Foreign exchange gain (loss) net	(133.8)	(935.5)	(538.4)	302.7	247.5	7.1
Interest income (expense) net(5)	(85.9)	(380.4)	(1,046.6)	(1,538.0)	(1,739.3)	(49.7)
Others net(6)	11.0	(50.1)	204.0	(162.6)	(164.5)	(4.7)
Income (loss) before tax	8,142.7	1,981.3	9,062.4	8,403.6	(2,985.5)	(85.3)
Income tax benefit (expense)	(374.9)	150.8	(459.5)	(1,065.8)	199.2	5.7
Income (loss) before minority interest	7,767.8	2,132.1	8,602.9	7,337.8	(2,786.3)	(79.6)
Income before acquisition			(65.1)			
Extraordinary loss					(144.6)	(4.1)
Minority interest in net loss (income) of subsidiary	(364.3)	(528.1)	(743.1)	(1,500.6)	788.7	22.5
Net income (loss)	7,403.5	1,604.0	7,794.7	5,837.2	(2,142.2)	(61.2)
Earnings per common share:						
Simple	N/A	N/A	N/A	N/A	(0.66)	(0.02)

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Primary(7)	2.33	0.49	2.46	1.82	N/A	N/A
Fully diluted(7)	2.33	0.49	2.45	1.80	N/A	N/A
Dividends per common share(8)	3.80	7.20	1.07	3.15	1.70	0.05
Earnings per pro forma equivalent ADS:						
Simple	N/A	N/A	N/A	N/A	(3.29)	(0.09)
Primary(7)	11.65	2.43	12.28	9.12	N/A	N/A
Fully diluted(7)	11.65	2.43	12.27	9.01	N/A	N/A

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Year Ended and as of December 31,

	1997	1998	1999	2000	2001	2001
	NT\$	NT\$	NT\$	NT\$	NT\$	US\$
	(in millions, except share, ADS and earnings per share and per ADS data)					
Number of common shares(9)	3,135,196,466	3,135,196,466	3,135,196,466	3,166,809,827	3,254,800,000	3,254,800,000
Number of pro forma equivalent ADSs	627,039,293	627,039,293	627,039,293	633,361,965	650,960,000	650,960,000
US GAAP:						
Net income		298.9	4,641.3	3,930.0	(4,046.6)	(115.6)
Earnings per common share:						
Basic		0.10	1.56	1.31	(1.31)	(0.04)
Diluted		0.09	1.53	1.27	(1.31)	(0.04)
Earnings per pro forma equivalent ADS:						
Basic		0.51	7.81	6.54	(6.55)	(0.19)
Diluted		0.44	7.65	6.33	(6.55)	(0.19)
Number of common shares(9)	2,971,874,700	2,971,874,700	2,971,874,700	3,006,422,245	3,090,677,964	3,090,677,964
Number of pro forma equivalent ADSs	594,374,940	594,374,940	594,374,940	601,284,449	618,135,593	618,135,593
<b>Balance Sheet Data:</b>						
ROC GAAP:						
Current assets:						
Cash and cash equivalents	10,869.8	8,173.9	11,809.1	14,166.5	11,770.7	336.3
Short-term investments	4,008.0	647.2	216.3	1,682.7	4,601.2	131.5
Notes and accounts receivable	4,094.3	3,636.7	7,463.4	9,260.6	7,126.1	203.6
Inventories	2,059.0	1,744.8	2,449.7	3,246.3	2,768.4	79.1
Other	705.5	771.9	1,411.8	2,431.6	3,383.2	96.7
Total	21,736.6	14,974.5	23,350.3	30,787.7	29,649.6	847.2
Long-term investments	5,501.7	7,317.0	9,674.4	10,712.2	9,530.4	272.3
Properties	16,363.1	20,356.8	38,107.5	60,566.2	60,555.1	1,730.1
Other assets	1,557.7	4,363.2	6,198.6	6,275.1	6,591.2	188.3
Total assets	45,159.1	47,011.5	77,330.8	108,341.2	106,326.3	3,037.9
Short-term bank borrowings/loans	5,946.0	6,810.2	9,868.2	13,768.0	13,983.1	399.5
Long-term bank borrowings/loans	11,872.9	12,235.0	24,551.5	25,976.9	30,674.3	876.4
Other liabilities and minority interest	6,306.5	6,091.5	12,854.1	24,927.1	19,722.6	563.5
Total liabilities and minority interest	24,125.4	25,136.7	47,273.8	64,672.0	64,380.0	1,839.4
Shareholders' equity	21,033.7	21,874.8	30,057.0	43,669.2	41,946.3	1,198.5
US GAAP:						
Shareholders' equity		17,675.2	26,569.7	40,729.1	37,960.3	1,084.6
Segment Data:						
Net revenues:						
Packaging	15,334.3	16,867.4	24,523.0	38,028.8	28,898.2	825.7
Testing	2,383.4	3,131.3	7,793.2	12,768.4	9,459.2	270.2
Other	1,370.5	763.7	293.4	96.2	10.4	0.3



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Gross profit:						
Packaging	3,990.5	3,693.8	5,753.0	10,016.9	4,625.8	132.2
Testing	1,148.7	1,484.6	3,105.2	5,294.4	782.8	22.4
Other	190.5	115.9	(208.2)	14.8	2.2	0.1
<b>Other Data:</b>						
Net cash outflow from						
acquisition of fixed assets	(8,030.1)	(6,945.0)	(9,869.2)	(30,063.6)	(11,565.7)	(330.4)
Depreciation and amortization	2,301.6	3,237.2	5,554.4	8,593.8	11,127.3	317.9
Net cash inflow (outflow) from						
operations	2,185.3	5,194.2	7,017.2	17,618.3	11,707.2	334.5
Net cash inflow (outflow) from						
sale of investments	5,495.0	290.5	7,889.3			
Net cash inflow (outflow) from						
investing activities(10)	(5,067.7)	(8,558.3)	(11,782.7)	(33,550.4)	(15,180.0)	(433.7)
Net cash inflow (outflow) from						
financing activities(11)	11,290.3	589.3	8,569.0	17,607.3	603.5	17.2

- (1) Excludes goodwill amortization for purposes of this table only.
- (2) Included in general and administrative expenses in our consolidated financial statements.
- (3) Derived by netting investment income under equity method in non-operating income and investment loss under equity method in non-operating expenses in our consolidated financial statements.
- (4) Included in investment loss under equity method in non-operating expenses in our consolidated financial statements.
- (5) Derived by netting interest in non-operating income and interest in non-operating expenses in our consolidated financial statements.
- (6) Derived by netting others in non-operating income and others in non-operating expenses in our consolidated financial statements.
- (7) The numerator of both primary and fully diluted earnings per share is calculated with consideration of the adjustment of ASE Test's primary and fully diluted earnings per share. See note 20 to our consolidated financial statements.
- (8) Dividends per common share issued as a stock dividend.
- (9) Represents the weighted average number of shares after retroactive adjustments to give effect to stock dividends and employee stock bonuses.
- (10) Includes proceeds from the sale of common shares, including global depository shares, by affiliates of ASE Inc. and proceeds from the sale of ordinary shares of ASE Test by ASE Inc.
- (11) Includes proceeds from primary offerings of common shares, including ADSs, and ordinary shares by ASE Inc. and ASE Test, respectively.

**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION  
AND RESULTS OF OPERATIONS**

*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 prospectus. 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 "Risk Factors" and elsewhere in this prospectus. See "Forward-Looking Statements."*

**Overview**

We offer a broad range of semiconductor packaging and testing services. 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. Our net revenues increased from NT\$32,609.6 million in 1999 to NT\$50,893.4 million in 2000 primarily as a result of an upturn in the semiconductor industry that continued through the third quarter of 2000, but decreased to NT\$38,367.8 million (US\$1,096.2 million) in 2001 due to a severe downturn in the semiconductor industry. The decrease in our net revenues during 2001 was across each of the principal end use applications for the products which we packaged and tested — communications, personal computers and consumer electronics. In the fourth quarter of 2001, we experienced a gradual improvement in our net revenues compared to the preceding quarter. This improvement was generally concentrated in the packaging of more advanced package types and the testing of more complex, high-performance semiconductors.

**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. However, as more than half of our costs, including most of our labor and overhead costs, are denominated in NT dollars, we consider the NT dollar to be our functional currency. Furthermore, the majority of our financing costs are denominated in NT dollars.

In 1999, 2000 and 2001, our packaging revenues accounted for 75.2%, 74.7% and 75.3% while testing revenues accounted for 23.9%, 25.1% and 24.7%, respectively, of our net revenues. The portion of the semiconductor testing market currently accounted for by independent testing service providers is smaller than that for packaging, which we believe will result in outsourced testing growing at a faster rate than outsourced packaging. In addition, the large capital expenditures needed for increasingly sophisticated testing equipment, as compared to less expensive packaging equipment, is leading to further outsourcing of testing services by integrated device manufacturers.

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 that experienced 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. During the industry downturn commencing in the fourth quarter of 2000, we experienced a significant deterioration in prices which resulted in our company incurring a net loss in 2001.

Declines in average selling prices have been partially offset over the last three years by a change in our revenue mix. In particular, revenues derived from packaging more advanced

package types, such as ball grid array, or BGA, and 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 developing and offering new technologies in packaging and testing services and expand our capacity to achieve economies of scale, as well as improving production efficiencies for older technology, in order to mitigate the effects of declining prices on our profitability.

### **High Fixed Costs**

Our operations are capital intensive and our primary capital requirements are for the purchase of packaging and testing equipment. As a result, fixed costs, primarily depreciation expense, are a major component of our cost of revenues. In particular, depreciation is the principal component of our cost of testing revenues as testing requires minimal raw materials. Increases or decreases in capacity utilization rates can have a significant effect on gross profit margins, as the unit cost of packaging and testing services generally decreases as fixed costs, such as equipment depreciation expense, are allocated over a larger number of units. Our ability to maintain or improve our margins will continue to depend to a large extent on our ability to effectively manage capacity utilization levels.

The current generation of advanced testers typically cost between US\$2.0 million and US\$5.0 million each, while wire bonders used in packaging typically cost approximately US\$100,000 each. In 1999, 2000 and 2001, our depreciation expense as a percentage of net revenues was 16.3%, 15.7% and 27.0%, respectively. The significant increase in depreciation expense as a percentage of net revenues in 2001 primarily reflected the significant decrease in net revenues during that year and full year effect of our capacity expansion in 2000. We begin depreciating our equipment when it is placed into service. There may sometimes be a time lag between when our equipment is placed into service and when it achieves high levels of utilization. In periods of depressed industry conditions such as 2001, we may experience lower than expected demand from customers and a sharp decline in average selling price, resulting in an increase in depreciation expense relative to net revenues.

### **Raw Material Costs**

Substantially all of our raw material costs are accounted for by packaging and the production of interconnect materials, as testing requires minimal raw materials. In 1999, 2000 and 2001, raw material cost as a percentage of our net revenues was 30.0%, 28.7% and 30.7%, respectively. We expect interconnect materials to become an increasingly important component of the cost of our packaging revenues and we plan to continue to develop and enhance our in-house interconnect materials capabilities through ASE Material in order to maintain and enhance our profitability, ensure an adequate supply of interconnect materials at competitive prices and reduce production time.

### **Consolidation of ISE Labs, ASE Chung Li and ASE Korea**

In 1999, we acquired Motorola, Inc.'s semiconductor packaging and testing operations in Chung Li, Taiwan and Paju, South Korea. The businesses are now operated by ASE (Chung Li) Inc., or ASE Chung Li, and ASE (Korea) Inc., or ASE Korea. In addition, in 1999 ASE Test acquired 70% of the outstanding shares of ISE Labs, Inc., or ISE Labs, an independent semiconductor testing company. Under the method of consolidation used by us to consolidate the statements of income of ISE Labs, ASE Chung Li and ASE Korea for the year ended December 31, 1999: (1) ISE Labs' full-year 1999 net revenues, cost of revenues and operating expenses are included in our consolidated financial statements, and the pre-acquisition income of ISE Labs for the year ended December 31, 1999 (from January 1 to May 4, 1999) is then subtracted from our net income for 1999; and (2) the net revenues, cost of revenues, operating expenses and net income of ASE Chung Li and ASE Korea are included in our consolidated

financial statements since the date of acquisition. See notes 2 and 28f to our consolidated financial statements.

### **Goodwill Amortization**

Our operating and non-operating income in recent years have been affected by goodwill amortization charges in connection with acquisitions, the restructuring of our investment holdings and other share repurchases. Under ROC GAAP, additional purchases of shares of consolidated subsidiaries (majority owned) or of companies accounted for using the equity method (less than majority but at least 20% owned) will generate goodwill in an amount equal to the difference between the purchase price and the book value per share of those shares. The goodwill generated is amortized over ten years. Goodwill generated on the purchases of shares of consolidated subsidiaries are recognized under general and administrative expense. Goodwill generated on the purchases of shares of companies accounted for using the equity method are recognized as a debit under investment income. In addition to the acquisitions of ASE Korea and ISE Labs, other transactions which created significant goodwill charges were (1) the open-market purchases of 22.6% of Universal Scientific Industrial Co., Ltd., or Universal Scientific, shares in 1999, (2) the purchase of additional ordinary shares of ASE Test in 2001 from two of our directors at the prevailing market price and (3) the open market purchase of shares of Hung Ching between 1995 and 1996. No goodwill was recognized in connection with the acquisition of ASE Chung Li, which was structured as an asset purchase, due to the appreciation of the fixed assets purchased. See Related Party Transactions and note 10 to our consolidated financial statements.

### **Critical Accounting Policies and Estimates**

Preparation of our consolidated financial statements requires us to make estimates and judgments that affect the amounts of our assets, liabilities, revenues and expenses. We continually evaluate these estimates, including those related to allowances for doubtful accounts, inventories, useful lives of properties, consolidated debts, income tax valuation allowances, pension plans and the fair value of financial instruments. We base our estimates on historical experience and other assumptions which we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions and conditions. We have identified below the accounting policies that are the most critical to our consolidated financial statements.

**Revenue recognition.** Revenues from semiconductor packaging services that we provide are recognized upon shipment. Revenues from testing services that we provide are recognized upon completion of the services. We do not take ownership of: (1) bare semiconductor wafers received from customers that we package into finished semiconductors, and (2) packaged semiconductors received from customers that we test. The title and risk of loss remains with the customer for those bare semiconductors and/or packaged semiconductors. Accordingly, the cost of customer-supplied semiconductors materials is not included in our consolidated financial statements. Other criteria that we use to determine when to recognize revenue are: (1) persuasive evidence that the services provided exists, (2) the selling price is fixed or determinable and (3) collectibility is reasonably assured. These policies are consistent with provisions in the Staff Accounting Bulletin No. 101 issued by the United States Securities and Exchange Commission, or SEC. We do not provide warranties to our customers except in cases of defects in the packaging services provided and deficiencies in testing services provided. An appropriate sales allowance is recognized in the period during which the sale is recognized.

**Allowance for Doubtful Accounts.** 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 follows. We first identify the receivables of customers that are of a higher credit risk based on their current overdue accounts with us, difficulties collecting from

these customers in the past or their overall financial condition. For each of these customers, we estimate the extent to which the customer will be able to meet its financial obligations to us, and we record an allowance that reduces our accounts receivable for that customer to the amount that we reasonably believe will be collected. For all other customers, we maintain an allowance for doubtful accounts equal to a percentage of their aggregate accounts receivable. Based on our prior experience, we currently maintain an allowance for the account receivables of these other customers of between 3% and 4% of net revenues. Additional allowances may be required in the future if the financial condition of our customers or general economic conditions deteriorate, and this additional allowance would reduce our net income.

**Useful Lives of Properties.** Our operations are capital intensive and we have significant investments in expensive packaging and testing equipment. Properties represented 56% and 57% of our total assets as of December 31, 2000 and 2001, respectively. We depreciate our properties based on our estimate of their economic useful lives to us, which is in turn based on our judgment, historical experience and the potential obsolescence of our existing equipment brought about by the introduction of more sophisticated packaging and testing technologies and processes. If we subsequently determine that the actual useful life of properties is shorter than what we had estimated, we will depreciate the remaining undepreciated value of that asset over its remaining economic useful life. This would result in increased depreciation expense and decreased net income during those periods. Similarly, if the actual lives of properties is longer than what we had estimated, we would have a smaller depreciation expense and higher net income in subsequent periods. As a result, if our estimations of the useful lives of our properties are not accurate or are required to be changed in the future, our net income in future periods would be affected.

### 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,		
	1999	2000	2001
	(percentage of net revenues)		
ROC GAAP:			
Net revenues	100.0%	100.0%	100.0%
Packaging	75.2	74.7	75.3
Testing	23.9	25.1	24.7
Other	0.9	0.2	0.0
Cost of revenues	(73.5)	(69.9)	(85.9)
Gross profit	26.5	30.1	14.1
Operating expenses	(11.6)	(10.7)	(15.3)
Operating income (loss)	14.9	19.4	(1.2)
Non-operating income (expenses)	12.9	(2.9)	(6.6)
Income (loss) before income tax and minority interest	27.8	16.5	(7.8)
Income tax benefit (expense)	(1.4)	(2.1)	0.5
Income (loss) before minority interest	26.4	14.4	(7.3)
Pre-acquisition interest	(0.2)		
Extraordinary loss			(0.4)
Minority interest in net (income) loss of subsidiary	(2.3)	(2.9)	2.1
Net income (loss)	23.9%	11.5%	(5.6)%

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The following table sets forth, for the periods indicated, the gross margins for our packaging and testing services and our total gross margin.

	Year Ended December 31,		
	1999	2000	2001
<b>ROC GAAP:</b>			
Gross margin			
Packaging	23.5%	26.3%	16.0%
Testing	39.8%	41.5%	8.3%
Total	26.5%	30.1%	14.1%

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,		
	1999	2000	2001
(percentage of net revenues)			
<b>ROC GAAP:</b>			
Cost of revenues			
Raw materials	30.0%	28.7%	30.7%
Labor	13.0	12.9	14.6
Depreciation	16.3	15.7	27.0
Other	14.4	12.6	13.6
Total cost of revenues	73.5%	69.9%	85.9%
Operating expenses			
Selling	2.8%	2.0%	2.3%
General and administrative <sup>(1)</sup>	5.0	5.1	7.3
Goodwill amortization <sup>(2)</sup>	1.6	1.1	1.8
Research and development	2.2	2.5	3.9
Total operating expenses	11.6%	10.7%	15.3%

(1) Excludes goodwill amortization for purposes of this table only.

(2) Included in general and administrative expense in our consolidated financial statements.

### **Year Ended December 31, 2001 Compared to Year Ended December 31, 2000**

**Net Revenues.** Net revenues decreased 24.6% to NT\$38,367.8 million (US\$1,096.2 million) in 2001 from NT\$50,893.4 million in 2000. Packaging revenues decreased 24.0% to NT\$28,898.2 million (US\$825.7 million) in 2001 from NT\$38,028.8 million in 2000. Testing revenues decreased 25.9% to NT\$9,459.3 million (US\$270.3 million) in 2001 from NT\$12,768.4 million in 2000. The decreases in packaging and testing revenues were primarily due to an industry downturn commencing in the fourth quarter of 2000, resulting in a decrease in the average selling prices and volumes for packaging and testing services. The decrease in the average selling prices reflects the general trend in the semiconductor industry of declining prices for each input/output lead on a semiconductor device, which was exacerbated by the sharp decline in demand resulting from the industry downturn. This decrease was partially offset by a change in the revenue mix as our BGA packages and fine pitch packages, which typically command higher average selling prices, accounted for a greater portion of the packaging volume,



and as we tested more complex high-performance semiconductors, which generally command higher prices.

**Gross Profit.** Gross profit decreased 64.7% to NT\$5,410.8 million (US\$154.6 million) in 2001 from NT\$15,326.1 million in 2000. Our gross margin, which is equal to gross profit divided by net revenues, decreased to 14.1% in 2001 from 30.1% in 2000, primarily as a result of increased depreciation expense and increased raw materials costs, all as a percentage of net revenues. Our gross margin for packaging decreased to 16.0% in 2001 from 26.3% in 2000. This decrease was primarily due to increases in depreciation expense and raw materials costs, all as a percentage of packaging revenues. Our gross margin for testing decreased to 8.3% in 2001 from 41.5% in 2000. This decrease was primarily due to increases in depreciation expense and plant and machine rental costs, all as a percentage of testing revenues. Raw material costs in 2001 were NT\$11,776.2 million (US\$336.5 million), or 30.7% of net revenues, compared to NT\$14,620.4 million, or 28.7% of net revenues, in 2000. The increase in raw material costs was largely a result of products with higher raw material costs, such as BGA packages, accounting for a larger proportion of our packaging services. Depreciation for 2001 was NT\$10,375.0 million (US\$296.4 million), compared to NT\$7,992.3 million in 2000. This increase was primarily due to the full year effect of our capacity expansion in 2000. As a percentage of net revenues, depreciation increased to 27.0% in 2001 from 15.7% in 2000, principally as a result of the significant decrease in our net revenues and higher depreciation in 2001.

**Operating Income (Loss).** We incurred an operating loss of NT\$462.1 million (US\$13.2 million) in 2001 compared to an operating income of NT\$9,877.1 million in 2000. Operating margin decreased to negative 1.2% in 2001 compared to 19.4% in 2000. Operating expenses increased 7.8% to NT\$5,872.9 million (US\$167.8 million) in 2001 compared to NT\$5,449.0 million in 2000. This was primarily due to higher general and administrative, goodwill amortization and research and development expenses, partially offset by lower selling expense. Selling expense decreased 14.0% to NT\$877.9 million (US\$25.1 million) in 2001 from NT\$1,020.5 million in 2000. This decrease reflected decreased sales in 2001. Selling expense represented 2.3% of our net revenues in 2001 compared to 2.0% in 2000. General and administrative expenses, excluding goodwill amortization, increased 7.3% to NT\$2,797.6 million (US\$79.9 million) in 2001 from NT\$2,606.2 million in 2000. This increase was primarily due to increases in cash bonuses and directors' compensation of our subsidiaries paid in 2001 with respect to the preceding fiscal year. General and administrative expense, excluding goodwill amortization, represented 7.3% of our net revenues in 2001 compared to 5.1% in 2000. Goodwill amortization expense increased 23.8% to NT\$692.9 million (US\$19.8 million) in 2001 from NT\$559.8 million in 2000. This increase was primarily due to additional goodwill amortization expense resulting from our purchase of additional shares of ASE Test in 2001. Goodwill amortization expense represented 1.8% of our net revenues in 2001 compared to 1.1% in 2000. Research and development expense increased 19.2% to NT\$1,504.5 million (US\$43.0 million) in 2001 from NT\$1,262.5 million in 2000. This increase was largely a result of an increase in the number of research and development employees as well as an increase in depreciation charges associated with testers and other equipment dedicated to research and development uses. Research and development expense accounted for 3.9% of our net revenues in 2001 compared to 2.5% in 2000.

**Net Non-Operating Income (Expense).** We recorded a net non-operating loss of NT\$2,523.4 million (US\$72.1 million) in 2001 compared to a net non-operating loss of NT\$1,473.5 million in 2000. This was primarily a result of an increase in net interest expense, an increase in net investment loss on long-term investments and a decrease in net foreign exchange gain. Net interest expense increased 13.1% to NT\$1,739.3 million (US\$49.7 million) in 2001 from NT\$1,538.0 million in 2000. This increase was primarily a result of increased debt financing incurred in 2001, which was partially offset by higher interest income resulting from higher cash balances resulting from our offering of ADSs in September 2000. We recorded a net investment



loss of NT\$1,196.1 million (US\$34.2 million) in 2001 as compared to a net investment loss of NT\$75.6 million in 2000. The loss was principally a result of a one-time write down of NT\$475.6 (US\$13.6 million) million due to the prolonged weakness of Hung Ching's stock price, as well as the goodwill amortization associated with our purchase of the shares of, and the net investment losses incurred by, Hung Ching and Universal Scientific. We recorded a net foreign exchange gain of NT\$247.5 million (US\$7.1 million) in 2001 compared to net foreign exchange gain of NT\$302.7 million in 2000. These foreign exchange gains were primarily due to the Japanese yen's depreciation, which reduced the NT dollar value of our Japanese yen denominated liabilities.

**Net Income (Loss).** As a result of the foregoing, we recorded a net loss of NT\$2,142.2 million (US\$61.2 million) in 2001 compared to net income of NT\$5,837.2 million in 2000. The net loss per ADS was NT\$3.29 (US\$0.09) for 2001 compared with net income per ADS of NT\$9.01 for 2000. As a result of our net loss in 2001, we had an income tax benefit of NT\$247.3 million (US\$7.1 million) in 2001 compared to an income tax expense of NT\$1,065.8 million in 2000.

#### **Year Ended December 31, 2000 Compared to Year Ended December 31, 1999**

**Net Revenues.** Net revenues increased 56.1% to NT\$50,893.4 million in 2000 from NT\$32,609.6 million in 1999. Packaging revenues increased 55.1% to NT\$38,028.8 million in 2000 from NT\$24,523.0 million in 1999. Testing revenues increased 63.8% to NT\$12,768.4 million in 2000 from NT\$7,793.2 million in 1999. Increases in packaging and testing revenues resulted primarily from an increase in net revenues at our existing facilities, due to an upturn in the semiconductor industry which commenced in the second half of 1999 and continued through the third quarter of 2000. After eliminating the results of ISE Labs, ASE Chung Li and ASE Korea for comparative purposes, our net revenues for 2000 increased by 44.4% compared to 1999, reflecting a 43.5% increase in packaging revenues and a 57.2% increase in testing revenues.

**Gross Profit.** Gross profit increased 77.2% to NT\$15,326.1 million in 2000 from NT\$8,650.0 million in 1999. Our gross margin improved to 30.1% in 2000 compared to 26.5% in 1999, primarily as a result of a higher revenue contribution from testing operations and decreases in raw material costs and depreciation as a percentage of net revenues. Our testing operations historically have higher gross margins than our packaging operations, except during periods of lower-than-normal capacity utilization. Our gross margin for packaging increased to 26.3% in 2000 from 23.5% in 1999. This increase was primarily due to decreases in direct and indirect labor costs, raw material costs and depreciation as percentages of packaging revenues. Our gross margin for testing increased to 41.5% in 2000 from 39.8% in 1999. This increase was principally a result of a decrease in repair and maintenance costs, which was partially offset by increases in depreciation as well as direct and indirect labor costs, all as percentages of testing revenues. Raw material costs in 2000 were NT\$14,620.4 million, or 28.7% of net revenues, compared to NT\$9,782.9 million, or 30.0% of net revenues, in 1999. This percentage decrease reflected a change in the revenue mix, as testing services, which incur very limited raw material costs, accounted for a greater portion of our net revenues, as well as a decrease in raw material prices. Depreciation increased to NT\$7,992.3 million in 2000 from NT\$5,325.8 million in 1999, due primarily to the full year effect of capacity expansion in 2000. As a percentage of net revenues, depreciation decreased to 15.7% in 2000 from 16.3% in 1999, primarily reflecting a higher capacity utilization rate in 2000 as a result of increased economies of scale realized through increased production.

**Operating Income.** Operating income increased 103.7% to NT\$9,877.1 million in 2000 from NT\$4,848.6 million in 1999. Operating margin increased to 19.4% in 2000 from 14.9% in 1999. Operating expenses increased 43.3% to NT\$5,449.0 million in 2000 compared to NT\$3,801.4 million in 1999. This was primarily due to higher general and administrative and research and development expenses in 2000. Selling expense increased 10.4% to NT\$1,020.5 million in 2000 from NT\$924.3 million in 1999. This increase reflected our increased sales in

2000. Selling expense accounted for 2.0% of our net revenues in 2000 compared to 2.8% in 1999. General and administrative expense, excluding goodwill amortization, increased 57.5% to NT\$2,606.2 million in 2000 from NT\$1,655.0 million in 1999. General and administrative expense, excluding goodwill amortization, represented 5.1% of our net revenues in 2000 compared to 5.0% in 1999. This was primarily due to an increase in the number of employees responsible for general and administrative functions as a result of the acquisitions of ISE Labs, ASE Chung Li and ASE Korea. Goodwill amortization expense increased 10.2% to NT\$559.8 million in 2000 from NT\$507.8 million in 1999. This increase was primarily due to the full year effect of the higher goodwill amortization expense resulting from our acquisitions of ISE Labs and ASE Korea in 1999. Goodwill amortization expense represented 1.1% of our net revenues in 2000 compared to 1.6% in 1999. Research and development expense increased 76.7% to NT\$1,262.5 million in 2000 from NT\$714.3 million in 1999. This increase was largely a result of the full year effect of the increase in the number of research and development employees as well as additional depreciation charges associated with testers and other equipment dedicated to research and development uses attributable to our acquisitions of ISE Labs, ASE Chung Li and ASE Korea in 1999. Research and development expense accounted for 2.5% of our net revenues in 2000 compared to 2.2% in 1999.

**Net Non-Operating Income (Loss).** We recorded a net non-operating loss of NT\$1,473.5 million in 2000 compared with net non-operating income of NT\$4,213.8 million in 1999. This difference was primarily a result of a significant one-time gain on the sale of long-term investments in 1999. Net interest expense increased 47.0% to NT\$1,538.0 million in 2000 from NT\$1,046.6 million in 1999, primarily as a result of the full year effect of the interest expense from the convertible bonds issued by ASE Test in June 1999 and long-term debt incurred in 1999 to finance our acquisitions of our interests in Universal Scientific, ISE Labs, ASE Chung Li and ASE Korea. We recorded a net investment loss of NT\$75.6 million in 2000 compared to net investment income of NT\$5,594.8 million in 1999. The difference primarily resulted from a one-time capital gain of NT\$5,544.2 million in 1999 resulting from the sale of ASE Test ordinary shares by our subsidiary J&R Holding Limited through a public offering of Taiwan depositary receipts and the sale of ASE Inc. common shares by our subsidiaries and affiliates in a private placement of global depositary shares. Most of the ASE Inc. common shares underlying the global depositary shares were acquired by our subsidiaries between March 1996 and April 1998 as part of a share repurchase program instituted in support of ROC government policies. We recorded a net foreign exchange gain of NT\$302.7 million in 2000, compared to a net loss of NT\$538.4 million in 1999, reflecting the unrealized foreign exchange gains on assets that are denominated in foreign currencies due to the year-end depreciation of the NT dollar.

**Net Income.** As a result of the foregoing, net income declined 25.1% to NT\$5,837.2 million in 2000 from NT\$7,794.7 million in 1999. Excluding the one-time capital gain of NT\$5,544.2 million in 1999, net income was NT\$2,250.5 million in 1999. The net income per ADS was NT\$9.01 for 2000 compared to NT\$12.27 for 1999. After eliminating the results of ISE Labs, ASE Chung Li and ASE Korea for comparative purposes, our net income declined 48.3% to NT\$3,673.6 million in 2000 compared to NT\$7,110.8 million in 1999. Our effective tax rate was 12.7% in 2000 compared to 5.1% in 1999. Our effective income tax rate was significantly lower in 1999 primarily as a result of substantial capital gain in 1999 that was not subject to ROC corporate tax.

#### **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. You should read the following table in conjunction with our consolidated financial statements and related notes included in this annual report. Our net revenues, gross profit and gross margin for any quarter are not necessarily

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indicative of the results for any future period. Our quarterly net revenues, gross profit and gross margin may fluctuate significantly.

	Quarter Ended							
	Mar. 31, 2000	Jun. 30, 2000	Sept. 30, 2000	Dec. 31, 2000	Mar. 31, 2001	Jun. 30, 2001	Sept. 30, 2001	Dec. 31, 2001
(in millions)								
Consolidated								
Net Revenues:								
Packaging	NT\$ 8,378.4	NT\$ 9,347.1	NT\$ 10,458.9	NT\$ 9,844.4	NT\$ 8,142.4	NT\$ 6,273.5	NT\$ 6,406.8	NT\$ 8,075.5
Testing	2,776.2	3,013.3	3,440.1	3,538.8	3,105.5	2,204.3	1,970.4	2,179.1
Other	7.0	75.2	5.2	8.8	2.1	4.6	3.6	
<b>Total</b>	<b>NT\$ 11,161.6</b>	<b>NT\$ 12,435.6</b>	<b>NT\$ 13,904.2</b>	<b>NT\$ 13,392.0</b>	<b>NT\$ 11,250.0</b>	<b>NT\$ 8,482.4</b>	<b>NT\$ 8,380.8</b>	<b>NT\$ 10,254.6</b>
Consolidated								
Gross Profit:								
Packaging	NT\$ 2,320.1	NT\$ 2,568.2	NT\$ 2,688.7	NT\$ 2,439.9	NT\$ 1,455.0	NT\$ 796.2	NT\$ 759.4	NT\$ 1,615.3
Testing	1,208.7	1,285.8	1,433.9	1,366.0	875.9	103.5	(138.9)	(57.7)
Other	(39.0)	(23.3)	(45.1)	122.2	51.9	(17.3)	87.9	(120.4)
<b>Total</b>	<b>NT\$ 3,489.8</b>	<b>NT\$ 3,830.7</b>	<b>NT\$ 4,077.5</b>	<b>NT\$ 3,928.1</b>	<b>NT\$ 2,382.8</b>	<b>NT\$ 882.4</b>	<b>NT\$ 708.4</b>	<b>NT\$ 1,437.2</b>
Consolidated								
Gross Margin:								
Packaging	27.7%	27.5%	25.7%	24.8%	17.9%	12.7%	11.9%	20.0%
Testing	43.5%	42.7%	41.7%	38.6%	28.2%	4.7%	(7.0)%	(2.6)%
<b>Total</b>	<b>31.3%</b>	<b>30.8%</b>	<b>29.3%</b>	<b>29.3%</b>	<b>21.2%</b>	<b>10.4%</b>	<b>8.5%</b>	<b>14.0%</b>

Our results of operations have been adversely affected by the global semiconductor industry downturn which commenced in the fourth quarter of 2000 and continued through 2001. In the fourth quarter of 2001, we experienced an improvement in our net revenues compared to the preceding quarter. To a lesser extent, our results of operations have also been affected by seasonality. 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 Malaysia. Moreover, the increase or decrease in net revenues of a particular quarter as compared with the immediately preceding quarter varies significantly. See Risk Factors Our operating results are subject to significant fluctuations, which could adversely affect the value of your investment .

Our testing operations historically have higher gross margins than our packaging operations. However, during periods of lower-than-normal capacity utilization, such as the last three quarters of 2001, our testing operations have experienced lower gross margins than our packaging operations.

### Liquidity and Capital Resources

We have historically been able to satisfy our working capital needs from 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 long-term 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 and testing 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 caused by a downturn in the semiconductor industry. See Risk Factors Our operating results are subject to significant fluctuations, which would adversely affect the market value of your investment . The average selling prices of our packaging and testing services are likely to be subject to further downward pressure in the future. 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. Other than as

described in Off-Balance Sheet Arrangements, we have not historically relied, and we do not plan to rely in the foreseeable future, on off-balance sheet financing arrangements to finance our working capital or capacity expansion.

Our net cash provided by operating activities amounted to NT\$11,707.2 million (US\$334.5 million) for 2001, partly as a result of adjusting for non-cash depreciation and amortization of NT\$11,820.2 million (US\$337.7 million). Our net cash provided by operating activities amounted to NT\$17,618.3 million for 2000, partly as a result of adjusting for non-cash depreciation and amortization of NT\$9,153.6 million. The decline in net cash generated by operating activities was primarily a result of our net loss of NT\$2,142.2 million (US\$61.2 million) in 2001, compared to a net profit of NT\$5,837.2 million in 2000. Depreciation and amortization increased in 2001 compared to 2000 primarily due to the full year effect of our capacity expansion in 2000. In 1999, our net cash provided by operating activities amounted to NT\$7,017.2 million, partly as a result of adjusting for non-cash depreciation and amortization expenses of NT\$6,062.2 million. The increase in net cash generated by operating activities in 2000 compared to 1999 was primarily due to an increase in net income to NT\$5,837.2 million in 2000 from NT\$2,250.5 million (excluding the one-time capital gain of NT\$5,544.2 million) in 1999. The increase in depreciation and amortization in 2000 compared to 1999 was primarily due to increased capital investment for the expansion of our production capacity.

Net cash used in investing activities decreased to NT\$15,180.0 million (US\$433.7 million) from NT\$33,550.4 million in 2000. This decrease was primarily due to a significant decrease in the acquisition of machinery and equipment for our packaging, testing and interconnect materials operations to NT\$8,024.9 million (US\$229.3 million) in 2001 from NT\$27,154.2 million in 2000. Net cash used in investing activities was NT\$11,782.7 million in 1999. The most significant components of this were the acquisition of ASE Chung Li, ASE Korea, ISE Labs and Universal Scientific and the acquisition of NT\$7,787.9 million of machinery and equipment in connection with our packaging and testing operations, partially offset by proceeds of NT\$7,889.3 million from the sale of shares in ASE Inc. and ASE Test by our subsidiaries.

Net cash provided by financing activities in 2001 amounted to NT\$603.5 million (US\$17.2 million). This amount primarily reflects proceeds from long-term debt of NT\$9,746.6 million (US\$278.5 million), partially offset by the payment of NT\$6,066.0 million (US\$173.3 million) for the early redemption of a portion of our US\$200 million zero coupon convertible bonds due 2002. Net cash provided by financing activities in 2000 amounted to NT\$17,607.3 million, primarily reflecting proceeds of NT\$4,151.3 million from our offering of ADSs in September 2000 and the increase of NT\$9,854.5 million in minority interest resulting from the equity offering by ASE Test in 2000. Net cash provided by financing activities in 1999 was NT\$8,569.0 million, primarily reflecting the proceeds from long-term debt of NT\$4,201.5 million and proceeds of NT\$3,460.1 million received from the issuance of convertible notes by ASE Test.

As of December 31, 2001, our primary source of liquidity was NT\$11,770.7 million (US\$336.3 million) of cash and cash equivalents and NT\$4,601.2 million (US\$131.5 million) of short-term investments. Our short-term investments primarily consisted of investments in fixed income mutual funds. As of December 31, 2001, we had total availability under existing short-term lines of credit of NT\$18,513.5 million (US\$529.0 million), of which we had borrowed NT\$6,900.5 million (US\$197.2 million). The interest rate for borrowings under these facilities ranged from 0.85% to 7.3% per year as of December 31, 2001, as compared to 0.975% to 11.5% per year as of December 31, 2000. All of our short-term loans are revolving facilities with a term of one year, each of which may be extended on an annual basis with lender consent. We believe that our existing credit lines under our short-term loan facilities, together with cash generated from our operations, are sufficient to finance our working capital needs for the next 12 months. As of December 31, 2001, we had working capital of NT\$8,380.7 million (US\$239.4 million).

Our long-term liabilities consist primarily of bank loans. As of December 31, 2001, we had outstanding long-term bank loans, less current portion, of NT\$23,075.2 million (US\$659.3 million). These long-term bank loans carried variable interest rates which ranged between 0.88% and 7.92% per year as of December 31, 2001, as compared to 1.1% to 10.5% per year as of December 31, 2000. We have pledged a substantial portion of our assets, with a carrying value of NT\$12,889.6 million (US\$368.3 million) as of December 31, 2001, to secure our obligations under our short-term and long-term facilities.

In November 1997, we issued US\$200 million in aggregate principal amount of zero coupon convertible bonds. These bonds have an implied interest rate of 6.372%, and are convertible into our shares. These bonds, which are scheduled to mature in November 2002, are convertible at the option of the holders from December 1997 through October 2002. As of March 31, 2002, these convertible bonds are convertible into our common shares at a conversion price of NT\$50.5 per common share. As of December 31, 2001, 355,086 shares were issued as a result of the conversion of these bonds. The bonds are redeemable, in whole or in part, by us under certain circumstances beginning in November 2000. Between September and December 2001, we redeemed US\$131 million in aggregate principal amount of these bonds. As of December 31, 2001, US\$68 million in aggregate principal amount of the bonds remained outstanding. In addition, we were required to make payments to a sinking fund for the benefit of the outstanding amount of the bonds twelve months prior to the maturity date of the bonds. As of December 31, 2001, the balance of the sinking fund was NT\$1,568.1 million (US\$44.8 million).

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 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.

The reduced levels of operating cash flow as a result of the downturn in the semiconductor industry resulted in our failure on June 30, 2001 to comply with the interest coverage ratio under our NT\$5.2 billion three-year syndicated loan. We successfully obtained a waiver for the breach and an amendment to the interest coverage ratio from Citibank, N.A., as manager on behalf of the syndicate, in November 2001. If the downturn in the semiconductor industry and for our services continues, we cannot assure you that we will be able to remain in compliance with our financial covenants under this agreement or other agreements. In the event of default, we may not be able to cure the default or obtain a waiver, and our operations could be significantly disrupted and harmed. See Risk Factors Restrictive covenants and broad default provisions in the agreements governing our existing debt may materially restrict our operations as well as adversely affect our liquidity, financial condition and results of operations .

The following table sets forth the maturity of our long-term debt, capital lease obligations and operating leases as of December 31, 2001.

**Payments Due by Period**

Contractual Obligations	(in millions)				
	Total	Under 1 Year	1 to 3 Years	4 to 5 Years	After 5 Years
Long-term debt	NT\$34,039.2	NT\$6,185.7	NT\$26,220.9	NT\$1,562.8	NT\$ 69.8
Capital lease obligations	NT\$ 106.5	NT\$ 80.5	NT\$ 26.0	NT\$	NT\$
Operating leases	NT\$ 1,990.1	NT\$ 314.0	NT\$ 554.3	NT\$ 534.1	NT\$587.7

In addition to the contractual obligations set forth above, as of December 31, 2001, we had made commitments to purchase approximately NT\$3,060.0 million (US\$87.4 million) of machinery and equipment, which may be canceled subject to the payment of certain penalties. We also have continuing obligations to make cash royalty payments under our technology license agreements for the procurement of the manufacturing technology for certain products. Under these agreements, we are obligated to pay royalties equal to a specified percentage of quantities. The royalties we paid amounted to NT\$112.0 million, NT\$199.8 million and NT\$151.2 million (US\$4.3 million) in 1999, 2000 and 2001, respectively.

Our contingent obligations consist of guarantees provided by us to our subsidiaries. As of December 31, 2001, we have endorsed and guaranteed the promissory notes of our subsidiaries in the amount of NT\$8,082.7 (US\$230.9 million). Other than such guarantees, we have no other contingent obligations. See note 22 to our consolidated financial statements.

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,			
	1999	2000	2001	
	NT\$	NT\$ (in millions)	NT\$	US\$
Machinery and equipment	7,787.9	27,154.2	8,024.9	229.3
Building and improvements	3,309.5	4,309.3	3,540.8	101.1

We have budgeted capital expenditures of approximately NT\$9,800.0 million (US\$280.0 million) for 2002, primarily to purchase machinery and equipment in connection with the expansion of our packaging, testing, and interconnect materials operations. We may adjust the amount of our capital expenditures upward or downward based on cash flow from operations, the progress of our expansion plans and market conditions. 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 Risk Factors 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 and cash equivalents, short-term investments, expected cash flow from operations and existing credit lines under our short-term 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. We have contractual obligations of NT\$33,381.4 million (US\$953.8 million) due in the next three years. We intend to meet our payment obligations through the expected cash flow from operations, long-term debt 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 debt 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. We currently have no commitments to make any material investment, acquisition or divestment. In July 2000, our shareholders approved a resolution which authorizes our board of directors to make investments in the People's Republic of China. When this type of investment is permitted by the ROC investment law and policy, and if suitable opportunities are available at that time, we intend to

consider establishing semiconductor packaging, testing and interconnect materials operations in the People's Republic of China.

#### **Off-Balance Sheet Arrangements**

We have, from time to time, entered into interest rate swap transactions to hedge our interest rate exposure. As of December 31, 2001, there were no outstanding interest rate swap transactions. In addition, we have entered into foreign currency option contracts to hedge our existing assets and liabilities denominated in foreign currencies and identifiable foreign currency purchase commitments. As of December 31, 2001, we had NT\$5,470.5 million (US\$156.3 million) outstanding in foreign currency option contracts. See [Market Risks](#).

#### **Inflation**

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

#### **Taxation**

The regular corporate income tax rate in the ROC applicable to us is 25%. We enjoy preferential tax treatment under the tax laws of the ROC and Malaysia. Under the ROC Statute of Upgrading Industries, which gives certain preferential tax treatment to companies that qualify as operating in an important technology industry, we enjoy a tax exemption on income derived from the packaging of BGA products which expires at the end of 2005. In addition, ASE Electronics (M) Sdn, Bhd., or ASE Test Malaysia, qualified as a pioneer company in Malaysia and enjoyed a tax exemption which expired on June 30, 1999. ASE Test Malaysia subsequently obtained the status as high-tech pioneer and was granted a five-year tax exemption which expires on June 30, 2004. These tax exemptions resulted in tax savings for us of approximately NT\$779.4 million, NT\$700.7 million and NT\$26.4 million (US\$0.8 million) in 1999, 2000 and 2001, respectively.

We also enjoy tax credits under the ROC Statute of Upgrading Industries. Under the previous tax credit rules, we enjoyed a tax credit of 20% for the purchase of equipment manufactured in Taiwan and 10% for the purchase of equipment manufactured outside Taiwan. In April 2002, the ROC Executive Yuan amended the tax credit rules and adopted a 13% rate of tax credit to be applied to the purchase of equipment regardless of where it was manufactured.

Under ROC tax laws, we may apply for additional tax holidays upon receipt of cash infusion from our shareholders, including through rights offerings, if the proceeds of which are used to purchase eligible machinery and equipment. We may also apply for this tax holiday after the capitalization of retained earnings through the issuance of stock dividends. See note 17 to our consolidated financial statements.

In addition, since we have facilities located in special export zones such as the Nantze Export Processing Zone in Taiwan and the Bayan Lepas Free Industrial Zone in Malaysia, we enjoy exemptions from various import duties and commodity taxes on imported machinery, equipment, raw materials and components. 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.

Our effective income tax rate was 5.1%, 12.7% and 0% in 1999, 2000 and 2001, respectively. The effective tax rate was significantly lower in 2001 because we incurred a net loss, which resulted in income tax benefits of NT\$247.3 million (US\$7.1 million).

**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 for hedging, and not for speculative, purposes.

**Interest Rate Risk.** Our exposure to interest rate risks relates primarily to our long-term floating rate debt, which is normally incurred to support our corporate activities, primarily capital expenditures. We currently do not enter into derivative transactions with regard to interest rates, but would consider engaging in currency interest rate swaps to lock in favorable currency and interest rate levels from time to time, if available, on terms considered attractive by us. No interest rate derivative contracts were outstanding as of December 31, 2001.

The following table provides information about our significant obligations that are sensitive to interest rate fluctuations.

As of December 31, 2001								
Expected Maturity Date								
	2002	2003	2004	2005	2006	2007 and Thereafter	Total	Fair Value
(in millions)								
<b>Short-term debt:</b>								
Variable rate (NT\$)	800.0						800.0	800.0
Average interest rate	4.33%							
Variable rate (US\$)	55.8						55.8	55.8
Average interest rate	3.87%							
Variable rate (JP¥)	545.6						545.6	545.6
Average interest rate	1.10%							
Variable rate (KRW)	12,830.4						12,830.4	12,830.4
Average interest rate	5.73%							
Variable rate (MYR)	20.5						20.5	20.5
Average interest rate	3.36%							
Variable rate (DM)	2.0						2.0	2.0
Average interest rate	4.45%							
<b>Long-term debt:</b>								
Variable rate (NT\$)	2,847.0	12,830.8	5,989.1	909.1	234.5		22,810.5	22,810.5
Average interest rate	4.37%	5.19%	6.34%	6.53%	6.04%			
Fixed rate (US\$)	89.4	0.2	136.6				226.2	226.2
Average interest rate	6.40%	8.79%	7.28%					
Variable rate (US\$)	8.4	31.6	9.0	7.9	4.1	2.0	63.0	63.0
Average interest rate	6.32%	5.11%	7.80%	8.22%	8.49%	10.77%		
Variable rate (JP¥)		4,562.9					4,562.9	4,562.9
Average interest rate		1.10%					969.4	969.4

**Foreign Currency Exchange Rate Risk.** Our foreign currency exposures give rise to market risk associated with exchange rate movements against the NT dollar, our functional currency. Currently, the majority of our revenues from packaging and testing services are denominated in U.S. dollars, with a portion denominated in NT dollars. Our costs of revenues and operating expenses associated with packaging and testing services are incurred in several currencies, including U.S. dollars, NT dollars, Malaysian ringgit, Korean won, Philippine pesos, Singapore dollars and Hong Kong dollars. Fluctuations in exchange rates, primarily among the U.S. dollar, the NT dollar 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. In 1999, 2000 and 2001, the average exchange rate of the NT dollar to the U.S. dollar was 32.28, 31.37 and 33.91, respectively. 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.

Foreign currency denominated liabilities as of December 31, 2001 include U.S. dollar debt and Japanese yen debt. As of December 31, 2001, approximately 72.2% of our cash and





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accounts receivable were denominated in U.S. dollars, with a substantial portion of the remainder denominated in NT dollars. As of December 31, 2001, approximately 70.2% of our accounts payable and payable for fixed assets were denominated in currencies other than the NT dollar. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign currency exchange rates, we may utilize currency forward 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, and the premiums are amortized on a straight-line basis over the life of the contract.

The table below presents our outstanding foreign currency option contracts as of December 31, 2001.

Foreign Currency Option Contracts	Amount	Maturity
	(in millions)	
Contracts to sell US\$ call/NT\$ put	US\$114.5	Jan-Jul 2002
Contracts to buy US\$ put/NT\$ call	US\$ 2.0	Jan 2002
Contracts to buy US\$ put/JP¥ call	US\$ 6.0	Jan-Mar 2002
Contracts to sell US\$ call/JP¥ put	US\$ 9.0	Jan-Mar 2002
Contracts to sell US\$ call/JP¥ put	US\$ 15.0	Jan-Mar 2002
Contracts to buy JP¥ call/US\$ put	US\$ 9.8	Jan-Mar 2002

### US GAAP Reconciliation

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

	As of and for the Year Ended December 31,			
	1999	2000	2001	2001
	(in millions)			
Net income (loss) in accordance with:				
ROC GAAP	NT\$ 7,794.7	NT\$ 5,837.2	NT\$ (2,142.2)	US\$ (61.2)
US GAAP	NT\$ 4,641.3	NT\$ 3,930.0	NT\$ (4,046.6)	US\$ (115.6)
Shareholders' equity in accordance with:				
ROC GAAP	NT\$30,057.0	NT\$43,669.2	NT\$41,946.3	US\$1,198.5
US GAAP	NT\$26,569.7	NT\$40,729.1	NT\$37,960.3	US\$1,084.6

Note 27 to our consolidated financial statements provides a description of the principal differences between ROC GAAP and US GAAP as they relate to us, and a reconciliation to US GAAP of select items, including net income and shareholders' equity. Differences between ROC GAAP and US GAAP which have a material effect on our net income as reported under ROC GAAP relate to gain from the sale of treasury stock and compensation expense pertaining to bonuses to employees, directors and supervisors.

In 2001, we purchased 2,480,000 shares of ASE Test from two of our directors following their exercise of employee stock options in ASE Test shares. We entered into the transaction in order to maintain our investment in ASE Test at a level above 50% of the outstanding shares of ASE Test. We purchased these shares directly from these two directors based on a 10-day average of the market price of the shares. Although we entered into the transaction in order to maintain our majority ownership of ASE Test and not for compensation purposes, under US GAAP, all shares issued upon the exercise of employee incentive stock options which are

repurchased by the ASE Test or ASE Test's affiliates within six months of exercise results in compensation expense, which in our case, the excess of the purchase price over the exercise price. The transaction resulted in a US\$26.7 million increase in ASE Test's compensation expense and a corresponding increase in ASE Test's capital surplus, which in turn led to a NT\$908.7 million (US\$26.0 million) increase in ASE Inc.'s compensation expense. See Related Party Transactions .

In 1999, three of our consolidated subsidiaries sold an aggregate of 32.5 million ASE Inc. common shares in open market sales. Under US GAAP, when a subsidiary holds its parent's common shares as investments, the common shares are treated as treasury stock and is presented in the consolidated balance sheet as a deduction to shareholders' equity. The capital gain or loss from the sale of treasury stock is added to or deducted from the balance of treasury stock. Under ROC GAAP, this treatment is not required and, as a result, the investment in ASE Inc. common shares by its subsidiaries is presented as long-term investment in the consolidated balance sheet and the capital gain or loss from the sale of treasury stock is recognized as income or loss. As a result of these transactions, we recognized under ROC GAAP capital gains on sale of investments of NT\$1,388.5 million in 1999. Under US GAAP, these investments in ASE Inc.'s common shares should be classified as treasury stock and the capital gain is not recognized as income but is deducted from treasury stock under capital surplus. The accounting and financial statement presentation under ROC GAAP for shares of a parent company held by its subsidiary and any related capital gain or loss was, effective January 1, 2002, changed to conform to the accounting and financial presentation under US GAAP.

We paid employee bonuses in 2000 and 2001 in the form of common shares with respect to the results of the preceding fiscal years. We do not expect to pay any employee bonuses in 2002 because we incurred a net loss in 2001. We typically pay all or a portion of employee bonuses in the form of common shares. The number of common shares distributed as part of employee bonuses is obtained by dividing the total nominal NT dollar amount of the bonus to be paid in the form of common shares by the par value of the common shares, or NT\$10 per share, rather than their market value, which has generally been substantially higher than par value. Under ROC GAAP, the distribution of employee bonus shares is treated as an allocation from retained earnings, and we are not required to, and do not, charge the value of the employee bonus shares to income. Under US GAAP, however, we would be required to charge the market value of the employee bonus shares to employee compensation expense in the period to which they relate, correspondingly reduce our net income and income per common share calculated in accordance with US GAAP. See Management ASE Inc. Employee Bonus Plan .

The amount and the form of the payment of this compensation is subject to approval at our shareholders' meeting. Under US GAAP, the compensation expense is initially accrued at the nominal NT dollar amount of the aggregate bonus in the period to which it relates. For US GAAP purposes, the difference between the amount initially accrued and the market value of the common shares issued as payment of all or any part of the bonus is recorded as employee compensation expense in the period in which shareholders' approval is obtained, which normally occurs during the second quarter of each year. See note 27 to our consolidated financial statements. Net income and income per common share amounts calculated in accordance with ROC GAAP and US GAAP differ accordingly. The amount of the adjustment for market price for the purpose of US GAAP reconciliation for the special stock bonus paid in 2000 was allocated over a period of three years commencing in the second quarter of the year following the year in which the bonus was paid, reflecting the additional length of service which we require from employees who received the special stock bonus.

### Recent US GAAP Accounting Pronouncements

We are required by SEC Staff Accounting Bulletin No. 74 to disclose the impact that recently issued accounting standards will have on our financial statements when adopted in a future period, as well as make certain disclosure about recently issued accounting standards.

In June 2001, the U.S. Financial Accounting Standards Board issued SFAS No. 141, *Accounting for Business Combinations*, and SFAS No. 142, *Goodwill and Other Intangible Assets*. We were required to adopt these standards on January 1, 2002, which may affect accounting for business combinations consummated after June 30, 2001 and that for existing goodwill and other intangible assets upon adoption. The standards require, among other things, companies to review for possible impairment of goodwill existing at the date of adoption and perform subsequent impairment tests on an annual basis. In addition, existing goodwill and intangible assets must be reassessed and classified consistently in accordance with the criteria set forth in SFAS No. 141 and SFAS No. 142. Under the new standards, we will no longer amortize goodwill but intangible assets will continue to be amortized over their estimated useful lives, which, if supportable, may be a period that exceeds the current maximum period of 40 years. As of December 31, 2000 and 2001, we had unamortized goodwill of approximately NT\$7,652.7 million and NT\$6,900.7 million (US\$197.2 million), respectively. Total goodwill amortization expenses of goodwill under ROC GAAP incurred for the years ended December 31, 1999, 2000, and 2001 were NT\$507.8 million, NT\$559.8 million and NT\$692.9 million (US\$19.8 million), respectively. We have not yet completed our assessment of the impact that these new standards may have on the accompanying financial statements and cannot estimate whether the related impact would be material or not.

In June 2001, the U.S. Financial Accounting Standards Board issued SFAS No. 143, *Accounting for Asset Retirement Obligations*. SFAS No. 143 requires, among other things, retirement obligations to be recognized when they are incurred and displayed as liabilities, with a corresponding amount capitalized as part of the related long-lived asset. The capitalized element is required to be expensed using a systematic and rational method over its useful life. SFAS No. 143 will be adopted by us on January 1, 2003 and is not expected to have a material impact on our consolidated financial information relating to US GAAP.

In August 2001, the U.S. Financial Accounting Standards Board issued SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, which addresses financial accounting and reporting for the impairment or disposal of long-lived assets. SFAS No. 144 supersedes SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of*, and the accounting and reporting provisions of APB Opinion No. 30, *Reporting the Results of Operations - Reporting the Effects of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*. SFAS No. 144 is effective for years beginning after December 15, 2001. The impact of adopting this accounting standard is not expected to have a material effect on our financial position and results of operations.

## BUSINESS

We are one of the world's largest independent providers of semiconductor packaging services and, together with our subsidiary ASE Test, the world's largest independent provider of semiconductor testing services. Our services include semiconductor packaging, design and production of interconnect materials, front-end engineering testing, wafer probing and final testing services. We believe that we are better positioned than our competitors to meet the requirements of semiconductor companies worldwide for outsourced packaging and testing services across a wide range of end use applications because of:

our ability to provide a broad range of advanced semiconductor packaging and testing services on a large scale turnkey basis;

our expertise in developing and providing advanced packaging and testing technologies and solutions;

our geographic presence in key centers of outsourced semiconductor and electronics manufacturing;

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; and

our long-term relationships with providers of complementary semiconductor manufacturing services, including our strategic alliance with TSMC, the world's largest dedicated semiconductor foundry.

We believe that the trend for semiconductor companies to outsource their packaging and testing requirements is accelerating as semiconductor companies increasingly rely on independent providers of foundry and advanced packaging and testing 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. We believe that our expertise and scale in advanced technology and our ability to integrate our broad range of solutions into turnkey 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, in addition, 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 requirements of our customers.

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

Advanced Micro Devices, Inc.

Altera Corporation

ATI Technologies Inc.

Cambridge Silicon Radio

Cirrus Logic, Inc.

Conexant Systems, Inc.

LSI Logic Corporation

Motorola, Inc.

NVIDIA Corporation

ON Semiconductor Corp.

Koninklijke Philips Electronics N.V.

Qualcomm Incorporated

Silicon Integrated Systems Corp.

STMicroelectronics N.V.

VIA Technologies, Inc.

## 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 systems. As a result, semiconductor demand has grown substantially in our primary markets of communications, personal computers and consumer 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 estimates that worldwide sales of semiconductors increased from approximately US\$50.5 billion in 1990 to US\$204.4 billion in 2000. The semiconductor industry experienced strong growth between 1992 and 1995 and between 1998 and 2000, with declines between 1996 and first half of 1997 as well as in 1998. Starting from the fourth quarter of 2000, the semiconductor industry experienced a severe downturn due to a slowdown in the global economy, overcapacity in the semiconductor industry and worldwide inventory adjustment. The semiconductor industry started to show signs of stabilization in the fourth quarter of 2001, primarily as a result of the completion of inventory adjustment and introduction of new products. We believe that the pattern of long-term growth and cyclical fluctuations will continue in the semiconductor industry.

### *Outsourcing Trends in Semiconductor Manufacturing*

Historically, semiconductor companies designed, manufactured, packaged and tested semiconductors primarily in their own facilities. Over the past several years, 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 and semiconductor packaging services are currently the largest segments of the independent semiconductor manufacturing services market. Most of the world's major integrated device manufacturers use some independent manufacturing services to maintain a strategic mix of internal and external manufacturing capacity.

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 fabrication, packaging and testing requirements to independent semiconductor manufacturing companies. Similarly, the availability of technologically advanced independent manufacturing services has encouraged systems companies, which had traditionally outsourced the manufacturing of semiconductor components used in the assembly of their systems products to integrated device manufacturers, to increasingly outsource 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 fabrication technology from 8-inch to 12-inch wafers. 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 packaging, testing and fabrication 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 necessary to be competitive with the independent service providers. Independent packaging, testing and foundry 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.

During the recent industry downturn in 2001, semiconductor companies 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. 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.

**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.

**Growth of Fabless Semiconductor Companies.** The substantial growth in the number and scale of fabless semiconductor companies that rely solely on independent companies to meet their manufacturing requirements will continue to drive growth in the market for independent foundry, packaging and testing services.

Gartner Dataquest forecasts that the total outsourced semiconductor packaging market will grow from US\$6.4 billion in 2001 to US\$17.0 billion in 2005. Gartner Dataquest also forecasts that the total outsourced semiconductor testing market will grow from US\$0.9 billion in 2001 to US\$3.0 billion in 2005.

### ***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 several 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 semiconductor manufacturing companies in Taiwan. Third, Taiwan also has an educated labor pool and a large number of engineers suitable for sophisticated manufacturing industries such as semiconductors.



As a result of the growth of the global semiconductor market, the semiconductor industry in Taiwan has in recent years made significant capital expenditures to expand capacity and technological capabilities. The ROC government has also provided tax incentives, long-term loans at favorable rates 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 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 People's Republic of China 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 People's Republic of China 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 from circuit design to shipment:

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

Process	Description
<i>Circuit Design</i>	The design of a semiconductor is developed by laying out circuit components and interconnections. A complex circuit may be designed with as many as 20 layers of patterns or more.
<i>Front-End Engineering Test</i>	Throughout and following the design process, prototype semiconductors undergo front-end engineering testing, which involves software development, electrical design validation, reliability and failure analysis.
<i>Wafer Fabrication</i>	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.
<i>Wafer Probe</i>	Each individual die is electrically tested, or probed, for defects. Dies that fail this test are marked to be discarded.
<i>Packaging</i>	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 wafer 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 packages, the leads take the shape of small bumps or balls. Leads on the leadframe or the substrate are connected by extremely fine gold wires or bumps to the input/output terminals on the chips, through the use of automated machines known as wire 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 ball grid array or other substrate-based packages.
<i>Final Test</i>	Final testing is conducted to ensure that the packaged semiconductor meets performance specifications. Final testing involves using sophisticated testing equipment 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

Process	Description
	semiconductors is categorized by the functions of the semiconductors tested into logic/mixed-signal final testing and memory final testing. Memory final testing typically requires simpler test software but longer testing time per device tested.

**Strategy**

Our objective is to provide advanced semiconductor packaging and testing services 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:

***Maintain Our Focus on Providing a Complete Range of Semiconductor Packaging and Testing Services***

We believe that an important factor in our ability to attract leading semiconductor companies as our customers has been our ability to provide turnkey services on a large scale. Turnkey services consist of the integrated packaging, testing and direct shipment of semiconductors to end users designated by our customers. As a result of our technical expertise and large production capacity in both packaging and testing, we are able to provide turnkey services on a large scale. As product lives and production cycles shorten and packaging and testing technologies advance more rapidly, our customers increasingly value our ability, as a downstream service provider, to work with them as an integral and strategic partner in the upstream development of their products. We intend to enhance and expand our expertise in both the upstream and downstream semiconductor manufacturing processes in order to better serve our customers in providing our core services of packaging and testing. The front-end engineering testing expertise of ISE Labs has greatly enhanced our ability to participate in the earlier stages of circuit design and the semiconductor manufacturing process. Our establishment of ASE Material in 1997 for the design and production of interconnect materials, such as substrates and leadframes, has provided us with expertise in interconnect technology, which has become increasingly critical for our customers both in terms of cost and production cycle time.

***Continue to Focus on Advanced Technological, Processing and Materials Capabilities***

We intend to continue our focus on developing advanced process and product technologies in order to meet the advanced packaging and testing requirements of our customers. Our expertise in packaging technology has enabled us to develop advanced solutions such as fine pitch 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 intend to continue to focus on developing and enhancing our existing interconnect materials capabilities through ASE Material. We expect that interconnect materials will become an increasingly important value-added component of the semiconductor packaging business as packaging technology migrates from the traditional wirebonding process towards the flip chip process. As a result, we expect bumping and high density interconnect materials to be the core technology for the next generation of semiconductor packaging technology. By focusing on the design and production of interconnect materials, we plan to capture most of the value-added component of the packaging business and lead the migration in packaging technology. In 2001, ASE Material supplied approximately 34% of our substrate requirements by value. We intend to continue to make investments in ASE Material in order to further develop and enhance our existing capabilities in interconnect materials with a view to sourcing a majority of our substrate requirements by value from ASE Material by the end of 2002.

We intend to continue to strengthen our capabilities in testing complex, high-performance semiconductors. In particular, we plan to focus on testing logic/mixed signal semiconductors that are characterized by very high clock speeds, high pin count and high levels of integration.

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 (that is, upstream and downstream) levels of integration: chip, module, board and systems. Our controlling interest in Universal Scientific has provided us with access to process and product technologies at the levels of module, board and systems assembly and test, which helps us to better anticipate industry trends and take advantage of potential growth opportunities.

#### ***Strategically Expand Production Capacity***

We intend to strategically expand our production capacity, both through internal growth and through selective acquisitions, with a focus on providing more advanced packaging and testing services, which we believe present greater opportunities to achieve higher growth in our revenues and higher margins. We believe that the demand for advanced semiconductor packaging and testing services will grow at a faster pace than demand for traditional packaging and testing services. Packaging and testing services for more advanced semiconductors generally have higher margins for two reasons. First, as the packaging and testing of advanced semiconductors become more complex, requiring greater expertise in process and technology, such services typically command higher average selling prices. Second, we have been able to achieve higher utilization rates for the equipment we use for more advanced packaging and testing, compared to other equipment that we maintain. We believe that our technical expertise, as well as our scale of operations and financial position, which had enabled us to continue to make investments in more advanced packaging and testing equipment even in times of market downturn, have enabled us to attract a greater proportion of the demand for more advanced packaging and testing services.

We evaluate acquisition 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 1999, we acquired ISE Labs, an independent testing company with operations in California, Hong Kong and Singapore. Through combining the front-end engineering testing capabilities of ISE Labs with our existing final testing capabilities, we are able to provide our customers with complete semiconductor testing solutions. We acquired ASE Chung Li and ASE Korea in 1999, formerly the semiconductor packaging and testing operations of Motorola, Inc. located in Chung Li, Taiwan and Paju, South

Korea, which allowed us to expand our capacity and gain access to specialized packaging and testing technologies with a focus on wireless communications and automotive end-products.

***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 and testing operations in Taiwan, currently the largest center for outsourced semiconductor 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 manufacturing services early in the semiconductor design process, enhances our responsiveness to the requirements of our customers and shortens production cycles. In addition, as a provider of turnkey services, we are able to offer in Taiwan packaging and testing services, including interconnect materials solutions, all within relatively close geographic proximity to our customers, other service providers and the end users of our customers' products. In addition to our expansion plans in Kaohsiung, Taiwan, we intend to expand our packaging, testing and interconnect materials 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 operations in the following locations:

Malaysia and Singapore – an emerging center for outsourced semiconductor manufacturing in Southeast Asia with a concentration of integrated device manufacturers;

Korea – a center for the manufacturing of memory devices and semiconductors for communications applications with a concentration of integrated device manufacturers specializing in these products; and

Silicon Valley in California – the preeminent center for semiconductor design with a concentration of fabless customers.

***Strengthen and Develop Strategic Relationships with Providers of Complementary Semiconductor Manufacturing Services***

We intend to strengthen existing and develop new strategic relationships with 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.

Since 1997, we have maintained a strategic alliance with TSMC, the world's largest dedicated semiconductor foundry, which designates us as the 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.

We are developing similar strategic relationships with other major foundries and providers of other complementary semiconductor manufacturing services in Taiwan and Southeast Asia with which we already have close business relationships.

## Principal Products and Services

We offer a broad range of advanced semiconductor packaging and testing services. 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, personal computers, 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. In 2001, our packaging and testing revenues accounted for 75.3% and 24.7% 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 package and thin quad flat package, and package types based on substrates, such as ball grid array. We believe that we are among the leaders in such advanced packaging process and technologies and are well-positioned to lead the technology migration in the semiconductor packaging industry.

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 interconnect 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 difference of these package types are:

the size of the package;

the density of electrical connections the package can support;

the thermal and electrical characteristics of the package.

**Leadframe-Based Packages.** Leadframe-based packages are packaged by connecting the die, using wire bonders, to the leadframe with gold 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.

Package Types	Number of Leads	Description	End Use Applications
Quad Flat Package (QFP)/ Thin Quad Flat Package (TQFP)	44-304	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 network, and notebook computers.

Package Types	Number of Leads	Description	End Use Applications
Plastic Leaded Chip Carrier (PLCC)	28-84	Designed for applications that do not require low profile package with high density of interconnects.	Personal computers, scanners, electronic games and monitors.
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	Package designed for memory and low pin-count applications.	DRAM memory devices, microcontrollers, digital analog conversions and audio/video applications.
Plastic Dual In-line Package (PDIP)	8-56	Package used in consumer electronic products.	Telephones, televisions, audio/video applications and computer peripherals.

**Substrate-Based Packages.** Substrate-based packages generally employ the ball grid array 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;
- 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 systems-in-a-package 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 advanced packaging solutions, such as flip chip BGA. Flip chip BGA technology replaces wire bonding with wafer bumping for interconnections within the package. Wafer bumping involves the placing of

tiny 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. We commenced volume production of flip chip packages in July 2000.

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

<b>Package Types</b>	<b>Number of Leads</b>	<b>Description</b>	<b>End Use Applications</b>
Plastic BGA	119-1096	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.	Wireless products, cellular phones, global positioning systems, notebook computers, disk drives and video cameras.
Thin Film BGA	36-288	Designed for semiconductors such as memory, analog, and application specific integrated circuits requiring a smaller package.	Cellular and other telecommunications and wireless systems, global positioning systems, notebook computers and personal digital assistants, also called PDAs.
Film BGA	96-280	Substrate-based package that has higher performance and lower profile than plastic BGA.	Cellular phones, pagers, wireless communications, digital signal processors and micro-controller applications and high performance disk drives.
Viper BGA	256-792	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.	Cellular and other telecommunications products, wireless and consumer systems, PDAs, disk drives, notebook computers and memory boards.
Stacked-Die BGA	66-256	Combination of multiple dies in a single package enables package to have multiple functions within a small surface area.	Cellular phones, local area networks, graphic processors, digital cameras and pagers.



Package Types	Number of Leads	Description	End Use Applications
Flip Chip BGA	16-1681	Using advanced interconnect technology, 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 and graphics and processor applications.
Systems-in-a-Package	256-972	Integrated combination of microprocessor, logic controller and memory chips assembled in one package.	Digital televisions, fax modems, personal computer peripherals, compact disc players and copiers.
Land Grid Array	32-78	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, computer servers and personal computer peripherals.
Bump Chip Carrier	8-96	Bump chip carrier packages use plating metal pads to connect with printed circuit boards, creating enhanced thermal and electrical performance.	Radio frequency devices for wireless communications products.
Tape Carrier Package	129-384	The light-weight tape carrier package uses a labor-saving reel-to-reel bonding technique to facilitate high input/output and frequency as well as flexible interconnections.	Liquid crystal displays, ink printers, cellular phones, PDA and notebook computers.

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

	Year Ended December 31,		
	1999	2000	2001
	(percentage of packaging revenues)		
Package Types:			
BGA	35.3%	44.2%	52.0%
TQFP	18.4	18.2	14.3
QFP	22.0	14.6	12.7
SOJ/SOP	9.8	9.9	6.7
PLCC	4.4	3.0	2.1
PDIP	4.9	3.0	3.0
Other	5.2	7.1	9.2
Total	100.0%	100.0%	100.0%

**Interconnect Materials.** Interconnect materials connect the input/output on the semiconductor dies to the printed circuit board. Interconnect materials include leadframe, which is a miniature sheet of metal, generally made of copper and silver alloys, on which the pattern of input/output leads has been cut, and substrate, which is a multi-layer miniature printed circuit board. Interconnect materials are an important element of the electrical characteristics and overall performance of semiconductors. We produce both leadframes and substrates for our packaging operations through ASE Material. In 2001, ASE Material supplied approximately 23%, by value, of the leadframes and 34%, by value, of the substrates used in our operations.

We expect substrates will become an increasingly important value-added component of the semiconductor packaging business. 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, especially for advanced packages such as flip chip BGA packages. In the past, substrates we designed for our customers were produced by independent substrate manufacturers. In anticipation of the migration in packaging technology, we established ASE Material in 1997 to develop our capabilities in the design and production of interconnect materials for use in our packaging operations. Through ASE Material, we believe we can capture the growth opportunities in the interconnect materials business as well as reduce the production cycle time for our customers by integrating substrate design and production into our packaging services. See Risk Factors If we are not successful in developing and enhancing our in-house interconnect materials capabilities, our margins and profitability may be adversely affected .

### **Testing**

We provide a complete range of semiconductor testing services, including front-end engineering testing, wafer probing, final testing of logic/mixed-signal and memory semiconductors 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 and conversion programs on multiple equipment platforms for particular semiconductors.

In recent years, complex, high-performance logic/mixed-signal 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.

**Customized Software Development.** Test engineers develop customized software to test the semiconductor using advanced testing equipment. A customized software, developed on specific testing 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 why it did not 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 Final Testing.** We conduct final tests of a wide variety of logic/mixed-signal semiconductors, with the number of leads ranging from the single digits to one thousand and operating frequencies of up to 800 MHz 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 networking and wireless communications, graphics and disk controllers for home entertainment and personal computer applications, as well as a variety of 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:

**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.

**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.

**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 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,		
	1999	2000	2001
	(percentage of testing revenues)		
Testing Services:			
Front-end engineering test	2.2%	4.5%	8.7%
Wafer probe	7.8	9.9	9.0
Final test	90.0	85.6	82.3
	—	—	—
Total	100.0%	100.0%	100.0%
	—	—	—

## Facilities

We operate a number of packaging and testing 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. Our facilities range from our large-scale turnkey facilities in Taiwan and Malaysia to our specialized Korea facility dedicated to wireless communications and automotive end-products. With our diverse facilities we are able to tailor our packaging and testing solutions closely to our customers' needs. The following table sets forth the location, commencement of operation, primary use, approximate floor space of our facilities as of December 31, 2001.

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Facility	Location	Commencement of Operation	Primary Use	Approximate Floor Space (in sq. ft.)
ASE Inc. s facility in Kaohsiung, Taiwan	Kaohsiung, Taiwan	March 1984	Our primary packaging facility. Offers complete semiconductor manufacturing solutions in conjunction with ASE Test Taiwan and foundries located in Taiwan. Focuses primarily on advanced BGA and quad flat packages for integrated device manufacturers, fabless design companies and communications systems companies.	2,160,000
ASE Test, Inc.	Kaohsiung, Taiwan	December 1987	Our primary testing facility. Offers complete semiconductor solutions in conjunction with ASE Inc. s facility in Kaohsiung and foundries located in Taiwan. Focuses primarily on advanced logic/mixed signal testing for integrated device manufacturers, fabless design companies and communications systems companies.	770,000
ASE Material	Kaohsiung, Taiwan	December 1997	Design and production of interconnect materials such as leadframes and substrates used in packaging of semiconductors.	690,000
ASE Test Malaysia	Penang, Malaysia	February 1991	An integrated packaging and testing facility which focuses primarily on the requirements of integrated device manufacturers and communications systems companies.	600,000
ASE Chung Li <sup>(1)</sup>	Chung Li, Taiwan	April 1985	An integrated packaging and testing facility which specializes in semiconductors for communications applications,	800,000

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ASE Korea <sup>(2)</sup>	Paju, Korea	March 1967	particularly those incorporating Motorola's proprietary Map BGA technology. An integrated packaging and testing facility which specializes in semiconductors for radio frequency, sensor and automotive applications.	470,000
ISE Labs <sup>(3)</sup>	Fremont, California Santa Clara, California Hong Kong Singapore	November 1983	Front-end engineering and final testing facilities located in northern California in close proximity to several of the world's largest fabless design companies. Testing facilities located in close proximity to integrated device manufacturers and fabless companies in Hong Kong and Southeast Asia.	370,000
ASE Holding Electronics (Philippines) Inc., also called ASE Philippines	Cavite, Philippines	November 1995	Focuses primarily on the packaging of commodity semiconductor products for integrated device manufacturers in the Philippines.	130,000

(1) We acquired a 70.0% interest in ASE Chung Li and ASE Test acquired the remaining 30.0% interest in July 1999.

(2) We acquired a 70.0% interest in ASE Korea and ASE Test acquired the remaining 30.0% interest in July 1999.

(3) We acquired a 70.0% interest in ISE Labs in May 1999, which was subsequently increased to 80.4% following ASE Test's purchase of additional shares of ISE Labs in 2000. In January 2002, we purchased the remaining outstanding shares of ISE Labs.

## Our Consolidated Subsidiaries

### *ASE Test*

ASE Test is the largest independent testing company in the world, providing a complete range of semiconductor testing services to leading international semiconductor companies. ASE Test also provides semiconductor packaging services. ASE Test has testing operations in Taiwan, the United States, Hong Kong and Singapore, and also maintains testing and packaging operations in Malaysia.

ASE Test was incorporated in 1996 and its ordinary shares have been quoted for trading on the Nasdaq National Market since June 1996 under the symbol *ASTSF*. ASE Test's Taiwan depository shares representing its ordinary shares have been listed for trading on the Taiwan Stock Exchange under the symbol *9101* since January 1998. As of April 30, 2002, we held 49.97% of the outstanding shares of ASE Test. We are evaluating alternatives to increase our ownership of ASE Test to greater than 50%, including open market purchases of ASE Test shares.

ASE Test is a holding company incorporated in Singapore whose significant assets are its ownership interests in the following operating companies as of April 30, 2002:

100% of ASE Test, Inc., also called ASE Test Taiwan;

100% of ASE Test Malaysia;

100% of ISE Labs;

30% of ASE Chung Li (the remaining 70% of which is owned by ASE Inc.); and

30% of ASE Korea (the remaining 70% of which is owned by ASE Inc.).

In 2001, ASE Test recorded net revenues of US\$298.5 million, operating loss of US\$24.1 million and net loss of US\$45.8 million.

### *ASE Material*

ASE Material, which is a ROC company, was established in 1997 for the design and production of interconnect materials, such as leadframes and substrates, used in the packaging of semiconductors. See *Business Strategy* Continue to Focus on Advanced Technological, Processing and Materials Capabilities. ASE Material currently supplies our packaging facilities in Kaohsiung, Taiwan with a substantial portion of our leadframe and substrate requirements. See *Raw Materials and Suppliers* Packaging. As of December 31, 2001, we held 60.2% of the outstanding shares of ASE Material, comprising 56.2% held by ASE Inc. and 4.0% held by ASE Test Taiwan. The remaining shares of ASE Material are owned by the management and employees of ASE Material, the management and employees of ASE Inc. and its affiliates, as well as a strategic investor. The supervisor and two of the five directors of ASE Material are representatives of ASE Inc. and one director is a representative of ASE Test Taiwan. The remaining two directors of ASE Material are Jason C.S. Chang, our Chairman, and Richard H.P. Chang, our Vice Chairman and Chief Executive Officer, serving in their individual capacities.

ASE Material's facilities are located in the Nantze Export Processing Zone near our packaging and testing facilities in Kaohsiung, and in Chung Li, Taiwan. In 2001, ASE Material recorded net revenues of NT\$2,458.4 million (US\$70.2 million), operating income of NT\$273.5 million (US\$7.8 million) and net income of NT\$181.6 million (US\$5.2 million). Substantially all of ASE Material's sales are to us and our affiliates. Accordingly, substantially all of its sales and net income are eliminated in the preparation of our consolidated financial statements.

### ***ASE Technologies***

ASE Technologies, Inc., a ROC company, was involved in the design and assembly of notebook computers, set-top boxes and liquid crystal display monitors, and the assembly of board and sub-systems. As of December 31, 2001, we held 98.8% of the outstanding shares of ASE Technologies. ASE Technologies ceased operations in 2001, and had an operating loss of NT\$4.4 million (US\$0.1 million) and a net income of NT\$44.1 million (US\$1.3 million) in 2001. We intend to wind down the business of ASE Technologies upon approval from ASE Technologies' shareholders on June 28, 2002. We do not expect to incur any significant charges to our net income in connection with the winding down of ASE Technologies.

### **Our Unconsolidated Affiliates**

As of December 31, 2001, we held approximately 23.3% of the outstanding shares of Universal Scientific and 25.4% of the outstanding shares of Hung Ching.

### ***Universal Scientific***

Universal Scientific, which is a 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 are the largest shareholder in Universal Scientific and six out of the nine directors on its board of directors, including the chairman, are representatives of ASE Inc.

Universal Scientific's principal manufacturing facilities are located in Nantou, Taiwan. In 2001, Universal Scientific recorded net revenues of NT\$28,866.6 million (US\$824.8 million), operating income of NT\$1,157.7 million (US\$33.1 million) and net loss of NT\$163.1 million (US\$4.7 million). The shares of Universal Scientific are listed on the Taiwan Stock Exchange. As of December 31, 2001, Universal Scientific had a market capitalization of NT\$17,694.5 million (US\$505.6 million).

### ***Hung Ching***

Hung Ching, which is a ROC company, is engaged in the development and management of commercial, residential and industrial real estate properties in Taiwan. Hung Ching's completed development projects include the ASE Design Center commercial project and the Earl Village residential project, both located in Hsichih, Taiwan. Hung Ching was founded in 1986 by Chang Yao Hung-ying. Chang Yao Hung-ying is the mother of both Jason C.S. Chang, our Chairman, and Richard H.P. Chang, our Vice Chairman and Chief Executive Officer, and is a director of ASE Inc. As of December 31, 2001, we held 25.4% of the outstanding shares of Hung Ching. Jason C.S. Chang, Richard H.P. Chang, Chang Yao Hung-ying and other members of the Chang family are controlling shareholders of Hung Ching.

In 2001, Hung Ching recorded net revenues of NT\$1,784.1 million (US\$51.0 million), operating income of NT\$12.2 million (US\$0.3 million) and net loss of NT\$811.3 million (US\$23.2 million). The shares of Hung Ching are listed on the Taiwan Stock Exchange. As of



December 31, 2001, Hung Ching had a market capitalization of NT\$1,479.8 million (US\$42.3 million).

## **Sales and Marketing**

### *Sales and Marketing Offices*

We maintain sales and marketing offices in Taiwan, the United States, Europe and Malaysia. Our Hsinchu and Kaohsiung offices in Taiwan are staffed with employees from both ASE Inc. and ASE Test Taiwan. In addition, the sales agent for our packaging and testing services maintains sales and marketing offices in Austria, Belgium, France, Germany, Japan, Korea, Malaysia and the United States. We conduct marketing research through our customer service personnel and those of our sales agent 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 Sales and Marketing Qualification and Correlation by Customers .

### *Sales and Customer Service Agents*

Under commission agreements, each of ASE Inc., ASE Test Taiwan, ASE Korea, ASE Chung Li and ASE Test Malaysia has appointed Gardex International Limited, or Gardex, as the non-exclusive sales agent for its services and products worldwide, excluding Asia. Gardex helps us identify customers, monitor delivery acceptance and payment by customers and, within parameters set by us, negotiate price, delivery and other terms with our customers. Purchase orders are placed directly with us by our customers. We pay Gardex a commission of between 0.5% and 1.0% of our sales outside of Asia, payable monthly, depending on the amount of these sales. In 2001, we paid US\$5.9 million in commission to Gardex.

Under service agreements, each of ASE Inc., ASE Test Taiwan, ASE Korea, ASE Chung Li and ASE Test Malaysia has appointed ASE (U.S.) Inc. as its non-exclusive agent to provide customer service and after-sales support to its customers in Europe and North America. We pay ASE (U.S.) Inc. a monthly fee based on its monthly associated costs and expenses plus a commission set by reference to the lower of a percentage of sales or a fixed fee. In 2001, we paid US\$15.8 million in fees and service charges to ASE (U.S.) Inc.

Both Gardex and ASE (U.S.) Inc. are wholly owned by Y.C. Hsu, who has had a long personal relationship with Jason C.S. Chang, our Chairman, that pre-dates the founding of our company. We have maintained business relationships with Gardex, ASE (U.S.) Inc. and their predecessors since 1985. Gardex and ASE (U.S.) Inc. currently perform services only for us.

### *Customers*

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

Advanced Micro Devices, Inc.

Altera Corporation

ATI Technologies Inc.

Cambridge Silicon Radio

Motorola, Inc.

NVIDIA Corporation

ON Semiconductor Corp.

Koninklijke Philips Electronics N.V.

Cirrus Logic, Inc.

Conexant Systems, Inc.

LSI Logic Corporation

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Qualcomm Incorporated

Silicon Integrated Systems Corp.

STMicroelectronics N.V.

VIA Technologies, Inc.

Our five largest customers together accounted for approximately 40%, 44% and 41% of our net revenues in 1999, 2000 and 2001, respectively. Other than Motorola, Inc. in 1999, and Motorola, Inc. and VIA Technologies, Inc. in 2000 and 2001, no customer accounted for more than 10% of our net revenues in 1999, 2000 or 2001.

We package and test for our customers a wide range of products with end use applications in the communications, personal computers, consumer electronics, industrial and automotive sectors. The following table sets forth a breakdown of the percentage of our net revenues in 2001 by the principal end use applications of the products which we packaged and tested.

	<b>Year Ended December 31, 2001</b>
	<b>(percentage of net revenues)</b>
End Use Applications:	
Communications	36.0%
Personal computers	35.5
Consumer electronics/industrial/automotive	27.7
Other	0.8
	<hr/>
Total	100.0%
	<hr/>

Many of our customers are leaders in their respective end use markets. For example, we provide Motorola, an industry leader in automotive and wireless communications semiconductor products, with most 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.

<b>Communications</b>	<b>Personal Computers</b>	<b>Consumer Electronics/ Industrial/Automotive</b>
Advanced Micro Devices, Inc. Conexant Systems, Inc. Motorola, Inc. Koninklijke Philips Electronics N.V. Qualcomm Incorporated STMicroelectronics N.V.	Advanced Micro Devices, Inc. ATI Technologies, Inc. Cirrus Logic, Inc. IBM Corporation NVIDIA Corporation Silicon Integrated Systems Corp. VIA Technologies, Inc. Winbond Electronics Corporation	Altera Corporation ESS Technology, Inc. LSI Logic Corporation Motorola, Inc. STMicroelectronics N.V.

We categorize our packaging and testing 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 packaging and testing revenues.

<b>Year Ended December 31,</b>		
<b>1999</b>	<b>2000</b>	<b>2001</b>
<hr/>	<hr/>	<hr/>

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North America	57.2%	65.0%	65.0%
Taiwan	28.9	24.8	26.7
Other Asia	11.3	6.4	4.4
Europe	2.6	3.8	3.9
	<u>        </u>	<u>        </u>	<u>        </u>
Total	100.0%	100.0%	100.0%
	<u>        </u>	<u>        </u>	<u>        </u>

In 2001, approximately 82% of the testing revenues of ASE Test Taiwan and 82% of the testing revenues of ASE Test Malaysia were accounted for by the testing of semiconductors packaged at our packaging facilities in Kaohsiung, Taiwan and Malaysia, respectively. The balance represented testing revenues from customers who delivered packaged semiconductors directly to ASE Test Taiwan or ASE Test Malaysia for testing. In 2001, approximately 34% of our packaging revenues in Kaohsiung, Taiwan and 67% of our packaging revenues in Malaysia were accounted for by the packaging of semiconductors which were subsequently tested at ASE Test Taiwan and ASE Test Malaysia, respectively. We expect that more customers of our packaging facilities in Kaohsiung, Taiwan and Malaysia 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 eight 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 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 primarily on a cost-plus basis with reference to prevailing market prices. Prices are confirmed at the time firm orders are received from customers, which is typically four to eight weeks before delivery.

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.

#### **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. Interconnect materials, such as leadframes and substrates, gold wire and molding compound represented approximately 59.2%, 19.0% and 9.1%, respectively, of our total cost of packaging materials in 2001.

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 for

approximately one month's production 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, typically in amounts equal to the average monthly amounts supplied to us, 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 1999 and 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. In these instances, we generally negotiate an extension of the delivery date from our customers. See Strategy Continue to Focus on Advanced Technological, Processing and Materials Capabilities .

### ***Testing***

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

### **Equipment**

#### ***Packaging***

The most important equipment used in the semiconductor packaging process is the wire bonder. The number of wire bonders at a given facility is commonly used as a measure of the packaging capacity of the facility. The wire bonders connect the input/output terminals on the silicon die using extremely fine gold wire to leads on leadframes or substrates. Typically, wire bonders may be used, with minor modifications, for the packaging of different products. We purchase our wire bonders principally from Kulicke & Soffa Industries Inc. As of December 31, 2001, we operated an aggregate of 3,780 wire bonders, of which 2,157 were fine pitch wire bonders and 29 were consigned by customers, respectively. In addition to wire bonders, we maintain a variety of other types of packaging equipment, such as wafer grind, wafer mount, wafer saw, die bonders, automated molding machines, laser markers, solder plate, pad printers, dejunkers, trimmers, formers, substrate saw and scanners.

#### ***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 testing equipment from major international manufacturers, including Advantest Corporation, Agilent Technologies, Inc., Credence Systems Corporation, LTX Corporation, Schlumberger Limited and Teradyne, Inc. Upon acquisition of new testing equipment, we install, configure, calibrate, perform burn-in diagnostic tests on and establish parameters for the testing equipment based on the anticipated requirements of existing and potential customers and considerations relating to market trends. As of December 31, 2001, we operated an aggregate of 1,082 testers, 172 of which were consigned by customers. 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, re-formers 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.

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.

### **Research and Development**

For 1999, 2000 and 2001, our research and development expenditures totaled approximately NT\$714.3 million, NT\$1,262.5 million and NT\$1,504.5 million (US\$43.0 million), respectively. These expenditures represented approximately 2.2%, 2.5% and 3.9% of net revenues in 1999, 2000 and 2001, respectively. We have historically expensed all research and development costs as incurred and none is currently capitalized. As of December 31, 2001, we employed 1,275 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 the 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. We expect these efforts to continue. We are now also putting significant research and development efforts into the development and adoption of new technology. We work closely with the manufacturers of our packaging equipment, including Kulicke & Soffa Industries Inc., in designing and modifying the equipment used in our production process. We also work closely with our customers to develop new product and process technology.

A significant portion of our research and development efforts is also focused on the development of advanced substrate production technology for BGA packaging through ASE Material. Substrate is the principal raw material for BGA packages. Development and production of advanced substrates involve complex technology and, as a result, high quality substrates are currently available only from a limited number of suppliers, located primarily in Japan. We believe that the successful development of substrate production capability by ASE Material will, among other things, enable us to capture an increasingly important value-added component of the packaging process, help ensure a stable and cost-effective supply of substrates for our BGA packaging operations and shorten production time. In 2001, ASE Material supplied approximately 34% of our substrate requirements by value.

### ***Testing***

Our research and development efforts in the area of testing have focused primarily on improving the efficiency and technology of our testing processes. The efforts include developing software for parallel testing of logic semiconductors, rapid automatic generation and cross-platform conversion of test programs to test logic/mixed-signal semiconductors, automatic code generation for converting and writing testing programs, testing new products using existing machines and providing customers remote access to monitor test results. We are also continuing the development of interface designs to provide for high-frequency testing by minimizing electrical noise. We work closely with our customers in designing and modifying testing software and with equipment vendors to increase the efficiency and reliability of testing equipment. Our research and development operations also include a mechanical engineering group, which

currently designs handler kits for semiconductor testing and wafer probing, as well as software to optimize capacity utilization.

### **Intellectual Property**

As of April 30, 2002, we held 158 Taiwan patents and 64 U.S. patents related to various semiconductor packaging technologies. In addition, we registered ASE as a trademark and as a servicemark in Taiwan.

We have also entered into various non-exclusive technology license agreements with other companies involved in the semiconductor manufacturing process, including Tessera Inc., Fujitsu Limited, Flip Chip Technologies, Motorola, Inc. and LSI Logic Corporation. The technology we license from these companies includes solder bumping, redistribution, ultraCSP assembly and other technologies used in the production of package types, such as bump chip carrier, flip chip packages and micro BGA. The license agreement with Tessera Inc. will not expire until the expiration of the Tessera Inc. patents licensed by the agreement. The license agreements with Fujitsu Limited, Flip Chip Technologies, Motorola, Inc. and LSI Logic Corporation will expire on April 13, 2003, March 1, 2009, December 31, 2002, and January 1, 2010, respectively.

### **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 packaging and testing services. We have maintained an average packaging yield rate of 99.8% or greater in each of the last three years. We maintain a quality control staff at each of our facilities. Our quality control staff typically includes engineers, technicians and other employees who monitor packaging and testing processes in order to ensure high 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 environment 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. In addition, our packaging and testing 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 209E class 1,000, 10,000 and 100,000 standards. All of our facilities have been certified as meeting the ISO 9002 quality standards by the International Standards Organization, or ISO. In addition, our facilities in Taiwan (excluding Chung Li), Malaysia and the Philippines have been certified as meeting the ISO 14001 quality standards by the ISO. Our facilities in Taiwan, Korea, Malaysia and the Philippines have also been certified as meeting the Quality System 9000, also known as QS-9000, quality standards. The ISO 9002 and ISO 14001 certifications are required by many countries in connection with sales of industrial products in these countries. The QS-9000 quality standards provide for continuous improvement with an emphasis on the prevention of defects and reduction of variation and waste in the supply chain. Like the ISO 9002 certification, the QS-9000 certification is required by some semiconductor manufacturers as a threshold indicating a company's quality control standards. 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, especially those that also offer turnkey packaging and testing services. 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. Furthermore, several independent packaging and testing companies have established their packaging 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 and lower costs 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 the advanced packaging and testing requirements on a large scale.

### **Environmental Matters**

Our packaging and interconnect materials operations generate environmental wastes, including as 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 all of our semiconductor packaging 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.

**Employees**

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

	As of December 31,		
	1999	2000	2001
<b>Total</b>	14,184	18,121	15,681
Function			
Direct labor	9,495	12,011	9,690
Indirect labor (manufacturing)	2,995	3,577	3,366
Indirect labor (administration)	1,067	1,370	1,350
Research and development	627	1,163	1,275
Location			
Taiwan	9,360	12,430	10,811
Malaysia	2,625	3,407	2,854
Korea	972	965	885
United States	472	523	438
Philippines	582	568	571
Singapore	36	104	68
Hong Kong	137	124	54

Eligible employees may participate in the ASE Inc. Employee Share Bonus Plan and the ASE Test Share Option Plans. See Management Compensation of Directors, Supervisors and Executive Officers ASE Inc. Employee Bonus Plan and Management Compensation of Directors, Supervisors and Executive Officers ASE Test Share Option Plans .

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.

**Legal Proceedings**

We are not involved in material legal proceedings the outcome of which we believe would have a material adverse effect on us.

Criminal charges were brought in December 1998 by the district attorney for Taipei against Jason C.S. Chang, Richard H.P. Chang, Chang Yao Hung-ying and four others for alleged breach of fiduciary duties owed to Hung Ching, an affiliate of ASE Inc., in their capacity as directors and officer of Hung Ching in connection with a land sale transaction in 1992 valued at approximately NT\$1.7 billion. ASE Inc. is not a party to these proceedings and we do not expect that these charges will result in any liability to us. It was alleged that the transaction in which Jason C.S. Chang sold the land to Hung Ching unfairly benefited Jason C.S. Chang to the detriment of Hung Ching. Hung Ching at that time was a privately-owned company whose principal shareholders were members of the Chang family. Ancillary charges were brought against Jason C.S. Chang, Chang Yao Hung-ying and another person for alleged forgery of Hung Ching board resolutions relating to that transaction. In January 2001, the District Court of Taipei rendered a judgment finding Jason C.S. Chang and Chang Yao Hung-ying guilty of forgery of corporate and other documents and breach of fiduciary duties and Richard H.P. Chang not guilty. In January 2002, the High Court of Taiwan, ROC rendered a judgment relating to the appeal of the judgment by the District Court, and found Jason C.S. Chang and Chang Yao Hung-ying guilty and Richard H.P. Chang not guilty, and reduced the sentences rendered by the District Court relating to Jason C.S. Chang and Chang Yao Hung-ying from six years to four years and three years, respectively. In order to comply with the particular requirements of the Singapore Companies Act, Jason C.S. Chang and Chang Yao Hung-ying have both resigned as directors of ASE Test.

Neither Jason C.S. Chang nor Chang Yao Hung-ying believes that he or she committed any offense in connection with such transactions, and they are appealing the decision to the Supreme Court of Taiwan, ROC. Counsel to Jason C.S. Chang and Chang Yao Hung-ying have advised that, as these proceedings may not be finally determined until the case has been considered by the Supreme Court, one or two years may elapse until the case is fully resolved. If the convictions are not overturned on appeal, Jason C.S. Chang and Chang Yao Hung-ying will be required under ROC law to resign as directors and Jason C.S. Chang will be required to resign as Chairman of ASE Inc.

#### **Insurance**

We have insurance policies covering property damage and damage to our production facilities, buildings and machinery, as well as business interruption losses, due to fire and flood. We are in the process of obtaining insurance policies for our Taiwan operations covering property damage and damage to our production facilities, buildings and machinery, as well as business interruption losses, due to typhoon. Significant damage to any of our production facilities, whether as a result of fire or other causes, would have a material adverse effect on our results of operations. We are not insured against the loss of key personnel.

## MANAGEMENT

### 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 seven-member board of 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 July 11, 2000. The terms of the directors will expire on July 10, 2003. Directors may serve any number of consecutive terms and may be removed from office at any time for a valid reason by a resolution adopted at a general meeting of shareholders. Normally, all board members are elected at the same time, 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.

The following table sets forth the name of each of our directors, his or her position in ASE Inc., the year they were elected as director and other significant positions of our affiliates held by them.

Name	Position	Director Since	Age	Other Significant Positions Held
Jason C.S. Chang <sup>(1)</sup>	Director and Chairman	1984	58	Chairman of ASE Test Taiwan
Richard H.P. Chang <sup>(1)</sup>	Director, Vice Chairman and Chief Executive Officer	1984	55	Chairman of ASE Test; Chairman of Universal Scientific
Leonard Y. Liu <sup>(2)</sup>	Director and President	2000	60	Director and Chief Executive Officer of ASE Test; Chief Executive Officer of Universal Scientific
Joseph Tung <sup>(2)</sup>	Director and Chief Financial Officer	1997	43	Supervisor of Universal Scientific; Director of ASE Test
Chang Yao Hung-ying <sup>(1)(2)</sup>	Director	1984	79	Director of ASE Test Taiwan
Chin Ko-Chien <sup>(2)</sup>	Director and Executive Vice President	1997	56	Director of ASE Test
David Pan <sup>(2)</sup>	Director	1997	57	Director and President of ASE Test

(1) Chang Yao Hung-ying is the mother of both Jason C.S. Chang and Richard H.P. Chang.

(2) Representative of ASE Enterprises Limited, a company organized under the laws of Hong Kong, which held 19.5% of our outstanding common shares as of December 31, 2001. All of the outstanding shares of ASE Enterprises Limited are held by a company organized under the laws of the British Virgin Islands in trust for the benefit of Chang Yao Hung-ying, the mother of Jason C.S. Chang, our Chairman, and Richard H.P. Chang, our Vice Chairman and Chief Executive Officer. Jason C.S. Chang is the sole shareholder and director of that company.

### Supervisors

We currently have five supervisors, each serving a three-year term. Supervisors are typically elected at the time that directors are elected. The current supervisors began serving on June 1, 2001, and their terms will expire on May 31, 2004. The supervisors' duties and powers include investigation of our business condition, inspection of our corporate records, verification and review of financial statements 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

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applicable law or regulation or in contravention of our Articles of Incorporation. 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 the name of each of our supervisors, his or her position in ASE Inc., the year they were elected as supervisor and other significant positions of our affiliates held by them.

Name	Position	Supervisor Since	Age	Other Significant Positions Held
Feng Mei-Jean <sup>(1)</sup>	Supervisor	1984	47	Supervisor of ASE Chung Li
Yen-Yi Tseng <sup>(2)</sup>	Supervisor	2000	60	Vice Chairman of Hung Ching
Alan Cheng <sup>(2)</sup>	Supervisor	1997	56	Director of ASE Test; Chairman of Hung Ching
John Ho <sup>(2)</sup>	Supervisor	1998	47	Director of Universal Scientific
Raymond Lo <sup>(2)</sup>	Supervisor	2000	48	President of ASE Test Taiwan

(1) Feng Mei-Jean is the wife of Richard H.P. Chang.

(2) Representative of ASE Enterprises Limited.

In accordance with ROC law, each of our directors and supervisors is elected either in the capacity as an individual shareholder 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. Of the current directors and supervisors, nine represent ASE Enterprises Limited. The remaining directors and supervisors serve in their capacity as individual shareholders.

### Executive Officers

The following table sets forth information relating to our executive officers.

Name	Position	Years with the Company	Age
Jason C.S. Chang	Chairman	18.0	58
Richard H.P. Chang	Vice Chairman and Chief Executive Officer	18.0	55
Leonard Y. Liu	President	2.5	60
Chin Ko-Chien	Executive Vice President and General Manager, Kaohsiung packaging facility	18.0	56
David Pan	President, ASE Test	8.5	57
Raymond Lo	President, ASE Test Taiwan	16.0	48
Kanapathi A/ L Kuppusamy	President, ASE Test Malaysia	3.0	50
Shih-Song Lee	President, ASE Chung Li	3.0	61
James Stilson	President, ASE Korea	3.0	55
Fu-Shing Chang	President, ASE Philippines	18.0	51
Gregory Lin	President, ASE Material	7.0	58
Joseph Tung	Chief Financial Officer	7.5	43

### Biographies of Directors, Supervisors and Executive Officers

*Jason C.S. Chang* has served as Chairman of ASE Inc. since its founding in March 1984. He holds a degree in electrical engineering from National Taiwan University and a masters degree

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from the Illinois Institute of Technology. He is the son of Chang Yao Hung-ying, a director of ASE Inc., and the brother of Richard H.P. Chang, our Vice Chairman and Chief Executive Officer.

*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 was appointed Chief Executive Officer of ASE Inc. in July 2000. Mr. Chang is also the Chairman of ASE Test. He holds a degree in industrial engineering from Chung Yuan Christian University of Taiwan. He is the son of Chang Yao Hung-ying, a director of ASE Inc., and the brother of Jason C.S. Chang, our Chairman.

*Leonard Y. Liu* has served as a director since July 2000 and President of ASE Inc. since November 1999. Mr. Liu is also the Chief Executive Officer and a director of ASE Test and the Chief Executive Officer of Universal Scientific. Before joining ASE Inc., he was Chairman and Chief Executive Officer of Walker Interactive System, Inc. Mr. Liu has held other top management positions at leading technology companies, including Chief Operating Officer of Cadence Design Systems, President of the Acer Group worldwide and General Manager of IBM Corporation's application enabling software business unit. He holds a degree in electrical engineering from National Taiwan University and a doctorate degree in electrical engineering and computer science from Princeton University.

*Joseph Tung* has served as a director of ASE Inc. since April 1997 and Chief Financial Officer since December 1994. He is also a director of ASE Test. 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 masters degree in business administration from the University of Southern California.

*Chang Yao Hung-ying* has served as a director of ASE Inc. since 1996. Before April 1997, she was the Chairman of Hung Ching. She holds a degree from Shanghai University. She is the mother of Jason C.S. Chang and Richard H.P. Chang, our Chairman and our Vice Chairman and Chief Executive Officer, respectively.

*Chin Ko-Chien* has served as a director of ASE Inc. since March 1984 and Executive Vice President and General Manager of our packaging facility in Kaohsiung since March 1990. Mr. Chin is also a director of ASE Test. Before joining ASE Inc., he held managerial positions at Fu Hua Construction Co. Ltd. and De Ji Trading Company. He holds a degree in bearings technology from Taiwan Ocean University.

*David Pan* has served as a director of ASE Inc. since April 1997 and President and a director of ASE Test since November 1995. Before joining ASE Test, Mr. Pan was the Vice President responsible for research and development at Ultratech Stepper Inc. He holds a degree in physics from the University of Illinois and masters and doctorate degrees in physics from the University of California at Berkeley.

*Feng Mei-Jean* has served as a supervisor of ASE Inc. since March 1984. She holds a degree in economics from National Taiwan University. She is the wife of Richard H.P. Chang, our Vice Chairman and Chief Executive Officer.

*Yen-Yi Tseng* has served as a supervisor of ASE Inc. since July 2000 and Vice Chairman of Hung Ching since 1999. 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 masters 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.

*Alan Cheng* has served as a supervisor of ASE Inc. since April 1997. Mr. Cheng is also the Chairman of Hung Ching. He holds a degree in industrial engineering from Chung-Yuan University.

*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 masters degree in business administration from the University of Iowa.

*Raymond Lo* has served as a supervisor of ASE Inc. since July 2000 and President of ASE Test Taiwan since December 1999, after serving as Vice President of Operations of ASE Inc. since July 1993. 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.

*Kanapathi A/ L Kuppusamy* has served as President of ASE Test Malaysia since July 1999. Before joining ASE Test Malaysia, Mr. Kanapathi was President of Motorola Asia Final Manufacturing. He holds a masters degree in business administration from the University of East Asia in Kuala Lumpur, Malaysia.

*Shih-Song Lee* has served as President of ASE Chung Li since July 1999. Before joining ASE Chung Li, Mr. Lee served as President of Motorola, Inc.'s Semiconductor Products Sector Businesses in Chung Li, Taiwan before we acquired the company. He holds a degree in electrical engineering from the Tatung Institute of Technology in Taiwan.

*James Stilson* has served as President of ASE Korea since July 1999. Before joining ASE Korea, Mr. Stilson served as President of Motorola, Inc.'s Semiconductor Products Sector Businesses in Paju, Korea before we acquired the company. He holds a degree in chemistry and a masters degree in business administration from the University of California.

*Fu-Shing Chang* has served as President of ASE Philippines since January 2000. Before joining ASE Philippines, Mr. Chang served as Vice President for Quality Assurance and Customer Service. He holds a degree in mechanical engineering from the National Cheng-kung University in Taiwan.

*Gregory Lin* has served as President of ASE Material since its inception in December 1997. Before joining ASE Material, Mr. Lin held research positions with Xerox Palo Alto Research Center. He holds a degree in chemistry from National Taiwan Chung Hsing University, and masters and doctorate degrees in chemistry from the University of Illinois.

#### **Compensation of Directors, Supervisors and Executive Officers**

In 2001, we paid to our directors, supervisors and executive officers approximately NT\$172.8 million (US\$4.9 million) in cash remuneration. In addition, an aggregate of 1,242,340 common shares of ASE Inc. were granted in 2001 to our directors, supervisors and executive officers. In 2001, we also set aside an aggregate of NT\$1.4 million (US\$0.04 million) to provide pension, retirement and similar benefits for our executive officers pursuant to existing plans provided by or contributed to by our company or its subsidiaries.

#### ***ASE Inc. Employee Bonus Plan***

We award bonuses to employees of ASE Inc. and its affiliates who are located in Taiwan based on overall income and individual performance targets. These employees are eligible to receive bonuses in the form of common shares of ASE Inc. valued at par. Actual amounts of bonuses to individual employees are determined based upon the employee meeting specified individual performance objectives. We granted an aggregate of 9,540,000 common shares, 47,833,062 common shares and 34,960,000 common shares in 1999, 2000 and 2001, respectively, as stock bonuses to employees of ASE Inc. and its affiliates with a fair market value at the date of grant of NT\$754.7 million, NT\$3,429.0 million and NT\$830.6 million (US\$23.7 million), respectively. We expect this practice to continue in future periods.

#### ***ASE Test Share Option Plans***

ASE Test currently maintains six option plans which include an option plan adopted prior to the initial public offering, also known as the pre-IPO plan, and plans adopted in each year from 1996 to 2000. Under ASE Test's share option plans, its directors, employees, advisors and

consultants and those of its affiliates may, at the discretion of a committee of its directors administering the plan, be granted options to purchase its shares at an exercise price of no less than their market value on the date of grant. The committee has complete discretion to determine which eligible individuals are to receive option grants, the number of shares subject to each grant, the vesting schedule to be in effect for each option grant and the maximum term for which each granted option is to remain outstanding, up to a maximum term of five years, or in the case of the 1999 and 2000 option plans, ten years. ASE Test's board of directors may amend or modify the plans at any time. As of December 31, 2001, an aggregate of 30,300,000 of ASE Test's shares had been reserved for issuance and 16,308,585 options to purchase its shares remained outstanding under its various option plans. An aggregate of 7,030,000 options had been granted to the directors and executive officers of ASE Test. Options granted under the various plans are exercisable at an exercise price ranging from US\$2.06 to US\$25.00 per share. Options granted under the pre-IPO, 1996, 1997 and 1998 option plans will expire five years from the date of grant, and in the case of the 1999 and 2000 plans, ten years from the date of grant.

### Share Ownership

The following table sets forth certain information with respect to our common shares owned by our executive officers and directors as of April 30, 2002.

Executive Officer or Director	Number of ASE Inc. Common Shares Held	Percentage of Total of Our Common Shares Issued and Outstanding
Jason C.S. Chang	20,254,843	0.62%
Richard H.P. Chang	37,379,794	1.15%
Leonard Y. Liu	161,923	0.00%
Joseph Tung	780,394	0.02%
Chang Yao Hung-Ying	8,384,606	0.26%
Chin Ko-Chien	534,530	0.02%
David Pan	328,953	0.01%
Feng Mei-Jean	57,819,663	1.78%
Yen-Yi Tseng	1,100	0.00%
Alan Cheng	287,697	0.01%
John Ho	284,710	0.01%
Raymond Lo	500,175	0.02%
Kanapathi A/ L Kuppusamy		
Shih-Song Lee	231,400	0.01%
James Stilson		
Fu-Shing Chang	1,737	0.00%
Gregory Lin	200,803	0.01%

### Interests of Management in Related Party Transactions

Several of our directors, supervisors and executive officers also serve as directors, supervisors or executive officers of companies with which we do business. These companies include our affiliates. See [Principal Shareholders](#) and [Related Party Transactions](#). We conduct these transactions on an arms length commercial basis.



**PRINCIPAL SHAREHOLDERS**

The following table sets forth information known to us with respect to the beneficial ownership of our common shares, as of April 30, 2002, by (1) each shareholder known by us to own beneficially more than 5% of our common shares and (2) all directors, supervisors and executive officers as a group.

Name of Shareholder or Group	Common Shares Beneficially Owned	
	Number	Percentage
ASE Enterprises Limited <sup>(1)</sup>	634,595,834	19.5%
Directors, supervisors and executive officers as a group <sup>(2)</sup>	761,878,893	23.4%

(1) ASE Enterprises Limited is a company organized under the laws of Hong Kong. All of the outstanding shares of ASE Enterprises Limited are held by a company organized under the laws of the British Virgin Islands in trust for the benefit of Chang Yao Hung-ying, the mother of Jason C.S Chang, our Chairman, and Richard H.P. Chang, our Vice Chairman and Chief Executive Officer. Jason C.S. Chang is the sole shareholder and director of that company.

(2) Includes shareholding of ASE Enterprises Limited.

The following table sets forth information relating to our common shares held by our consolidated subsidiaries and non-consolidated affiliates as of April 30, 2002.

Name of Shareholder	Common Shares Beneficially Owned	
	Number	Percentage
ASE Capital <sup>(1)</sup>	21,420,317	0.7%
ASE Investment <sup>(1)(2)</sup>	142,368,827	4.4%
ASE Test Taiwan <sup>(3)</sup>	652,713	0.0%
Hung Ching <sup>(4)</sup>	39,535,822	1.2%

(1) ASE Capital and ASE Investment are our wholly-owned subsidiaries.

(2) Of the 142,368,827 common shares owned by ASE Investment, 16,232,450 are currently represented by an aggregate of 3,246,490 ADSs.

(3) ASE Test Taiwan is a subsidiary of ASE Test, our subsidiary.

(4) As of April 30, 2002, we held 25.4% of the outstanding shares of Hung Ching. Our director Chang Yao Hung-ying, our Chairman Jason C.S. Chang, our Vice Chairman and Chief Executive Officer Richard H.P. Chang and other members of the Chang family are controlling shareholders of Hung Ching. See Business Unconsolidated Affiliates .

None of our major shareholders have different voting rights from those of our other shareholders. There has been no significant changes in the percentage ownership of any of our major shareholders in 1999, 2000 and 2001.

As of December 31, 2001, a total of 3,254,800,000 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 December 31, 2001, 234,897,292 common shares were registered in the name of a nominee of Citibank, N.A., the depository under our ADS deposit agreement. Citibank, N.A., has advised us that, as of December 31, 2001, 41,790,027 ADSs, representing 208,950,135 common shares, were held of record by Cede & Co. and four other U.S. persons. We have no further information as to common shares held, or beneficially owned, by U.S. persons.

### RELATED PARTY TRANSACTIONS

In recent years, ASE Inc. has made awards of ASE Inc.'s common shares to the employees of affiliates of ASE Inc. as part of their compensation, based in part on the consolidated net income of ASE Inc. and the affiliates' contribution to the consolidated income. ASE Inc. granted an aggregate of 1,305,000 common shares in 1999, 13,510,250 common shares in 2000 and 9,872,725 common shares in 2001 as stock awards to employees of affiliates of ASE Inc. with a fair market value at the time of grant of NT\$103.2 million, NT\$968.5 million and NT\$234.6 million (US\$6.7 million), respectively. ASE Inc. expects this practice to continue in future periods.

ASE Material sold interconnect materials in the aggregate amount of NT\$779.9 million, NT\$1,765.6 million and NT\$2,346.9 million (US\$67.1 million) to ASE Inc. in 1999, 2000 and 2001, respectively. In 2001, we purchased approximately 34% of our substrate requirements by value for our packaging facilities from ASE Material. We purchase, and plan to continue to purchase, materials from ASE Material at prevailing market prices.

ASE Test Taiwan has historically charged ASE Inc. fees for the testing of semiconductors packaged for a small number of customers that prefer to be billed through ASE Inc. for testing services performed by ASE Test Taiwan. These fees amounted to NT\$81.5 million, NT\$142.7 million and NT\$178.3 million (US\$5.1 million) in 1999, 2000 and 2001, respectively. ASE Inc. sold to ASE Test Taiwan at book value a building at an aggregate price of NT\$18.4 million in 2000.

ASE Test Malaysia and ASE Philippines have historically purchased a portion of the raw materials used in their packaging operations, principally leadframes, from ASE Inc. when they face a shortage in the supply of these types of raw materials. These types of raw materials are typically resold by ASE Inc. to ASE Test Malaysia and ASE Philippines at book value. Purchases of raw materials by ASE Test Malaysia amounted to NT\$14.6 million, NT\$3.6 million and NT\$17.2 million (US\$0.5 million) in 1999, 2000 and 2001, respectively. Purchases of raw materials by ASE Philippines amounted to NT\$1.8 million, NT\$2.1 million and NT\$4.7 million (US\$0.1 million) in 1999, 2000 and 2001, respectively. In addition, ASE Inc. purchased raw materials, principally leadframes, from ASE Test Malaysia in an amount of NT\$4.3 million, NT\$11.9 million and NT\$12.8 million (US\$0.4 million) in 1999, 2000 and 2001, respectively.

In 2001, ASE Test Malaysia purchased raw materials, primarily lead frames and substrates, from ASE Material in the aggregate amount of NT\$79.3 million (US\$2.3 million). These types of raw materials are typically sold by ASE Material to ASE Test Malaysia at book value.

ASE Inc. has historically guaranteed the short-term borrowing of many of its subsidiaries. As of December 31, 2001, ASE Inc. has endorsed and guaranteed an aggregate amount of NT\$8,082.7 million (US\$230.9 million) of the outstanding promissory notes of its subsidiaries.

In 1999, 2000 and 2001, ASE Inc. sold to ASE Philippines at book value machinery and equipment for the packaging of plastic dual in-line packages at an aggregate price of NT\$12.9 million, NT\$22.8 million and NT\$30.5 million (US\$0.9 million), respectively.

In January 2000, ASE Chung Li and Hung Ching, our affiliate, entered into an agreement for the development of buildings on land currently owned by ASE Chung Li. Under the agreement, Hung Ching will bear all costs relating to the development. Upon completion of the development, floor space in the buildings will be sold by Hung Ching at prices to be negotiated between Hung Ching and the buyers. ASE Chung Li and its affiliates will have priority in the purchase of the floor space. In the event that floor space is sold to persons other than ASE Chung Li, ASE Chung Li will receive 25% of the selling price. The first phase of the development project is the construction of a building with aggregate floor space of approximately 800,000 square feet, which was completed in September 2000. The total value of the first phase of the project, including land and the completed building, is estimated at NT\$2.0 billion. The new building is expected to house ASE Chung Li's testing operations as well as part of the operations of other affiliates of ASE Inc.

ASE Chung Li entered into two leases with ASE Material and one lease with ASE Test Taiwan to lease floor space in a building located at 550-5, Section 1, Chung-hwa Road, Fu-hwa Li, Chung Li, Taiwan. An area of approximately 48,000 square feet per floor was leased, with two floors leased to ASE Material and one floor leased to ASE Test Taiwan. The leased area will be used for production facilities.

In October 1997, J&R Holding entered into agreements with Swiss Bank Corporation to purchase call options on a portion of our US\$200 million Zero Coupon Convertible Bonds due 2002. The call options were offered by Swiss Bank Corporation as a part of the repackaging of our convertible bonds by SBC Warburg, an affiliate of Swiss Bank Corporation, into two separate instruments consisting of: (1) US\$200 million callable floating rate notes secured by the convertible bonds and (2) call options on the convertible bonds. SBC Warburg decided to repackage the convertible bonds because the adverse market conditions resulting from the Asian financial crisis during the second half of 1997 made it difficult to market the convertible bonds. SBC Warburg was able to obtain commitments for the entire issue of the floating rate notes but, as a result of the adverse market conditions described above, was able to obtain commitments for only a portion of the call options. As a result, Swiss Bank Corporation approached a number of large institutional investors, including J&R Holding, with a proposal to sell a portion of the call options.

J&R Holding decided to purchase the call options because its management considered the call options to be a good investment. Under the first agreement with Swiss Bank Corporation, J&R Holding is required to make four cash payments to Swiss Bank Corporation in November 1998, 1999, 2000 and 2001. In return, J&R Holding has the right to call the convertible bonds back at any time during the period from November 1998 through November 2002. Under the second agreement, Swiss Bank Corporation paid US\$200,000 to J&R Holding. In return, Swiss Bank Corporation had the right to sell a portion of the call options to J&R Holding at any time between November 4, 1997 and November 1, 1998. These options were terminated by agreement on December 11, 2001.

ASE Holding Limited, one of our subsidiaries through which we hold ASE Test shares, entered into a share purchase agreement dated as of May 19, 2001 with two of our directors under which ASE Holding Limited agreed to purchase 2,480,000 shares of ASE Test from these directors upon the exercise of certain options granted to them under ASE Test's 1996 option plan for an aggregate purchase price of US\$35,389,600. The closing date of this acquisition of shares was May 22, 2001. We engaged in this acquisition principally to maintain our investment in ASE Test at a level above 50% of the outstanding shares of ASE Test. For more information relating to the transaction, see Item 7. Major Shareholders Related Party Transactions of our annual report on Form 20-F for the fiscal year ended December 31, 2000.

## DESCRIPTION OF COMMON SHARES

Set forth below is a summary of information relating to our share capital, including brief summaries of the relevant provisions of our Articles of Incorporation, the ROC Securities and Exchange Law and the ROC Company Law.

### General

We were incorporated on March 23, 1984 as a company limited by shares under the ROC Company Law. Our authorized capital was NT\$41,500,000,000, divided into 4,150,000,000 common shares, 3,254,800,000 were issued in registered form and outstanding as of March 31, 2002. We do not have any equity in the form of preference shares or otherwise outstanding as of the date of this prospectus.

We have 300,000,000 common shares reserved for issuance under our employee stock options and 300,000,000 common shares reserved in connection with conversions of convertible bonds. As of March 31, 2002, these convertible bonds were convertible into our common shares at a conversion price of NT\$50.5 per common share. The conversion price is subject to adjustment in the following circumstances:

- (1) the making of a free distribution or bonus issue of common shares;
- (2) subdivisions, consolidations or reclassifications of common shares;
- (3) the declaration of a dividend in common shares;
- (4) the grant, issue or offer to the holders of common shares or rights or warrants to subscribe for or purchase common shares at less than the current market price or to subscribe for or purchase any securities convertible into or exchangeable for common shares at less than the then current market price;
- (5) the distribution to the holders of common shares of evidences of indebtedness of ASE Inc. or of shares of capital stock of ASE Inc. (other than common shares) or of assets (other than regular periodic dividends in cash) or of rights or warrants to subscribe for or purchase shares or securities (other than those mentioned in (4) above);
- (6) the issue of securities (other than the bonds, the entitlement certificates to be issued on conversion of bonds and those securities mentioned in (4) above) convertible into or exchangeable for common shares at less than the then current market price or of rights or warrants (other than those securities mentioned in (4) above) to subscribe for or purchase common shares at less than the then current market price or to subscribe for or purchase securities convertible into or exchangeable for common shares at less than the then current market price;
- (7) the issue of common shares (other than common shares or the entitlement certificates issued on conversion of the bonds or in any of the circumstances described above, but including to employees under any employee bonus arrangements) at less than the current market price; and
- (8) any other event or circumstances which would have in our determination or in the determination of the trustee an analogous effect to any of the events in (1) to (7) above including, but not limited to, issues of receipts or certificates entitling holders to receive securities.

### 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 any gains on the disposal of fixed assets, prior years' losses and legal and special reserves, if any) should be paid to our directors and supervisors as compensation; and

between 5% and 7% of the annual net income (less any gains on the disposal of fixed assets, prior years' losses and legal and special reserves, if any) should be paid to our employees as bonuses. The 5% portion is to be distributed to all employees in accordance with our employee bonus plan, while any portion exceeding 5% 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.

At the annual general shareholders' meeting, our board of directors submits to the shareholders for their approval any proposal for the distribution of a dividend 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.

We are also permitted to make distributions to our shareholders of additional common shares by capitalizing reserves. However, the capitalized portion payable out of our legal reserve is limited to 50% of the total accumulated legal reserve and the capitalization can only be effected when the accumulated legal reserve exceeds 50% of our paid-in capital. Furthermore, the annual capitalized portion payable out of our capital reserve shall not exceed 10% of our paid-in capital.

For information on the dividends we paid in recent years, see "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 ASE Inc., the approval of the ROC Securities and Futures Commission 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.

### **Preemptive Rights**

Under the ROC Company Law, when a 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 offered by us to the public or privately placed.

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. 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.

The preemptive rights provisions do not apply to offerings by shareholders of outstanding shares, such as the common shares represented by the ADSs offered by the selling shareholders in this offering. According to the amended ROC Securities and Exchange Law, which was passed by the Legislative Yuan on January 15, 2002 and became effective on February 8, 2002, the preemptive rights provisions will 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. 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. Extraordinary shareholders' meetings may also be convened by a supervisor. Notice in writing of general 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, a shareholder has one vote for each common share held. As previously required by law, our Articles of Incorporation provide that a holder of common shares has one vote for each common share, except that a holder of more than 3% of the total outstanding common shares is not permitted to vote 0.1% of the number of common shares held by the holder in excess of 3%. Such voting discount requirement has been eliminated under the newly amended ROC Company Law. We will amend the Articles of Incorporation to comply with the law in the shareholders' meeting to be held on June 21, 2002. Our Articles of Incorporation provide that the election of our directors and supervisors at a shareholders' meeting is 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;

transfer of the whole or substantial part of its business or assets;

taking over of the whole of the business or assets of any other company, which would have a significant impact on our company's operations;

distribution of any stock dividend; or

removal of 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 will not have the right to exercise voting rights with respect to the underlying common shares, except as described in Description of American Depositary Receipts Voting Rights .

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

Our share registrar, President Securities Corp., maintains our register of shareholders at its offices in Taipei, Taiwan, and enters transfers of common shares in our register upon presentation of, among other documents, certificates representing the common shares transferred. 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;

relevant record date five days.

#### **Annual Financial Statements**

At least 10 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.

#### **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 common shares to our employees;

to deliver shares upon the conversion or exercise of bonds with warrants, preferred shares with warrants, convertible bonds, 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 cancelled.

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.

These restrictions on acquiring our common shares do not apply to our subsidiaries or affiliates. See Principal Shareholders .

### **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.

### **Substantial Shareholders and Transfer Restrictions**

The ROC Securities and Exchange Law currently requires (1) each director, supervisor, manager or substantial shareholder (that is, a shareholder who together with his or her spouse, minor children or nominees, holds more than 10% of the shares of a publicly listed company) to report any change in that person's shareholding to the issuer of the shares and the ROC Securities and Futures Commission and (2) each director, supervisor, manager or substantial shareholder holding those common shares for more than a 180-day period to report his or her intent to transfer any shares on the Taiwan Stock Exchange to the ROC Securities and Futures Commission 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:

2% of the outstanding shares of the company in the case of a company with no more than 30 million outstanding shares; or

2% of 30 million shares plus 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 Securities and Futures Commission.

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



### DESCRIPTION OF AMERICAN DEPOSITARY RECEIPTS

Citibank, N.A., acts as the depository for the American Depositary Shares. Citibank's depository offices are located at 111 Wall Street, New York, New York 10043. American Depositary Shares are commonly referred to as ADSs and represent ownership interests in securities that are on deposit with the depository. ADSs are normally represented by certificates that are commonly known as American Depositary Receipts or ADRs. The depository typically appoints a custodian to safekeep the securities on deposit. In this case, the custodian is Citibank, N.A., Taipei Branch, located at Citicorp Center, 52 Min Sheng E. Road, Section 4, Taipei, Taiwan, ROC.

We have appointed Citibank as depository bank pursuant to a deposit agreement. A copy of the deposit agreement is on file with the SEC under cover of a Registration Statement on Form F-6. You may obtain a copy of the deposit agreement from the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please refer to Registration Number 333-12468 when retrieving your copy.

We are providing you with a summary description of the material terms of the ADSs and of your material rights as an owner of ADSs. Please remember that summaries by their nature lack the precision of the information summarized and that your rights and obligations as an owner of ADSs will be determined by reference to the terms of the deposit agreement and not to this summary. We urge you to review the deposit agreement in its entirety. Statements printed in italics in this description are provided for your information but are not contained in the deposit agreement.

Each ADS represents five common shares on deposit with the custodian. An ADS will also represent any other property received by the depository bank or the custodian on behalf of the owner of the ADS but that has not been distributed to the owners of ADSs because of legal restrictions or practical considerations.

If you become an owner of ADSs, you will become a party to the deposit agreement and therefore will be bound to its terms and to the terms of the ADR that represents your ADSs. The deposit agreement and the ADR specify our rights and obligations as well as your rights and obligations as an owner of ADSs and those of the depository. As an ADS owner you appoint the depository to act on your behalf for the common shares represented by your ADSs, either upon (1) your specific instructions when we call a meeting of shareholders, distribute an elective dividend or make a rights offering, or (2) the specific terms of the deposit agreement to receive any dividends we distribute in NT dollars or common shares and to convert the NT dollars received into U.S. dollars. The deposit agreement is governed by New York law. However, our obligations to the holders of common shares will continue to be governed by ROC laws, which may be different from the laws in the United States. In addition, we note that the laws and regulations of the ROC may restrict the deposit and withdrawal of our common shares into or from the depository receipts facility. Under ROC laws and regulations, as currently in effect, shares may be accepted for deposit and ADSs may be issued under the terms of the deposit agreement only in the following circumstances:

- (1) upon obtaining regulatory approval from the ROC Securities and Futures Commission;
- (2) upon the issuance of a dividend or a free distribution of common shares to existing shareholders;
- (3) upon the exercise by existing shareholders of their preemptive rights in connection with capital increases for cash; and
- (4) as permitted under the deposit agreement, the purchase directly by a person or through the depository bank of common shares on the Taiwan Stock Exchange for the deposit in the ADR facility, provided that the total number of ADSs outstanding after an

issuance described in this paragraph (4) does not exceed the number of ADSs issued and previously approved by the ROC Securities and Futures Commission in connection with the offering plus any ADSs created under clauses (2) and (3) described above.

Under ROC laws and regulations, the common shares deposited under the deposit agreement may be withdrawn upon cancellation of the corresponding ADSs in the following circumstances:

upon the sale of the common shares on the Taiwan Stock Exchange; and

upon the appointment of eligible ROC brokerage firm for the holding of common shares on the investor's behalf in a designated account in the ROC.

For a more complete description of these deposit or withdrawal restrictions see Annex B Foreign Investment and Exchange Controls in the ROC Depository Receipts .

As an owner of ADSs, you may hold your ADSs either by means of an ADR registered in your name or through a brokerage or safekeeping account. If you decide to hold your ADSs through your brokerage or safekeeping account, you must rely on the procedures of your broker or bank to assert your rights as an ADS owner. Please consult with your broker or bank to determine what those procedures are. This summary description assumes you have opted to own the ADSs directly by means of an ADR registered in your name.

### **Dividends and Distributions**

As a holder, you generally have the right to receive the distributions we make on the securities deposited with the custodian, subject always to the laws and regulations of the ROC. Your receipt of these distributions may be limited, however, by practical considerations and legal limitations. Holders will receive these distributions under the terms of the deposit agreement in proportion to the number of ADSs owned as of a specified record date.

In the event that, for any reason, any common shares held on deposit with the custodian are not entitled to the full proportion of any distribution we may make, we have agreed to provide the depository with a list of the common shares for which a full proportion of the distribution may not be made and direct the depository to adjust the amount of the distribution upon those common shares accordingly.

#### ***Distributions of Cash***

Whenever we make a cash distribution upon the common shares held on deposit with the custodian, we will notify the depository. Upon receipt of our notice of the distribution, the depository will arrange for the funds to be converted into U.S. dollars and will distribute the U.S. dollars to the holders.

The conversion into U.S. dollars will take place only if practicable and if the U.S. dollars are transferable to the United States. The amounts distributed to holders will be net of the fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. The depository will apply the same method for distributing the proceeds of the sale of any property held by the custodian for securities on deposit.

#### ***Distributions of Shares***

Whenever we make a free distribution of common shares upon the securities on deposit with the custodian, we will notify the depository and deposit the applicable number of shares with the custodian. Upon receipt of notice of the deposit, the depository will, subject to ROC law, either distribute to holders new ADSs representing the common shares deposited or modify the ratio of ADSs representing our common shares, in which case each ADS you own will represent rights and interests in the additional common shares so deposited. Only whole new ADSs will be

distributed. Fractional entitlements to ADSs will be sold and the proceeds of the sale will be distributed as in the case of a cash distribution.

The distribution of new ADSs or the modification of the ADS-to-common share ratio upon a distribution of common shares will be made net of the fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. In order to pay taxes or governmental charges, the depository may sell all or a portion of the new common shares so distributed.

No distribution of new ADSs will be made if it would violate any law or if it is not operationally practicable. If the depository does not distribute new ADSs as described above, it will use its best efforts to sell the common shares received and will distribute the proceeds of the sale as in the case of a distribution of cash. In addition, if the number of common shares to which any holder is entitled is not five or an integral multiple of five, the depository will use its best efforts to cause the sale of these shares and distribute the proceeds of that sale to the holders as in the case of a distribution in cash.

### ***Distributions of Rights***

Whenever we intend to distribute rights to purchase additional common shares, we will give prior notice to the depository and we will assist the depository in determining whether it is lawful and reasonably practicable to distribute rights to purchase additional ADSs to holders.

The depository will establish procedures to distribute rights to purchase additional ADSs to holders and to enable these holders to exercise these rights if it is lawful and reasonably practicable to make the rights available to holders of ADSs. You may have to pay fees, expenses, taxes and other governmental charges to subscribe for the new ADSs upon the exercise of your rights. The depository is not obligated to establish procedures to facilitate the distribution and exercise by holders of rights to purchase new common shares directly rather than new ADSs.

The depository will not distribute the rights to you if:

we do not timely request that the rights be distributed to you or we request that the rights not be distributed to you;

we fail to deliver satisfactory documents to the depository; or

the depository determines that it is not reasonably practicable to distribute the rights.

The depository will sell the rights that are not exercised or not distributed if the sale is lawful and reasonably practicable. The proceeds of the sale will be distributed to holders as in the case of a cash distribution. If the depository is unable to sell the rights, it will allow the rights to lapse, in which case you will receive no value for the rights.

### ***Elective Distributions***

Whenever we intend to distribute a dividend payable at the election of shareholders either in cash or in common shares, we will give timely notice to the depository and will indicate whether we wish the elective distribution to be made available to you. If we decide to make the elective distribution available to you, we will assist the depository to determine whether this distribution is lawful and reasonably practicable.

The depository will make the election available to you only if it is reasonably practicable and if we have provided all of the documentation contemplated in the deposit agreement. In this case, the depository will establish procedures to enable you to elect to receive either cash or additional ADSs.

***Other Distributions***

Whenever we intend to distribute property other than cash, common shares or rights to purchase additional common shares, we will notify the depositary in advance and indicate whether we wish the distribution to be made to you. If so, we will assist the depositary in determining whether the distribution to holders is lawful and reasonably practicable.

If it is reasonably practicable to distribute the property to you and if we provide all of the documentation contemplated in the deposit agreement, the depositary will distribute the property to the holders in a manner it deems practicable.

The distribution will be made net of fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. In order to pay these taxes and governmental charges, the depositary may sell all or a portion of the property received.

The depositary will not distribute the property to you and will sell the property if:

we do not timely request that the property be distributed to you or we request that the property not be distributed to you; or

we fail to deliver satisfactory documents to the depositary; or

the depositary determines that all or a portion of the distribution to you is not reasonably practicable.

The proceeds of the sale will be distributed to holders as in the case of a cash distribution.

**Changes Affecting Our Common Shares**

The common shares held on deposit for your ADSs may change from time to time. For example, there may be a change in nominal or par value, a split-up, cancellation, consolidation or reclassification of our common shares or we may undertake a recapitalization, reorganization, merger, consolidation or sale of assets.

If any change were to occur, your ADSs would, to the extent permitted by law, represent the right to receive the property received or exchanged for the common shares held on deposit. The depositary may in these circumstances deliver new ADSs to you or call for the exchange of your existing ADSs for new ADSs. If the depositary may not lawfully distribute the property to you, the depositary may sell the property and distribute the net proceeds to you as in the case of a cash distribution.

**Issuance of ADSs Upon Deposit of Common Shares**

Subject to limitations set forth in the deposit agreement and the ADRs, the depositary may create ADSs on your behalf if you or your broker deposit common shares with the custodian. The depositary will deliver these ADSs to the person you indicate only after you pay any applicable issuance fees and any charges and taxes payable for the transfer of the common shares to the custodian.

The depositary will refuse to accept our common shares for deposit whenever we have notified the depositary that we have restricted the transfer of those common shares to comply with ownership restrictions under ROC laws.

In the event there are new common shares with rights, including rights to dividends, that are different from the existing common shares held by the depositary, we may instruct the depositary to (1) refuse to accept the new common shares for deposit or (2) issue ADSs representing the new common shares that are separate and distinct from the ADSs representing the existing common shares.

In the event we instruct the depository to issue ADSs representing the new common shares, these new ADSs will be distinguished from the existing ADSs through different CUSIP numbering and legending, if necessary. Upon written notice from us to the depository that the new common shares no longer have different rights from the existing common shares, the depository will (1) notify holders of the new ADSs and provide them with an opportunity to exchange their ADSs and (2) take the necessary actions to remove the distinctions between the two types of ADSs.

The issuance of ADSs may be delayed until the depository bank or the custodian receives confirmation that all required approvals, if applicable, have been given and that the common shares have been duly transferred to the custodian. The depository will only issue ADSs in whole numbers.

When you make a deposit of common shares, you will be responsible for transferring good and valid title to the depository. Accordingly, you will be deemed to represent and warrant that:

the common shares are duly authorized, validly issued, fully paid, non-assessable and legally obtained;

all preemptive and similar rights, if any, with respect to the common shares have been validly waived or exercised;

you are duly authorized to deposit the common shares;

the common shares presented for deposit are free and clear of any lien, encumbrance, security interest, charge, mortgage or adverse claim, and are not, and the ADSs issuable upon deposit will not be, restricted securities as defined in the deposit agreement; and

the common shares presented for deposit have not been stripped of any rights or entitlements.

If any of the representations or warranties are incorrect in any way, we and the depository may, at your cost and expense, take any and all actions necessary to correct the consequences of the misrepresentations.

The term restricted securities is defined in the deposit agreement as common shares:

acquired directly or indirectly from us or our affiliates in a transaction not involving a public offering and thus subject to resale limitations under the Securities Act;

held directly or indirectly by an officer, director or our affiliates; or

subject to other restrictions under applicable laws, our Articles of Incorporation, the rules and regulations of an applicable securities exchange or a shareholders agreement.

#### **Withdrawal of Common Shares upon Cancellation of ADSs**

Subject always to the withdrawal of deposited property being permitted under ROC laws and regulations, as a holder, you will be entitled to present your ADSs to the depository for cancellation and then receive the corresponding number of underlying common shares at the custodian's office. However, under current ROC law, if you wish to withdraw the common shares underlying your ADSs from the ADR facility, you will be required to appoint an eligible agent in the ROC to open a securities trading account with a local brokerage firm after receiving an approval from the Taiwan Stock Exchange, remit funds, exercise shareholders' rights and perform any other functions as you may designate upon withdrawal. In addition, you will also be required to appoint an eligible custodian bank to hold our common shares in safekeeping, make confirmations and settle trades and report all relevant information. Without appointing a broker or

opening the required account, you would not be able subsequently to sell our common shares on the Taiwan Stock Exchange or otherwise. These laws may change from time to time. We cannot assure you that current ROC law will remain in effect or that future changes in ROC law will not adversely affect your ability to withdraw our common shares from the ADR facility.

You may also request that our common shares represented by your ADSs be sold on your behalf. The depositary may require that you deliver your request for sale in writing. Any sale of our common shares will be conducted according to applicable ROC law through a securities company in the ROC on the Taiwan Stock Exchange or in other manner as is permitted under applicable ROC law. Any sale will be at your risk and expense. You may also be required to enter into a separate agreement to cover the terms of the sale of our common shares.

Upon receipt of any proceeds from any sale, subject to any restrictions imposed by ROC law and regulations, the depositary shall convert the proceeds into U.S. dollars and distribute the proceeds to you, net of any fees, expenses, taxes or governmental charges (including, without limitation, any ROC and U.S. taxes) incurred in connection with the sale. Sales of our common shares may be subject to ROC taxation on capital gains and will be subject to a securities transaction tax in the ROC. The ROC does not currently impose capital gains tax on ROC securities transactions, but we cannot assure you that a capital gains tax will not be imposed in the future or the manner in which any ROC capital gains tax would be imposed or calculated.

In order to withdraw the common shares represented by your ADSs, you will be required to pay to the depositary the fees for cancellation of ADSs and any charges and taxes payable upon the transfer of the common shares being withdrawn. You assume the risk for delivery of all funds and securities upon withdrawal. Once canceled, the ADSs will not have any rights under the deposit agreement.

If you hold an ADR registered in your name, the depositary may ask you to provide proof of identity and genuineness of any signature and other documents as the depositary may deem appropriate before it will cancel the ADSs represented by your ADR. The withdrawal of the common shares represented by your ADSs may be delayed until the depositary receives satisfactory evidence of compliance with all applicable laws and regulations. Please keep in mind that the depositary will only accept ADSs for cancellation that represent a whole number of securities on deposit. We have reporting obligations under ROC law in respect of the ADR facility. In order to enable us to gather the information necessary for these reporting obligations, you will be asked to complete and sign a certification upon withdrawal of common shares from the ADR facility. In this certification you will be asked to disclose, among other information, the name, nationality and address of the beneficial owner of the ADSs presented for cancellation, the number of common shares owned by the beneficial owner and whether certain affiliations exist between the beneficial owner and ASE Inc. The depositary will refuse to release common shares to you until you deliver a completed and signed certification to it.

*Under current ROC law, regulation and policy, People's Republic of China persons are not allowed to withdraw and hold our common shares from the ADR facility or to register as our shareholders. Under current ROC law, People's Republic of China person means an individual holding a passport issued by the People's Republic of China, a resident of any area of China under the effective control or jurisdiction of the People's Republic of China (but not including the Hong Kong and Macau Special Administrative Regions), and agency or instrumentality of the People's Republic of China and any corporation, partnership or other entity organized under the laws of any such area or controlled or beneficially owned by any such individual, resident, agency or instrumentality.*

You will have the right to withdraw the common shares represented by your ADSs at any time except for:

temporary delays that may arise because (1) the transfer books for the common shares or ADSs are closed, or (2) our common shares are immobilized on account of a shareholders' meeting or a payment of dividends;

obligations to pay fees, taxes and similar charges; and

restrictions imposed because of laws or regulations applicable to ADSs or the withdrawal of securities on deposit.

The deposit agreement may not be modified to impair your right to withdraw the securities represented by your ADSs except to comply with mandatory provisions of law.

### **Voting Rights**

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

The depository will mail to you 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 the instructions to 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, you 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 your ADSs in any manner he or his designee may wish, which may not be in the interests of holders.

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

**Fees and Charges**

As an ADS owner, you will be required to pay the following service fees to the depositary:

Service	Fees
issuance of ADSs upon the deposit of common shares	up to US\$0.05 per ADS issued
cancellation of ADSs	up to US\$0.05 per ADS canceled
distribution of ADSs pursuant to exercise of rights to purchase additional ADSs	up to US\$0.05 per ADS issued
distribution of cash (that is, upon the sale of rights and other entitlements)	up to US\$0.02 per ADS held

As an ADS owner you will also be responsible to pay fees and expenses incurred by the depositary and taxes and governmental charges such as:

fees for the transfer and registration of common shares charged by the registrar and transfer agent for the common shares in Taiwan upon deposit and withdrawal of common shares;

expenses and charges incurred for converting foreign currency into U.S. dollars;

fees and expenses incurred by the depositary in compliance with exchange controls or other regulatory requirements;

expenses for cable, telex and fax transmissions and for delivery of securities; or

taxes and duties upon the transfer of securities, for example, when common shares are deposited or withdrawn from deposit.

We have agreed to pay other specified charges and expenses of the depositary. The fees and charges you may be required to pay may vary over time and may be changed by us and by the depositary. You will receive prior notice of these changes.

**Amendments and Termination**

We may agree with the depositary to modify the deposit agreement at any time without your consent. We undertake to give holders 30 days prior notice of any modifications that would materially prejudice any of their substantial rights under the deposit agreement. We will not consider to be materially prejudicial to your substantial rights any modifications or supplements that are reasonably necessary for the ADSs to be registered under the Securities Act or to be eligible for book-entry settlement, in each case without imposing or increasing the fees and charges you are required to pay. In addition, we may not be able to provide you with prior notice of any modifications or supplements that are required to accommodate compliance with applicable provisions of law.

You will be bound by the modifications to the deposit agreement if you continue to hold your ADSs after the modifications to the deposit agreement become effective. The deposit agreement cannot be amended to prevent you from withdrawing the common shares represented by your ADSs except as permitted by law.

We have the right to direct the depositary to terminate the deposit agreement. Similarly, the depositary may in certain circumstances on its own initiative terminate the deposit agreement. In either case, the depositary must give notice to the holders at least 30 days before termination.

Upon termination, the following will occur under the deposit agreement:

For a period of six months after termination, subject always to the withdrawal of deposited property being permitted under ROC laws and regulations, you will be able to



request the cancellation of your ADSs and the withdrawal of the common shares represented by your ADSs and the delivery of all other property held by the depositary in connection with those common shares on the same terms as before the termination. During the six months period the depositary will continue to collect all distributions received on the common shares on deposit but will not distribute any property to you until you request the cancellation of your ADSs.

After the expiration of the six months period, the depositary may sell the securities held on deposit. The depositary will hold the proceeds from the sale and any other funds then held for the holders of ADSs in a non-interest bearing account. At that point, the depositary will have no further obligations to holders other than to account for the funds then held for the holders of ADSs still outstanding.

#### **Books of Depositary**

The depositary will maintain ADS holder records at its depositary office. You may inspect the records at the depositary's office during regular business hours but solely for the purpose of communicating with other holders in the interest of business matters relating to the ADSs and the deposit agreement.

The depositary will maintain in New York facilities to record and process the issuance, cancellation, combination, split-up and transfer of ADRs. These facilities may be closed from time to time, to the extent not prohibited by law.

#### **Limitations on Obligations and Liabilities**

The deposit agreement limits our obligations and the depositary's obligations to you. Please note the following:

We and the depositary are obligated only to take the actions specifically stated in the deposit agreement without negligence or bad faith.

The depositary disclaims any liability for any failure to carry out voting instructions, for any manner in which a vote is cast or for the effect of any vote, provided it acts in good faith and in accordance with the terms of the deposit agreement.

The depositary disclaims any liability for any failure to determine the lawfulness or practicality of any action, for the content of any document forwarded to you on our behalf or for the accuracy of any translation of such a document, for the investment risks associated with investing in common shares, for the validity or worth of those shares, for any tax consequences that result from the ownership of ADSs, for the credit-worthiness of any third party, for allowing any rights to lapse under the terms of the deposit agreement, for the timeliness of any of our notices or for our failure to give notice.

We and the depositary will not be obligated to perform any act that is inconsistent with the terms of the deposit agreement.

We and the depositary disclaim any liability if we are prevented or forbidden from acting on account of any law or regulation, any provision of our articles of incorporation, any provision of any securities on deposit or by reason of any act of God or war or other circumstances beyond our control.

We and the depositary disclaim any liability by reason of any exercise of, or failure to exercise, any discretion provided for the deposit agreement or in our articles of incorporation or in any provisions of the securities on deposit.

We and the depositary further disclaim any liability for any action or inaction in reliance on the advice or information received from legal counsel, accountants, any person presenting common shares for deposit, any holder of ADSs or authorized representative, or any other person believed by either of us in good faith to be competent to give such advice or information.

We and the depositary also disclaim liability for the inability by a holder to benefit from any distribution, offering, right or other benefit which is made available to holders of common shares but is not, under the terms of the deposit agreement, made available to you.

We and the depositary may rely without any liability upon any written notice, request or other document believed to be genuine and to have been signed or presented by the proper parties.

#### **Pre-Release Transactions**

The depositary will not deliver common shares before the receipt for cancellation of ADSs. The depositary may, however, in some circumstances, issue ADSs before receiving common shares for deposit. These transactions are commonly referred to as pre-release transactions.

The deposit agreement limits the aggregate size of pre-release transactions and imposes a number of conditions on pre-release transactions such as the need to receive collateral, the type of collateral required, and the need to receive written representations indicating that the recipient of pre-release ADSs owns the underlying common shares to be deposited and unconditionally guarantees to deliver the shares to the depositary upon request. The depositary may retain the compensation received from the pre-release transactions.

#### **Taxes**

You will be responsible for the taxes and other governmental charges payable on the ADSs and the securities represented by the ADSs. We, the depositary and the custodian may deduct from any distribution the taxes and governmental charges payable by holders and may sell any and all property on deposit to pay the taxes and governmental charges payable by holders. You will be liable for any deficiency if the sale proceeds do not cover the taxes that are due.

The depositary may refuse (1) to issue ADSs, (2) to deliver, transfer, split and combine ADRs or (3) to release securities on deposit until all taxes and charges are paid by the applicable holder. The depositary and the custodian may take reasonable administrative actions to obtain tax refunds and reduced tax withholding for any distributions on your behalf. However, you may be required to provide to the depositary and to the custodian proof of taxpayer status and residence and other information as the depositary and the custodian may require to fulfill legal obligations. You are required to indemnify us, the depositary and the custodian for any claims with respect to taxes based on any tax benefit obtained for you.

#### **Foreign Currency Conversion**

The depositary will arrange for the conversion of all foreign currency received into U.S. dollars if the conversion is lawful and practical, and it will distribute the U.S. dollars in accordance with the terms of the deposit agreement. You may have to pay fees and expenses incurred in converting foreign currency, such as fees and expenses incurred in complying with currency exchange controls and other governmental requirements.

If the conversion of foreign currency is not practical or lawful, or if any required approvals are denied or not obtainable at a reasonable cost or within a reasonable period, the depository may take the following actions in its discretion:

convert the foreign currency to the extent practical and lawful and distribute the U.S. dollars to the holders for whom the conversion and distribution is lawful and practical;

distribute the foreign currency to holders for whom the distribution is lawful and practical; or

hold the foreign currency without liability for interest for the applicable holders.

Under ROC laws and regulations relating to foreign exchange control, a depository may, without obtaining further approvals from the Central Bank of China or any other governmental authority or agency of the ROC, convert NT dollars into other currencies, including U.S. dollars, in connection with the following:

proceeds of the sale of common shares represented by depository receipts;

proceeds of the sale of common shares received as stock dividends and deposited into the ADR facility; and

any cash dividends or cash distributions received.

In addition, a depository, without governmental approval, may also convert incoming payments into NT dollars for (1) purchases of underlying common shares for deposit into the ADR facility against the creation of additional depository receipts or (2) subscription payments for rights offering through us.

*The depository may be required to obtain foreign exchange approval from the Central Bank of China 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 China 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, without obtaining further approval from the Central Bank of China, may convert NT dollars into other currencies, including U.S. dollars, upon receipt of the proceeds (1) of the sale of any underlying common shares withdrawn from the depository receipt facility, (2) received as a stock dividend received upon the common shares and (3) any cash dividends or distribution paid upon the common shares.

*The holder may be required to obtain foreign exchange approval from the Central Bank of China on a payment-by-payment basis for conversion from NT dollars to foreign currencies of the proceeds from the sale of subscription rights for new common shares. Although it is expected that Central Bank of China will grant this approval as a routine matter, we cannot assure you that in the futures any approval will be obtained in a timely manner, or at all.*

**COMMON SHARES ELIGIBLE FOR FUTURE SALE**

Upon completion of this offering, the ADSs sold in this offering, assuming no exercise of the underwriters' option to purchase additional ADSs, will be freely tradeable within the United States without restriction or further registration under the Securities Act by persons other than us or our affiliates as the term is defined in Rule 144 under the Securities Act.

Each of the selling shareholders named in the Selling Shareholders section of this prospectus has agreed for a period of 90 days after the date of this prospectus not to sell, transfer or otherwise dispose of, and not to announce an intention to sell, transfer or otherwise dispose of, without the prior consent of Goldman Sachs International:

any of our common shares or ADSs representing our common shares;

any common shares of our subsidiaries or controlled affiliates or ADSs representing those shares; and

any securities that are substantially similar to the common shares or depositary receipts referred to above, including any securities that are convertible into, exchangeable for or otherwise represent the right to receive the common shares or ADSs referred to above;

other than pursuant to (1) exercise of options under stock option plans existing on the date of this prospectus and (2) the conversion or exchange of convertible or exchangeable securities outstanding as of the date of this prospectus, which in each case is described in this prospectus.

In addition, we have agreed for a period of 90 days after the date of this prospectus not to sell, transfer or otherwise dispose of, and not to announce an intention to sell, transfer or otherwise dispose of, without the prior written consent of Goldman Sachs International:

any of our common shares or depositary receipts representing our common shares;

any common shares of our subsidiaries or controlled affiliates or depositary receipts representing those shares; and

any securities that are substantially similar to the common shares or depositary receipts referred to above, including any securities that are convertible into, exchangeable for or otherwise represent the right to receive the common shares or depositary receipts referred to above;

other than pursuant to (1) exercise of options under employee stock option plans existing on the date of this prospectus and (2) the conversion or exchange of convertible or exchangeable securities outstanding as of the date of this prospectus, which in each case is described in this prospectus.

We have also agreed to cause each of our subsidiaries and controlled affiliates not to sell, transfer or otherwise dispose of, and not to announce an intention to sell, transfer or otherwise dispose of, for a period of 90 days after the date of this prospectus without the prior written consent of Goldman Sachs International, any of the securities referred to above, other than pursuant to (1) exercise of options under employee stock option plans existing on the date of this prospectus and (2) the conversion or exchange of convertible or exchangeable securities outstanding as of the date of this prospectus, which in each case is described in this prospectus.

Furthermore, ASE Enterprises Limited, our principal shareholder, and each of Jason C.S. Chang, Richard H.P. Chang, Chang Yao Hung-ying and Feng Mei Jean also entered into a similar 90-day lock-up agreement with respect to our common shares, depositary receipts representing our common shares and securities that are substantially similar to our common shares or depositary receipts representing our common shares.

These restrictions do not apply to:

the 32,473,600 ADSs and the common shares represented being offered by the selling shareholders in connection with this offering;

up to 4,284,000 ADSs and the common shares represented thereby that may be purchased by the underwriters pursuant to their option to purchase additional ADSs;

the issuance of common shares of ASE Inc. pursuant to any stock dividend payable to all holders of common shares of ASE Inc. (including common shares represented by the ADSs) as of a record date subsequent to the date of this prospectus;

employee bonuses, if any, in the form of common shares relating to our fiscal year ended December 31, 2001 approved at our annual general meeting of shareholders to be held on June 21, 2002;

the issuance and sale by any subsidiary or controlled affiliate of equity securities where our beneficial ownership interest in that subsidiary or controlled affiliate will not decrease as a result of such issuance or sale; and

the issuance and the sale by Universal Scientific of a number of its common shares not in excess of 25% of its outstanding common shares as of the date of this prospectus (or ADSs representing up to the number of its common shares, or debt or other securities initially convertible into not more than the number of common shares or ADSs); the number of Universal Scientific's common shares outstanding as of May 29, 2002 is approximately 688,500,000.

Except for the sale of ADSs by the selling shareholders and ASE Capital in this offering, we are not aware of any plans by any major shareholders to dispose of significant numbers of common shares or ADSs. We cannot assure you, however, 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, following completion of this offering several of our subsidiaries and affiliates will continue to hold common shares or ADSs, depositary shares representing common shares, and options to purchase common shares. We or they may decide to sell those securities in the future. See Principal Shareholders for a description of our significant shareholders and affiliates that hold our common shares. No prediction can be made as to the effect, if any, that future sales of ADSs or common shares, or the availability of ADSs or common shares for future sale will have on the market price of the ADSs prevailing from time to time. Sales of substantial amounts of ADSs or common shares in the public market, or the perception that future sales may occur, could adversely affect the prevailing market price of ADSs or the common shares.

## TAXATION

### ROC Taxation

The following discussion is the opinion of Lee and Li. The discussion describes the principal ROC tax consequences of the ownership and disposition of ADSs representing common shares to a non-resident individual or entity. It applies to you only if you are:

an individual who is not a ROC citizen, who owns ADSs and who is not physically present in the ROC for 183 days or more during any calendar year; or

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

You should also consult your tax advisors concerning the ROC tax consequences of owning ADSs.

### *Dividends*

Dividends declared by us out of our retained earnings and distributed to you 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 common shares in the case of stock dividends. However, a 10% ROC retained earnings tax paid by us on our undistributed after-tax earnings, if any, would provide a credit up to 10% of the gross amount of any dividends declared out of such earnings that would reduce the 20% ROC tax imposed on these distributions.

Dividends paid by us out of our capital reserves are not subject to ROC withholding tax.

### *Capital Gains*

Under ROC law, capital gains on share securities transactions are exempt from income tax.

### *Subscription Rights*

Distributions of statutory subscription rights for common shares in compliance with ROC law are not subject to any ROC tax. Proceeds derived from sales of statutory subscription rights evidenced by securities are exempted from income tax but are subject to securities transaction tax at the rate of 0.3% of the gross amount received. Proceeds derived from sales of statutory subscription rights which are not evidenced by securities are subject to capital gains tax at the rate of:

35% of the realized gains received if you are a natural person; or

25% of the realized gains received if you are an entity that is not a natural person.

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

### *Securities Transaction Tax*

A securities transaction tax, at the rate of 0.3% of the gross amount received, will be withheld upon a sale of common shares in the ROC. Transfers of ADSs are not subject to ROC securities transaction tax. Withdrawal of common shares from the deposit facility is not subject to ROC securities transaction tax.

***Estate and Gift Tax***

ROC estate tax is payable on any property within the ROC of a deceased who is an individual, and ROC gift tax is payable on any property within the ROC donated by any such person. Estate tax is currently payable at rates ranging from 2% of the first NT\$600,000 to 50% of amounts over NT\$100,000,000. Gift tax is payable at rates ranging from 4% of the first NT\$600,000 to 50% of amounts over NT\$45,000,000. Under ROC estate and gift tax laws, common shares issued by ROC companies are deemed located in the ROC regardless of the location of the holder. It is unclear whether a holder of ADSs will be considered to hold common shares for this purpose since there is no authority directly indicating whether an ADR holder will be treated as owning the shares represented by the ADR. However, despite of this lack of direct authority, we are of the view that a holder of ADSs will not be subject to the ROC estate and gift tax because (1) the ADSs are not considered property within the ROC and (2) the transfer of ADSs is not deemed to be a transfer of the underlying common shares.

***Tax Treaty***

The ROC does not have an income tax treaty with the United States. On the other hand, the ROC has income tax treaties with Indonesia, Singapore, South Africa, Australia, Vietnam, New Zealand, Malaysia, Macedonia, Swaziland, Gambia and the Netherlands, which may limit the rate of ROC withholding tax on dividends paid with respect to common shares of ROC companies. It is unclear whether if you hold ADSs, you will be considered to hold common shares for the purposes of these treaties. Accordingly, if you may otherwise be entitled to the benefits of the relevant income tax treaty, you should consult your tax advisors concerning your eligibility for the benefits with respect to the ADSs.

**United States Federal Income Taxation**

The following discussion is the opinion of Davis Polk & Wardwell. The discussion describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of ADSs to those U.S. holders described below. For these purposes, you are a U.S. holder if you are a beneficial owner of common shares that, for U.S. federal income tax purposes, is:

a citizen or resident of the United States;

a corporation or other entity taxable as a corporation 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 includable in gross income for U.S. federal income tax purposes regardless of its source.

This discussion only applies to ADSs that you purchase through this offering and only if you hold the ADSs as capital assets.

This discussion assumes that ASE Inc. will not be considered a passive foreign investment company. Please see our discussion of passive foreign investment company rules below.

Please note that this discussion does not address all of the tax consequences that may be relevant in light of your particular circumstances. In particular, it does not address all of the tax consequences that may be relevant to purchasers subject to special rules, including:

persons subject to the alternative minimum tax;

insurance companies;

tax-exempt entities;

dealers or traders in securities;

financial institutions;

persons who hold or will hold common shares as part of an integrated investment, including a straddle, hedging or conversion transaction, comprised of common shares and one or more other positions for tax purposes;

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

persons who own 10% or more of our voting stock.

This discussion is based on the Internal Revenue Code of 1986, Treasury Regulations, administrative announcements and judicial decisions currently in effect. These laws and regulations may change, possibly with retroactive effect. This discussion is also based in part on representations by the depositary and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms.

For U.S. federal income tax purposes, a U.S. holder of ADSs should be treated as the holder of the common shares represented by the ADSs. However, the U.S. Treasury has expressed concerns that parties to whom depositary shares are pre-released may be taking actions that are inconsistent with the claiming of foreign tax credits by the holders of ADSs. Accordingly, the analysis of the creditability of ROC taxes described below could be affected by future actions that may be taken by the U.S. Treasury.

Please consult your tax advisors with regard to the application of the U.S. federal income tax laws to ADSs as well as any tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdictions.

#### ***Dividends***

Any dividends you receive on 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 ASE Inc., other than pro rata distributions of common shares to all shareholders including holders of ADSs, will constitute foreign source dividend income to the extent paid out of earnings and profits as calculated for U.S. federal income tax purposes. The amount you 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 depositary receives the dividend. If you realize gain or loss on a sale or other disposition of NT dollars, it will be U.S. source ordinary income or loss. You will not be entitled to a dividends-received deduction for dividends you receive.

Subject to applicable limitations and restrictions, the ROC taxes withheld from dividend distributions, reduced by any credit against the withholding tax on account of the 10% retained earnings tax, will be eligible for credit against your U.S. federal income tax liabilities. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income including, amongst others, passive income, financial services income and general limitation income. For this purpose, dividends paid with respect to the common shares will constitute passive income or, in the case of U.S. financial services providers, may be financial services income.

*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. Any ROC tax of this nature will only be creditable against a U.S. holder's U.S. federal income tax liability with respect to income in the general limitation income class and not passive income or financial services income, subject to applicable limitations and restrictions.



***Capital Gains***

You will recognize capital gain or loss for U.S. federal income tax purposes on the sale or exchange of ADSs in the same manner as you would on the sale or exchange of any other common shares held as capital assets. The gain or loss will be U.S. source income or loss. You should consult your own tax advisor 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.

Deposits and withdrawals of common shares by a U.S. holder in exchange for ADSs will not result in realization of gain or loss for U.S. federal income tax purposes.

***Passive Foreign Investment Company Rules***

Based on management estimates and the available financial data, ASE Inc. does not expect to be a passive foreign investment company. In general, a foreign corporation is a passive foreign investment company for any taxable year in which (1) 75% or more of its gross income consists of passive income (such as dividends, interest, rents and royalties) or (2) 50% or more of the average quarterly value of its assets consists of assets that produce, or are held for the production of, passive income. The determination of whether ASE Inc. may be a passive foreign investment company will be based on the composition of its income and assets, as well as those of its subsidiaries and certain affiliates, from time to time. Since the composition of ASE Inc.'s income and assets will vary over time, there can be no assurance that it will not be considered a passive foreign investment company for any fiscal year. If ASE Inc. is a passive foreign investment company at any time that you own ADSs:

You may be subject to additional taxes and interest charges on any gain realized on the disposition of the ADSs, as applicable, and on excess distributions. The additional taxes are assessed at the highest tax rate applicable for corporate or individual taxpayers for the relevant tax periods; and

You will be subject to additional U.S. tax filing requirements for each year that you hold ADSs.

Please consult your tax advisors about the possibility that ASE Inc. may be a passive foreign investment company and the rules that would apply to you if it were.

***Estate and Gift Tax***

As discussed in ROC Taxation, you might be required to pay ROC estate and gift tax. You should consult your tax advisor regarding the effect of these taxes.

**UNDERWRITING**

We, the selling shareholders and the underwriters for this offering named below have entered into an underwriting agreement with respect to the ADSs being offered. Subject to the conditions set forth in the underwriting agreement, each underwriter has severally agreed to purchase the number of ADSs indicated in the following table. Goldman Sachs International is the representative of the underwriters, and its address is Peterborough Court, 133 Fleet Street, London, EC4A 2BB, England.

Underwriters	Number of ADSs
Goldman Sachs International	—
Total	—

The underwriters are committed to take and pay for all of the ADSs being offered, if any are taken, other than the ADSs covered by the option described below unless and until this option is exercised.

If the underwriters sell more ADSs than the total number set forth in the table above, the underwriters have an option to buy up to an additional 4,284,000 ADSs from a wholly-owned subsidiary of ASE Inc. to cover these sales. They may exercise that option for 30 days. If any ADSs are purchased pursuant to this option, the underwriters will severally purchase ADSs in approximately the same proportion as set forth in the table above.

The following table shows the per ADS and total underwriting discounts and commissions to be paid to the underwriters by the selling shareholders. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 4,284,000 additional ADSs.

Paid by the Selling Shareholders	No Exercise	Full Exercise
Per ADS	\$	\$
Total	\$	\$

Total expenses for this offering are estimated to be approximately US\$1.8 million, including SEC registration and National Association of Securities Dealers, Inc. fees of US\$0.06 million, printing fees of approximately US\$0.3 million, legal fees of approximately US\$1.0 million, roadshow expenses of US\$0.2 million and accounting fees of approximately US\$0.2 million. The underwriters have agreed to reimburse us for, or pay on our behalf, a portion of expenses in connection with this offering, as well as a portion of the expenses of the selling shareholders.

ADSs sold by the underwriters to the public will initially be offered at the initial price to public set forth on the cover of this prospectus. Any ADSs sold by the underwriters to securities dealers may be sold at a discount of up to US\$ \_\_\_\_\_ per ADS from the initial price to public. Any such securities dealers may resell any ADSs purchased from the underwriters to certain other brokers or dealers at a discount of up to US\$ \_\_\_\_\_ per ADS from the initial price to public. If all the ADSs are not sold at the initial price to public, the representative may change the offering price and the other selling items.

Certain of the underwriters expected to make offers and sales both inside and outside of the United States through their respective selling agents. Any offers and sales in the United States will be conducted by broker-dealers registered with the U.S. Securities and Exchange

Commission. Goldman Sachs International is expected to make offers and sales in the United States through its selling agent, Goldman, Sachs & Co.

We and each of the selling shareholders have entered into a 90-day lock-up agreement with the underwriters regarding: (1) our common shares and depositary receipts representing our common shares, including those held by our subsidiaries and controlled affiliates; (2) common shares of our subsidiaries and controlled affiliates and depositary receipts representing those shares; and (3) securities that are substantially similar to such common shares and depositary receipts. We have also agreed to cause our subsidiaries and controlled affiliates to abide by the restrictions of the lock-up agreement. In addition, each of Jason C.S. Chang, Richard H.P. Chang, Chang Yao Hung-ying and Feng Mei-Jean have entered into a similar lock-up agreement with respect to our common shares, depositary receipts representing our common shares and securities that are substantially similar to our common shares or depositary receipts representing our common shares. See Common Shares Eligible For Future Sale .

Each underwriter has represented and agreed that (1) it has not offered or sold, and prior to the expiry of a period of six months from the closing date of the issue of the ADSs, will not offer or sell, any ADSs to persons in the United Kingdom, except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995; (2) it has only communicated or caused to be communicated, and will only communicate or cause to be communicated, any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, or FSMA) received by it in connection with the issue or sale of any ADSs in circumstances in which section 21(1) of the FSMA, does not apply to us; and (3) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the ADSs in, from or otherwise involving the United Kingdom.

The ADSs have not been and will not be registered under the Securities and Exchange Law of Japan and are not being offered or sold and may not be offered or sold, directly or indirectly, in Japan or to, or for the account or benefit of, any resident of Japan or to, or for the account or benefit of, any resident for reoffering or resale, directly or indirectly, in Japan or to, or for the account or benefit of, any resident of Japan, except (1) pursuant to an exemption from the registration requirements of, or otherwise in compliance with, the Securities and Exchange Law of Japan and (2) in compliance with any other relevant laws and regulations of Japan.

No offer to sell the ADSs has been or will be made in Hong Kong by means of any document, other than to persons whose ordinary business it is to buy or sell shares or debentures, whether as principal or agent, or in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32) of Hong Kong, and unless permitted to do so under the securities laws of Hong Kong, no person has issued or had in its possession for the purposes of issue, and will issue or have in its possession for the purpose of issue, any invitation, advertisement or document relating to the ADSs other than with respect to the ADSs intended to be disposed of to persons outside Hong Kong or only to persons whose business involves the acquisition and disposal, or holding of securities, whether as principal or agent.

This prospectus has not been registered as a prospectus with the Registrar of Companies and Businesses in Singapore. Accordingly, each underwriter has represented and agreed that it has not, and will not, offer or sell any ADSs, nor will it circulate or distribute this prospectus or any other offering document or material relating to the ADSs, either directly or indirectly, to the public or any member of the public in Singapore other than (1) to an institutional investor or other person specified in Section 106C of the Companies Act, Chapter 50, of Singapore, or the Singapore Companies Act; (2) to a sophisticated investor, and in accordance with the

conditions, specified in Section 106D of the Singapore Companies Act; or (3) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the Singapore Companies Act.

The ADS may not be offered, sold, transferred or delivered in or from The Netherlands, as part of their initial distribution or as part of any re-offering, and neither this prospectus nor any other document in respect of the offering may be distributed or circulated in The Netherlands, other than to individuals or legal entities which include, but are not limited to, banks, brokers, dealers, institutional investors and undertakings with a treasury department, who or which trade or invest in securities in the conduct of a business or profession.

No action has been or will be taken in any jurisdiction other than the United States that would permit a public offering of the ADSs or the possession, circulation or distribution of this prospectus in any jurisdiction where action for that purpose is required. Accordingly, the ADSs may not be offered or sold, directly or indirectly, and neither this prospectus nor any other offering material or advertisements in connection with the ADSs may be distributed or published in or from any country or jurisdiction except under circumstances that will result in compliance with any applicable rules and regulations of any such country or jurisdiction.

Each underwriter has also represented and agreed that it has not offered or sold, and has agreed not to offer or sell any ADSs, directly or indirectly, in the ROC.

A prospectus in electronic format may be made available on the Web sites maintained by one or more underwriters or securities dealers. The representative of the underwriters may agree to allocate a number of ADSs to the underwriters for sale to their online brokerage account holders. ADSs to be sold pursuant to an Internet distribution will be allocated by the representative to the underwriters that may make Internet distributions on the same basis as other allocations. In addition, ADSs may be sold by the underwriters to securities dealers who resell ADSs to online brokerage account holders.

The outstanding ADSs have been listed on the New York Stock Exchange under the symbol `ASX`. We have applied to list the ADSs to be sold by the selling shareholders in this offering on the New York Stock Exchange.

In connection with the offering, the underwriters may purchase and sell ADSs in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of ADSs than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional ADSs from the selling shareholders in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional ADSs or purchasing additional ADSs in the open market. In determining the source of ADSs to close out the covered short position, the underwriters will consider, among other things, the price of ADSs available for purchase in the open market as compared to the price at which they may purchase ADSs through the option to purchase additional ADSs. Naked short sales are any sales in excess of such option. The underwriters must close out any naked short position by purchasing ADSs in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of ADSs in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids or purchases of ADSs made by the underwriters in the open market prior to the completion of the offering.

The underwriters also may impose a penalty bid in the offering. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased ADSs sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or retarding a decline in the market price of the ADSs, and together with the imposition of a penalty bid, may stabilize, maintain or otherwise affect the market price of the ADSs. As a result, the price of the ADSs may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on the New York Stock Exchange, in the over-the-counter market or otherwise.

We and the selling shareholders have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

Purchasers of the ADSs offered in this offering may be required to pay stamp taxes and other charges in accordance with the laws and practices of the country of purchase in addition to the offering price set forth on the cover page of this prospectus.

This prospectus may be used by the underwriters and other dealers in connection with offers and sales of the ADSs, including sales of ADSs initially sold by the underwriters in this offering being made outside of the United States, to persons located in the United States.

The underwriters have engaged in, and may in the future engage in, investment banking activities and other commercial dealings in the ordinary course of business with us. They have received customary fees and commissions for these transactions.

Goldman Sachs International is acting as the global coordinator and sole bookrunner for this offering.

### **ENFORCEABILITY OF CIVIL LIABILITIES**

We are a company limited by shares and incorporated under the ROC Company Law. Substantially all of our directors and executive officers, our supervisors and some of the experts named in this prospectus are residents of the ROC and a substantial portion of our assets and such persons are located in the ROC. As a result, it may not be possible for investors to effect service of process upon us or such persons within the United States, or to enforce against them judgments obtained in the United States courts, including those predicated upon the civil liability provisions of the federal securities laws of the United States. We have been advised by Lee and Li, our ROC counsel, that in their opinion any final judgment obtained against us in any court other than the courts of the ROC in connection with any legal suit or proceeding arising out of or relating to the ADSs will be enforced by the courts of the ROC without further review of the merits only if the court of the ROC in which enforcement is sought is satisfied that:

the court rendering the judgment has jurisdiction over the subject matter according to the laws of the ROC;

the judgment is not contrary to the public order or good morals of the ROC;

if the judgment was rendered by default by the court rendering the judgment, we were served within the jurisdiction of the court or process was served on us with judicial assistance of the ROC; and

judgments of the courts of the ROC are recognized and enforceable in the court rendering the judgment on a reciprocal basis.

A party seeking to enforce a foreign judgment in the ROC would be required to obtain foreign exchange approval from the Central Bank of China for the payment out of the ROC of any amounts recovered in connection with the judgment denominated in a currency other than NT dollars.

### **VALIDITY OF SECURITIES**

The validity of the ADSs will be passed upon for ASE Inc. and the selling shareholders by Davis Polk & Wardwell. The underwriters are being represented by Sullivan & Cromwell regarding matters of United States Federal and New York State law. The validity of the common shares will be passed upon for ASE Inc. and the selling shareholders by Lee and Li. The underwriters are being represented by Tsar & Tsai regarding matters of ROC law.

### **EXPERTS**

The consolidated financial statements of ASE Inc. as of December 31, 2000 and 2001, and for each of the three years in the period ended December 31, 2001, included in this prospectus and the related financial statement schedules included elsewhere in the registration statement have been audited by T.N. Soong & Co., an associate member firm of Deloitte Touche Tohmatsu effective April 22, 2002, independent auditors, as stated in their report appearing herein, and are included in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing. T.N. Soong & Co. was formerly a member firm of Andersen Worldwide, SC.

The offices of T.N. Soong & Co. are located at 7/F, 168 Chung Cheng 4th Road, Kaohsiung, Taiwan, ROC.

### AVAILABLE INFORMATION

We have filed a registration statement on Form F-3 relating to the securities offered by the prospectus with the SEC. This prospectus is a part of that registration statement which includes additional information. You should refer to the registration statement and its exhibits and schedules if you would like to find out more about us and about the ADSs and the common share represented by the ADSs.

We file annual reports on Form 20-F and periodic reports on Form 6-K with the SEC. You may read and copy this 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. Our SEC filings are also available to the public from the SEC's website at <http://www.sec.gov>.

The SEC allows us to incorporate by reference the information we file with the SEC. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus. Any information that we file later with the SEC and that is deemed incorporated by reference will automatically update information in this prospectus. In all such cases, you should rely on the later information over different information included in this prospectus.

This prospectus will be deemed to incorporate by reference the following documents:

our unaudited consolidated financial information as of and for the three months ended March 31, 2002, as included in our report on Form 6-K, dated April 24, 2002;

our annual report on Form 20-F for the fiscal year ended December 31, 2000, to the extent the information in that report has not been updated or superseded by this prospectus;

any annual report on Form 20-F filed subsequent to the date hereof and prior to the termination of this offering; and

any report on Form 6-K submitted by us to the SEC prior to the termination of this offering and identified by us as being incorporated by reference into this prospectus.

We will furnish to each person, including any beneficial owner, to whom a prospectus for this offering is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus. You may request this information, at no cost, by writing or telephoning us at 26, Chin Third Road, Nantze Export Processing Zone, Nantze, Kaohsiung, Taiwan, ROC, Attention: Tiffany Chang, telephone number: (8867) 361-7131.

We furnish to Citibank, N.A., as depositary of the ADSs, our annual reports. We also furnish the depositary with quarterly reports. When the depositary receives these reports, it will upon our request promptly provide them to all holders of record of ADSs. We also furnish the depositary with all notices of shareholders' meetings and other reports and communications in English that we make available to our shareholders. The depositary will make these notices, reports and communications available to holders of ADSs and upon our request mail to all holders of record of ADSs the information contained in any notice of a shareholders' meeting it receives.

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**INDEPENDENT AUDITORS REPORT**

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 consolidated subsidiaries (the Corporation) as of December 31, 2000 and 2001 and the related consolidated statements of income, changes in shareholders' equity and cash flows for each of the years in the three year period ended December 31, 2001, all prepared in accordance with accounting principles generally accepted in the Republic of China and expressed in New Taiwan dollars. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Corporation as of December 31, 2000 and 2001, and the consolidated results of their operations and their cash flows for each of the years in the three year period ended December 31, 2001, in conformity with accounting principles generally accepted in the Republic of China.

Accounting principles generally accepted in the Republic of China vary in certain significant respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of net income for each of the three years in the period ended December 31, 2001 and the determination of stockholders' equity and financial position at December 31, 2001 and 2000, to the extent summarized in Note 27.

T N Soong & Co

Associate Member Firm of Deloitte Touche Tohmatsu effective April 22, 2002  
Former Member Firm of Andersen Worldwide, SC  
Taipei, Taiwan  
Republic of China

May 17, 2002

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

(In Thousands)

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents (Note 2)	14,166,495	11,770,729	336,307
Short-term investments (Notes 2 and 3)	1,682,679	4,601,172	131,462
Notes receivable	219,641	105,185	3,005
Accounts receivable net (Notes 4)	9,040,934	7,020,964	200,599
Inventories (Notes 2 and 5)	3,246,327	2,768,436	79,098
Deferred income tax assets net (Notes 2 and 17)	1,160,727	873,008	24,943
Prepayments and other (Note 21)	1,270,859	942,110	26,917
Sinking fund (Note 13)		1,568,057	44,802
<b>Total Current Assets</b>	<b>30,787,662</b>	<b>29,649,661</b>	<b>847,133</b>
<b>LONG-TERM INVESTMENTS</b>			
Shares of stock (Notes 2, 6, 10 and 21)	10,485,459	9,530,398	272,297
Bonds (Notes 2 and 7)	226,740		
<b>Total Long-Term Investments</b>	<b>10,712,199</b>	<b>9,530,398</b>	<b>272,297</b>
<b>PROPERTIES (Notes 2, 8, 13 and 21)</b>			
<b>Cost</b>			
Land and land improvements	3,798,835	3,940,476	112,585
Buildings and improvements	9,390,206	14,640,855	418,310
Machinery and equipment	59,631,388	66,986,146	1,913,890
Transportation equipment	101,409	107,927	3,084
Furniture and fixtures	1,458,138	1,387,583	39,645
Leased assets and leasehold improvements	486,275	584,163	16,690
Long-term land leasehold rights	1,389		
<b>Total cost</b>	<b>74,867,640</b>	<b>87,647,150</b>	<b>2,504,204</b>
Accumulated depreciation	(22,690,292)	(31,751,538)	(907,187)
	52,177,348	55,895,612	1,597,017
Construction in progress	3,438,426	1,728,587	49,388
Machinery in transit and prepayments	4,950,426	2,930,886	83,740
<b>Net Properties</b>	<b>60,566,200</b>	<b>60,555,085</b>	<b>1,730,145</b>
<b>OTHER ASSETS (Notes 2, 9 and 21)</b>	<b>1,275,557</b>	<b>1,342,269</b>	<b>38,351</b>
<b>CONSOLIDATED DEBITS (Notes 2 and 10)</b>	<b>4,999,546</b>	<b>5,248,919</b>	<b>149,969</b>
<b>TOTAL ASSETS</b>	<b>108,341,164</b>	<b>106,326,332</b>	<b>3,037,895</b>



## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS (Continued)

(In Thousands)

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>			
<b>CURRENT LIABILITIES</b>			
Short-term borrowings (Notes 11 and 21)	5,402,597	3,456,149	98,747
Commercial paper and bank acceptances payable (Note 12)	4,281,805	3,444,314	98,409
Accounts payable	3,859,909	2,968,779	84,822
Payable for fixed assets (Note 8)	4,179,324	1,928,469	55,099
Income tax payable	1,100,964	244,618	6,989
Current portion of long-term bonds payable (Note 13)		3,090,345	88,295
Current portion of long-term debts (Notes 14 and 21)	3,309,935	3,175,883	90,740
Current portion of long term payable for investments (Note 26)	773,616	816,433	23,327
Accrued expenses (Note 19)	1,613,207	1,631,642	46,619
Other	1,352,002	512,295	14,636
	<u>25,873,359</u>	<u>21,268,927</u>	<u>607,683</u>
Total Current Liabilities			
LONG-TERM BONDS PAYABLE (Note 13)	12,229,179	4,778,291	136,523
LONG-TERM DEBTS (Notes 14 and 21)	10,329,851	23,101,135	660,032
LONG-TERM PAYABLE FOR INVESTMENTS (Note 26)	3,417,912	2,794,861	79,853
ACCRUED PENSION COST (Notes 2 and 18)	248,425	294,438	8,413
DEFERRED INCOME TAX LIABILITIES NET (Notes 2 and 17)	511,462		
	<u>52,610,188</u>	<u>52,237,652</u>	<u>1,492,504</u>
Total Liabilities			
<b>COMMITMENTS AND CONTINGENCIES (Note 22)</b>			
<b>MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES</b>	12,061,762	12,142,359	346,925
	<u>12,061,762</u>	<u>12,142,359</u>	<u>346,925</u>
<b>SHAREHOLDERS EQUITY (Note 15)</b>			
Capital stock NT\$10 par value	27,520,000	32,548,000	929,943
	<u>27,520,000</u>	<u>32,548,000</u>	<u>929,943</u>
Authorized 3,200,000 thousand shares in 2000 and 4,150,000 thousand shares in 2001			
Issued 2,750,000 thousand shares in 2000 and 3,254,800 thousand shares in 2001			
Capital surplus			
Capital in excess of par value	3,171,933	3,171,933	90,627
Net gain on disposal of properties	23,109	23,109	660
Adjustment of equity in subsidiary due to change in percentage of ownership	4,075,783	3,656,472	104,471
	<u>7,270,825</u>	<u>6,851,514</u>	<u>195,758</u>
Total capital surplus			
Retained earnings	8,200,947	1,015,654	29,018

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Unrealized loss on long-term investments in shares of stock	(546,829)	(442,246)	(12,636)
Cumulative translation adjustments	1,224,271	1,973,399	56,383
Total Shareholders' Equity	43,669,214	41,946,321	1,198,466
<b>TOTAL LIABILITIES AND SHAREHOLDERS EQUITY</b>	<b>108,341,164</b>	<b>106,326,332</b>	<b>3,037,895</b>

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

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF INCOME

(In Thousands, Except Earnings (Loss) Per Share and Equivalent ADS)

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>NET REVENUES (Note 25)</b>				
Packaging	24,522,968	38,028,799	28,898,185	825,663
Testing	7,793,198	12,768,361	9,459,275	270,265
Other	293,395	96,217	10,366	296
<b>Subtotal</b>	<b>32,609,561</b>	<b>50,893,377</b>	<b>38,367,826</b>	<b>1,096,224</b>
<b>COST OF REVENUES</b>				
Packaging	18,769,995	28,011,934	24,272,336	693,495
Testing	4,687,939	7,473,964	8,676,475	247,899
Other	501,632	81,380	8,203	235
<b>Subtotal</b>	<b>23,959,566</b>	<b>35,567,278</b>	<b>32,957,014</b>	<b>941,629</b>
<b>GROSS PROFIT</b>	<b>8,649,995</b>	<b>15,326,099</b>	<b>5,410,812</b>	<b>154,595</b>
<b>OPERATING EXPENSES</b>				
Selling	924,347	1,020,451	877,858	25,081
General and administrative (Note 10)	2,162,765	3,166,006	3,490,507	99,729
Research and development	714,324	1,262,516	1,504,536	42,987
<b>Total Operating Expenses</b>	<b>3,801,436</b>	<b>5,448,973</b>	<b>5,872,901</b>	<b>167,797</b>
<b>INCOME (LOSS) FROM OPERATIONS</b>	<b>4,848,559</b>	<b>9,877,126</b>	<b>(462,089)</b>	<b>(13,202)</b>
<b>NON-OPERATING INCOME</b>				
Interest (Notes 2 and 23)	423,158	554,180	503,603	14,389
Gain on sales of investments (Notes 2 and 16)	5,544,155	91,666	50,666	1,448
Investment income under equity method (Notes 2 and 6)	81,466	69,915		
Foreign exchange gain net (Notes 2 and 23)		302,745	247,498	7,071
Other	314,549	198,518	466,787	13,336
<b>Total Non-Operating Income</b>	<b>6,363,328</b>	<b>1,217,024</b>	<b>1,268,554</b>	<b>36,244</b>
<b>NON-OPERATING EXPENSES</b>				
Interest (Notes 2 and 8)	1,469,795	2,092,238	2,242,879	64,082
Investment loss under equity method (Notes 2 and 6)	30,871	237,152	1,246,836	35,624
Foreign exchange loss net (Notes 2 and 23)	538,368			
Other	110,412	361,200	302,249	8,636
<b>Total Non-Operating Expenses</b>	<b>2,149,446</b>	<b>2,690,590</b>	<b>3,791,964</b>	<b>108,342</b>

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INCOME (LOSS) BEFORE INCOME TAX AND MINORITY INTEREST AND ACQUISITION AND EXTRAORDINARY LOSS	9,062,441	8,403,560	(2,985,499)	(85,300)
INCOME TAX BENEFIT (EXPENSE) (Notes 2 and 17)	<u>(459,543)</u>	<u>(1,065,768)</u>	<u>199,160</u>	<u>5,690</u>
INCOME (LOSS) BEFORE MINORITY INTEREST AND ACQUISITION AND EXTRAORDINARY LOSS (Continued)	8,602,898	7,337,792	(2,786,339)	(79,610)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF INCOME (Continued)

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
INCOME BEFORE ACQUISITION (Note 2)	(65,167)			
EXTRAORDINARY LOSS (net of tax benefit \$48,188 (US\$1,377)) (Note 13)			(144,565)	(4,130)
MINORITY INTEREST IN NET (INCOME)				
LOSS OF SUBSIDIARIES	(743,065)	(1,500,643)	788,685	22,534
NET INCOME (LOSS)	7,794,666	5,837,149	(2,142,219)	(61,206)
EARNINGS (LOSS) PER SHARE (Notes 2 and 20)				
Based on weighted average number of outstanding shares of 3,254,800,000 in 2001 and 2,677,602,508 in 2000 and 1,980,000,000 in 1999				
Simple				
Loss before extraordinary loss			(0.61)	(0.02)
Extraordinary loss			(0.05)	
Net loss	N/A	N/A	(0.66)	(0.02)
Primary	3.89	2.13	N/A	N/A
Fully diluted	3.89	2.13	N/A	N/A
Based on weighted average number of outstanding shares after giving retroactive adjustment to 2000 and 2001 stock dividends				
Primary	2.46	1.82	N/A	N/A
Fully diluted	2.45	1.80	N/A	N/A
EARNINGS (LOSS) PER EQUIVALENT ADS (Note 2 and 20)				
Based on weighted average number of outstanding shares of 650,960,000 in 2001 and 535,520,502 in 2000 and 396,000,000 in 1999				
Simple				
Loss before extraordinary loss			(3.07)	(0.09)
Extraordinary loss			(0.22)	
Net loss	N/A	N/A	(3.29)	(0.09)
Primary	19.45	10.65	N/A	N/A



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Fully diluted	19.43	10.65	N/A	N/A
Based on weighted average number of outstanding shares after giving retroactive adjustment to 2000 and 2001 stock dividends				
Primary	12.28	9.12	N/A	N/A
Fully diluted	12.27	9.01	N/A	N/A

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

**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY**

(In Thousands, Except Share Data)

	Capital Stock (NT\$10 Par Value)			Capital Surplus
	Authorized Shares	Issued and Outstanding		
		Shares	Amount	
BALANCE, JANUARY 1, 1999	2,200,000,000	1,780,000,000	NT\$ 17,800,000	NT\$ 1,189,173
Increase in authorized capital, June 9, 1999	200,000,000			
Appropriations of 1998 earnings (Note 15)				
Legal reserve				
Compensation to directors and supervisors				
Stock dividends 7.8%		138,840,000	1,388,400	
Bonus to employees stock		9,540,000	95,400	
Bonus to employees cash				
Stock dividends from capital surplus 2.9%		51,620,000	516,200	(516,200)
Transfer of subsidiary's net gain on disposal of properties				4,931
Transfer of net gain on disposal of properties				736
Adjustment of equity in subsidiary due to change in percentage of ownership				5,034
Net income in 1999				
Reversal of unrealized loss on long-term investment in shares of stock				
Cumulative translation				

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adjustments (Note 2)				
BALANCE, DECEMBER 31, 1999	2,400,000,000	1,980,000,000	19,800,000	683,674
Convertible bonds converted into common shares		355,086	3,551	32,102
Increase in authorized capital, July 11, 2000	800,000,000			
Appropriations of 1999 earnings (Note 15)				
Legal reserve Compensation to directors and supervisors				

[Additional columns below]

[Continued from above table, first column(s) repeated]

	Retained Earnings			Unrealized Loss on Long-term Investment in Shares of Stock	Cumulative Translation Adjustments (Note 2)	Total Shareholders Equity
	Legal Reserve	Unappropriated Earnings (Accumulated Losses)	Total			
BALANCE, JANUARY 1, 1999	NT\$ 1,389,529	NT\$ 1,695,998	NT\$ 3,085,527	NT\$ (703,865)	NT\$ 503,973	NT\$ 21,874,808
Increase in authorized capital, June 9, 1999						
Appropriations of 1998 earnings (Note 15)						
Legal reserve	160,255	(160,255)				
Compensation to directors and supervisors		(28,800)	(28,800)			(28,800)
Stock dividends 7.8%		(1,388,400)	(1,388,400)			
Bonus to employees stock		(95,400)	(95,400)			
Bonus to employees cash		(5,500)	(5,500)			(5,500)
Stock dividends from capital surplus 2.9%						
Transfer of subsidiary's net gain on disposal of properties		(4,931) (736)	(4,931) (736)			

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Transfer of net gain on disposal of properties						
Adjustment of equity in subsidiary due to change in percentage of ownership		(113,080)	(113,080)			(108,046)
Net income in 1999		7,794,666	7,794,666			7,794,666
Reversal of unrealized loss on long-term investment in shares of stock				703,865		703,865
Cumulative translation adjustments (Note 2)					(173,957)	(173,957)
		<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
BALANCE, DECEMBER 31, 1999	1,549,784	7,693,562	9,243,346		330,016	30,057,036
Convertible bonds converted into common shares						35,653
Increase in authorized capital, July 11, 2000						
Appropriations of 1999 earnings (Note 15)						
Legal reserve	779,393	(779,393)				
Compensation to directors and supervisors		(139,200)	(139,200)			(139,200)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY (Continued)

(In Thousands, Except Share Data)

Capital Stock (NT\$10 Par Value)				
	Authorized Shares	Issued and Outstanding		Capital Surplus
		Shares	Amount	
Bonus to employees cash			NT\$	NT\$
Bonus to employees stock		47,833,062	478,331	
Stock dividends 31.5%		623,811,852	6,238,118	
Capital increase in cash through the issuance of American Depositary Shares September 29		100,000,000	1,000,000	3,137,910
Transfer of subsidiary's net gain on disposal of properties				9,470
Adjustment of equity in subsidiary due to change in percentage of ownership				3,405,909
Unrealized loss on long-term investment in shares of stock				
Net income in 2000				
Transfer of net gain on disposal of properties				1,760
Cumulative translation adjustments (Note 2)				
<b>BALANCE, DECEMBER 31, 2000</b>	<b>3,200,000,000</b>	<b>2,752,000,000</b>	<b>27,520,000</b>	<b>7,270,825</b>
Increase in authorized capital, April 6, 2001	950,000,000			

Appropriations of 2000 earnings (Note 15)		
Legal reserve		
Compensation to directors and supervisors		
Bonus to employees cash		
Bonus to employees stock	34,960,000	349,600
Stock dividends 17%	467,840,000	4,678,400

[Additional columns below]

[Continued from above table, first column(s) repeated]

	Retained Earnings			Unrealized Loss on Long-term Investment in Shares of Stock	Cumulative Translation Adjustments (Note 2)	Total Shareholders Equity
	Legal Reserve	Unappropriated Earnings (Accumulated Losses)	Total			
Bonus to employees cash	NT\$	NT\$ (12,669)	NT\$ (12,669)	NT\$	NT\$	NT\$ (12,669)
Bonus to employees stock		(478,331)	(478,331)			
Stock dividends 31.5%		(6,238,118)	(6,238,118)			
Capital increase in cash through the issuance of American Depositary Shares September 29						4,137,910
Transfer of subsidiary's net gain on disposal of properties		(9,470)	(9,470)			
Adjustment of equity in subsidiary due to change in percentage of ownership						3,405,909
Unrealized loss on long-term investment in shares of stock				(546,829)		(546,829)
Net income in 2000		5,837,149	5,837,149			5,837,149
Transfer of net gain on disposal of properties		(1,760)	(1,760)			
Cumulative translation adjustments					894,255	894,255

(Note 2)

BALANCE, DECEMBER 31, 2000	2,329,177	5,871,770	8,200,947	(546,829)	1,224,271	43,669,214
Increase in authorized capital, April 6, 2001						
Appropriations of 2000 earnings (Note 15)						
Legal reserve	583,539	(583,539)				
Compensation to directors and supervisors		(103,200)	(103,200)			(103,200)
Bonus to employees cash		(10,400)	(10,400)			(10,400)
Bonus to employees stock		(349,600)	(349,600)			
Stock dividends 17%		(4,678,400)	(4,678,400)			
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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY (Continued)

(In Thousands, Except Share Data)

	Capital Stock (NT\$10 Par Value)			Capital Surplus
	Authorized Shares	Issued and Outstanding		
		Shares	Amount	
Adjustment of equity in subsidiary due to change in percentage of ownership			NT\$	NT\$ (419,311)
Reversal of unrealized loss on long-term investment in shares of stock				
Net loss in 2001				
Cumulative translation adjustments (Note 2)				
<b>BALANCE, DECEMBER 31, 2001</b>	<b>4,150,000,000</b>	<b>3,254,800,000</b>	<b>NT\$ 32,548,000</b>	<b>NT\$ 6,851,514</b>
<b>BALANCE, JANUARY 1, 2001</b>	<b>3,200,000,000</b>	<b>2,752,000,000</b>	<b>US\$ 786,285</b>	<b>US\$ 207,738</b>
Increase in authorized capital, April 6, 2001	950,000,000			
Appropriations of 2000 earnings (Note 15)				
Legal reserve				
Compensation to directors and supervisors				
Bonus to employees cash				
Bonus to employees stock		34,960,000	9,989	
Stock dividends 17%		467,840,000	133,669	
Adjustment of equity in subsidiary due to				(11,980)



change in percentage of ownership  
 Reversal of unrealized loss on long-term investment in shares of stock  
 Net loss in 2001  
 Cumulative translation adjustments (Note 2)

BALANCE, DECEMBER 31, 2001

4,150,000,000	3,254,800,000	US\$ 929,943	US\$ 195,758
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[Additional columns below]

[Continued from above table, first column(s) repeated]

	Retained Earnings			Unrealized Loss on Long-term Investment in Shares of Stock	Cumulative Translation Adjustments (Note 2)	Total Shareholders Equity
	Legal Reserve	Unappropriated Earnings (Accumulated Losses)	Total			
Adjustment of equity in subsidiary due to change in percentage of ownership	NT\$	NT\$ 98,526	NT\$ 98,526	NT\$	NT\$	NT\$ (320,785)
Reversal of unrealized loss on long-term investment in shares of stock				104,583		104,583
Net loss in 2001		(2,142,219)	(2,142,219)			(2,142,219)
Cumulative translation adjustments (Note 2)					749,128	749,128
BALANCE, DECEMBER 31, 2001	NT\$ 2,912,716	NT\$ (1,897,062)	NT\$ 1,015,654	NT\$ (442,246)	NT\$ 1,973,399	NT\$ 41,946,321
BALANCE, JANUARY 1, 2001	US\$ 66,547	US\$ 167,766	US\$ 234,313	US\$ (15,624)	US\$ 34,980	US\$ 1,247,692
Increase in authorized capital, April 6, 2001						
Appropriations of 2000 earnings						

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(Note 15)

Legal reserve	16,673	(16,673)				
Compensation to directors and supervisors		(2,949)	(2,949)			(2,949)
Bonus to employees cash		(297)	(297)			(297)
Bonus to employees stock		(9,989)	(9,989)			
Stock dividends 17%		(133,669)	(133,669)			
Adjustment of equity in subsidiary due to change in percentage of ownership		2,815	2,815			(9,165)
Reversal of unrealized loss on long-term investment in shares of stock				2,988		2,988
Net loss in 2001		(61,206)	(61,206)			(61,206)
Cumulative translation adjustments (Note 2)					21,403	21,403
<b>BALANCE, DECEMBER 31, 2001</b>	<b>US\$ 83,220</b>	<b>US\$ (54,202)</b>	<b>US\$ 29,018</b>	<b>US\$ (12,636)</b>	<b>US\$ 56,383</b>	<b>US\$ 1,198,466</b>

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

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands)

Years Ended December 31

	Years Ended December 31			US\$
	1999	2000	2001	
	NT\$	NT\$	NT\$	
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>				
Net income (loss)	7,794,666	5,837,149	(2,142,219)	(61,206)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:				
Minority interest in net income (loss) of subsidiaries	743,065	1,500,643	(788,685)	(22,534)
Depreciation	5,128,282	8,127,561	10,633,197	303,806
Amortization	426,085	466,238	494,088	14,117
Exchange (gain) loss on long-term foreign:				
Bonds payable	(191,895)	628,058	640,171	18,291
Debts	(3,927)			
Investment payable		170,351	223,599	6,389
Accrued interest on convertible bonds	615,805	812,931	872,575	24,931
Provision for doubtful accounts and sales allowance	109,263	155,458	80,629	2,304
Gain on sale of investments	(5,544,155)	(91,666)	(50,666)	(1,448)
Loss on early redemption of foreign convertible bonds			144,565	4,130
Investment (income) loss under equity method	(50,595)	167,237	1,246,836	35,624
Cash dividends received from long-term stock investments			33,196	948
Gain (Loss) on disposal of properties	(20,903)	19,298	26,884	768
Provision for loss on long-term bonds investments		284,301	29,822	852
Loss from idle assets			111,109	3,175
Amortization of consolidated debits	507,816	559,807	692,919	19,798
Deferred income taxes	(343,180)	(226,898)	(401,745)	(11,478)
Other	345	(16,441)	(3,251)	(93)
Changes in operating assets and liabilities, net of effects from purchases of Motorola SPS Businesses and ISE Labs, Inc.				
Notes receivable	189,530	(18,599)	114,456	3,270
Accounts receivable	(2,722,498)	(1,933,977)	1,939,341	55,410
Inventories	(444,885)	(796,636)	477,891	13,654
Prepayments and other	(284,376)	(327,757)	328,749	9,393
Notes payable	(214,858)			
Accounts payable	869,713	707,556	(891,130)	(25,461)
Income tax payable	238,982	642,539	(856,346)	(24,467)
Accrued expenses and other	598,025	1,574,097	(821,272)	(23,465)
Accrued pension cost	(551,421)	59,236	46,013	1,314
Effect of exchange rate changes	168,350	(682,197)	(473,515)	(13,530)
<b>Net Cash Provided by Operating Activities</b>	<b>7,017,234</b>	<b>17,618,289</b>	<b>11,707,211</b>	<b>334,492</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>				
Acquisition of Motorola SPS Businesses	(4,259,541)			
Acquisition of ISE Labs, Inc.	(3,014,427)			
Acquisition of fixed assets	(9,869,161)	(30,063,640)	(11,565,689)	(330,448)
(Increase) decrease in short-term investments	569,099	(1,471,248)	(2,913,644)	(83,247)
Payments for long-term stock investments	(3,538,728)	(2,026,047)	(216,444)	(6,184)

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Increase in other assets	(202,668)	(787,246)	(214,772)	(6,136)
Proceeds from sales of:				
Properties	361,149	697,126	685,776	19,594
Shares of stock:				
ASE Inc.	3,170,957			
ASE Test Ltd.	4,718,324			
Bonds	282,306		195,320	5,580
Others		100,666	51,639	1,475
Purchase of ASE Test Ltd. shares			(1,202,185)	(34,348)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Net Cash Used in Investing Activities	(11,782,690)	(33,550,389)	(15,179,999)	(433,714)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

(Continued)

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOW (Continued)

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>				
Proceeds from (repayments of):				
Capital increase through the issuance of American Depository Shares		4,151,300		
Issuance of foreign convertible bonds	3,460,050			
Long-term debts	4,201,517	1,013,796	9,746,636	278,475
Investment payable		(1,453,603)	(803,833)	(22,967)
Commercial papers and bank acceptances payable	(517,031)	2,578,212	(837,491)	(23,928)
Proceeds from short-term borrowings	1,218,200	1,614,950	944,148	26,976
Decrease in payable for fixed assets			(2,250,855)	(64,310)
Contribution to a sinking fund for convertible bonds			(1,568,057)	(44,802)
Early redemption of foreign convertible bonds			(6,066,042)	(173,315)
Increase in minority interest	235,081	9,854,500	1,552,601	44,360
Compensation to directors and supervisors and bonus to employees	(28,800)	(151,869)	(113,600)	(3,246)
	<u>8,569,017</u>	<u>17,607,286</u>	<u>603,507</u>	<u>17,243</u>
<b>EFFECT OF EXCHANGE RATE CHANGES</b>	<u>(168,350)</u>	<u>682,197</u>	<u>473,515</u>	<u>13,529</u>
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<u>3,635,211</u>	<u>2,357,383</u>	<u>(2,395,766)</u>	<u>(68,450)</u>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR</b>	<u>8,173,901</u>	<u>11,809,112</u>	<u>14,166,495</u>	<u>404,757</u>
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	<u>11,809,112</u>	<u>14,166,495</u>	<u>11,770,729</u>	<u>336,307</u>
<b>SUPPLEMENTAL INFORMATION</b>				
Interest paid (excluding capitalized interest)	787,106	1,217,052	1,557,887	44,511
Income tax paid	397,065	497,882	1,024,286	29,265
Cash paid for acquisition of fixed assets				
Acquisition of fixed assets	11,097,395	31,463,451	11,565,689	330,448
Increase in payable	(1,228,234)	(1,399,811)		
	<u>9,869,161</u>	<u>30,063,640</u>	<u>11,565,689</u>	<u>330,448</u>
Total assets acquired from acquisition of Motorola SPS Businesses	12,783,224			
Less: Liabilities assumed	1,627,383			
	<u>11,155,841</u>			
Payable amounts	11,155,841			
Less: Payable balance at end of year	5,474,780			
	<u>5,681,061</u>			
Cash paid	5,681,061			
Less: Cash received at the date of acquisition	1,421,520			
	<u>4,259,541</u>			

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Net cash outflow	4,259,541			
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Total assets acquired from acquisition of ISE Labs, Inc.	4,671,849			
Less: Liabilities assumed	1,371,453			
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Cash paid	3,300,396			
Less: Cash received at the date of acquisition	285,969			
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Net cash outflow	3,014,427			
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Cash received from capital increase through the issuance of American Depositary Shares				
Net proceeds		4,137,910		
Increase in payable		13,390		
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Net cash inflow		4,151,300		
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>

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

**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**December 31, 2000 and 2001**

**(Amounts In Thousands of Dollars, Unless Otherwise Stated)**

**1. General**

Advanced Semiconductor Engineering, Inc. ( ASE or the Corporation ), a corporation incorporated under the laws of the Republic of China (the ROC ), is an independent provider of semiconductor packaging and testing services. ASE s common shares are traded on the Taiwan Stock Exchange under 2311 . Since September 2000, ASE s common shares in the form of American Depositary Shares ( ADS ) have been trading on the New York Stock Exchange under the symbol ASX . ASE and its consolidated subsidiaries and affiliates are together referred to as the ASE Group .

ASE has six wholly-owned subsidiaries: a) ASE Holding Limited (incorporated in Bermuda in 1990) holds shares in ASE Group companies; b) ASE Marketing Services Ltd. (incorporated in Hong Kong in 1991) engages in trading; c) ASE Investment Inc. (incorporated in the ROC in March 1996) holds shares in ASE Group companies; d) J&R Holding Limited (incorporated in Bermuda in May 1996) holds shares in ASE Group companies; e) ASE Capital Inc. (incorporated in ROC in November 1997) holds shares in ASE Group companies; and f) ASE Southwest, Inc. (incorporated in the USA in August 1999) engages in trading. As of December 31, 2001, ASE also had a 99% equity stake in ASE Technologies, Inc., a company incorporated in the ROC engaged in the research and development, manufacture and sales of computers and related accessories; a 90% equity stake in ASE Network Inc., a company incorporated in the ROC engaged in investing; and a 56% equity stake in ASE Material Inc. ( ASE Material ), a company incorporated in the ROC engaging in the design and production of leadframes and substrates used in the packaging of semiconductors. In addition, ASE Test, Inc. has a 4% equity stake in ASE Material.

In 1999, ASE (Chung Li) Inc. ( ASE Chung Li ) and ASE Investment (Labuan) Inc., a holding company, were incorporated to acquire 100% interests in the Motorola Semiconductor Product Sector Businesses ( Motorola SPS Businesses ) in Chung Li, Taiwan and Paju, Korea. The acquisitions of the Motorola SPS Business were completed on July 4, 1999. ASE and ASE Test Limited ( ASE Test ) own 70% and 30% equity stakes in the two subsidiaries, respectively. ASE Investment (Labuan) Inc. owns 100% of the equity of ASE Korea Inc. ( ASE Korea ). The acquisitions were accounted for under purchase accounting and the purchase price was US\$350.1 million (see Note 26).

In June 2001, ASE Chung Li invested US\$6.8 million in Omniquest Industrial Limited, a wholly-owned subsidiary incorporated in the British Virgin Islands ( Omniquest ). Omniquest has a wholly-owned subsidiary in the People s of Republic of China ( PRC ), namely ASE (Hangzhou) Inc., with capital of US\$6.8 million as of December 31, 2001. ASE (Hangzhou) Inc. is currently in the preoperating stage, and will be engaged in the manufacture and sale of transistors, LED (Light-Emitting Diode) modules and LED displays.

ASE Holding Limited has the following wholly-owned subsidiaries: a) ASEP Realty Corporation (incorporated in the Philippines in December 1995) develops and invests in real estate; b) ASE Holding Electronics (Philippines) (incorporated in the Philippines in December 1995) manufactures electronic products, components and semiconductors; and c) ASE Holding (Singapore) Pte. Ltd. (incorporated in Singapore in December 1994) holds shares in ASE Group companies. A portion of the share capital of the Philippine subsidiaries are held by certain Filipino individuals due to legal limitations. ASE Holding (Singapore) Pte. Ltd. holds a 100% equity stake in ASE Electronics (M) Sdn, Bhd. ( ASE Test Malaysia ) (incorporated in Malaysia

**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

in 1991), which provides packaging and testing services for integrated circuits. In April 1997, ASE Holding Limited transferred its shareholding in ASE Test Malaysia to ASE Test.

J&R Holding Limited has two subsidiaries: a) ASE Test (40.25%-owned, incorporated in Singapore in May 1996) holds shares in ASE Group companies; and b) J&R Industrial Inc. (100% owned, incorporated in the ROC in April 1999), which is mainly engaged in the leasing of substrate, packaging and testing equipment. In addition, ASE Holding Limited has a 10.71% equity stake in ASE Test. The shares of ASE Test have been listed on the NASDAQ National Market in the United States since June 1996.

ASE Test has four majority-owned subsidiaries: a) ASE Test, Inc., which is engaged in testing of semiconductors; b) ASE Test Malaysia, which is engaged in packaging and testing of semiconductors; c) ASE Test Holding, which mainly holds shares in ASE Group companies; and d) ASE Test Finance Limited (incorporated in Mauritius in June 1999) which is engaged in financing activities.

ASE Test, Inc. has a wholly-owned subsidiary, ASE Test (USA) Inc., which is engaged in the after-sale service of tested semiconductors.

In May 1999, ASE Test acquired 70% of the outstanding shares of ISE Labs, Inc. ( ISE Labs ), which is engaged in front-end engineering testing, final testing and packaging of semiconductors. The purchase cost, including transaction costs, was US\$100.1 million (NT\$3,320.3 million). In 2001, ASE Test purchased additional shares of ISE Labs in connection with the capital increase of ISE Labs, and thereafter increased its ownership interest in ISE Labs. As of December 31, 2001, ASE Test has made total investments of US\$171 million and acquired 80% of the outstanding shares of ISE Labs. In January 2002, the minority shareholders of ISE Labs sold the remaining 20% of the outstanding shares of ISE Labs to ASE Test for US\$50 million. Consequently, ISE Labs has become a wholly-owned subsidiary of ASE Test.

ASE Technologies, Inc. originally had two subsidiaries: a) ASE Technologies (U.S.A.), Inc. (100% ownership), which was mainly engaged in research and development, manufacture and sales of computers and related accessories; and b) Transmonde Technologies, Inc. (83% ownership), which was mainly engaged in sales of computers and related accessories. In 2001, ASE Technologies, Inc. sold all of the shares in the two subsidiaries to a third party, and resulted in a gain of NT\$50,666.

**2. Significant Accounting Policies**

The accompanying financial statements have been prepared in conformity with generally accepted accounting principles in the ROC ( ROC GAAP ). Significant accounting policies are summarized as follows:

***Presentation of Consolidated Financial Statements***

ASE prepared its consolidated financial statements using ROC GAAP with reconciliation to US GAAP (Note 27). The accompanying consolidated balance sheets are presented for the two years ended as at December 31, 2000 and 2001, and the accompanying consolidated statements of income, changes in shareholders' equity and cash flows are presented for the three years ended December 31, 1999, 2000 and 2001.

Unless otherwise stated, amounts presented are in thousands of NT dollars (NT\$).



**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

***Consolidation***

The consolidated financial statements include the accounts of ASE and all of the aforementioned companies.

Under the consolidation method used by ASE to consolidate the statement of income of ISE Labs for the year ended December 31, 1999, ISE Labs' full year 1999 net revenues, cost of revenues and operating expenses are included in the Corporation's consolidated statements of income. The pre-acquisition income of ISE Labs for the period (from January 1, 1999 to May 4, 1999) is then subtracted from the Corporation's net income for 1999.

The statements of income for both ASE Chung Li and ASE Korea (representing the acquirees from acquisitions of Motorola SPS Businesses) are consolidated since the date of acquisitions due to the change of business type after acquisition in ASE Chung Li and ASE Korea for the accounting of silicon wafers from previous purchase and sale transaction to customers' consignments (see accounting policy for inventories).

In 1999, ASE and ASE Test Inc. owned 38% and 10% equity stake in ASE Material. However, the accounts of ASE Material for 1999 were consolidated because ASE effectively controls ASE Material. First, two of the five board members of ASE Material are appointed by ASE and one board member is appointed by ASE Test, Inc. Second, Mr. Jason Chang, the Chairman of ASE, also serves as the Chairman of ASE Material. Third, ASE appoints ASE Material's sole supervisor, whose duty under the ROC Company Law is to monitor ASE Material's business and financial condition. Finally, Mr. Jason Chang has committed to vote his shares of ASE Material as of December 31, 1999, which represented an 11.4% ownership interest in ASE Material, in concert with ASE.

All intercompany accounts and transactions have been eliminated and minority shareholders' interests in the equity and earnings of the subsidiaries are presented separately in the consolidated financial statements. The differences between the costs of investments and the proportionate equity in each subsidiary when the stocks were acquired are recorded as consolidated credits (debits) and are amortized on the straight-line method over ten years.

***Use of Estimates***

The preparation of consolidated financial statements both in conformity with ROC GAAP and generally accepted accounting principles in the United States ( US GAAP ) requires management to make estimates and judgments that affect the recorded amounts of assets, liabilities, revenues and expenses of the Corporation. The Corporation continually evaluate these estimates, including those related to allowances for doubtful accounts, inventories, useful lives of properties, consolidated debits, income tax valuation allowances, pension plans and the fair value of financial instruments. The Corporation bases its estimates on historical experience and other assumptions, which it believes to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions and conditions.

***Cash and Cash Equivalents***

ASE considers all highly liquid investments within an original maturity from date of purchase of three months or less to be cash equivalents.

ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

***Short-term Investments***

These are carried at cost less allowance for decline in market value.

***Allowances for Doubtful Accounts***

Allowance for doubtful accounts is provided based on evaluation of the collectibility of receivables.

***Inventories***

Inventories are stated at the lower of weighted average cost or market value. Unbilled processing charges incurred (included in finished goods and work in process) are stated at actual cost. Market value represents net realizable value for finished goods and work in process, and replacement costs for raw materials, supplies and spare parts.

Materials received from customers for processing, mainly semiconductor wafers, are excluded from inventories as title and risk of loss remains with the customers.

***Long-term Investments in Shares of Stock***

Long-term investments of which the Corporation owns at least 20% of the outstanding voting shares and where the Corporation exercises significant influence over the investee company's operations are accounted for by the equity method. Under the equity method, the investments are initially carried at cost and subsequently adjusted for the Corporation's proportionate share in the net earnings or losses of the investee companies. Such proportionate share in the earnings or losses are recognized as investment income or losses while any cash dividends declared are reflected as a reduction in the carrying value of the investments. The goodwill representing the excess of the investment costs over the Corporation's proportionate equity in the fair value of the net assets of the investees at the time of investments or at the time the equity method of accounting is first applied to a particular investment, is amortized on the straight-line method over ten years. Changes in the Corporation's ownership percentage of investees under the equity method are accounted for as adjustments to long-term investments and capital surplus. The writedown of carrying value of long-term investments has been taken on the basis of the discounted cash flows expected to be realized in the future.

Other long-term investments (including ASE common shares) in shares of stock are carried at cost. An allowance for the decline in value is made for any permanent impairment in the carrying value of the investments and such decline in value is charged against current income. Cash dividends are recognized as income on the declaration date. The sales of ASE shares in 1999 were reflected as gains from the sale of long-term investments in the statement of income.

Unrealized profits or losses arising from transactions with equity investees or between equity investees are offset against investment income or loss from long-term investments, based on the percentage of ownership.

***Long-term Investments in Bonds***

Bond securities being held to maturity are stated at amortized cost. Allowances for loss in bond securities are provided based on the evaluation of recoverability of the carrying value of these securities.

**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

***Properties***

Properties, except for leased equipment, are stated at cost. Equipment held under capital leases are recorded as an asset and an obligation at an amount equal to the lower of: (i) the present value at the beginning of the lease term of the minimum lease payments during the lease term (including the payment called for under any bargain purchase option); or (ii) fair value of the leased equipment at the inception of the lease. Machinery in transit, construction in progress and prepayments under construction are stated at cost. These include the cost of machinery, construction, down payments and other direct costs plus interest charges attributable to the borrowings used to finance the acquisitions of these assets. Major renewals and improvements are capitalized, while maintenance and repairs are expensed currently.

Depreciation is computed using the straight-line method over estimated service lives which range as follows: long-term land leasehold rights, 60 years (lease period); buildings and improvements, 3 to 55 years; machinery and equipment, 3 to 8 years; furniture and fixtures, 2 to 15 years; transportation equipment, 3 to 8 years, and leased assets and leasehold improvements, 3 to 5 years. In the event that an asset depreciated to its residual value is deemed to have a continual useful life, the residual value is depreciated over the remaining life, not to exceed 2 years.

When properties are retired or disposed of, their costs and accumulated depreciation are removed from the accounts and any gain or loss is credited or charged to income. Prior to January 1, 2001, the gain, after deducting applicable income tax, was reclassified to capital surplus at the end of the year.

***Deferred Charges***

Deferred charges are amortized using the straight-line method as follows: tools, 2 years; issuance costs of convertible bonds, 5 years; telecommunications, electrical and computer network systems, 5 years; and others, 2 to 5 years.

***Consolidated Debits***

The consolidated debits as shown in the balance sheet representing goodwill arising from acquisitions or investments in the consolidated subsidiaries, are amortized on the straight line method over 10 years.

***Pension Cost***

Pension cost is recorded based on actuarial calculations.

Provisions for pension costs are accrued based on actuarially determined amounts which include service costs, interests, amortisation of unrecognised net obligation and expected return on pension assets, in accordance with ROC SFAS No. 18, Accounting for Pensions .

***Convertible Bonds***

Conversion of convertible bonds into common shares is accounted for by the book value method. Under this method, unamortized bond issuance cost, accrued interest no longer payable and the carrying value of the bond are written off. In addition, common shares are recorded at the par value of the shares issued and the excess is recorded as capital surplus.

**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

***Revenue Recognition***

Revenues from semiconductor packaging services that the Corporation provides are recognized upon shipment. Revenues from semiconductor testing services that the Corporation provides are recognized upon completion of the services. The Corporation does not take ownership of: (i) bare semiconductor wafers received from customers that the Corporation packages into finished semiconductors, and (ii) packaged semiconductors received from customers that the Corporation tests as to whether they meet certain performance specifications. The title and risk of loss remains with the customer for those bare semiconductors and/or packaged semiconductors. Accordingly, the cost of customer-supplied semiconductor materials is not included in the accompanying consolidated financial statements. Other criteria that the Corporation uses to determine when to recognize revenue are: (i) existence of persuasive evidence of the services provided, (ii) the selling price is fixed or determinable and (iii) collectibility is reasonably assured. The Corporation does not provide warranties to its customers except only in cases of defects in the packaging services provided and deficiencies in testing services provided. An appropriate sales allowance is recognized in the period the sale is recognized.

***Income Tax***

Tax effects of deductible temporary differences, unused tax credits and operating loss carryforwards are recognized as deferred income tax assets, while those taxable temporary differences are recognized as deferred income tax liabilities. Valuation allowance is provided for deferred income tax assets based on the estimated realizability.

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

Income taxes on undistributed earnings (10%) generated in 1998 and onwards for consolidated entities in the ROC are recorded as expense in the following year when the shareholders have resolved that the earnings shall be retained.

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

ASE and its subsidiaries maintain their accounts in the currency of their respective countries of incorporation (local currencies) and functional currencies.

Foreign currency transactions, other than foreign currency forward exchange contracts, are recorded in the local currencies at the rates of exchange in effect when the transactions occur. Gains or losses resulting from the application of different foreign exchange rates when foreign-currency assets and liabilities are settled, are credited or charged to income in the year of settlement. Year-end balances of foreign currency assets and liabilities are restated based on prevailing exchange rates and the resulting differences are credited or charged to income.

The financial statements of the foreign subsidiaries are translated into NT dollars at the following rates: Assets and liabilities, current rate; and income and expenses, average exchange rate during the year. The net resulting translation adjustment is reported as a separate component of shareholders' equity.

***Derivative Financial Instruments***

Premiums or discounts on foreign currency forward exchange contracts which hedge foreign currency assets or liabilities arising from the difference between the forward rate and the

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

spot rate at the date of each contract are deferred and amortized over the contract period. At year end, the balances of the forward exchange receivables or payables are restated based on prevailing exchange rates and the resulting gain or loss is credited or charged to income. Any exchange gain or loss when the contract is settled is also credited or charged to income. The difference between receivable and payable balances arising from forward exchange contracts is accounted for as either current asset or current liability.

Written option contracts to purchase foreign currencies and cross currency swap contracts entered into for hedging purposes are not recorded as assets or liabilities on the contract dates. Gains or losses upon settlement are credited or charged to income. Amounts received or paid are amortized over each contract period. At year end, the outstanding written option contracts and cross currency swap contracts are marked to market with charges to current income.

*Earnings Per Share ( EPS ) and Earnings Per Equivalent ADS*

Common shares of ASE's convertible bonds are not considered in the calculation of primary and fully diluted EPS because they have an anti-dilutive effect. Common share equivalents attributable to the employees' stock options of ASE Test are included in the EPS calculation (see Note 20).

Earnings per equivalent ADS are calculated by multiplying earnings per share by five (each of the ADS represents five common shares).

*US Dollar Amount*

ASE prepares its consolidated financial statements in NT dollars. Translations into US dollars for 2001 financial statements are included solely for the convenience of the readers, and are based on the US Federal Reserve Bank of New York noon buying rate of NT\$35.00 to US\$1.00 in effect as at December 31, 2001. The convenience translations should not be construed as representations that the NT dollar amounts have been, could have been, or could in the future be, converted into US dollars at this or any other rates.

**3. Short-term Investments**

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Mutual funds	1,603,362	4,593,958	131,256
Stocks	63,978	5,337	152
Convertible bonds and government bonds	20,188	1,877	54
	1,687,528	4,601,172	131,462
Allowance for loss (Note 2)	(4,849)		
	1,682,679	4,601,172	131,462

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 4. Accounts Receivable Net

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Accounts receivable	9,393,853	7,361,066	210,316
Allowance for doubtful accounts	(314,243)	(286,476)	(8,185)
Allowance for sales allowances	(38,676)	(53,626)	(1,532)
	<u>9,040,934</u>	<u>7,020,964</u>	<u>200,599</u>

The movement of allowance for doubtful accounts and sales allowances are as follows:

	Doubtful Accounts	Sales Allowances
	NT\$	NT\$
Balance, beginning of 1999	84,708	53,000
Additions	109,263	
Deductions	(6,809)	(5,908)
	<u>187,162</u>	<u>47,092</u>
Balance, end of 1999	187,162	47,092
Additions	148,834	6,624
Deductions	(21,753)	(15,040)
	<u>314,243</u>	<u>38,676</u>
Balance, end of 2000	314,243	38,676
Additions	15,619	65,010
Deductions	(43,386)	(50,060)
	<u>286,476</u>	<u>53,626</u>
Balance, end of 2001	286,476	53,626
	US\$	US\$
Balance, beginning of 2001	8,979	1,105
Additions	446	1,858
Deductions	(1,240)	(1,431)
	<u>8,185</u>	<u>1,532</u>
Balance, end of 2001	8,185	1,532

## 5. Inventories

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Raw materials	2,099,058	1,613,458	46,099
General supplies and spare parts	630,979	665,598	19,016
Work in process	337,320	348,933	9,970
Finished goods	246,812	297,355	8,496
Supplies in transit	87,219	63,640	1,818
	<u>3,401,388</u>	<u>2,988,984</u>	<u>85,399</u>
Allowance for obsolescence	(155,061)	(220,548)	(6,301)
	<u>3,246,327</u>	<u>2,768,436</u>	<u>79,098</u>

ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The movement of allowance for obsolescence is as follows:

	NT\$
Balance, beginning of 1999	199,018
Additions	50,566
Deductions	(73,379)
Balance, end of 1999	176,205
Additions	115,928
Deductions	(137,072)
Balance, end of 2000	155,061
Additions	131,197
Deductions	(65,710)
Balance, end of 2001	220,548
	US\$
Balance, beginning of 2001	4,430
Additions	3,748
Deductions	(1,877)
Balance, end of 2001	6,301



## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 6. Long-term Investments Common Stocks

	December 31				
	2000		2001		
	NT\$	% of Direct Ownership	NT\$	US\$	% of Direct Ownership
<b>Equity method</b>					
Common stock					
Hung Ching Development & Construction Co. ( HCDC ) (Note 10)	2,154,627	25.4	1,213,563	34,673	25.4
Hung Ching Kwan Co. ( HCKC )	405,549	27.3	405,406	11,583	27.3
Universal Scientific Industrial Co., Ltd. ( USI ) (Note 10)	3,931,810	23.3	3,633,927	103,827	23.0
Universal Access Technology Inc. ( UAT )	92,775	25.0	60,001	1,714	25.0
Preferred stock					
Intergrated Programmable Communication, Inc. ( IPC )	118,681	23.1	101,447	2,898	23.1
<b>Cost method</b>					
ASE stock held by subsidiaries	2,919,411	4.9	3,017,964	86,228	5.1
InveStar Burgeon Venture Capital, Inc.	153,035	13.0	161,749	4,622	13.0
Taiwan Fixed Network Co., Ltd.	1,500,000	1.6	1,500,000	42,857	1.6
Global Strategic Investment, Inc.			69,980	1,999	1.0
UC Fund II			34,990	1,000	
	11,275,888		10,199,027	291,401	
Adjustment for decline in market value in ASE stock	(490,280)		(368,480)	(10,528)	
Unrealized gain on sale of land	(300,149)		(300,149)	(8,576)	
	10,485,459		9,530,398	272,297	

ASE acquired its 27.3% equity interest in Hung Ching Kwan Co. ( HCKC ) in 1992 by transferring to HCKC a parcel of land as an investment in HCKC at an agreed value of NT\$390,470. The resulting gain of NT\$300,149, which represents the excess of such value over the cost of the land plus land value increment tax, has been deferred until the disposal of this investment. As of December 31, 2001, ASE has a 43.4% effective interest in HCKC, which consists of 27.3% interest directly owned by ASE, and 16.1% interest indirectly owned through Hung Ching Development & Construction Co. ( HCDC ) (based on HCDC's 63.5% interest in HCKC).

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

ASE invested in Universal Access Technology Inc. ( UAT ) in December 2000 and directly acquired its 25% equity interest. In addition, HCDC and Universal Scientific Industrial Co., Ltd. ( USI ) have 10% and 25% equity interests in UAT, respectively. Accordingly, as of December 31, 2001, ASE has a 33.3% effective interest in UAT. UAT is engaged in the design of related computer products and software service.

In December 2000, ASE invested in convertible preferred stocks issued by Integrated Programmable Communication, Inc. ( IPC ). As of December 31, 2001, ASE has made total investments of US\$4.0 million, and owns a 23.1% stake in IPC. In addition, USI and UAT have 16% and 7% equity interests in IPC, respectively.

As of December 31, 2001, the accumulated deficit for HCDC was NT\$337,400 (US\$14,828), the undistributed earnings for HCKC and USI were NT\$54,460 (US\$1,556) and NT\$919,479 (US\$26,271), respectively. HCKC did not declare dividends in 2000 and 2001. USI declared stock and cash dividends in 2001 for NT\$1.3 and NT\$0.25 per share, respectively, and stock dividends for NT\$4.00 per share in 2000. HCDC declared stock and cash dividends in 2000 for NT\$0.8 and NT\$0.2 per share, respectively, but these dividends have not yet been distributed as of December 31, 2001.

ASE recorded net investment income of NT\$50,595 in 1999, net investment losses of NT\$167,237 in 2000 and NT\$1,246,836 (US\$35,624) in 2001 from its investments in the aforementioned equity investees.

**7. Long-term Bond Investments**

These represent long-term bond investments in APP Global Finance Ltd. ( APP ) and the Federal National Mortgage Association. The investment cost was US\$9.5 million and US\$5.9 million, respectively. The bond investment in Federal Mortgage Association matured on May 2, 2001. The bond investment in APP had an original maturity on October 4, 2001, but was defaulted because APP incurred financial difficulties. ASE wrote off the gross bond investment in APP in 2001 due to a judgment of unrecoverability.

**8. Properties**

Accumulated depreciation consists of:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Buildings and improvements	1,335,682	2,021,886	57,768
Machinery and equipment	20,586,431	28,735,918	821,026
Transportation equipment	56,731	116,845	3,338
Furniture and fixtures	469,584	569,013	16,258
Leased assets and leasehold improvements	235,634	300,187	8,577
Long-term land leasehold rights	6,230	7,689	220
	<u>22,690,292</u>	<u>31,751,538</u>	<u>907,187</u>

Interest capitalized and included as cost of properties amounted to NT\$123,347, NT\$163,916 and NT\$100,453 (US\$2,870) for the years ended December 31, 1999, 2000 and 2001, respectively.

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

ASE Chung Li and ASE Material entered into purchase agreements with HCDC in 2000 to purchase a building located in Chung Li for expansion purposes. The contract prices, which were based on appraisal, totaled NT\$1,044,341 and NT\$358,442, respectively. ASE and ASE Test, Inc. entered into purchase agreements with HCDC in 2001 to purchase a building located in Nantze Export Processing Zone for expansion purpose. The contract prices, which were based on appraisal, totaled NT\$1,027,034 (US\$29,344) and NT\$459,363 (US\$13,125), respectively. The buildings and improvements acquired under the purchase agreements described above have been included in the 2000 and 2001 consolidated balance sheets.

Machinery in transit and prepayments pertain to the purchase of packaging and testing equipment, which are associated with machinery purchased with title transferred but are not yet in ready-for-use condition, and down payments for machinery purchased with non-cancellable purchase orders.

Major components for machinery in transit and prepayments are as follows:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Bonders	405,595	22,855	653
Testers	1,063,911	1,099,240	31,407
Others	3,480,920	1,808,791	51,680
Total	<u>4,950,426</u>	<u>2,930,886</u>	<u>83,740</u>

## 9. Other Assets

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Deferred charges (Note 2)			
Tooling	124,468	48,479	1,385
Issuance costs of convertible bonds	139,244	68,761	1,965
Telecommunications, electrical and computer network systems	290,208	302,604	8,646
Other	346,130	302,857	8,653
	<u>900,050</u>	<u>722,701</u>	<u>20,649</u>
Deferred income tax assets (Note 17)		226,190	6,463
Guarantee deposits	204,112	185,162	5,290
Non-operating properties	147,686	155,703	4,449
Other	23,709	52,513	1,500
	<u>1,275,557</u>	<u>1,342,269</u>	<u>38,351</u>



## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**10. Consolidated Debits**

These represent goodwill arising from the purchases of:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
ASE Test shares	2,554,869	2,992,676	85,505
ISE Labs shares (Note 26)	2,008,793	1,870,915	53,455
Motorola SPS Businesses (Note 26)	417,760	377,382	10,782
Other	18,124	7,946	227
	<u>4,999,546</u>	<u>5,248,919</u>	<u>149,969</u>

The above goodwill arising from the purchases of ASE Test shares included ASE Holding's purchase of 2,480,000 shares of ASE Test at the prevailing market price from ASE's directors in May 2001.

Amortization of the above-mentioned goodwill for consolidated subsidiaries (as reflected in general and administrative expenses in the consolidated statement of income) were NT\$507,816, NT\$559,807 and NT\$692,919 (US\$19,798) for the years ended December 31, 1999, 2000 and 2001, respectively.

In addition, the carrying values of investments in HCDC and USI as discussed in Note 6 included unamortized goodwill, which is being amortized over ten years through April 2006 for HCDC and July 2010 for USI, resulting from the purchases of HCDC shares in 1995 and 1996, and USI shares in 1999 and 2000, as follows:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
USI	1,872,342	1,651,742	47,193
HCDC	780,798		
	<u>2,653,140</u>	<u>1,651,742</u>	<u>47,193</u>

In 2001, ASE amortized the remaining balance of goodwill for HCDC as a result of the significant decline in the market value of HCDC shares.

**11. Short-term Borrowings**

	December 31	
	2000	2001

	<b>Interest Rate(%)</b>	<b>NT\$</b>	<b>Interest Rate(%)</b>	<b>NT\$</b>	<b>US\$</b>
Letters of credit	0.975-7.5	1,733,626	0.85-6.75	803,156	22,947
Revolving	1.6-10	2,741,038	2.65-7.3	1,416,551	40,473
Promissory notes	8.1-8.7	927,933	3-6	1,236,442	35,327
		<u>5,402,597</u>		<u>3,456,149</u>	<u>98,747</u>

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of December 31, 2001, unused credit lines for short-term borrowings and commercial paper and bank acceptances payable totaled approximately NT\$11,613,000 (US\$331,800).

**12. Commercial Paper and Bank Acceptances Payable**

Commercial paper and bank acceptances payable bore interest rates ranging from 5.2% to 11.5% in 2000 and 1.8% to 6.3% in 2001, respectively.

**13. Long-term Bonds Payable**

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Foreign convertible bonds issued by ASE (US\$199 million outstanding in 2000 and US\$68 million outstanding in 2001)	6,597,845	2,379,320	67,981
Foreign convertible bonds issued by ASE Test Finance Limited (US\$109,890 thousand outstanding in 2000 and 2001)	3,637,908	3,845,051	109,859
Accrued interest	1,993,426	1,644,265	46,978
	<u>12,229,179</u>	<u>7,868,636</u>	<u>224,818</u>
Less: Current portion		<u>3,090,345</u>	<u>88,295</u>
	<u>12,229,179</u>	<u>4,778,291</u>	<u>136,523</u>

Information on the long-term bonds payable is follows:

**A. US\$200 Million Issued by ASE**

In November 1997, ASE issued bonds, consisting of 200 units with face values of US\$1 million (NT\$30.8 million) each, with zero coupon, due November 2002. The bonds bear an implied interest rate of 6.372%.

Starting from December 1997 through October 2002, the bondholders may convert the bonds into common shares at the specified conversion price. The conversion rate was based on the current market price at the time of sale. As of December 31, 2001, 355,086 common shares were issued as a result of the conversion of such bonds, resulting in a capital surplus of NT\$32,102 (US\$917). In 2001, ASE redeemed and cancelled 131 units (US\$131,000 thousand) from the open market with payments of NT\$6,066,042 (US\$173,315), which had resulted in extraordinary losses of NT\$192,753 (US\$5,507). As of December 31, 2001, the outstanding convertible bonds aggregated US\$68 million (NT\$2,380 million). In addition, ASE was required to contribute to a sinking fund with the outstanding bonds at the date of twelve months prior to its maturity date. As of December 31, 2001, the balance of the sinking fund was NT\$1,568,057 (US\$44,802).

On or at any time after October 14, 2000, ASE may redeem the bonds at the redemption price if:

- a) (i) the closing price of the common shares for a period of 30 consecutive trading days is higher than 140% of the conversion price (NT\$50.5 per share as at December 31, 2001) in effect on each such trading day and (ii) the closing price of the common shares

translated into US dollars at the prevailing rate for a period of 30 consecutive  
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**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

trading days is higher than 140% of the conversion price then in effect translated into US dollars at the exchange rate of NT\$28.62 = US\$1.00; or

b) at least 95% of the bonds have already been converted, redeemed, or purchased and cancelled.

In addition, ASE may, if the applicable tax law is unfavorably changed, redeem at any time all, but not some, of the bonds.

On September 5, 1997, ASE entered into a firm commitment subscription agreement with SBC Warburg Securities Pte. Ltd. ( SBC Warburg ) for the sale by ASE to SBC Warburg of US\$200 million Zero Coupon Convertible Bonds due 2002 (the Convertible Bonds ). The closing of the sale of the Convertible Bonds was initially scheduled to occur on October 6, 1997. Due to the adverse market conditions prevailing during this period of time as a result of the Asian financial crisis, however, SBC Warburg requested that the closing date for the sale of the Convertible Bonds be extended.

During the extension period (the Extension Period ), SBC Warburg decided to market the Convertible Bonds to potential investors as two separate instruments by repackaging them into: (1) a debt portion consisting of US\$200 million callable floating rate notes which are secured by the Convertible Bonds (the FRNs ) and (2) an equity portion consisting of options to purchase the Convertible Bonds (the Call Options ). SBC Warburg was able to obtain commitments for the entire issue of the FRNs but, as a result of the adverse market conditions described above, was able to obtain commitments for only a portion of the Call Options. As a result, Swiss Bank Corporation ( SBC ), an affiliate of SBC Warburg, approached a number of large institutional investors, including J&R Holding Limited ( J&R Holding ), a consolidated subsidiary of ASE, with a proposal to sell a portion of the Call Options. Subsequently, J&R Holding entered into two agreements with SBC to purchase options on a portion of the Convertible Bonds.

Under the first agreement with SBC, J&R Holding is required to make four cash payments to SBC on November 4, 1998, 1999, 2000 and 2001 as long as the Call Options remain unexercised and outstanding. In return, J&R Holding has the right to call the Convertible Bonds at any time during the period from November 1998 through November 2002. The exercise price of the Call Options is equal to the accreted carrying value of the Convertible Bonds as shown on the Corporation 's consolidated balance sheet at the date exercised. Pursuant to the second agreement, SBC paid US\$200,000 to J&R Holding. In return, SBC has the right to sell a portion of the Call Options to J&R Holding at any time between November 4, 1997 and November 1, 1998. In any event, J&R Holding was required under the automatic exercise provision of this agreement to purchase the Call Options upon the expiration of the agreement on November 1, 1998. These options were terminated by an agreement on December 11, 2001.

The closing of the sale of the Convertible Bonds eventually took place on November 4, 1997. Upon the closing of the sale of the Convertible Bonds, SBC Warburg immediately resold the Convertible Bonds to a subsidiary of SBC Warburg. Such subsidiary in turn repackaged the Convertible Bonds into the FRNs and the Call Options for resale to the investors that had indicated an interest in purchasing the FRNs and/or the Call Options during the Extension Period. The closing of the sale of the FRNs and the Call Options took place on November 5, 1997.

SBC Warburg and its subsidiary have entered into a swap transaction, which stipulates that SBC Warburg will pay the interest on the FRN (aggregating to US\$80 million (NT\$2,654 million)) on the subsidiary 's behalf. The subsidiary will repay the interest to SBC Warburg at the maturity date of the Convertible Bonds. ASE has contracted with certain banks to

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

issue letters of credit for US\$53,783 (NT\$1,882,405) to SBC Warburg to guarantee the interest payment obligation of the subsidiary. Under the contract with these banks, ASE may not, among other things, change its scope of operations and is required to maintain certain financial ratios.

**B. US\$110 Million of Foreign Convertible Notes Issued by ASE Test Finance Limited**

In June 1999, ASE Test, in connection with the acquisitions of ISE Labs and Motorola SPS Businesses, issued US\$160 million (NT\$5,600 million) of 1% guaranteed convertible notes (the Convertible Notes) due July 1, 2004 through its subsidiary, ASE Test Finance Limited (the Issuer). ASE subscribed to US\$50 million (NT\$1,750 million) of the Convertible Notes and the current net balance of US\$109,890 thousand (NT\$3,846 million) is shown in the accompanying balance sheet.

The holders of the Convertible Notes are entitled to convert the Convertible Notes into ASE Test's ordinary shares at the specified conversion price (\$24.75 per share currently, subject to adjustment) at any time after December 29, 1999 and before or on July 1, 2004.

The Convertible Notes may be redeemed under the following circumstances:

## a) Redemption for taxation reasons:

If the applicable tax law or treaty is unfavorably revised, the Issuer or ASE Test may redeem the Convertible Notes in whole at early redemption price, at any time upon giving written notice not less than 30 days and not more than 60 days to the bondholders.

## b) Redemption at the option of the Issuer:

On or at any time after July 1, 2002, the Issuer may redeem all or a part of the Convertible Notes at the early redemption price.

**14. Long-term Debts**

Long-term debts consist of the following:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Mortgage bank loans for purchase of building and machinery	4,989,564	5,423,384	154,954
Acceptances payable to syndicate banks	6,678,815	7,507,825	214,509
Bank loans secured by assets	1,540,747	1,367,634	39,075
Revolving bank loans	250,708	3,773,000	107,800
Letters of credit loans for purchase of materials and machinery		2,098,650	59,961
Loans for specified use		6,000,000	171,429
Obligation under capital leases (Note 22)	179,952	106,525	3,044
	<u>13,639,786</u>	<u>26,277,018</u>	<u>750,772</u>
Current portion	3,309,935	3,175,883	90,740
	<u>10,329,851</u>	<u>23,101,135</u>	<u>660,032</u>



## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**A. Mortgage Bank Loans for Purchase of Building and Machinery**

These represent various bank loans obtained by ASE, ASE Test, Inc., ASE Chung Li, and ASE Material. These mortgage bank loans are repayable in monthly, quarterly or semi-annually installments and bear interest at rates ranging from 1.1% to 8.12% in 2000 and 0.88% to 6.95% in 2001.

ASE Chung Li has a syndicated loan agreement with a total facility of NT\$4,000,000, which will be repayable through May 2006. The agreement requires that, among other things, ASE Chung Li should maintain certain financial ratios. As of December 31, 2001, the unused facility of the syndicate loan aggregated NT\$2,700,000 (US\$77,143).

**B. Acceptances Payable to Syndicate Banks**

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Five-year revolving credit lines of NT\$9,710,000 (US\$277,429) through May 2003 to June 2004, interest at 5.223%-6.378% in 2000 and 2.905%-5.745% in 2001	6,775,000	6,500,000	185,714
Revolving credit lines through March 2003 to September 2004, interest at 2.05%-3.65% in 2001		1,055,000	30,143
	6,775,000	7,555,000	215,857
Unamortized discounts	(96,185)	(47,175)	(1,348)
	6,678,815	7,507,825	214,509

The above acceptances payable to syndicate banks were covered by several bank acceptance agreements made by ASE and ASE Test, Inc. which stipulate, among other things, the following:

- 1) Without prior written consent from the majority of the banks, ASE can not pledge its assets or assume liabilities or change its operating items or merge with any other entity or dispose of more than 20% of total assets, or provide financing to other entity, or make such investment that will unfavorably affect its financial conditions.
- 2) ASE's tangible net worth (as defined in the loan agreements) should not be less than NT\$38 billion (US\$1,086 million).
- 3) ASE is required to maintain certain financial ratios.
- 4) ASE is required to pay an annual commitment fee of 0.15%-0.20% of the difference between the authorized and utilized credit line.

ASE Test provided a guaranty on the bank acceptance agreement entered into by ASE Test, Inc. Under the guaranty, ASE Test is required to maintain certain financial ratios and, without written consent of the majority banks, shall not:

- 1) Merge or consolidate with any other entity or take any action to dissolve, liquidate or reorganize.

- 2) Purchase or redeem its shares or reduce its share capital.
- 3) Reduce its ownership in ASE Test, Inc. to less than 51%.

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**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

- 4) Transfer, sell, lease or dispose of a substantial portion of its assets.

**C. Bank Loans Secured by Assets**

These represent various bank loans obtained by ISE Labs and ASE Korea which are secured by its total assets, and buildings and improvements, respectively (Note 21). The loans will be repayable May 2009 and July 2007, respectively, and the loans bear interest ranging from 5.5% to 7.92% and 4.4% to 6.1%, respectively. These agreements contain certain covenant and default provisions that require ISE to maintain certain financial ratios, dividend and capital expenditure restrictions and maintenance of working capital requirements. ISE did not meet the minimum quick ratio requirement for one of these agreements for the year ended December 31, 2001 and obtained a waiver from the financial institution within the cure period.

**D. Revolving Bank Loans**

These represent various revolving bank loans of Japanese Yen in 2000 and NT Dollars in 2001. The loans will be repayable through May 2003 to June 2004, with interest rates from 3.85% to 6.45%.

**E. Letters of Credit for Purchase of Materials and Machinery**

This represents various bank loans, due from May 2003 through September 2003 with interest rates ranging from 0.88% to 4.8%.

**F. Loans for Specified Use**

This represents the loan which specified for use in the redemption of ASE's convertible bonds in 2001 (see Note 13). The loan is repayable in semi-annual installments starting June 2003 to December 2004 and bears interest of 5.95%. The agreement requires that among other things, the following:

- 1) Without the prior written consent from the majority of the banks, ASE can not:
  - (a) pledge its assets or assume liabilities or change significantly its operating items or dispose material assets, or provide financing to other entity, or make lending to any other parties.
  - (b) merge or combine with any other entity or make investments or acquire major assets of other entity.
- 2) ASE's tangible net worth (as defined in a loan agreement) should not be less than NT\$38 billion (US\$1,086 million).
- 3) Maintenance by ASE of certain financial ratios.

According to the abovementioned bank loan contracts, the interest rates are variable subject to adjustments by banks or changes in prime rate.

As of December 31, 2001, unused long-term bank facilities approximated NT\$4,958,000 (US\$141,657).

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of December 31, 2000 and 2001, the future maturities of long-term debts (including long-term bonds payable) are as follows:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Within the following year	3,309,935	6,266,228	179,035
During the second year	12,484,848	15,163,030	433,229
During the third year	3,257,243	11,083,861	316,682
During the fourth year	4,939,819	1,186,263	33,893
During the fifth year and thereafter	1,877,120	446,272	12,751
	<u>25,868,965</u>	<u>34,145,654</u>	<u>975,590</u>

Long-term debts (including long-term bonds payable) by currencies are detailed as follows:

	2000	2001
New Taiwan Dollars	NT\$ 12,128,557	NT\$ 22,810,513
US Dollars	US\$ 469,339	US\$ 289,175
Deutsche Mark	DM 940	DM
Japanese Yen	¥ 5,069,552	¥ 4,562,877
Singapore Dollars	SGD 7	SGD
British Pound	GBP 91	GBP
European Currency Unit	EUR 4	EUR

## 15. Shareholders Equity

In July 1995, ASE issued 8,600,000 GDSs, representing 43,000,000 common shares. In September 2000, ASE issued 20,000,000 ADSs, representing 100,000,000 common shares. In connection with the ADS offering in 2000, ASE launched an exchange offer to exchange all outstanding GDSs for its New York Stock Exchange-listed ADS. A total of 7,536,000 GDSs, representing an aggregate of 37,677,000 common shares, were exchanged for ADSs pursuant to the exchange offer.

The ADS holders generally have the same rights and obligations as the shareholders, subject to the provision of relevant ROC laws. The exercise of such rights and obligations shall comply with the related regulations and the deposit agreement, which stipulate, among other things, that the ADS holders can, through Citicorp Financial Services Limited, as nominee holder: (a) exercise their voting rights; (b) sell their ADSs; and, (c) receive dividends declared and subscribe to the issuance of new shares.

As of December 31, 2001, the outstanding ADSs represented 6.95% of ASE's total outstanding common shares.

Under the ROC Company Law, capital surplus from the paid-in capital in excess of par value can be used to offset against deficit. In addition, such capital surplus may be transferred to capital and is subject to a specified limit under relevant regulations.

Capital surplus from prior years' gains on disposal of properties may be transferred to retained earnings upon approval by the shareholders at the annual general shareholders' meeting in 2002.





**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Capital surplus from long-term investments in shares of stock which are accounted for by the equity method may not be used for any purpose.

ASE's Articles of Incorporation provide that the annual net income shall be appropriated as follows:

- a. gain on disposal of properties, less applicable income tax, as capital surplus;
- b. offset against deficit, if any;
- c. 10% of the remainder as legal reserve, until the accumulated amount equals paid-in capital;
- d. an amount (Note 6) equal to the income from long-term investments in shares of stock accounted for by equity method, excluding cash dividends, as special reserve;
- e. not more than 2% of the remainder, as compensation to directors and supervisors;
- f. between 5% to 7% of the remainder, as bonus to employees, of which 5% will be distributed in accordance with the employee bonus plan and the excess to be distributed to specific employees as decided by the board of directors; and
- g. the remainder, as dividends to shareholders.

The aforementioned appropriations shall be approved by the shareholders in the following year and given effect in the consolidated financial statements of such year.

Under the ROC Company Law, the aforementioned legal reserve may be used to offset a deficit. Also, when the reserve has reached 50% of capital, up to 50% thereof may be transferred to capital.

ASE is currently going through a growth phase. In order to meet the needs of operational expansion, both current and future, and to satisfy shareholders' need for cash inflow, the Corporation's dividend policy priority shall be stock dividends; cash dividends may also be paid. In principle, the percentage of cash dividends paid shall not exceed 20%. Cash dividends shall not be paid if the dividend per share is less than NT\$0.1; and the stock dividends shall be declared instead.

With respect to the percentage of cash dividends to be paid referred to in the previous paragraph, ASE may decide the most suitable dividend distribution in accordance with its current operational status, and taking into consideration the budget plan for the following year. The board of directors shall draw up a profit distribution plan, which shall be submitted to the shareholders' meeting for approval before implementation.

Under the Integrated Income Tax System which became effective on January 1, 1998, non-corporate resident shareholders are allowed a tax credit for the income tax paid or payable by ASE on earnings generated in 1998 and onwards. An Imputation Credit Account (ICA) is maintained by ASE 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.

As of December 31, 2001 the creditable taxes aggregated NT\$22,555 (US\$644). The actual percentage for the distribution of 2000 net income was 10.33%.

As of December 31, 2001, the unappropriated earnings prior to 1998 (the year that Integrated Income Tax System became effective) amounted to NT\$17,644 (US\$504).

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**16. Gain on Sales of Investments**

This consists of the gross gain on sales of:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Sale of ASE Test s shares	4,007,674			
Sale of ASE s shares held by subsidiaries (Note 27)	1,388,523			
Other	147,958	91,666	50,666	1,448
	<u>5,544,155</u>	<u>91,666</u>	<u>50,666</u>	<u>1,448</u>

The gain on sale of ASE Test s ordinary shares in 1999 was the result of the secondary offering of 2,500 thousand shares for issuances of TDRs.

The gain on sale of ASE s common shares in 1999 was the result of the 32,450 thousand shares sold through the re-issuance of GDSs.

**17. Income Tax**

a. Income tax expense (benefit) is determined as follows:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Current				
Tax (benefit) based on pre-tax accounting income (loss) at statutory rate	3,218,520	3,211,156	(579,651)	(16,561)
Add (less) tax effects of:				
Permanent differences				
Tax-exempt income				
Tax holiday	(779,437)	(700,749)	(26,413)	(755)
Gain from sales of securities	(384,079)	(51,415)	(31,711)	(906)
Investment income				
Sale of ASE Test shares	(1,001,919)			
(Forward)				

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Temporary differences				
Investment loss (income)	(398,886)	(523,941)	814,148	23,261
Unfunded pension cost	8,494	12,214	7,842	224
Unrealized foreign exchange loss (gain)	(38,701)	91,102	3,012	86
Bond interest payable	112,318	114,798	(189,164)	(5,405)
Other	248,765	158,786	153,854	4,397
	<u>985,075</u>	<u>2,311,951</u>	<u>151,917</u>	<u>4,341</u>
Income taxes on undistributed earnings	44,539	147,379	335,065	9,573
Credits for investments and research and development	(401,525)	(1,231,247)	(253,227)	(7,235)
Net change in deferred income tax assets (liabilities) for the period	(155,437)	(152,138)	(449,933)	(12,855)
Adjustment of prior year's income tax	(13,109)	(10,177)	17,018	486
	<u>459,543</u>	<u>1,065,768</u>	<u>(199,160)</u>	<u>(5,690)</u>

b. The above-mentioned taxes on pre-tax accounting income (loss) at the statutory rates for domestic and foreign entities are shown below:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Domestic entities in ROC (25% statutory rate)	2,717,796	2,542,888	(501,553)	(15,707)
Foreign entities				
ASE Korea Inc. (30.8% statutory rate)	55,770	2,153		
ISE Labs, Inc. (federal tax rate 35% and state tax rate 6%)	163,240	439,169	(92,487)	(2,642)
ASE Test Malaysia (30% statutory rate)	281,714	226,946	14,389	411
	<u>3,218,520</u>	<u>3,211,156</u>	<u>(579,651)</u>	<u>(16,561)</u>

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

c. Deferred income tax assets and liabilities as of December 31, 2000 and 2001 are summarized as follows:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
<b>Current assets</b>			
Unused tax credits	1,028,885	378,075	10,802
Provision for inventory obsolescence	29,060	41,502	1,186
Accrued interest on convertible bonds		163,289	4,665
Provision for doubtful accounts and sales allowance	73,766	68,432	1,955
Unrealized foreign exchange loss	7,626	108,721	3,106
Loss carryforward		214,013	6,115
Other	129,139	97,776	2,794
	<u>1,268,476</u>	<u>1,071,808</u>	<u>30,623</u>
Valuation allowance	(85,057)	(161,800)	(4,623)
	<u>1,183,419</u>	<u>910,008</u>	<u>26,000</u>
Deferred income tax liability unrealized foreign exchange gain	(22,692)	(37,000)	(1,057)
	<u>1,160,727</u>	<u>873,008</u>	<u>24,943</u>
<b>Non-current assets (liabilities)</b>			
Unused tax credits	754,914	1,648,956	47,113
Accrued pension costs	57,403	64,308	1,837
Accrued interest on convertible bonds	362,663		
Loss carryforward	24,645		
Others	83,382	97,472	2,785
	<u>1,283,007</u>	<u>1,810,736</u>	<u>51,735</u>
Valuation allowance	(343,825)	(639,188)	(18,262)
	<u>939,182</u>	<u>1,171,548</u>	<u>33,473</u>
<b>Deferred income tax liability</b>			
Investment income	(1,159,500)	(636,815)	(18,195)
Unrealized foreign exchange gain	(7,500)	(7,185)	(205)
Goodwill amortization	(75,744)	(56,124)	(1,604)
Others	(207,900)	(245,234)	(7,006)
	<u>(1,450,644)</u>	<u>(945,358)</u>	<u>(27,010)</u>
	<u>(511,462)</u>	<u>226,190</u>	<u>6,463</u>

In assessing the realizability of deferred tax assets, ASE considered its future taxable earnings and expected timing for the reversal of temporary differences. The valuation allowance is provided to reduce the gross deferred tax assets to an amount which ASE believes will more

likely be realized. Deferred 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.

The U.S. Federal and California State net operating loss carryforward of ISE Labs as of December 31, 2001 approximated US\$5,087 thousand and US\$454 thousand with expiration in 2021 and 2006, respectively.

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

A portion of ASE's and ASE Test, Inc.'s income from the manufacturing, processing and testing of semiconductors is exempt from income tax for five years ending December 2000 and 2005, respectively. ASE Test Malaysia has been granted approval of hi-tech pioneer status for an additional five years and is expected to commence the tax holiday retroactively from July 1, 1999. The per share effect of tax holiday is NT\$0.4 in 1999, NT\$0.3 in 2000 and NT\$0.01 in 2001.

d. As of December 31, 2001, unused tax credits of ROC subsidiaries which can be utilized to offset their future income tax are set forth below:

Year of Expiry	December 31, 2001				
	ASE	ASE Chung Li	ASE Material	ASE Test, Inc.	Total
2002	\$ 72,373	\$	\$ 47,901	\$ 151,752	\$ 272,026
2003	225,750	13,246	27,252	241,966	508,214
2004	301,720	104,754	14,982	299,974	721,430
2005	278,040		175,865	71,456	525,361
	<u>\$ 877,883</u>	<u>\$ 118,000</u>	<u>\$ 266,000</u>	<u>\$ 765,148</u>	<u>\$ 2,027,031</u>

In the ROC, the tax credits may be utilized to reduce up to 50% of income tax payable each year. In the expiring year, any remainder of unused tax credits can be used entirely.

Income tax returns of ASE and all its subsidiaries in Taiwan has been examined by the ROC tax authorities through 1999.

**18. Pension Plans**

The consolidated entities (including ASE) in the ROC have pension plans for their regular employees. Retirement benefits are based on the length of service and average salaries or wages of the last six months before retirement. Those entities make monthly contributions, at 2% of salaries and wages, to pension funds which are in the name of, and are administered by, the employee pension plan committee of the respective entities. The changes in the retirement funds are summarized as follows:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Balance, beginning of year	186,412	232,205	339,500	9,700
Contributions	34,410	92,211	89,615	2,560
Payments	(574)	(435)	(3,654)	(104)
Interest income	11,957	15,519	15,285	437
	<u>232,205</u>	<u>339,500</u>	<u>440,746</u>	<u>12,593</u>

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Pension costs for these entities consist of:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Service costs	56,870	120,528	114,393	3,268
Interest	23,243	30,234	28,503	814
Projected return on pension assets	(12,543)	(14,575)	(21,611)	(617)
Amortization of prior period service cost, gain or loss on plan assets, etc.	2,689	4,231	6,933	198
	<u>70,259</u>	<u>140,418</u>	<u>128,218</u>	<u>3,663</u>

Other pension information based on actuarial calculations of the plan are as follows:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>a. Benefit obligations</b>				
Accumulated benefit obligation	209,543	347,107	434,131	12,404
Additional benefits based on future salaries	228,743	302,925	278,587	7,960
	<u>438,286</u>	<u>650,032</u>	<u>712,718</u>	<u>20,364</u>
Fair value of assets	(211,576)	(311,758)	(412,192)	(11,778)
	<u>226,710</u>	<u>338,274</u>	<u>300,526</u>	<u>8,586</u>
Unrecognized net transition obligation	(114,468)	(114,550)	(101,984)	(2,914)
Unrecognized net actuarial gain (loss)	85,903	30,580	93,428	2,669
Portion in prepayments			5,561	159
Portion in other current liabilities	(8,956)	(5,879)	(3,093)	(87)
	<u>189,189</u>	<u>248,425</u>	<u>294,438</u>	<u>8,413</u>
<b>b. Vested obligation</b>				
	<u>2,162</u>	<u>7,124</u>	<u>22,177</u>	<u>634</u>
<b>c. Actuarial assumption</b>				
Discount rate	6.5%-7%	6%	5%	
Increase in future salary level	4%-5.5%	4%-5%	3%-4%	
Expected rate of return on plan assets	6.5%-7%	6%	5%	

## 19. Stock Option Plans

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ASE Test has six stock option plans, the 1996 Option Plan (the Pre-IPO Plan ), the 1996 Executive Management Option Plan (the 1996 Plan ), and the 1997, 1998, 1999 and 2000 Option Plans. Stock options granted under these plans are exercisable for ASE Test ordinary shares based on a vesting schedule over five years until the options expire. Because the exercise price is equal to the market price of the shares on the date of grant, no compensation cost was recognized.

### **20. Earnings Per Share and ADS**

Since ASE incurred loss from continuing operations for the year ended December 31, 2001, the simple net loss per share and per ADS are presented.

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**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Primary and fully diluted earnings per share for the years ended December 31, 1999 and 2000 are calculated as follows:

The denominator is the weighted average number of outstanding shares of common stock of 1,980,000,000 and 2,677,602,000 shares in 1999 and 2000, respectively. The numerator is the net income with the primary and fully diluted EPS adjustment for the employee stock options of ASE Test.

The numerator with consideration of the adjustment of ASE Test's primary EPS in 1999 and 2000 is calculated as follows:

	<u>1999</u>	<u>2000</u>
Net income	\$ 7,794,666	\$ 5,837,149
Less: net income contributed from ASE Test	(1,184,670)	(1,816,985)
Add: ASE Test's primary EPS multiplied by the number of shares of ASE Test owned by ASE	1,092,952	1,753,903
As adjusted	<u>\$ 7,702,948</u>	<u>\$ 5,774,067</u>

The numerator with consideration of the adjustment of ASE Test's fully diluted EPS in 1999 and 2000 is calculated as follows:

	<u>1999</u>	<u>2000</u>
Net income	\$ 7,794,666	\$ 5,837,149
Less: net income contributed from ASE Test	(1,184,670)	(1,816,985)
Add: ASE Test's fully diluted EPS multiplied by the number of shares of ASE Test owned by ASE	1,085,749	1,685,617
As adjusted	<u>\$ 7,695,745</u>	<u>\$ 5,705,781</u>

Primary and fully diluted earnings per ADS for the years ended December 31, 1999 and 2000 are calculated as follows:

The denominator is the above-mentioned weighted average outstanding shares divided by five (one ADS represents five common shares). The numerator is the same as mentioned in the above EPS calculation.

The number of shares to be potentially issued from convertible bonds is as follow:

	<u>1999</u>	<u>2000</u>	<u>2001</u>
Convertible bonds issued by ASE	70,666,667	95,400,000	38,537,822

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**21. Assets Pledged or Mortgaged**

Except for those mentioned in Note 13, the assets pledged or mortgaged as first priority collateral for short-term and long-term debts, and recruitment of foreign laborers are summarized as follows:

	December 31		
	2000	2001	
	NT\$	NT\$	US\$
Buildings and improvements	710,327	2,077,487	59,357
Machinery and equipment	7,487,835	9,021,120	257,746
Long-term investments	1,266,164	1,790,961	51,170
Time deposits	297,079	140,949	4,027
Guarantee deposits time deposits	73,599	77,821	2,224
	<u>9,835,004</u>	<u>13,108,338</u>	<u>374,524</u>

In addition, the total assets of ISE Labs amounting to NT\$5,458,090 (US\$155,945) as of December 31, 2001, have been pledged as collaterals for its long-term and short-term debts.

**22. Commitments and Contingencies as of December 31, 2001**

a. ASE, ASE Test, Inc., and ASE Material lease the land on which their buildings are situated under various operating lease agreements with the government expiring on various dates through September 2009 to 2012. The agreements grant these entities option to renew the leases and reserve the right for the lessor to adjust the lease charges upon an increase in the assessed value of the land and to terminate the leases under certain conditions. In addition, ASE and ASE Material and ISE Labs also lease equipment under non-cancellable capital lease agreements. The net book value as of December 31, 2000 and 2001 of the equipment acquired under the capital obligations amounted to NT\$200,429 and NT\$276,287 (US\$7,894), respectively. The future minimum lease payments under the above-mentioned operating leases are as follows:

Operating Leases	NT\$	US\$
2002	314,006	8,972
2003	280,148	8,004
2004	274,174	7,834
2005	271,953	7,770
Thereafter	849,772	24,279
	<u>1,990,053</u>	<u>56,859</u>
Total minimum lease payments	<u>1,990,053</u>	<u>56,859</u>

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The future minimum lease payments under above-mentioned capital leases as of December 31, 2001 are as follows:

	NT\$	US\$
Within the following year	86,316	2,466
Within the second year	25,752	736
Within the third year	897	26
	<hr/>	<hr/>
Total minimum lease payments	112,965	3,228
Less: Imputed interest	6,440	184
	<hr/>	<hr/>
Present value of future lease obligations	106,525	3,044
Capital lease obligation, current	80,550	2,302
	<hr/>	<hr/>
Capital lease obligation, long-term	25,975	742
	<hr/>	<hr/>

b. ASE, ASE Test, Inc., ASE Test Malaysia and ASE Chung Li (starting 1999) engage outside sales agencies. Commissions and service fees were paid based on monthly incurred services-related cost and expenses plus 10% in 1999 and 2000, and 5%-10% in 2001 (starting August 2001, there is limited amounts prescribed for cost and expenses incurred) or based on 1%-3% in 1999 and 2000, 0.48%-1% in 2001 of net export sales. Commissions and service fees paid in 1999, 2000 and 2001 approximated NT\$570,729, NT\$762,159 and NT\$729,300 (US\$20,837), respectively.

c. As of December 31, 2001, commitments to purchase machinery and equipment approximated NT\$3,059,996 (US\$87,428).

d. As of December 31, 2001, commitments for construction of buildings approximated NT\$379,668 (US\$10,848).

e. As of December 31, 2001, unused letters of credit of approximated NT\$782,667 (US\$22,362).

f. ASE entered into technology agreements with foreign companies which will expire in various dates through 2016 for the procurement of manufacturing technology of certain products. Based on the agreements, ASE shall pay royalties at a specified percentage of sales quantities. Such royalties in 1999, 2000 and 2001 were approximately NT\$112,025, NT\$199,836 and NT\$151,249 (US\$4,321), respectively.

g. As of December 31, 2001, ASE has endorsed and guaranteed the promissory notes of its subsidiaries as follows:

	NT\$	US\$
ASE (Labuan)	2,794,861	79,853
ASE (Philippines)	1,924,450	54,984
ASE Chung Li	1,166,322	33,324
ASE Material	1,017,295	29,066
ASE Holding	839,760	23,993
ASE Investment	300,000	8,571
ASE Technologies	40,000	1,143
	<hr/>	<hr/>
	8,082,688	230,934
	<hr/>	<hr/>



## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**23. Derivative Financial Instruments**

Information on derivative transactions are as follows:

**a. Interest Rate Swap**

ASE entered into two interest rate swap contracts with a foreign bank, which expired in January and December 1999. Under these contracts, ASE paid interest based on a notional principal amount of US\$20 million (NT\$663 million) and floating interest at a rate of 4.85%-5.19% of LIBOR minus 0.21%-0.25%, whichever was higher. The foreign bank paid interest to ASE based on the same nominal principal and floating interest rate of 3 months USD LIBOR. The interest settlement was made on net basis. The net interest income from such contracts amounted to NT\$842 in 1999. As of December 31, 2000 and 2001, there were no outstanding contracts.

**b. Forward Exchange Contracts**

ASE Test Malaysia entered into forward contracts to hedge foreign exchange fluctuations associated with foreign currency liabilities which has expired in February 2001, and the net gain from such contracts amounted to NT\$31,803 (US\$909) in 2001. As of December 31, 2001, there were no open contracts.

**c. European Options**

Because ASE and ASE Test, Inc. and ASE Material expect to receive US dollars from export sales and to pay Japanese yen or NT dollars for long-term debts or short-term borrowings, ASE and ASE Test, Inc. and ASE Material have entered into foreign currency option contracts to hedge risks of exchange rate fluctuations.

As of December 31, 2001, the outstanding contracts are as follows:

**ASE**

Contract	Amount	Strike Price US\$/NT\$	Maturity Date
Buy US\$ Put/ JPY Call	US\$ 2 million	US\$1:JPY120	January 29, 2002
Buy US\$ Put/ JPY Call	US\$ 2 million	US\$1:JPY120	February 26, 2002
Buy US\$ Put/ JPY Call	US\$ 2 million	US\$1:JPY120	March 26, 2002
Sell US\$ Call/ JPY Put	US\$ 3 million	US\$1:JPY120	January 29, 2002
Sell US\$ Call/ JPY Put	US\$ 3 million	US\$1:JPY120	February 26, 2002
Sell US\$ Call/ JPY Put	US\$ 3 million	US\$1:JPY120	March 26, 2002
Sell US\$ Call/ NT\$ Put	US\$ 36.5 million	US\$1:NT\$34	March 26, 2002
Sell US\$ Call/ NT\$ Put	US\$ 66 million	US\$1:NT\$36	July 15, 2002

The loss arising from such contracts based on mark-to-market valuation as at December 31, 2001 approximated NT\$86,732 (US\$2,478).

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

*ASE Test, Inc.*

Contract	Amount	Strike Price US\$/NT\$	Maturity Date
Sell US\$ Call/ NT\$ Put	US\$4 million	US\$ 1:NT\$34.61	January 10, 2002
Sell US\$ Call/ NT\$ Put	US\$4 million	US\$ 1:NT\$34.61	February 15, 2002
Sell US\$ Call/ NT\$ Put	US\$4 million	US\$ 1:NT\$34.61	March 11, 2002
Buy US\$ Put/ NT\$ Call	US\$2 million	US\$ 1:NT\$34.50	January 29, 2002

The loss arising from such contracts based on mark-to-market valuation as at December 31, 2001 approximated NT\$6,322 (US\$181).

*ASE Material*

Contract	Amount	Strike Price US\$/NT\$	Maturity Date
Sell US\$ Call/ JPY Put	US\$ 5 million	US\$1:JPY120	January 29, 2002
Sell US\$ Call/ JPY Put	US\$ 5 million	US\$1:JPY120	February 26, 2002
Sell US\$ Call/ JPY Put	US\$ 5 million	US\$1:JPY120	March 26, 2002
Buy JPY Call/ US\$ Put	US\$ 3.25 million	US\$1:JPY112.5	January 29, 2002
Buy JPY Call/ US\$ Put	US\$ 3.25 million	US\$1:JPY112.5	February 26, 2002
Buy JPY Call/ US\$ Put	US\$ 3.25 million	US\$1:JPY112.5	March 26, 2002

The loss arising from such contracts based on mark-to-market valuation as at December 31, 2001 approximated NT\$43,697 (US\$1,248).

*d. Cross Currency Swap Contract*

Because ASE will repay US dollars for convertible bonds upon maturity, ASE entered into cross currency swap contract to hedge risks of exchange rate fluctuation which will expire in November 4, 2002. In December 2001, ASE early settled the contract, and resulted in a gain of NT\$69,978 (US\$1,999).

*e. Transaction Risk**1) Credit Risk*

ASE, ASE Test, Inc. and ASE Material are exposed to credit risk in the event of non-performance of the counter parties to forward contracts on maturity. In order to manage this risk, ASE, ASE Test, Inc. and ASE Material transact only with financial institutions with good credit ratings. As a result, no material losses resulting from counter party defaults are anticipated.

*2) Market Risk*

Market risk is the exposure created by potential exposures to changes of foreign exchange rate related to its foreign-currency-denominated assets and/or liabilities and changes on interest rates related to its obligations.

*3) Liquidation Risk and Cash Flow Risk*

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ASE, ASE Test, Inc. and ASE Material entered into European option contracts to hedge its exposure to the effect of exchange rate fluctuations on net assets or net liabilities. At the maturity of the contracts, ASE, ASE Test, Inc. and ASE Material have sufficient operating capital

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

to meet cash requirements, there are no funds raising risk. Therefore, ASE, ASE Test, Inc. and ASE Material believe there are no significant liquidation risk and cash flow risk.

**24. Non-derivative and Derivative Financial Instruments**

	December 31					
	2000		2001			
	Carrying Values	Fair Values	Carrying Values	Fair Values	Carrying Values	Fair Values
	NT\$	NT\$	NT\$	NT\$	US\$	US\$
<b>Non-derivative Financial Instruments</b>						
Assets						
Cash and cash equivalents	14,166,495	14,166,495	11,770,729	11,770,729	336,307	336,307
Short-term investments	1,682,679	1,717,617	4,601,172	4,642,062	131,462	132,630
Notes receivable	219,641	219,641	105,185	105,185	3,005	3,005
Accounts receivable net	9,040,934	9,040,934	7,020,964	7,020,964	200,599	200,599
Long-term investments	10,712,199	10,303,014	9,530,398	11,026,363	272,297	315,039
Guarantee deposit	297,079	297,079	140,949	140,949	4,027	4,027
Sinking fund			1,568,057	1,568,057	44,802	44,802
Liabilities						
Short-term borrowings	5,402,597	5,402,597	3,456,149	3,456,149	98,747	98,747
C/P and B/A payable	4,281,805	4,281,805	3,444,314	3,444,314	98,409	98,409
Accounts payable	3,859,909	3,859,909	2,968,779	2,968,779	84,822	84,822
Long-term bonds payable (included current portion)	12,229,179	12,229,179	7,868,636	7,868,636	224,818	224,818
Long-term debts (included current portion)	13,639,786	13,639,786	26,277,018	26,277,018	750,772	750,772
Long-term payable for investments (included current portion)	4,191,528	4,191,528	3,611,294	3,611,294	103,180	103,180
<b>Derivative Financial Instruments</b>						
Forward exchange contracts	2,046	(1,708)				
European options		(21,832)		(136,751)		(3,907)
Cross currency swap contract		21,446				

The carrying values of cash and cash equivalent, notes receivable, accounts receivable, short-term borrowings, C/ P and B/ A payable, and notes and accounts payable approximate fair values because of the short maturity of these instruments. The fair values of short-term and long-term investments are determined based on market values or net equity values. The fair value for guarantee deposits and sinking fund is the book value. The fair values of long-term bonds and payables for investments are determined based on the estimated present value of future cash flows using the interest rates of similar long-term debt instruments which ASE is able to obtain as the discount rate. Fair value of long-term debts is carrying value because floating



## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

interest rates are applied. The fair values of derivative financial instruments are based on the information of mark-to-market valuation.

## 25. Segment and Geographical Information

## a. Geographical Sales Information

## 1) Net Revenue:

	Year Ended December 31						
	1999		2000		2001		
	NT\$	% of Total Sales	NT\$	% of Total Sales	NT\$	US\$	% of Total Sales
America	18,645,953	57	33,089,214	65	24,930,813	712,309	65
Domestic	9,427,343	29	12,639,373	25	10,222,723	292,078	27
Europe	852,110	3	1,905,646	4	1,508,919	43,112	4
Asia and other areas	3,684,155	11	3,259,144	6	1,705,371	48,725	4
	<u>32,609,561</u>	<u>100</u>	<u>50,893,377</u>	<u>100</u>	<u>38,367,826</u>	<u>1,096,224</u>	<u>100</u>

## 2) Long-lived Assets:

	Year Ended December 31				
	2000		2001		
	NT\$	% of Total Long-Lived Assets	NT\$	US\$	% of Total Long-Lived Assets
Domestic	43,309,343	72	43,724,466	1,249,270	72
Asia	14,271,843	23	13,482,411	385,212	22
America	2,985,014	5	3,348,228	95,663	6
	<u>60,566,200</u>	<u>100</u>	<u>60,555,085</u>	<u>1,730,145</u>	<u>100</u>

## b. Major customers

Customers accounting by 10% or more of total revenues are shown below:

Year Ended December 31

	1999		2000		2001		
	NT\$	% of Total Sales	NT\$	% of Total Sales	NT\$	US\$	% of Total Sales
Motorola, Inc.	5,155,573	16	11,256,760	22	7,164,415	204,698	19
VIA Technologies Inc.	2,576,155	8	5,185,434	10	4,413,854	126,110	12

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

*c. Reported Segment Information*

ASE has three reportable segments: Packaging, Testing and Investing, each of which requires different development and production. The packaging division packages bare semiconductors into finished semiconductors with enhanced electrical and thermal characteristics. The testing division provides testing services, including front-end engineering testing, wafer probing and final testing services. The investing division is engaged in investing activities. The accounting policies of the segments are the same as those described in Note 2. Segment information for the years ended December 31, 1999, 2000 and 2001 is as follows:

	Packaging	Testing	Investing	All Other	Total
<b>1999</b>					
Revenue from external customer	NT\$ 24,522,968	NT\$ 7,874,728	NT\$	NT\$ 1,207,287	NT\$ 33,604,983
Inter-segment revenues		(81,530)		(913,892)	(995,422)
Interest revenue	25,219	227,616	84,567	85,756	423,158
Interest expense	714,780	264,939	137,515	352,561	1,469,795
Net interest revenue (expense)	(689,561)	(37,323)	(52,948)	(266,805)	(1,046,637)
Depreciation and amortization	2,994,302	2,418,278	140	141,647	5,554,367
Segment profit (loss)	3,131,508	2,224,801	4,642,002	(935,870)	9,062,441
Segment asset	35,318,472	16,203,198	11,840,510	13,968,595	77,330,775
Expenditures for segment assets	5,617,480	4,808,413		671,502	11,097,395
<b>2000</b>					
Revenue from external customer	NT\$ 38,028,799	NT\$ 12,911,073	NT\$	NT\$ 2,001,604	NT\$ 52,941,476
Inter-segment revenues		(142,712)		(1,905,387)	(2,048,099)
Interest revenue	265,737	45,112	182,915	60,416	554,180
Interest expense	1,200,236	375,257	461,791	54,954	2,092,238
Net interest revenue (expense)	(934,499)	(330,145)	(278,876)	5,462	(1,538,058)
Depreciation and amortization	4,423,814	3,815,237	59,704	295,044	8,593,799
Segment profit (loss)	6,191,070	3,541,102	(1,125,536)	(203,076)	8,403,560
Segment asset	53,385,822	31,155,426	16,810,253	6,989,663	108,341,164
Expenditures for segment assets	12,412,225	14,720,913		4,330,313	31,463,451
<b>2001</b>					
Revenue from external customer	NT\$ 28,928,185	NT\$ 9,637,615	NT\$	NT\$ 2,684,736	NT\$ 41,250,536
Inter-segment revenues	(30,000)	(178,340)		(2,674,370)	(2,882,710)
Interest revenue	283,733	36,138	172,866	10,866	503,603
Interest expense	1,260,786	310,571	565,071	106,451	2,242,879
Net interest revenue (expense)	(977,053)	(274,433)	(392,205)	(95,585)	(1,739,276)
Depreciation and amortization	5,186,067	5,466,435	24,489	450,294	11,127,285
Segment profit (loss)	(2,786,577)	(1,195,344)	800,266	196,156	(2,985,499)
Segment asset	51,397,373	32,968,822	11,508,993	10,451,144	106,326,332
Expenditures for segment assets	5,879,357	4,415,168		1,271,164	11,565,689

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<b>2001</b>								
Revenue from external customer	US\$	826,520	US\$	275,360	US\$	76,707	US\$	1,178,587
Inter-segment revenues		(857)		(5,095)		(76,411)		(82,363)
Interest revenue		8,107		1,033		4,939		14,389
Interest expense		36,022		8,873		16,145		64,082
Net interest revenue (expense)		(27,916)		(7,841)		(11,206)		(2,730)
Depreciation and amortization		148,174		156,184		700		12,865
Segment profit (loss)		(79,616)		(34,152)		22,865		5,604
Segment asset		1,468,496		941,966		328,829		298,604
Expenditures for segment assets		167,982		126,147				36,319
								330,448

**26. Acquisitions**

In May 1999, ASE Test acquired 70% equity of ISE Labs, which is engaged in the testing and packaging of semiconductors. The purchase costs, including transaction costs, approximated

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

US\$100.1 million (NT\$3,503.5 million), which was paid in May 1999. In 2001, ASE Test purchased additional shares of ISE Labs in connection with the capital increase of ISE Labs, and consequently, as of December 31, 2001, owned 80% equity of ISE Labs. Total investment cost of the ISE Labs shares was US\$171 million (NT\$5,985 million) as of December 31, 2001. In January 2002, ASE Test purchased the remaining 20% equity interest in ISE Labs for US\$50 million (NT\$1,750 million), and thereafter owned 100% of ISE Labs.

In July 1999, ASE and ASE Test purchased 70% and 30%, respectively, of the equity interest of the Motorola SPS Businesses. The purchase cost approximated US\$350.1 million (NT\$12,253.5 million). As of December 31, 2001, US\$246.8 million (NT\$8,638 million) has been paid and the balance of US\$103.3 million (NT\$3,615.5 million), plus interest (commencing as of the acquisition date July 1999) is payable, US\$23.3 million (NT\$815.5) of which is subject to target sales volumes being met for the Motorola SPS Businesses in Chung Li, Taiwan, based on specified payment dates. ASE believes the contingent payments of US\$23.3 million (NT\$815.5) are determinable beyond a reasonable doubt. As of December 31, 2001, ASE has provided guaranteed letters of credit of US\$113,209 (NT\$3,962,315) to Motorola. Both acquirees are currently engaged in the packaging and testing of semiconductors. A portion of the purchase price was financed through a Convertible Notes offering completed on June 29, 2000 by ASE Test Finance Limited and fully and unconditionally guaranteed by ASE Test (see Note 13).

Future payments for investments in Motorola as of December 31, 2001 are as follows:

	NT\$	US\$
Within the following year	816,433	23,327
Within the second year and after	2,794,861	79,853
	<u>3,611,294</u>	<u>103,180</u>

The acquisitions of the Motorola SPS Businesses and ISE Labs were accounted for by the purchase method. Assets acquired and liabilities assumed have been recorded at their estimated fair values as of the acquisition date. The purchase prices exceeded the fair value of the net tangible assets by approximately US\$81.9 million for Motorola SPS Businesses and US\$76.5 million for ISE Labs. The purchase cost in excess of fair value of net tangible assets was allocated to various tangible and intangible assets, which will be amortized on a straight-line basis over 3 to 38 years.

The purchase prices net book value and calculation of excess amount for those acquisitions described above are as follows (amounts in millions US dollars):

Acquirees	Purchase Cost	Net Book Value	Excess
ISE Labs	US\$ 100.1	US\$ 23.6	US\$ 76.5
Motorola SPS Businesses	US\$ 350.1	US\$ 268.2	US\$ 81.9

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The excess purchase price was allocated as follows (amount in millions of US dollars):

Item	ISE Labs	Motorola SPS Businesses
Write-up of land	2.5	87.7
Write-up (write-down) in buildings	2.7	(11.5)
Write-up (write-down) in machinery	9.0	(8.4)
Deferred tax liability	(5.7)	
Goodwill	68.0	14.1
	<u>76.5</u>	<u>81.9</u>

In the first quarter of 2000, ASE Test adjusted its allocation of purchase price by reducing the allocation to land by US\$0.2 million, buildings by US\$2.3 million, machinery by US\$2.3 million, deferred tax liabilities by US\$1.9 million and increasing the allocation to goodwill by US\$3.8 million because impairment loss incurred arising from the disposition of the packaging operation of ISE Labs, which was a preacquisition contingency at the date of acquisition.

The purchase prices for Motorola SPS Businesses and ISE Labs acquisitions, are respectively allocated as follows (amount in millions of US dollars):

	ISE Labs	Motorola SPS Businesses
Cash	US\$ 4.3	US\$ 45.2
Accounts receivable	14.3	30.3
Other current assets	0.7	6.9
Fixed assets net	82.5	302.8
Other assets	3.5	2.6
Goodwill	68.0	14.1
Total liabilities	(59.4)	(51.8)
Minority interest	(13.8)	
	<u>US\$ 100.1</u>	<u>US\$ 350.1</u>

## 27. Summary of Significant Differences Between Accounting Principles Followed by the Corporation and Generally Accepted Accounting Principles in the United States

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the Republic of China ( ROC GAAP ), which differ in the following respects from generally accepted accounting principles in the United States ( US GAAP ):

### a. Pension Benefits

US Financial Accounting Standards ( FAS ) 87, Accounting for Pensions , was effective no later than the beginning of the first period for which a US GAAP reconciliation is required. A portion of the unrecognized net transition obligation at the adoption date is to be allocated

directly to equity. The adoption date of ASE for US FAS 87 is the beginning of 1987. ROC SFAS 18, which is substantially similar to US FAS 87, was effective in 1996 for listed companies in Taiwan. Therefore, pension expense due to different adoption dates is adjusted.

ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**b. Short-term Investments**

Under ROC GAAP, marketable equity securities are carried at the lower of aggregate cost or market value, and debt securities at cost. Under US FAS 115, Accounting for Certain Investments in Debt and Equity Securities, except for debt securities classified as held-to-maturity securities, investments in debt and equity securities, other than those recorded on the equity method, should be stated at fair value.

All of the Corporation's short-term investments are classified as trading securities under US GAAP, with gains and losses recognized currently in income. The unrealized holding gain included in earnings under US GAAP were NT\$22,354 in 2000 and NT\$5,952 (US\$170) in 2001. All of the Corporation's short-term investments in mutual funds, stock and convertible debt are held principally for the purpose of selling them in the near term.

**c. Bonuses to Employees, Directors and Supervisors**

According to ROC regulations and the Articles of Incorporation of the ASE, a portion of distributable earnings should 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 or stock or both. All of these appropriations, including stock bonuses which are valued at par value of NT\$10, are charged against retained earnings under ROC GAAP, after such appropriations are formally approved by the board of directors and resolved by the shareholders in the following year. Under US GAAP, such bonuses are charged to income currently in the year earned. Stock issued as part of these bonuses is recorded at fair market value. Since the amount and form of such bonuses are not finally determinable until the board of directors meeting in the subsequent year, the total amount of the aforementioned bonuses (regular bonuses) is initially accrued based on the management's estimate regarding the amount to be paid based on ASE's Articles of Incorporation. Any difference between the initially accrued amount and the fair market value of the bonuses settled by the issuance of shares is recognized in the year of approval by the board of directors. The management estimates that the regular annual employee bonuses, including cash and stock, will approximate three to four months' salaries and wages.

Aside from the aforementioned regular bonus plan, ASE decided to grant a special stock bonus to employees amounting to NT\$1,536,396 in 1997 and NT\$2,506,617 in 2000 due to excellent profits for ASE in 1997 and 2000. Employees who received the special stock bonus are required to continue working for ASE for an additional three years. Accordingly, the amount of special stock bonuses is being allocated over three years as special compensation expenses in the statement of income under US GAAP.

**d. Treasury Stock**

The shares of stock of ASE that are held by consolidated majority owned subsidiaries are, under US GAAP, reflected as treasury stock in the consolidated balance sheet. Also, under US GAAP, the minority interest reflected in the statements of income is adjusted to reflect the equity of the minority shareholders on the subsidiary's equity in the net income of ASE. The mutual or reciprocal holdings had no material effect on the minority interest reported in the consolidated statements of income. In addition, under US GAAP, the denominator used in calculating the EPS is adjusted to reflect that the shares of ASE held by the subsidiary are not outstanding beginning on the date that the subsidiary acquired the shares of ASE. The adjustment on the denominator under US GAAP for purposes of EPS computation is 103,321,373 shares in 1999, 135,867,641 shares in 2000 and 164,441,865 shares in 2001,



**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

respectively. The capital gain (loss) from sales of treasury stock is added to or deducted from the consolidated balance of capital surplus.

Under ROC GAAP, such treatment is not required and, as a result, the investment in ASE common shares is presented as a long-term investment in the consolidated balance sheets and capital gain (loss) from sale of treasury stock is recognized and included in the consolidated statements of income.

**e. Depreciation of Buildings**

Under ROC GAAP, the estimated life of a building can be as long as 40 years based on ROC practices. For US GAAP purposes, an assessment for useful lives of buildings is estimated to be 25 years.

**f. Excess of Book Value on Transfer of Buildings Between Related Parties**

ASE Test, Inc., a consolidated subsidiary, purchased buildings and facilitates from another consolidated subsidiary, ASE Technologies, in 1997. The actual costs purchased from ASE Technologies were based on market value. Such additional payment for the excess of book value of NT\$17,667 was capitalized by ASE Test, Inc. as allowed under ROC GAAP. Under US GAAP, transfers of assets from related parties should not be recorded by the transferee at stepped-up values.

**g. 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 US GAAP mainly due to the differences in accounting for bonuses to employees, directors and supervisors.

**h. Effects of US GAAP Adjustments on Equity Long-term Investment**

The carrying values of equity-basis investments and the investment income (loss) accounted for by the equity method in HCDC, HCKC and USI are reflected in the consolidated financial statements under ROC GAAP. The financial statements of these equity investees prepared under ROC GAAP are different from the financial statements of such equity investees prepared under US GAAP mainly due to the differences in accounting for bonuses to employees, directors and supervisors and depreciation of buildings. Therefore, the investment income (loss) has been adjusted to reflect the differences between ROC and US GAAP in the investees' financial statements.

**i. Impairment of Long-lived Assets**

Under US GAAP, impairment losses are recorded in current period earnings, create a new cost basis for related assets going forward and cannot be reversed subsequently. Under US GAAP, in accordance with US FAS 121, long-lived assets held and used by the Corporation 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 net book value of the assets. If the recoverability test indicates that an impairment has occurred, the impairment loss is the amount of the asset's net book value in excess of the related fair value. Under ROC GAAP, there is no requirement to provide for impairment of fixed assets. Based on an assessment by ASE and its subsidiaries of the potential

**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

impact of US FAS 121, there is no impairment loss as of December 31, 2001 for ASE except for the value decline relating to the long-term bond investment in APP (see Note 7).

***j. Stock Dividends***

Under ROC GAAP, stock dividends are recorded at par with a charge to retained earnings. Under US 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 1999 and 2001 stock dividends would be treated as an additional reduction to retained earnings and increase to capital surplus amounting to NT\$9,580 million and NT\$3,181 million, respectively.

***k. Stock Option Compensation***

In May 2001, ASE Test's directors exercised their stock options for 2,480,000 shares at US\$3.5 per share under the 1996 option plan. ASE was concerned about potential dilution caused by the sales of these shares into the marketplace and decided, based on resolution of its Board of Directors, to purchase these shares from the directors at the prevailing market price of US\$14.27 per share on the same day the options were exercised. Under ROC GAAP, such a share purchase is accounted for as additional investments of ASE Test's shares by ASE. However, under US GAAP, in accordance to APB Opinion 25 and FIN 44, the purchase of shares from employees within six months after exercise of a vested option, compensation expense shall be measured for the difference between the market price of the share on the date of purchase and the market price on the date the options were issued. Consequently, a difference amounting to NT\$908,661 (US\$25,961) arising from the purchase by ASE of these shares was recorded by ASE Test as compensation expense.

***l. Derivative Financial Instruments***

There are no specific rules under ROC GAAP related to accounting for derivative financial instruments other than foreign currency forward exchange contracts (the forward contracts). The accounting of forward contracts and other derivatives is disclosed in Note 2. The accounting and reporting standards for derivative financial instruments under US GAAP are established in FAS 133 and FAS 138; which were adopted by the Corporation effective January 1, 2001. The adoption of US FAS 133 and US FAS 138 had no material impacts to the consolidated financial statements for all periods presented. Under US GAAP, the Corporation did not apply hedge accounting and derivatives have historically been, and continue to be, recorded on the balance sheets at fair value, with the changes in fair values recorded through current period earnings.

***m. Earnings Per Share (EPS)***

In calculating the weighted average number of shares outstanding for EPS purposes under ROC GAAP, employee bonus shares are treated as outstanding for all periods. Under US GAAP, employee bonus shares are treated as outstanding only from the date when they are issued.

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following reconciles net income (loss) and shareholders' equity under ROC GAAP as reported in the consolidated financial statements to the approximate net income (loss) and shareholders' equity amounts as determined under US GAAP, giving effect to adjustments for the differences listed above.

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>Net income (loss)</b>				
Net income (loss) based on ROC GAAP	7,794,666	5,837,149	(2,142,219)	(61,206)
Adjustments:				
a. Pension benefits (cost)	(15,799)	5,635	2,755	79
b. Short term investments	12,584	22,354	5,952	170
c. Bonuses to employees, directors and supervisors:				
Accrued regular bonuses	(1,089,135)	(929,348)		
Special stock bonuses	(577,500)	(929,901)	(963,572)	(27,531)
d. Gain from sale of treasury stock	(1,388,523)			
e. Depreciation of building	(30,731)	(32,127)	(48,803)	(1,394)
f. Excess of book value of building transferred between related parties	432	432	432	12
g. Restate carrying value and related capital gain from sale of long-term investment	(5,180)		39,002	1,114
h. Effects for US GAAP adjustments on equity long-term investments	(154,218)	(51,825)	(33,785)	(965)
k. Stock option compensation			(908,661)	(25,961)
Effect of US GAAP adjustment on income tax	5,691	6,553	6,978	199
Effect of US GAAP adjustments on minority interest	89,014	1,074	(4,682)	(134)
	(3,153,365)	(1,907,153)	(1,904,384)	(54,411)

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Net decrease in net income				
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Net income (loss) based on US GAAP	4,641,301	3,929,996	(4,046,603)	(115,617)
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Earnings (loss) per share				
Basic	1.56	1.31	(1.31)	(0.04)
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Diluted	1.53	1.27	(1.31)	(0.04)
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Earnings (loss) per ADS				
Basic	7.81	6.54	(6.55)	(0.19)
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Diluted	7.65	6.33	(6.55)	(0.19)
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Number of weighted average shares Outstanding				
	2,971,874,700	3,006,422,245	3,090,677,964	3,090,677,964
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Number of ADS	594,374,940	601,284,449	618,135,593	618,135,593
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>Shareholders equity</b>				
Shareholders equity based on ROC GAAP	30,057,036	43,669,214	41,946,321	1,198,466
Adjustments:				
a. Pension benefits	(47,794)	(42,159)	(39,404)	(1,126)
b. Restatement of short-term investments	12,584	34,938	40,890	1,168
c. Bonuses to employees, directors and supervisors	(217,827)	(113,600)		
d. Treasury stocks				
d1. reversal of unrealized loss		487,752	367,662	10,505
d2. classification of treasury stock	(2,922,561)	(2,919,411)	(3,017,964)	(86,228)
e. Effect of US GAAP adjustments on useful life	(95,296)	(127,423)	(176,226)	(5,035)
f. Excess of book value of building transferred between related parties	(16,623)	(16,191)	(15,759)	(450)
g. Restate carrying value of subsidiaries long-term investment	(47,621)	(47,621)	(8,619)	(247)
h. Effects of the above adjustments on equity investment	(187,048)	(238,873)	(272,658)	(7,790)
k. Stock option compensation			(908,661)	(25,961)
Effect of US GAAP adjustments on income tax	15,170	21,723	28,701	820
Effect on US GAAP adjustments on minority interest	19,667	20,741	16,059	459
Net decrease in shareholders equity	(3,487,349)	(2,940,124)	(3,985,979)	(113,885)
Shareholders equity based on US GAAP	26,569,687	40,729,090	37,960,342	1,084,581
<b>Changes in shareholders equity based on US GAAP</b>				
Balance, beginning of year	17,675,199	26,569,687	40,729,090	1,163,688
Convertible bonds converted into common shares		35,653		
Capital increase in cash through the Issuance of American Depositary shares		4,137,910		
Net income (loss) for the year	4,641,301	3,929,996	(4,046,603)	(115,617)
Adjustment for common shares issued as bonuses to employees, directors and supervisors	1,448,808	1,811,607	963,572	27,531
Translation adjustment for subsidiaries	(173,957)	894,255	749,128	21,403
Adjustment from changes in ownership percentage of investees	(108,046)	3,405,909	(320,785)	(9,165)
Unrealized loss on long-term investment in shares of stock		(59,077)	(15,508)	(443)
Effect of change in exchange rate		3,150		
Purchase of treasury stock			(98,552)	(2,816)
Sale of treasury stock	1,782,434			

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Capital gain from sale of treasury stock	1,303,948			
Balance, end of year	26,569,687	40,729,090	37,960,342	1,084,581

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

A reconciliation of the significant balance sheet accounts under ROC GAAP to the amounts as determined under US GAAP is as follows:

	Years Ended December 31		
	2000	2001	
	NT\$	NT\$	US\$
<b>Short-term investments</b>			
As reported	1,682,679	4,601,172	131,462
US GAAP adjustments			
Restatement of investments to fair value	34,938	40,890	1,168
As adjusted	1,717,617	4,642,062	132,630
<b>Long-term investments</b>			
As reported	10,712,199	9,530,398	272,297
US GAAP adjustments			
Treasury stock	(2,429,131)	(2,649,484)	(75,700)
Equity investments	(238,837)	(272,658)	(7,790)
As adjusted	8,044,231	6,608,256	188,807
<b>Buildings and improvement</b>			
As reported	9,390,206	14,640,855	418,310
US GAAP adjustments			
Effect of US GAAP adjustments on useful life	(127,423)	(176,226)	(5,035)
Excess of book value of building transferred Between related parties	(16,191)	(15,759)	(450)
As adjusted	9,246,592	14,448,870	412,825
<b>Other assets</b>			
As reported	1,275,557	1,342,269	38,351
US GAAP			
Effect of US GAAP adjustments on income tax		28,701	820
As adjusted	1,275,557	1,370,970	39,171
<b>Deferred income tax liabilities net</b>			
As reported	511,462		
US GAAP			
Effect of US GAAP adjustments on income tax	(21,723)		
As adjusted	489,739		
<b>Consolidated debits</b>			
As reported	4,999,546	5,248,919	149,969
US GAAP adjustments			
Restated carrying value of subsidiaries long-term investment	(47,621)	(8,619)	(247)

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As adjusted	4,951,925	5,240,300	149,722
<b>Current liabilities</b>			
As reported	25,873,359	21,268,927	607,683
US GAAP adjustments    bonuses to employees, directors and supervisors	113,600		
As adjusted	25,986,959	21,268,927	607,683

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Years Ended December 31		
	2000	2001	
	NT\$	NT\$	US\$
<b>Accrued pension cost</b>			
As reported	248,425	294,438	8,413
US GAAP adjustments pension benefits	42,159	39,404	1,126
As adjusted	290,584	333,842	9,539

As a result of the adjustments presented above, the approximate amounts of total assets based on US GAAP are NT\$105,516,899 and NT\$103,273,177 (US\$2,950,661) as of December 31, 2000 and 2001, respectively.

**28. Additional Disclosures Required by US GAAP**

## a. Pension

Set forth below is pension information disclosed in accordance with US FAS 132:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>Components of net periodic benefit cost</b>				
Service cost	81,240	120,528	116,657	3,333
Interest cost	23,796	30,241	28,968	828
Expected return on plan assets	(12,242)	(14,575)	(21,630)	(618)
Amortization of prior service cost	642	8	1,468	42
Net periodic benefit cost	93,436	136,202	125,463	3,585
<b>Changes in benefit obligation</b>				
Benefit obligation at beginning of year	359,510	465,674	650,032	18,572
Service cost	79,410	120,528	116,657	3,333
Interest cost	23,369	30,241	28,968	827
Actuarial (gain) loss	3,586	34,025	(69,978)	(1,999)
Benefits paid	(201)	(436)	(3,655)	(104)
Benefit obligation at end of year	465,674	650,032	722,024	20,629
<b>Change in plan assets</b>				
Fair value of plan assets at beginning of year	165,155	208,289	311,737	8,907
Actual return on plan assets	10,790	12,408	13,324	380
Employer contribution	32,545	91,476	90,468	2,585
Benefits paid	(201)	(436)	(3,493)	(100)

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	208,289	311,737	412,036	11,772
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Funded Status	257,385	338,295	309,988	8,857
Unrecognized actuarial gain (loss)	(16,549)	(45,795)	26,947	770
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Net amount recognized (recognized as accrued pension cost)	240,836	292,500	336,935	9,627
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Actuarial assumptions:

	<u>1999 to 2001</u>
Discount rate	5% to 7%
Rate of compensation increase	3% to 5.5%
Expected return on plan assets	5% to 7%

ASE has no other post-retirement or post-employment benefit plans.

## b. Short-term investments

At December 31, 2000 and 2001, certain investments carried at cost under ROC GAAP were restated under US FAS 115:

	<u>December 31</u>								
	<u>2000</u>			<u>2001</u>					
	<u>Carrying Value</u>	<u>Fair Value</u>	<u>Unrealized Holding Gains</u>	<u>Carrying Value</u>	<u>Fair Value</u>	<u>Unrealized Holding Gains</u>	<u>Carrying Value</u>	<u>Fair Value</u>	<u>Unrealized Holding Gains</u>
NT\$	NT\$	NT\$	NT\$	NT\$	NT\$	US\$	US\$	US\$	
Short-term investments (Note 3)	1,682,679	1,717,617	34,938	4,601,172	4,642,062	40,890	131,462	132,630	1,168

## c. Income taxes expense (benefit)

	<u>Years Ended December 31</u>			
	<u>1999</u>	<u>2000</u>	<u>2001</u>	
	NT\$	NT\$	NT\$	US\$
Income tax currently payable (tax benefit)	583,550	1,080,704	(101,310)	(2,894)
Net change in deferred income tax assets (liabilities) for the period	(161,128)	(158,691)	(442,955)	(12,656)
Income tax on undistributed earnings	44,539	147,379	335,065	9,573
Adjustment of prior years income taxes	(13,109)	(10,177)	17,018	486
	<u>453,852</u>	<u>1,059,215</u>	<u>(192,182)</u>	<u>(5,491)</u>

## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Reconciliation between the income tax calculated on pretax financial statement income based on the statutory tax rate and the income tax expense (benefit) which conforms to US GAAP is as follows:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
Tax (benefit) based on pre-tax accounting income (loss) at statutory rate	2,406,503	2,732,461	(1,056,321)	(30,181)
Add (less) tax effects of:				
Permanent differences				
Tax-exempt income				
Tax holiday	(1,163,516)	(700,749)	(26,413)	(754)
Gain from sale of securities	(653,493)	(51,415)	(31,711)	(906)
Bonus to employee and directors	416,659	464,812	468,058	13,373
Other	35,408	7,368	6,958	199
Tax credits				
Utilized	(401,525)	(1,231,247)	(253,227)	(7,235)
Deferred	(217,614)	(299,217)	348,390	9,954
Income taxes (10%) on undistributed earnings	44,539	147,379	335,065	9,573
Adjustment of prior year's income tax	(13,109)	(10,177)	17,018	486
Income tax expense (benefit)	453,852	1,059,215	(192,183)	(5,491)

The abovementioned taxes on pretax accounting income (loss) at the statutory rates for domestic and foreign entities are shown below:

	Years Ended December 31		
	2000	2001	
	NT\$	NT\$	US\$
Domestic entities in ROC (25% statutory rate)	2,064,193	(978,223)	(27,949)
Foreign entities			
ASE Korea (30.8% statutory rate)	2,153		
ISE Labs (33% statutory rate)	439,169	(92,487)	(2,643)
ASE Test Malaysia (30% statutory rate)	226,946	14,389	411
	2,732,461	(1,056,321)	(30,181)

## d. Stock option plans

ASE Test has six stock option plans, the 1996 Option Plan (the Pre-IPO Plan), the 1996 Executive Management Option Plan (the 1996 Plan), the 1997 Option Plan, the 1998 Option Plan, the 1999 Option Plan and the 2000 Option Plan. The Pre-IPO Plan has expired as of December 31, 2001. Up to 10,000,000 shares, 3,200,000 shares, 1,600,000 shares, 2,000,000 shares and 12,000,000 shares have been reserved for issuance under the 1996, 1997, 1998, 1999 and 2000 Option Plans, respectively.

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The 1996, 1997, 1998, 1999 and 2000 Option Plans granted the following stock options to purchase the ASE Test shares which are exercisable based on a vesting schedule over a period of five years until the expiration of options, to directors, officers and key employees. If any

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

granted shares are forfeited, the shares may be granted again, to the extent of any such forfeiture.

Each aforementioned option exercise price was equal to the stock's market price on the date of grant. The 1996, 1997 and 1998 Option Plans will expire after 5 years and the 1999 and 2000 Option Plan will expire after 10 years.

A summary of the transaction of shares under the six plans is presented below:

		Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Grant Date Fair Values
Beginning balance	January 1, 1999	11,585,128	\$ 5.97	
Option granted		2,742,500	20.00	\$ 10.65
Option exercised		(1,627,226)	5.47	
Option forfeited		(76,028)	7.29	
Ending balance	December 31, 1999	12,624,374	9.07	
Option granted		412,000	25.00	\$ 13.44
Option exercised		(1,263,041)	6.31	
Option forfeited		(287,184)	14.14	
Ending balance	December 31, 2000	11,486,149	9.82	
Option granted		10,158,650	8.94	\$ 4.24
Option exercised		(5,221,508)	3.81	
Option forfeited		(114,706)	17.11	
Ending balance	December 31, 2001	16,308,585	\$ 11.15	
Options exercisable at:				
	December 31, 1999	4,387,858	\$ 4.91	
	December 31, 2000	6,902,529	6.13	
	December 31, 2001	6,233,453	11.89	

Significant option groups outstanding at December 31, 2001 and the related weighted average exercise price and remaining contractual life information are as follows (in US dollars):

	Outstanding		Exercisable		Weighted Average Remaining Life (Years)
	Shares	Weighted Average Price	Shares	Weighted Average Price	
Options with exercise price of:					
\$25	397,000	\$25.00	158,800	25.00	7.5
\$13.4375-\$20.15625	2,640,706	10.73	1,449,886	19.54	5.6

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\$8.875-\$13.3125	12,728,479	3.05	4,082,367	9.52	7.4
\$5-\$7.5	542,400	5.46	542,400	5.46	0.2
	<hr/>		<hr/>		
Options outstanding at December 31, 2001	16,308,585		6,233,453		
	<hr/>		<hr/>		

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

US FAS 123, Stock-Based Compensation effective in 1996, establishes accounting and disclosure requirements using a fair value-based method of accounting for stock-based employee compensation plans. Under US FAS 123, ASE Test has elected to continue using the intrinsic value-based method and provide pro forma disclosures of net income and earnings per share as if the fair value accounting provisions of this statement had been adopted.

ASE Test has computed for pro forma disclosure purposes the fair value of each option grant, as defined by US FAS 123, using the Black-Scholes option pricing model with the following assumptions:

	1999	2000	2001
Risk free interest rate	5.76-6.01%	6.61-6.75%	3.62-4.66%
Expected dividend yield	0%	0%	0%
Expected lives	3.4-5 years	3.4-5 years	3.4 years
Volatility	55.53%	55.53%	62.14%

For purposes of pro forma disclosure, the estimated fair value of the options are amortized to expense over the option rights vesting periods. Had ASE Test recorded compensation costs based on the estimated grant date fair value, as defined by US FAS 123, ASE's net income (loss) under US GAAP would have been reduced to the pro forma amounts below.

		Years Ended December 31			
		1999	2000	2001	
		NT\$	NT\$	NT\$	US\$
Net income (loss) based on US GAAP		4,641,301	3,929,996	(4,046,603)	(115,617)
Pro forma net income (loss)		4,479,803	3,682,196	(4,351,688)	(124,334)
Pro forma EPS	Basic	1.51	1.22	(1.41)	(0.04)
	Diluted	1.48	1.18	(1.41)	(0.04)
Pro forma EPS per ADS	Basic	7.54	6.12	(7.04)	(0.20)
	Diluted	7.38	5.91	(7.04)	(0.20)

The pro forma amounts reflect compensation expense related to 1996, 1997, 1998, 1999 and 2000 option plans granted and vested only. In future years, the annual compensation expense will increase relative to the fair value of the options granted and vested in those future years.

e. According to US FAS 130, the statement of comprehensive income (loss) for the years ended December 31, 2000 and 2001 are present below:

		Years Ended December 31			
		1999	2000	2001	
		NT\$	NT\$	NT\$	US\$



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Net income (loss) based on US GAAP	4,641,301	3,929,996	(4,046,603)	(115,617)
Translation adjustment on subsidiaries net of income tax benefit of NT\$43,489 in 1999, income tax expense of NT\$223,564 in 2000 and income tax expense of NT\$187,282 in 2001	(130,468)	670,691	561,846	16,053
Comprehensive income (loss)	<u>4,510,833</u>	<u>4,600,687</u>	<u>(3,484,757)</u>	<u>(99,564)</u>

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## ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## f. Consolidation

The 1999 net revenues, cost of revenues and operating expense of ISE Labs before the date of acquisition in the amounts of NT\$736,765, NT\$475,250 and NT\$117,880, respectively, were consolidated in the 1999 consolidated financial statements. The net revenues for the pre-acquisition period only represented 2% of the ASE's consolidated net revenues in 1999 and such presentation has no impact on the 1999 consolidated net income and shareholders' equity under US GAAP. If the results of ISE Labs were consolidated from the date of acquisition, the net revenues, gross profit and income from operation of 1999 consolidated statement of income will be NT\$31,872,796, NT\$8,388,480 and NT\$4,704,924, respectively.

## g. US GAAP cash flow information

The following represents the major caption of cash flow under US GAAP pursuant to US FAS 95:

	Years Ended December 31			
	1999	2000	2001	
	NT\$	NT\$	NT\$	US\$
<b>Cash flows</b>				
Net cash provided by operating activities	6,988,434	17,466,420	10,723,952	306,399
Net cash used in investing activities	(14,953,647)	(33,550,389)	(14,211,788)	(406,051)
Net cash provided by financing activities	11,768,774	17,759,155	618,555	17,673
Net increase (decrease) in cash	3,803,561	1,675,186	(2,869,281)	(81,979)
Cash, beginning of year	8,173,901	11,809,112	14,166,495	404,757
Effect of exchange rate changes in cash	(168,350)	682,197	473,515	13,529
	<u>11,809,112</u>	<u>14,166,495</u>	<u>11,770,729</u>	<u>336,307</u>

The significant reclassifications for US GAAP cash flow statements pertain to the following:

- 1) the effect of exchange rate changes on cash is shown in the reconciliation of the beginning balance and ending balance of cash (as opposed to operating activities under ROC GAAP)
- 2) compensation to directors and supervisors and bonuses to employees is shown in the operating activity under US GAAP (as opposed to financing activities under ROC GAAP)
- 3) proceeds from sales of treasury stock and purchases of treasury stock are shown in the financing activities under US GAAP (as opposed to investing activities under ROC GAAP).

## h. New accounting standards

ASE is required by SEC Staff Accounting Bulletin No. 74, to disclose the impact of recently issued accounting standards will have on its financial statements when adopted in a future period, as well as make certain disclosure about recently issued accounting standards.

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In June 2001, the US Financial Accounting Standards Board issued US FAS 141, Accounting for business combinations, and US FAS 142, Goodwill and other intangible assets. ASE must adopt these standards on January 1, 2002, which may affect accounting for business combinations consummated after June 30, 2001 and that for existing goodwill and other intangible assets of ASE upon adoption. The standards require, among other provisions,

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**ADVANCED SEMICONDUCTOR ENGINEERING, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

companies to review for possible impairment of goodwill existing at the date of adoption and perform subsequent impairment tests on an annual basis. In addition, existing goodwill and intangible assets must be reassessed and classified consistently in accordance with the criteria set forth in US FAS 141 and US FAS 142. Under the new standards, ASE will no longer amortize goodwill while the other intangible assets will continue to be amortized over its estimated useful lives, which, if supportable, may be a period that exceeds the current maximum period of 40 years. As of December 31, 2000 and 2001, ASE has unamortized goodwill of approximately NT\$7,652,686 and NT\$6,900,661 (US\$197,162), respectively. Total amortization expenses of goodwill under ROC GAAP incurred for the years ended December 31, 1999, 2000, and 2001 are NT\$507,816, NT\$559,807 and NT\$692,919 (US\$19,798), respectively. ASE has not yet completed its assessment of the impact these new standards may have on the accompanying financial statements and cannot estimate whether related impact would be material or not.

In June 2001, the US Financial Accounting Standards Board issued US FAS 143, *Accounting for Asset Retirement Obligations*. US FAS 143 requires, among other provisions, retirement obligations to be recognized when they are incurred and displayed as liabilities, with a corresponding amount capitalized as part of the related long-lived asset. The capitalized element is required to be expensed using a systematic and rational method over its useful life. US FAS 143 will be adopted by ASE on January 1, 2003 and is not expected to have a material impact on its consolidated financial information relating to US GAAP.

In August 2001, the US Financial Accounting Standards Board issued US FAS 144, *Accounting for the Impairment or Disposal of Long-lived Assets*, which addresses financial accounting and reporting for the impairment or disposal of long-lived assets. US FAS 144 supersedes US FAS 121, *Accounting for the Impairment of Long-lived Assets and for Long-lived Assets to be Disposed of*, and the accounting and reporting provisions of APB Opinion No. 30, *Reporting the Results of Operations for a disposal of a segment of a business*. US FAS 144 is effective for years beginning after December 15, 2001, with earlier application encouraged. The impact of adopting this accounting standard is not expected to have a material effect on the ASE's consolidated financial position and results of operations.

**29. Subsequent Event**

During April 2002, ASE's ownership percentage in ASE Test fell below 50% and as of May 17, 2002 is 49.77%. ASE continues to consolidate ASE Test because ASE effectively controls ASE Test. Mr. Richard Chang, the Vice Chairman of ASE also serves as the Chairman of ASE Test. Mr. Chang has committed to vote his shares of ASE Test as of April 30, 2002, which represented a 1.05% ownership interest in ASE Test, in concert with ASE.

## THE SECURITIES MARKETS OF THE ROC

*The information provided in this section has been extracted from various government and other publicly available publications. References to the ROC Securities and Futures Commission in this section include both the ROC Securities and Futures Commission and the ROC Securities and Exchange Commission, its predecessor.*

In September 1960, the ROC Government established the ROC Securities and Exchange Commission to supervise and control all aspects of the existing domestic securities market and the Taiwan Stock Exchange began to take shape soon thereafter. In the 1970s and the early 1980s, the ROC government implemented a number of steps designed to upgrade the quality and importance of the ROC securities markets, such as encouraging listing on the Taiwan Stock Exchange and establishing an over-the-counter market. In the mid-1980s, the ROC government began to revise its laws and regulations in a manner designed to facilitate the gradual internationalization of the ROC securities markets. In 1997, the ROC Securities and Exchange Commission was renamed the ROC Securities and Futures Commission.

### The Taiwan Stock Exchange

In 1961, the ROC Securities and Futures Commission, working together with private interests, established the Taiwan Stock Exchange to provide a marketplace for securities trading. 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. The Taiwan Stock Exchange is a corporation owned by government-controlled and private banks and enterprises. The Taiwan Stock Exchange is independent of entities transacting business through it, each of which pays a user's fee. Subject to limited exceptions, all transactions in listed securities by brokers, traders and integrated securities firms, that is, firms which are permitted to combine the activities of brokerage, dealing and underwriting, must be made through the Taiwan Stock Exchange.

The Taiwan Stock Exchange commenced operations in 1962. During the early 1980s, the ROC Securities and Futures Commission more actively encouraged new listings on the Taiwan Stock Exchange and the number of listed companies grew from 119 in 1983 to 595 as of March 31, 2002. As of March 31, 2002, the total market value of shares listed on the Taiwan Stock Exchange was approximately NT\$11,570 billion.

The instruments traded on the Taiwan Stock Exchange have primarily been limited to common shares and bonds. However, recent legislative revisions and the current attitude of the ROC Securities and Futures Commission regarding liberalization of securities regulations have encouraged some innovation. In 1988, the Ministry of Finance permitted the issue of the ROC's first exchangeable bonds. These bonds were exchangeable at the option of the bondholders into shares of companies owned by the issuers. Since 1989, there have been offerings of domestic convertible bonds and convertible preferred shares. In addition, beneficiary units evidencing beneficiary interests in closed-end investment funds and bonds issued by supranational financial institutions are also listed on the Taiwan Stock Exchange and traded on the ROC Over-the-Counter Securities Exchange.

In the absence of special regulatory approval, only ROC companies are permitted to list their securities on the Taiwan Stock Exchange. The ROC Securities and Futures Commission has promulgated regulations that would permit foreign issuers to list their equity securities on the Taiwan Stock Exchange. To date, only two foreign issuers have been approved to list their securities on the Taiwan Stock Exchange in the form of depositary receipts and supranational institutions such as the Asian Development Bank have been approved to list their debt.

instruments on the Taiwan Stock Exchange. The Taiwan Stock Exchange has established specific requirements for listing based on the company's number and distribution of shareholders, years in existence, amount of capital, profitability and capital structure.

For a company to be listed on the Taiwan Stock Exchange, it must have been established for at least five fiscal years, have paid-in capital of at least NT\$600 million at the time of applying for listing and have at least 1,000 registered shareholders, including not fewer than 500 shareholders holding between 1,000 and 50,000 shares each. These 500 shareholders must together hold either at least 20% of the outstanding shares or at least 10 million shares. The company may not have an accumulated deficit for the previous fiscal year and the pre-tax net profit and operating profit levels of the company must meet any of the following requirements: (1) operating profit and before-tax net profit for the most recent two fiscal years represents 6% or greater of the amount of paid-in capital in its final accounts, or the average operating profit and before-tax net profit for the most recent two fiscal years represent 6% or greater of the amount of paid-in capital in its final accounts and the profitability for the most recent fiscal year is greater than that for the immediately preceding fiscal year; or (2) each of the operating profit and before-tax net profit for the most recent five years represents 3% or greater of the amount of paid-in capital in its final accounts. However, special listing criteria apply to high-tech companies and key businesses engaging in national economic development.

### **The Over-the-Counter Market**

To complement the Taiwan Stock Exchange, an over-the-counter market was established in September 1982 on the initiative of the ROC Securities and Futures Commission. In early 1988, the ROC Securities and Futures Commission promulgated regulations designed to encourage trading of unlisted securities of companies whose securities do not qualify for listing on the Taiwan Stock Exchange. The over-the-counter market is currently limited to unlisted equity securities, bank and corporate bonds and debentures and government bonds. As of December 31, 2001, 333 public companies had offered their equity securities on the over-the-counter market. The value of all bonds outstanding in the over-the-counter market grew from approximately NT\$76 billion at the end of 1983 to NT\$1,662 billion on December 31, 2001.

In addition, the Emerging Market of the ROC Over-the-Counter Securities Exchange was established on January 1, 2002 on the initiative of the ROC Securities and Futures Commission to encourage trading of securities of companies which are public companies but do not qualify for listing on the Taiwan Stock Exchange or the ROC Over-the-Counter Securities Exchange.

### **Taiwan Stock Exchange Index**

The Taiwan Stock Exchange Index is comparable to the Standard and Poor's Index in the United States and the Nikkei Stock Average in Japan, insofar as it is calculated on the basis of a wide selection of listed shares weighted according to the number of shares outstanding. It is compiled using the Paasche Formula by dividing the market value by the base day's total market value for the index shares. The Taiwan Stock Exchange Index is the oldest and most widely quoted market index in the ROC.

The weighing of stocks in the index is fixed as long as the number of shares outstanding remains constant. When the total number of shares outstanding changes, the weight of each stock is adjusted. Stock splits and stock dividends are adjusted automatically. Cash dividends are not included in the calculation.

The following table sets forth, for the periods indicated, information relating to the Taiwan Stock Exchange Index.

Period	No. of Listed Companies at Period Ended	Index High	Index Low	Index at Period End
1992	256	5,391.63	3,327.67	3,377.06
1993	285	6,070.56	3,135.56	6,070.56
1994	313	7,183.75	5,194.63	7,124.66
1995	347	7,051.49	4,503.37	5,173.73
1996	375	6,982.81	4,690.22	6,933.94
1997	404	10,116.84	6,820.35	8,187.27
1998	437	9,277.09	6,251.38	6,418.43
1999	462	8,608.91	5,475.00	8,448.84
2000	531	10,202.20	4,614.60	4,739.09
2001	584	6,104.20	3,446.30	5,551.24

Source: Status of Securities Listed on Taiwan Stock Exchange December 2001 Taiwan Stock Exchange.

As indicated above, the performance of securities traded on the Taiwan Stock Exchange has in recent years been characterized by extreme price volatility. On May 29, 2002, the TSE Index closed at NT\$29.10.

#### Price Limits, Commissions, Transaction Tax and Other Matters

Fluctuations in the price of securities traded on the Taiwan Stock Exchange are currently subject to a restriction of 7% above and below the previous day's closing price (or reference price set by the Taiwan Stock Exchange if the previous day's closing price is not available because of lack of trading activity) in the case of equity securities and 5% in the case of debt securities. The price limit for movements below the previous day's closing price has been modified from time to time by the Ministry of Finance based on market conditions.

Brokerage commissions are set by the Taiwan Stock Exchange. Effective from July 1, 2000, the ceiling for commission rate for brokers is 0.1425% of the transaction price. Brokers may determine the commission rate within this ceiling, provided that they report the rates to the ROC Securities and Futures Commission. A securities transaction tax, currently levied at the rate of 0.3% of the transaction price, is payable by the seller of equity securities. Pursuant to the amended Statute of Upgrading Industries, which came into effect on February 1, 2002, no securities transaction tax will be imposed on the transfer of corporate bonds and financial debentures until December 31, 2009. The securities transaction taxes are withheld at the time of the transaction giving rise to the taxes. Sales of shares of companies listed on the Taiwan Stock Exchange are currently sold in round lots of 1,000 shares. Investors who would like to sell less than 1,000 shares of a listed company occasionally experience delays in effecting these sales. Transactions that include 500 trading lots, that is 500,000 shares, or more must be registered and executed pursuant to Taiwan Stock Exchange guidelines.

#### Regulation and Supervision

The ROC Securities and Futures Commission has been under the jurisdiction of the Ministry of Finance since 1981. The ROC Securities and Futures Commission has extensive regulatory authority over companies listed on the Taiwan Stock Exchange and unlisted public issuing companies generally. These companies are generally required to obtain approval from, or register with, the ROC Securities and Futures Commission for all securities offerings. The ROC Securities and Futures Commission has promulgated regulations requiring, unless otherwise exempted, periodic reporting of financial and operating information by all public companies. In addition, the

ROC Securities and Futures Commission is responsible for the establishment of standards for financial reporting and carries out licensing and supervision with respect to the other participants in the ROC securities market.

The ROC Securities and Futures Commission has responsibility for implementation of the Securities and Exchange Law and for overall administration of governmental policies in the ROC securities market. It has extensive regulatory authority over the offering, issue and trading of securities. In addition, the Securities and Exchange Law specifically empowers the ROC Securities and Futures Commission to promulgate rules under specified circumstances.

The Securities and Exchange Law prohibits market manipulation. It also permits an issuer to recover certain short-term trading profits made through purchases and sales within six months by directors, managerial personnel, supervisors and 10% or above shareholders of the issuer. The Securities and Exchange Law prohibits trading by insiders based on non-public information that materially affects share price movements. According to the Securities and Exchange Law, the term insiders includes directors, supervisors, managers and 10% or above shareholders of the issuing company and their spouses, minor children and nominees, any person who has learned the information due to an occupational or controlling relationship with the issuing company and any person who has learned the information from any of the foregoing. Sanctions include prison terms. In addition, damages may be awarded to persons injured by the transaction. Notwithstanding these regulatory requirements, there have been recurring press reports on insider trading and manipulation of stock prices in the ROC.

The Securities and Exchange Law also imposes criminal liability on certified public accountants and lawyers who make false certifications in their examination and audit of an issuer's contracts, reports and other evidentiary documents that are related to securities transactions. ROC Securities and Futures Commission regulations require that financial reports of listed companies be audited by accounting firms consisting of at least three certified public accountants and be signed by at least two certified public accountants.

The Securities and Exchange Law was amended on June 30, 2000 to provide for, among other matters, the treasury stock system and criminal liabilities on certain personnel of a company for direct or indirect trading of the company's securities against the company's interest.

The ROC Securities and Futures Commission does not have criminal or civil enforcement powers under the Securities and Exchange Law. Criminal actions may be pursued only by the district prosecutors located in the district where the defendant is domiciled or where the violation occurred. Under ROC law, civil actions may only be brought by plaintiffs who assert that they have suffered damages. The ROC Securities and Futures Commission is directly empowered to curb abuses and violations of applicable laws and regulations only through administrative measures such as the issuance of warnings, temporary suspension of operation, imposition of administrative fines and revocation of licenses.

In addition to providing a market for securities trading, the Taiwan Stock Exchange has primary responsibility for reviewing applications by ROC issuers to list securities on the Taiwan Stock Exchange. In addition, the ROC Securities and Futures Commission reviews all securities offerings by listed companies. If issuers of listed securities violate relevant laws and regulations or encounter significant difficulties, the Taiwan Stock Exchange may, with the approval of the ROC Securities and Futures Commission, delist securities of these issuers.



**FOREIGN INVESTMENT AND EXCHANGE CONTROLS IN THE ROC****Foreign Investment**

Historically, foreign investment in the ROC securities markets has been restricted. Since 1983, the ROC government has periodically enacted legislation and adopted regulations to permit foreign investment in the ROC securities market. Currently, non-ROC persons may invest in ROC securities through the following vehicles.

***Depository Receipts***

In April 1992, the ROC Securities and Futures Commission enacted regulations permitting ROC companies with securities listed on the Taiwan Stock Exchange, with the prior approval of the ROC Securities and Futures Commission, to sponsor the issuance and sale to foreign investors of depository receipts. Depository receipts represent deposited shares of ROC companies. In December 1994, the ROC Ministry of Finance allowed companies whose shares are traded on the ROC Over-the-Counter Securities Exchange or listed on the Taiwan Stock Exchange, upon approval of the ROC Securities and Futures Commission, to sponsor the issuance and sale of depository receipts. The approval will be granted (1) if the underlying shares are newly issued shares, for a fixed number of depository receipts or (2) if the underlying shares are not newly issued shares, for a maximum number of depository receipts and, with limited exceptions (as described below), may not be increased without additional approvals by ROC Securities and Futures Commission.

A holder of depository receipts may request the foreign depository bank issuing the depository receipts to cause the underlying securities to be sold in the ROC and to distribute the proceeds of the sale to the depository receipt holder or to withdraw from the depository receipt facility shares represented by depository receipts and transfer the shares to the depository receipt holder (other than citizens of the People's Republic of China and entities organized under the laws of the People's Republic of China); provided that settlement for trading of shares represented by the depository receipts through the book-entry system maintained by the Taiwan Securities Central Depository Co. Ltd. is permitted. As discussed above, because the ROC Securities and Futures Commission approval is for a fixed or maximum number of depository receipts, we or the foreign depository bank may not increase the number of depository receipts by depositing shares in a depository receipt facility or issuing additional depository receipts against these deposits without specific ROC Securities and Futures Commission approval, except in limited circumstances. These circumstances include issuances of additional depository receipts in connection with:

- (1) dividends on or free distributions of shares;
- (2) the exercise by holders of existing depository receipts of their pre-emptive rights in connection with capital increases for cash; or
- (3) if permitted under the deposit agreement and custody agreement, the purchase directly by any person or through a depository of the underlying shares on the Taiwan Stock Exchange or the ROC Over-the-Counter Securities Exchange (as applicable) or delivery of the underlying shares for deposit in the depository receipt facility.

However, the total number of deposited shares outstanding after an issuance under the circumstances described in clause (3) above may not exceed the number of deposited shares previously approved by the ROC Securities and Futures Commission in connection with the initial offering plus any depository receipts created under the circumstances described in clauses (1) and (2) above (subject to any adjustment in the number of shares represented by each

depository receipt). Issuances of additional depository receipts under the circumstances described in clause (3) above will be permitted to the extent that previously issued depository receipts have been canceled and, for so long as may be required by applicable law, the shares withdrawn from the depository receipt facility upon cancellation of the depository receipts have been sold.

Under current ROC law, a non-ROC holder of ADSs who withdraws the underlying shares must appoint an eligible local agent to:

- (1) open a securities trading account with a local securities brokerage firm after having obtained consent from the Taiwan Stock Exchange or the ROC Over-the-Counter Securities Exchange;
- (2) remit funds; and
- (3) exercise rights on securities and perform other matters as may be designated by the holder.

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

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

- (1) the net payment indicated on the withholding tax voucher issued by the tax authority;
- (2) the net investment gains as indicated on the holder's certificate of tax payment; or
- (3) the aggregate transfer price as indicated on the income tax return for transfer of tax-deferred dividend shares, whichever is applicable.

Under existing laws and regulations relating to foreign exchange control, a depository may, without obtaining further approvals from the Central Bank of China or any other governmental authority or agency of the ROC, convert NT dollars into other currencies, including U.S. dollars, in respect of the following: proceeds of the sale of shares represented by depository receipts, proceeds of the sale of shares received as stock dividends and deposited into the depository receipt facility and any cash dividends or cash distributions received. In addition, a depository, also without any of these approvals, may convert incoming payments into NT dollars for purchases of underlying shares for deposit into the depository receipt facility against the creation of additional depository receipts. A depository may be required to obtain foreign exchange approval from the Central Bank of China on a payment-by-payment basis for conversion from NT dollars into other currencies relating to the sale of subscription rights for new shares. Proceeds from the sale of any underlying shares by holders of depository receipts withdrawn from the depository receipt facility may be converted into other currencies without obtaining Central Bank of China approval. Proceeds from sale of the underlying shares withdrawn from the depository

receipt facility may be used for reinvestment in the Taiwan Stock Exchange or the ROC Over-the-Counter Securities Exchange, subject to limitations and restrictions applicable to Qualified Foreign Institutional Investors or General Foreign Investors (as defined below in Other Foreign Investment ).

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

Since 1989, the ROC Securities and Futures Commission has approved a series of overseas bonds issued by ROC companies listed on the Taiwan Stock Exchange in offerings outside the ROC. Under current ROC law, overseas corporate bonds can be:

- (1) converted by bondholders, other than citizens of the People's Republic of China and entities organized under the laws of the People's Republic of China, into shares of ROC companies; or
- (2) subject to ROC Securities and Futures Commission approval, may be converted into depositary receipts issued by the same ROC company or by the issuing company of the exchange shares, in the case of exchangeable bonds.

The relevant regulations also permit public issuing companies to issue corporate debt in offerings outside the ROC. Proceeds from the sale of the shares converted from overseas convertible bonds may be used for reinvestment in securities listed on the Taiwan Stock Exchange or traded on the ROC Over-the-Counter Securities Exchange, subject to limitations and restrictions applicable to Qualified Foreign Institutional Investors or General Foreign Investors (as applicable).

#### **Direct Share Offerings**

The ROC Government has promulgated regulations to permit ROC companies listed on the Taiwan Stock Exchange or ROC Over-the-Counter Securities Exchange market to issue shares directly (not through depositary receipt facility) overseas.

#### **Qualified Foreign Institutional Investors**

On December 28, 1990, the Executive Yuan approved guidelines drafted by the ROC Securities and Futures Commission which, since January 1, 1991, allow direct investment in ROC securities listed on the Taiwan Stock Exchange or other ROC securities approved by the ROC Securities and Futures Commission by eligible foreign institutional investors. Under current guidelines, eligible foreign institutional investors include:

- (1) banks that hold securities assets of at least US\$200 million and have experience in the safekeeping or management of securities or assets and international financial or trust business;
- (2) insurance companies which hold securities assets of at least US\$200 million;
- (3) fund management institutions which manage securities assets of at least US\$200 million;
- (4) offshore fund management institutions which are more than 50% owned by ROC securities investment trust enterprises, provided the funds to be used for investment in ROC securities do not come from the ROC, funds owned by these offshore fund management institutions or mainland China;
- (5) general securities firms which have a net worth of at least US\$100 million and experience in international securities investments;

- (6) offshore subsidiary securities firms which are more than 50.0% owned by a ROC securities firm or other offshore securities firms which are wholly owned by these offshore subsidiary securities firms;
- (7) offshore subsidiary securities firms which are 100.0% owned by a ROC securities firm or other offshore securities firms which are more than 51.0% owned by these offshore subsidiary securities firm;
- (8) foreign government-owned investment institutions, provided that all of the funds to be invested are owned by the foreign government;
- (9) pension funds;
- (10) mutual funds, unit trusts or investment trusts which have assets of at least US\$200 million and have experience in the safekeeping or management of securities or assets and in international financial or trust business; and
- (11) other institutional investors which hold securities assets of at least US\$200 million.

Eligible foreign institutional investors who wish to qualify as Qualified Foreign Institutional Investors need to apply for and receive an investment permit from the ROC Securities and Futures Commission. Any application for investment exceeding US\$50 million must also be approved by the Central Bank of China. The application with the ROC Securities and Futures Commission requires the submission of, among other documents, proof of eligibility, proof of appointment of a local agent and custodian, credentials of the local agent and custodian and a copy of the custodial contract. Foreign institutional investors who receive a permit may currently invest up to US\$3 billion (with limited exceptions, the maximum amount of US\$3 billion may be exceeded) and are required to remit the full amount into the ROC within two years after receiving the investment permit.

Except for certain specified industries, such as telecommunications, investments in ROC-listed companies by qualified institutional investors are not subject to individual or aggregate foreign ownership limits. Custodians for qualified foreign institutional investors are also required to submit to the Central Bank of China and the ROC Securities and Futures Commission 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 this capital is remitted to the ROC. Capital gains and income on investments may be remitted out of the ROC at any time.

#### **Other Foreign Investment**

In addition to Qualified Foreign Institutional Investors, under existing ROC laws and regulations relating to foreign investment, individual and institutional foreign investors which meet qualifications set by the ROC Securities and Futures Commission ( General Foreign Investors ) may invest in the shares of Taiwan Stock Exchange-listed or the ROC Over-the-Counter Securities Exchange-Listed companies up to a limit of US\$50 million (in the case of institutional investors) and US\$5 million (in the case of individual investors) after obtaining permission from the Taiwan Stock Exchange. General Foreign Investors are also subject to the foreign ownership percentage limitations described in the preceding paragraph.

Foreign investors (other than Qualified Foreign Institutional Investors, General Foreign Investors, investors investing in overseas convertible bonds and depositary receipts) who wish to make direct investments in the shares of ROC companies are required to submit a Foreign Investment Approval application to the Investment Commission of the ROC Ministry of Economic Affairs or other government authority. The Investment Commission or 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 China and the ROC Securities and Futures Commission).

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

In addition to the general restriction against direct investment by non-ROC persons in securities of ROC companies, non-ROC persons (except in 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 investment in the prohibited industries specified in the Negative List is absolute in the absence of specific exemption from the application of the Negative List. Pursuant to the Negative List, certain other industries are restricted so that non-ROC persons (except in limited cases) may invest in these industries only up to a specified level and with the specific approval of the relevant competent authority which is responsible for enforcing the relevant legislation which the Negative List is intended to implement.

### **Exchange Controls**

The Foreign Exchange Control Statute and regulations provide that all foreign exchange transactions must be executed by banks designated to handle the business, by the ROC Ministry of Finance or by the Central Bank of China. Current regulations favor trade-related foreign exchange transactions. Consequently, foreign currency earned from exports of merchandise and services may now be retained and used freely by exporters, and all foreign currency needed for the importation of merchandise and services may be purchased freely from the designated foreign exchange banks.

Trade aside, ROC companies and resident individuals may, without foreign exchange approval, remit into and outside 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. A requirement is also imposed on all enterprises to register medium-and long-term foreign debt with the Central Bank of China.

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

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

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**Advanced  
Semiconductor  
Engineering, Inc.**

32,473,600

American Depositary Shares

Representing

162,368,000 Common Shares

**Goldman Sachs International**

Representative of the Underwriters

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## PART II

## INFORMATION NOT REQUIRED IN PROSPECTUS

**Item 8. Indemnification of Directors and Officers**

The relationship between Advanced Semiconductor Engineering, Inc. ( ASE Inc. ) and its directors and officers is governed by the Republic of China ( ROC ) Civil Code, ROC Company Law and ASE Inc. s Articles of Incorporation. There is no written contract between ASE Inc. and its directors and officers governing the rights and obligations of such parties. Each person who was or is a party or is threatened to be made a party to, or is involved in any threatened, pending or completed action, suit or proceeding by reason of the fact that such person is or was a director or officer of ASE Inc. in the absence of willful misconduct or negligence on the part of such person in connection with such person s performance of duties as a director or officer, as the case may be, may be indemnified and held harmless by ASE Inc.

**Item 9. Exhibits**

Exhibits	Description
1.1	Form of Underwriting Agreement.
3.1	Amended Articles of Incorporation of ASE Inc. (in Chinese with English language translation).
4.1*	Form of Amended and Restated Deposit Agreement among ASE Inc., Citibank N.A., as depository, 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 4.1 to the Company s registration statement on F-1 (file no. 333-44622) which was declared effective by the SEC on September 25, 2000 (the Form F-1 )).
5.1	Opinion of Lee and Li, ROC counsel to ASE Inc., as to the validity of the common shares.
8.1	ROC Tax Opinion of Lee and Li (included in Exhibit 5.1).
8.2	U.S. Tax Opinion of Davis Polk & Wardwell.
10.1*	Stock Purchase Agreement dated as of March 15, 1999 between ASE Test Limited and the Selling Shareholders relating to the purchase and sale of 12,250,000 shares of Common Stock of ISE Labs, Inc. (incorporated by reference to Exhibit 10.1 of ASE Test Limited s Registration on Form F-3 (File No. 333-10892) which was declared effective by the SEC on December 22, 1999 (the ASE Test 1999 Registration Statement )).
10.2*	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 of the ASE Test 1999 Registration Statement).
10.3*	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% of the Common Stock of Motorola Korea Ltd. (incorporated by reference to Exhibit 10.3 of the ASE Test 1999 Registration Statement).
10.4*	Manufacturing Services Agreement dated as of July 3, 1999 among Motorola, Inc., ASE Inc. and ASE (Chung Li) Inc. (incorporated by reference to Exhibit 10.4 to the Form F-1).



Exhibits	Description
10.5*	Manufacturing Services Agreement dated as of July 3, 1999 among Motorola, Inc., ASE Inc. and ASE (Korea) Inc. (incorporated by reference to Exhibit 10.5 to the Form F-1).
10.6*	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).
10.7	ASE Inc. Employee Bonus Plan (in Chinese with English language translation).
10.8*	Land Lease effective October 1, 1999 until September 30, 2009 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.14 to the Form F-1).
10.9*	Land Lease effective September 1, 1999 until August 30, 2009 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.15 to the Form F-1).
10.10*	Land Lease effective April 1, 1998 until March 31, 2008 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.16 to the Form F-1).
10.11*	Land Lease effective October 1, 1997 until September 30, 2007 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.17 to the Form F-1).
10.12*	Land Lease effective October 1, 1997 until September 30, 2007 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.18 to the Form F-1).
10.13*	Land Lease effective August 1, 1997 until July 31, 2007 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.19 to the Form F-1).
10.14*	Land Lease effective January 1, 1996 until December 31, 2005 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.20 to the Form F-1).
10.15*	Land Lease effective November 1, 1995 until October 31, 2005 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.21 to the Form F-1).
10.16*	Land Lease effective July 1, 1995 until June 30, 2005 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.22 to the Form F-1).
10.17*	Land Lease effective July 1, 1995 until June 30, 2005 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.23 to the Form F-1).
10.18*	Land Lease effective August 1, 1994 until July 31, 2004 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.24 to the Form F-1).
10.19*	Land Lease effective April 6, 1994 until April 5, 2004 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.25 to the Form F-1).
10.20*	License Agreement dated as of January 16, 2001 between 1st Silicon (Malaysia) Sdn. Bhd. and ASE Electronics (M) Sdn. Bhd. (incorporated by reference to Exhibit 4(u) to the Annual Report on Form 20-F for the year 2000, filed June 28, 2001 (the 2000 20-F)).

Exhibits	Description
10.21	Service Agreement dated as of August 1, 2001 between ASE Electronics (M) Sdn. Bhd. and ASE (U.S.) Inc.
10.22	Service Agreement dated as of August 1, 2001 between ASE Test Inc. and ASE (U.S.) Inc.
10.23	Service Agreement dated as of August 1, 2001 between ASE (Korea) Inc. and ASE (U.S.) Inc.
10.24	Service Agreement dated as of August 1, 2001 between ASE (Chung-Li) Inc. and ASE (U.S.) Inc.
10.25	Service Agreement dated as of August 1, 2001 between Advanced Semiconductor Engineering, Inc. and ASE (U.S.) Inc.
10.26	Commission Agreement dated as of August 1, 2001 between ASE Electronics (M) Sdn. Bhd. and Gardex International Limited.
10.27	Commission Agreement dated as of August 1, 2001 between ASE Test Inc. and Gardex International Limited.
10.28	Commission Agreement dated as of August 1, 2001 between ASE (Korea) Inc. and Gardex International Limited.
10.29	Commission Agreement dated as of August 1, 2001 between ASE (Chung Li) Inc. and Gardex International Limited.
10.30	Commission Agreement dated as of August 1, 2001, between Advanced Semiconductor Engineering, Inc. and Gardex International Limited.
10.31*	Land Lease effective July 1, 2000 until June 30, 2010 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(ff) to the 2000 20-F).
10.32*	Land Lease effective July 1, 2000 until June 30, 2010 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(ff) to the 2000 20-F).
10.33*	Land Lease effective October 1, 2000 until September 30, 2010 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(hh) to the 2000 20-F).
10.34*	Land Lease effective March 16, 2001 until March 15, 2011 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(ii) to the 2000 20-F).
10.35*	Land Lease effective March 1, 2001 until February 28, 2011 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(jj) to the 2000 20-F).
10.36*	First Amendment to Lease Agreement dated June 7, 2000 between ISE Labs, Inc. and RND Funding Company, Inc. (incorporated by reference to Exhibit 4(kk) to the 2000 20-F).
10.37*	Sub-lease Agreement dated October 3, 2000 between ISE Labs Singapore Pte Ltd and Wan Tien Realty (Pte) Ltd. (incorporated by reference to Exhibit 4(ll) to the 2000 20-F).
10.38*	Sub-lease Agreement dated June 3, 1999 between ISE Labs Singapore Pte Ltd and Wan Tien Realty (Pte) Ltd. (incorporated by reference to Exhibit 4(mm) to the 2000 20-F).
10.39*	Sublease Agreement dated June 2000 between ISE Labs, Inc. and Cirrus Logic, Inc. (incorporated by reference to Exhibit 4(nn) to the 2000 20-F).

Exhibits	Description
10.40*	Sublease Agreement dated June 2000 between ISE Labs, Inc. and Cirrus Logic, Inc. (incorporated by reference to Exhibit 4(oo) to the 2000 20-F).
10.41*	Tenancy Agreement dated April 1, 1999 between ISE Labs (HK) Limited and Hing Seng Plastic Factory Limited. (incorporated by reference to Exhibit 4(pp) to the 2000 20-F).
10.42*	Lease dated September 28, 2000 between ISE Labs Hong Kong Limited and Shinano Kenshi (HK) Co., Ltd. (incorporated by reference to Exhibit 4(qq) to the 2000 20-F).
10.43*	Lease dated October 20, 2000 between ISE Labs Hong Kong and Bless Silver Development Limited. (incorporated by reference to Exhibit 4(rr) to the 2000 20-F).
10.44*	Lease Agreement between ASE Test Malaysia and Penang Development Corporation (incorporated by reference to Exhibit 2(c) to ASE Test Limited's annual report on Form 20-F for the year ended December 31, 1997). (incorporated by reference to Exhibit 4(ss) to the 2000 20-F).
10.45*	Sale and Purchase Agreement between Afasia Knitting Factory (Malaysia) Sdn. Bhd. and ASE Electronics (M) Sdn. Bhd. dated February 24, 1997. (incorporated by reference to Exhibit 4(tt) to the 2000 20-F).
10.46	Office Building Lease Agreement between ISE Labs, Inc. and JER/BRE Austin Tech L.P. dated October 4, 2001.
10.47	Plant Lease Agreement between ASE (Chung Li) Inc. and ASE Material Inc. dated October 31, 2001.
10.48	Plant Lease Agreement between ASE (Chung Li) Inc. and ASE Material Inc. dated October 31, 2001.
10.49	Plant Lease Agreement between ASE (Chung Li) Inc. and ASE Test Inc. dated October 5, 2001.
21.1	List of subsidiaries of ASE Inc.
23.1	Consent of T.N. Soong & Co.
23.2	Consent of Lee and Li (included in Exhibit 5.1).
23.3	Consent of Davis Polk & Wardwell (included in Exhibit 8.2).
24.1	Power of Attorney (included under the caption "Signatures" in Part II of this registration statement).

\* Incorporated by reference.

To be filed by amendment.

Does not contain portions for which confidential treatment has been granted.

**Item 10. Undertakings**

(a) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(b) The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed

by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed too be part of this registration statement as of the time it was declared effective.

- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
  
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to item 8 or otherwise, the registrant has been advised that, in the option of the United States Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by a director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether indemnification by it in that case is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.



David Pan

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**SIGNATURE OF AUTHORIZED REPRESENTATIVE OF THE REGISTRANT**

Pursuant to the Securities Act of 1933, the undersigned, the duly authorized representative in the United States of Advanced Semiconductor Engineering, Inc., has signed this Registration Statement or amendment thereto in Newark, Delaware, on May 30, 2002.

PUGLISI & ASSOCIATES

By: /s/ DONALD PUGLISI

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Donald Puglisi  
*Managing Director*

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## INDEX TO EXHIBITS

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5.1	Opinion of Lee and Li, ROC counsel to ASE Inc., as to the validity of the common shares.
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10.10*	Land Lease effective April 1, 1998 until March 31, 2008 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary)(incorporated by reference to Exhibit to 10.16 to the Form F-1).



Exhibits	Description
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10.12*	Land Lease effective October 1, 1997 until September 30, 2007 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary)(incorporated by reference to Exhibit to 10.18 to the Form F-1).
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10.15*	Land Lease effective November 1, 1995 until October 31, 2005 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.21 to the Form F-1).
10.16*	Land Lease effective July 1, 1995 until June 30, 2005 between ASE Inc. and the Nantze Export Processing Zone (in Chinese with English language summary) (incorporated by reference to Exhibit to 10.22 to the Form F-1).
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10.20*	License Agreement dated as of January 16, 2001 between 1st Silicon (Malaysia) Sdn. Bhd. and ASE Electronics (M) Sdn. Bhd. (incorporated by reference to Exhibit 4(u) to the Annual Report on Form 20-F for the year 2000, filed June 28, 2001 (the 2000 20-F )).
10.21	Service Agreement dated as of August 1, 2001 between ASE Electronics (M) Sdn. Bhd. and ASE (U.S.) Inc.
10.22	Service Agreement dated as of August 1, 2001 between ASE Test Inc. and ASE (U.S.) Inc.
10.23	Service Agreement dated as of August 1, 2001 between ASE (Korea) Inc. and ASE U.S.) Inc.
10.24	Service Agreement dated as of August 1, 2001 between ASE (Chung-Li) Inc. and ASE (U.S.) Inc.
10.25	Service Agreement dated as of August 1, 2001 between Advanced Semiconductor Engineering, Inc. and ASE (U.S.) Inc.
10.26	Commission Agreement dated as of August 1, 2001 between ASE Electronics (M) Sdn. Bhd. and Gardex International Limited.
10.27	Commission Agreement dated as of August 1, 2001 between ASE Test Inc. and Gardex International Limited.
10.28	Commission Agreement dated as of August 1, 2001 between ASE (Korea) Inc. and Gardex International Limited.
10.29	Commission Agreement dated as of August 1, 2001 between ASE (Chung Li) Inc. and Gardex International Limited.

Exhibits	Description
10.30	Commission Agreement dated as of August 1, 2001 between Advanced Semiconductor Engineering, Inc. and Gardex International Limited.
10.31*	Land Lease effective July 1, 2000 until June 30, 2010 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(ff) to the 2000 20-F).
10.32*	Land Lease effective July 1, 2000 until June 30, 2010 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(ff) to the 2000 20-F).
10.33*	Land Lease effective October 1, 2000 until September 30, 2010 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(hh) to the 2000 20-F).
10.34*	Land Lease effective March 16, 2001 until March 15, 2011 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(ii) to the 2000 20-F).
10.35*	Land Lease effective March 1, 2001 until February 28, 2011 between ASE Inc. and the Nantze Export Processing Zone. (incorporated by reference to Exhibit 4(jj) to the 2000 20-F).
10.36*	First Amendment to Lease Agreement dated June 7, 2000 between ISE Labs, Inc. and RND Funding Company, Inc. (incorporated by reference to Exhibit 4(kk) to the 2000 20-F).
10.37*	Sub-lease Agreement dated October 3, 2000 between ISE Labs Singapore Pte Ltd and Wan Tien Realty (Pte) Ltd. (incorporated by reference to Exhibit 4(ll) to the 2000 20-F).
10.38*	Sub-lease Agreement dated June 3, 1999 between ISE Labs Singapore Pte Ltd and Wan Tien Realty (Pte) Ltd. (incorporated by reference to Exhibit 4(mm) to the 2000 20-F).
10.39*	Sublease Agreement dated June 2000 between ISE Labs, Inc. and Cirrus Logic, Inc. (incorporated by reference to Exhibit 4(nn) to the 2000 20-F).
10.40*	Sublease Agreement dated June 2000 between ISE Labs, Inc. and Cirrus Logic, Inc. (incorporated by reference to Exhibit 4(oo) to the 2000 20-F).
10.41*	Tenancy Agreement dated April 1, 1999 between ISE Labs (HK) Limited and Hing Seng Plastic Factory Limited. (incorporated by reference to Exhibit 4(pp) to the 2000 20-F).
10.42*	Lease dated September 28, 2000 between ISE Labs Hong Kong Limited and Shinano Kenshi (HK) Co., Ltd. (incorporated by reference to Exhibit 4(qq) to the 2000 20-F).
10.43*	Lease dated October 20, 2000 between ISE Labs Hong Kong and Bless Silver Development Limited. (incorporated by reference to Exhibit 4(rr) to the 2000 20-F).
10.44*	Lease Agreement between ASE Test Malaysia and Penang Development Corporation (incorporated by reference to Exhibit 2(c) to ASE Test Limited's annual report on Form 20-F for the year ended December 31, 1997). (incorporated by reference to Exhibit 4(ss) to the 2000 20-F).
10.45*	Sale and Purchase Agreement between Afasia Knitting Factory (Malaysia) Sdn. Bhd. and ASE Electronics (M) Sdn. Bhd. dated February 24, 1997. (incorporated by reference to Exhibit 4(tt) to the 2000 20-F).
10.46	Office Building Lease Agreement between ISE Labs, Inc. and JER/BRE Austin Tech L.P. dated October 4, 2001.
10.47	Plant Lease Agreement between ASE (Chung Li) Inc. and ASE Material Inc. dated October 31, 2001.

<b>Exhibits</b>	<b>Description</b>
10.48	Plant Lease Agreement between ASE (Chung Li) Inc. and ASE Material Inc. dated October 31, 2001.
10.49	Plant Lease Agreement between ASE (Chung Li) Inc. and ASE Test Inc. dated October 5, 2001.
21.1	List of subsidiaries of ASE Inc.
23.1	Consent of T.N. Soong & Co.
23.2	Consent of Lee and Li (included in Exhibit 5.1).
23.3	Consent of Davis Polk & Wardwell (included in Exhibit 8.2).
24.1	Power of Attorney (included under the caption Signatures in Part II of this registration statement).

\* Incorporated by reference.

To be filed by amendment.

Does not contain portions for which confidential treatment has been granted.