

ADVANTEST CORP  
Form 20-F  
June 30, 2003  
Table of Contents

As filed with the Securities and Exchange Commission on June 30, 2003

---

# SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

## FORM 20-F

(Mark One)

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(B) OR (G) OF THE SECURITIES EXCHANGE ACT OF 1934
- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended: March 31, 2003
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from to

Commission file number 1-15236

## Kabushiki Kaisha Advantest

(Exact Name of Registrant as Specified in its Charter)

## Advantest Corporation

(Translation of Registrant's Name Into English)

Edgar Filing: ADVANTEST CORP - Form 20-F

Japan

(Jurisdiction of Incorporation or Organization)

Shinjuku-NS Building

4-1, Nishi-Shinjuku 2-chome

Shinjuku-ku

Tokyo 163-0880

Japan

(81-3) 3342-7500

(Address of Principal Executive Offices)

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

Title of Each Class  
Common Stock

Name of Each Exchange On Which Registered  
The New York Stock Exchange

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

none

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

none

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

Title of Each Class  
Common Stock

Amount outstanding as of March 31, 2003  
98,246,359

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

Edgar Filing: ADVANTEST CORP - Form 20-F

Yes X

No \_\_\_\_\_

Indicate by check mark which financial statement item the Registrant has elected to follow:

Item 17 \_\_\_\_\_

Item 18 X

---

**Table of Contents****TABLE OF CONTENTS**

	<u>page</u>
ITEM 1. <u>IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS</u>	1
ITEM 2. <u>OFFER STATISTICS AND EXPECTED TIMETABLE</u>	1
ITEM 3. <u>KEY INFORMATION</u>	1
3.A <u>SELECTED FINANCIAL DATA</u>	1
3.B <u>CAPITALIZATION AND INDEBTEDNESS</u>	5
3.C <u>REASONS FOR THE OFFER AND USE OF PROCEEDS</u>	5
3.D <u>RISK FACTORS</u>	5
ITEM 4. <u>INFORMATION ON THE COMPANY</u>	15
4.A <u>HISTORY AND DEVELOPMENT OF THE COMPANY</u>	15
4.B <u>BUSINESS OVERVIEW</u>	15
4.C <u>ORGANIZATIONAL STRUCTURE</u>	39
4.D <u>PROPERTY, PLANTS AND EQUIPMENT</u>	40
ITEM 5. <u>OPERATING AND FINANCIAL REVIEW AND PROSPECTS</u>	40
5.A <u>OPERATING RESULTS</u>	40
5.B <u>LIQUIDITY AND CAPITAL RESOURCES</u>	55
5.C <u>RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES</u>	57
5.D <u>TREND INFORMATION</u>	59
ITEM 6. <u>DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES</u>	59
6.A <u>DIRECTORS AND SENIOR MANAGEMENT</u>	59
6.B <u>COMPENSATION OF DIRECTORS AND EXECUTIVE OFFICERS</u>	63
6.C <u>BOARD PRACTICES</u>	63
6.D <u>EMPLOYEES</u>	64
6.E <u>SHARE OWNERSHIP</u>	64
ITEM 7. <u>MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS</u>	67
7.A <u>MAJOR SHAREHOLDERS</u>	67
7.B <u>RELATED PARTY TRANSACTIONS</u>	68
7.C <u>INTERESTS OF EXPERTS AND COUNSEL</u>	69
ITEM 8. <u>FINANCIAL INFORMATION</u>	69
8.A <u>CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION</u>	69
8.B <u>SIGNIFICANT CHANGES</u>	69
ITEM 9. <u>THE OFFER AND LISTING</u>	70
9.A <u>LISTING DETAILS</u>	70
9.B <u>PLAN OF DISTRIBUTION</u>	70
9.C <u>MARKETS</u>	70
9.D <u>SELLING SHAREHOLDERS</u>	70
9.E <u>DILUTION</u>	71
9.F <u>EXPENSES OF THE ISSUE</u>	71
ITEM 10. <u>ADDITIONAL INFORMATION</u>	71
10.A <u>SHARE CAPITAL</u>	71
10.B <u>MEMORANDUM AND ARTICLES OF ASSOCIATION</u>	71
10.C <u>MATERIAL CONTRACTS</u>	77
10.D <u>EXCHANGE CONTROLS</u>	77
10.E <u>TAXATION</u>	79
10.F <u>DIVIDENDS AND PAYING AGENTS</u>	83



**Table of Contents**

	<u>page</u>	
10.G	<u>STATEMENT BY EXPERTS</u>	83
10.H	<u>DOCUMENTS ON DISPLAY</u>	83
10.I	<u>SUBSIDIARY INFORMATION</u>	84
ITEM 11.	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	84
ITEM 12.	<u>DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES</u>	86
12.A	<u>DEBT SECURITIES</u>	86
12.B	<u>WARRANTS AND RIGHTS</u>	86
12.C	<u>OTHER SECURITIES</u>	86
12.D	<u>AMERICAN DEPOSITARY SHARES</u>	86
ITEM 13.	<u>DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES</u>	86
ITEM 14.	<u>MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS</u>	86
ITEM 15.	<u>CONTROLS AND PROCEDURES</u>	86
ITEM 16.	<u>[RESERVED]</u>	87
ITEM 17.	<u>FINANCIAL STATEMENTS</u>	87
ITEM 18.	<u>FINANCIAL STATEMENTS</u>	87
ITEM 19.	<u>EXHIBITS</u>	88

## **Table of Contents**

As used in this annual report, the term **fiscal** preceding a year means the twelve-month period ended March 31 of the year subsequent to the year referred to. For example, **fiscal 2002** refers to the twelve-month period ended March 31, 2003. All other references to years refer to the applicable calendar year.

In parts of this annual report, amounts reported in Japanese yen have been translated into U.S. dollars for the convenience of readers. Unless otherwise noted, the rate used for this translation was ¥120.20 = \$1.00. This was the approximate exchange rate in Japan on March 31, 2003.

Unless otherwise noted, all references and discussions of Advantest's financial position, results of operations and cash flow in this annual report are made with reference to Advantest's consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP.

See **Information on the Company** **Business Overview** **Glossary** for a description of certain technical terms used in this annual report.

### **Cautionary Statement with Respect to Forward-Looking Statements**

This annual report contains forward-looking statements that are based on Advantest's current expectations, estimates and projections. These statements include, among other things, the discussion of Advantest's business strategy, outlook and expectations as to market and business developments, production and capacity plans. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as **anticipate**, **believe**, **estimate**, **expect**, **intend**, **project**, **should** and similar expressions. Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause Advantest's actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements, including:

- changes in demand for the products and services produced and offered by Advantest's customers, including semiconductors, communications services and electronic goods;
- circumstances relating to Advantest's investment in technology, including its ability to timely develop products that meet the changing needs of semiconductor manufacturers and communications network equipment and components makers and service providers;
- significant changes in the competitive environment in the major markets where Advantest purchases materials, components and supplies for the production of its products or where its products are produced, distributed or sold; and
- changes in economic conditions, currency exchange rates or political stability in the major markets where Advantest procures materials, components and supplies for the production of its principal products or where its products are produced, distributed or sold.

These risks, uncertainties and other factors also include those identified in **Operating and Financial Review and Prospects**, **Key Information** **Risk Factors** and **Information on the Company** set forth elsewhere in this annual report. Advantest does not undertake to release the results of any revisions of forward-looking statements to reflect future events or circumstances.





**Table of Contents****PART I****ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**ITEM 3. KEY INFORMATION****3.A SELECTED FINANCIAL DATA**

You should read the U.S. GAAP selected consolidated financial information presented below together with Operating and Financial Review and Prospects and Advantest's consolidated financial statements as of March 31, 2002 and 2003 and for each of the years in the three year period ended March 31, 2003, together with the notes to such financial statements, included elsewhere in this annual report.

**U.S. GAAP Selected Consolidated Financial Data**

The following selected financial data have been derived from Advantest's audited consolidated financial statements. These financial statements were prepared under accounting principles generally accepted in the United States, or U.S. GAAP. Advantest's U.S. GAAP audited consolidated financial statements for fiscal 2002 were included in its Japanese Securities Reports filed with the Director of the Kanto Local Finance Bureau.

	Year ended March 31,				
	2000	2001	2002	2003	2003
	(in millions, except per share and share data)			(in thousands, except per share and share data)	
<b>Consolidated Statement of Income Data:</b>					
Automated Test Equipment:					
Net sales	¥ 135,728	¥ 241,499	¥ 74,206	¥ 84,910	\$ 706,406
Operating income (loss)	40,723	86,413	(20,104)	465	3,869
Measuring Instruments:					
Net sales	22,850	35,013	21,038	12,830	106,739
Operating income (loss)	(68)	6,672	(7,826)	(7,939)	(66,048)
Total Company:					
Net sales	158,578	276,512	95,244	97,740	813,145

## Edgar Filing: ADVANTEST CORP - Form 20-F

Operating income (loss)	34,802	84,905	(37,105)	(16,743)	(139,292)
Income (loss) before income taxes	33,494	86,333	(38,480)	(18,688)	(155,474)
Net income (loss)	20,905	53,121	(23,906)	(12,994)	(108,103)
Net income (loss) per share:					
Basic	210.63	534.44	(240.38)	(131.99)	(1.10)
Diluted	209.99	533.24	(240.38)	(131.99)	(1.10)
Basic weighted average shares outstanding	99,249,719	99,394,909	99,453,203	98,445,111	98,445,111
Diluted weighted average shares outstanding	99,553,269	99,618,561	99,453,203	98,445,111	98,445,111

**Table of Contents**

	As of March 31,				
	2000	2001	2002	2003	2003
	(in millions)				(in thousands)
<b>Consolidated Balance Sheet Data:</b>					
Total assets:					
Automated test equipment	¥ 163,215	¥ 230,389	¥ 146,790	¥ 138,114	\$ 1,149,035
Measuring instruments	21,730	34,528	20,000	18,332	152,512
Corporate	135,947	142,514	140,772	124,778	1,038,087
Total	320,892	407,431	307,562	281,224	2,339,634
Current installments of long-term debt	10,000	4,343	43	2,243	18,661
Long-term debt, less current installments	26,822	26,911	26,868	24,626	204,875
Stockholders' equity	214,594	267,929	240,716	210,663	1,752,604
	Year ended March 31,				
	2000	2001	2002	2003	2003
	(in millions, except percentages)				(in thousands)
<b>Other Data:</b>					
Capital expenditures	¥ 6,469	¥ 12,280	¥ 13,254	¥ 7,564	\$ 62,928
Research and development expenses	23,481	28,541	26,674	23,615	196,464
Cash flows provided by operating activities	21,707	29,597	9,009	4,967	41,323
Cash flows used in investing activities	(9,080)	(16,130)	(18,573)	(8,419)	(70,042)
Cash flows used in financing activities	(1,775)	(10,266)	(9,463)	(14,488)	(120,532)
Operating margin <sup>(1)</sup>	21.95%	30.71%	(38.96)%	(17.13)%	
Net income margin <sup>(2)</sup>	13.18%	19.21%	(25.10)%	(13.29)%	

- (1) Operating income as a percentage of net sales.  
(2) Net income as a percentage of net sales.

**Japanese GAAP Selected Consolidated Financial Data**

The following selected financial data have been derived from Advantest's consolidated financial statements that were prepared under accounting principles generally accepted in Japan, or Japanese GAAP, and were included in its Japanese Securities Reports filed with the Director of the Kanto Local Finance Bureau.

Following the end of fiscal 2001, Advantest discontinued the preparation of annual consolidated financial statements under Japanese GAAP. Beginning in fiscal 2002, Advantest prepares its annual consolidated financial statements only under U.S. GAAP.

The differences between Japanese GAAP and U.S. GAAP applicable to Advantest primarily relate to the accounting for investment securities, income taxes, translation of foreign currency, accrued compensated absences, bonuses to directors and corporate auditors, employee retirement and severance benefits, leases, derivative financial instruments and revenue recognition and the presentation of statement of cash flows and comprehensive income. In addition, under Japanese GAAP, a restatement of prior year financial statements reflecting the effect of a change in accounting principles is not permitted. The rate used for translation from Japanese yen into U.S. dollars was ¥133.25=\$1.00, the approximate exchange rate in Japan on March 31, 2002.



**Table of Contents**

	Year ended March 31,				
	1999	2000 <sup>(3)</sup>	2001 <sup>(1)(5)(6)</sup>	2002	2002
	(in millions, except per share data)				(in thousands, except per share data)
<b>Consolidated Statement of Income Data:</b>					
Automated Test Equipment:					
Net sales	¥119,976	¥144,273	¥227,201	¥ 74,206	\$ 556,893
Operating income (loss)	36,138	47,969	76,589	(19,515)	(146,454)
Measuring Instruments:					
Net sales	21,738	22,849	35,012	21,038	157,884
Operating income (loss)	213	720	6,592	(7,866)	(59,032)
Total Company:					
Net sales	141,714	167,123	262,214	95,244	714,777
Operating income (loss)	30,170	41,672	72,613	(36,552)	(274,311)
Income (loss) before income taxes and extraordinary items	32,636	41,272	74,373	(36,793)	(276,120)
Net income (loss)	18,851	22,359	47,073	(22,949)	(172,225)
Net income (loss) per share:					
Basic	190.43	225.28	473.60	(230.76)	(1.73)
Diluted	190.27	224.60	472.54		

	As of March 31,				
	1999	2000 <sup>(3)</sup>	2001 <sup>(2)(4)</sup>	2002	2002
	(in millions)				(in thousands)
<b>Consolidated Balance Sheet Data:</b>					
Total assets:					
Automated test equipment	¥151,244	¥ 174,212	¥227,371	¥ 146,529	\$1,099,655
Measuring instruments	21,828	21,843	33,958	19,908	149,403
Corporate	112,094	135,863	142,420	138,636	1,040,420
Total	285,168	331,918	403,751	305,075	2,289,493
Current installments of long-term debt	3,069	10,000	4,342	42	315
Long-term debt, less current installments	34,621	26,821	26,911	26,868	201,636
Stockholders' equity	199,242	229,364	269,588	242,841	1,822,447

	Year ended March 31,				
	1999	2000 <sup>(3)</sup>	2001 <sup>(1)(2)(5)(6)</sup>	2002	2002
	(in thousands)				
<b>Other Data:</b>					
Capital expenditures	¥ 8,366	¥ 9,232	¥ 16,181	¥ 14,447	\$ 108,420
Research and development expenses	22,111	23,153	28,585	26,739	200,668
Cash flows provided by operating activities	n.a.	21,089	29,177	8,574	64,345
Cash flows used in investing activities	n.a.	(9,080)	(16,301)	(18,586)	(139,482)
Cash flows used in financing activities	n.a.	(1,157)	(9,675)	(9,015)	(67,655)
Operating margin <sup>(7)</sup>	21.29%	24.93%	27.69%	(38.38)%	
Net income margin <sup>(8)</sup>	13.30%	13.38%	17.95%	(24.09)%	

- Effective April 1, 2000, Advantest changed its accounting policy for revenue recognition. Prior to the change, sales to overseas customers were recognized upon shipment. Under the new policy, the sale of equipment which requires installation work is recognized when the related installation work is completed and the equipment is accepted by the customer. Because Japanese GAAP does not allow a restatement of financial statements to reflect a change in accounting policy, net sales for the year ended March 31, 2001 include the cumulative effect of the change in the amount of ¥14,298 million. If this new policy had been applied from April 1, 1999, net sales for the years ended March 31, 2000 and 2001 would have been ¥158,578 million and ¥276,512 million, respectively.
- Effective April 1, 2000, the accounting for investment securities under Japanese GAAP was changed. Under the new accounting standard, which is similar to U.S. GAAP accounting for investment securities, all of Advantest's securities were classified as available-for-sale

## Edgar Filing: ADVANTEST CORP - Form 20-F

securities. These securities are reported at fair value and related unrealized gains or losses, net of taxes, are included in stockholders equity. The change resulted in a decrease in stockholders equity of ¥415 million as of March 31, 2001.

**Table of Contents**

- (3) Effective April 1, 1999, the accounting for income taxes under Japanese GAAP was changed to the liability method where income taxes are recognized for temporary differences between the financial statement carrying amounts and tax bases of assets and liabilities. The change resulted in an increase of net deferred tax assets and net income in the amount of ¥8,459 million and ¥359 million, respectively, for the year ended March 31, 2000.
- (4) Effective April 1, 2000, the presentation of net unrealized gains or losses on foreign currency translations in the balance sheet changed under Japanese GAAP. Prior to the change, net gains or losses were included in assets or liabilities. Under the new presentation method, net gains or losses are included as a component of stockholders' equity. The change resulted in a decrease in stockholders' equity of ¥2,782 million as of March 31, 2001.
- (5) Effective April 1, 2000, a new accounting standard was established under Japanese GAAP. Under the new standard, Advantest recognizes retirement benefit costs based upon an actuarially determined present value of benefit obligations. The effect of the accounting change, net of a one-time transition gain of ¥1,565 million, was an increase in income before income taxes in the amount of ¥950 million in the year ended March 31, 2001.
- (6) Effective April 1, 2000, a new accounting standard for derivative financial instruments was adopted under Japanese GAAP. The adoption of the new accounting standard did not have a material effect on Advantest's financial statements in the year ended March 31, 2001.
- (7) Operating income as a percentage of net sales.
- (8) Net income as a percentage of net sales.

**Dividends**

Advantest normally pays cash dividends twice per year. Advantest's board of directors recommends dividends to be paid following the end of each fiscal year. This recommended dividend must then be approved by shareholders at the ordinary general meeting of shareholders usually held in June of each year. Immediately following approval of the dividend at the shareholders' meeting, Advantest pays the dividend to holders of record as of the preceding March 31. In addition to these year-end dividends, Advantest may pay interim dividends in the form of cash distributions from its retained earnings to its shareholders of record as of September 30 in each year by resolution of its board of directors and without shareholder approval. Advantest normally pays interim dividends in December.

The following table sets forth the dividends paid by Advantest for each of the periods shown. The periods shown are the six months ended on that date. Except for the dividend for the six months ended March 31, 2003, which was converted into U.S. dollars based on the exchange rate in Japan on March 31, 2003, the U.S. dollar equivalents for the dividends shown are based on the exchange rate in Japan on the date of the dividend payment.

<u>Six months ended/Record date</u>	<u>Dividend per Share</u>	
	<u>Yen</u>	<u>Dollars</u>
September 30, 1998	¥ 17	\$ 0.14
March 31, 1999	17	0.14
September 30, 1999	17	0.17
March 31, 2000	20	0.19
September 30, 2000	25	0.23
March 31, 2001	25	0.20
September 30, 2001	25	0.20
March 31, 2002	15	0.13
September 30, 2002	20	0.16
March 31, 2003	10	0.08

The payment and the amount of any future dividends are subject to the level of Advantest's future earnings, its financial condition and other factors, including statutory restrictions on the payment of dividends.





**Table of Contents****Exchange Rates**

In parts of this annual report, yen amounts have been translated into U.S. dollars for the convenience of investors. Unless otherwise noted, the rate used for the translation was \$1.00 = ¥120.20. This was the approximate exchange rate in Japan on March 31, 2003.

The following table sets forth, for the periods and dates indicated, information concerning the noon buying rate for Japanese yen announced by the Federal Reserve Bank of New York, expressed in Japanese yen per \$1.00. The noon buying rate as of June 20, 2003 was \$1.00 = ¥118.39. Advantest does not intend to imply that the Japanese yen or U.S. dollar amounts referred to in this annual report could have been or could be converted into U.S. dollars or Japanese yen, as the case may be, at any particular rate, or at all.

Fiscal year ended/ending March 31,	At end of period	Average (of month-end rates)	High	Low
		(¥ per \$1.00)		
1999	¥ 118.43	¥ 128.10	¥ 147.14	¥ 108.83
2000	102.73	110.02	124.45	101.53
2001	125.54	111.65	125.54	104.19
2002	132.70	125.64	134.77	115.89
2003	118.07	121.10	133.40	115.71
2004 (through June 20, 2003)	118.39	118.99	120.55	115.94
<b>Month ended</b>		<b>High</b>	<b>Low</b>	
		(¥ per \$1.00)		
December 31, 2002		¥ 124.99	¥ 118.38	
January 31, 2003		120.18	117.80	
February 28, 2003		121.30	117.14	
March 31, 2003		121.42	116.47	
April 30, 2003		120.55	118.25	
May 31, 2003		119.50	115.94	

**3.B CAPITALIZATION AND INDEBTEDNESS**

Not applicable.

**3.C REASONS FOR THE OFFER AND USE OF PROCEEDS**

Not applicable.

**3.D RISK FACTORS**

**Risks Related to Advantest's Business**

*Continuing weak demand in the cyclical market for semiconductors is adversely affecting Advantest's automated test equipment business*

Advantest's automated test equipment business and results of operations depend largely upon the capital expenditures of manufacturers of semiconductors, independent providers of semiconductor test services, or test houses, and independent semiconductor manufacturing service providers, or foundries. These manufacturers and companies, in turn, determine their capital expenditure and investment levels largely based on current and anticipated market demand for semiconductors and demand for products incorporating semiconductors. Historically, the percentage reduction in capital expenditures by semiconductor manufacturers, including investment in automated test equipment, during downturns in the semiconductor industry has typically been much greater than the percentage reduction in worldwide sales of semiconductors. The semiconductor industry

---

## **Table of Contents**

has been highly cyclical with recurring periods of excess inventory, which often have had a severe effect on the semiconductor industry's demand for semiconductor test systems and other automated test equipment components, including those of Advantest. The market for memory semiconductors is especially cyclical as compared to non-memory semiconductors, including system-on-a-chip, or SoC, semiconductors. In fiscal 2002, approximately 70% of Advantest's net sales from semiconductor test systems were derived from the sale of semiconductor test systems for memory semiconductors. Therefore, any cyclical downturns in the memory market will likely adversely affect Advantest more than its competitors.

The market for both memory and SoC semiconductors contracted significantly in the second half of 2000 and during 2001. Furthermore, despite an increase in demand generated by certain digital home electronics and high-end wireless handsets, the worldwide semiconductor market grew by only 1.3% in 2002 compared to 2001. Worldwide sales of memory semiconductors, which declined by 49.5% in 2001 as compared with 2000, increased by 8.7% in 2002 as compared with 2001. Worldwide sales of non-memory semiconductors, which declined by 26.5% in 2001 compared to 2000, declined by 0.4% in 2002 as compared with 2001. Several factors have contributed to this continuing weak market for memory and SoC semiconductors, including:

- the global economic downturn, particularly in the United States;
- sluggish sales levels in the personal computer industry; and
- continued restraint in investment in communications infrastructure and, in particular, the effect on the high-end wireless handset market.

Amid this continuing downturn, Advantest's net sales from automated test equipment increased by 14.4% in fiscal 2002 compared to fiscal 2001, following a decrease of 69.3% in fiscal 2001 compared to fiscal 2000. Of the net sales of ¥84,910 million in fiscal 2002, ¥35,124 million was recorded in the first half of fiscal 2002 and ¥49,786 million was recorded in the second half of fiscal 2002. While it appears that the semiconductor market bottomed out in the second half of fiscal 2001 and has started to slowly improve, Advantest believes that the market price for semiconductors remains depressed. Advantest believes that there still exists a substantial lack of visibility regarding semiconductor demand that makes it very difficult to estimate the timing and extent of improvement in Advantest's automated test equipment business.

### ***Advantest's market position in non-memory semiconductor test systems creates challenges for Advantest to grow its business***

In 2002, Advantest had an approximately 9.3% market share in SoC semiconductor test systems, which is the largest segment of the non-memory semiconductor test system market. Advantest's smaller market share in non-memory semiconductor test systems creates challenges for Advantest to grow its non-memory semiconductor test system business. Customers typically purchase new automated test equipment from current equipment suppliers because they want to ensure that new equipment is compatible with their existing systems. In addition, the development of new semiconductor test systems is, in general, a cumulative process, which means established manufacturers enjoy competitive advantages based on technology and know-how already acquired. Advantest believes that increasing sales of non-memory semiconductor test systems, particularly SoC semiconductor test systems, is vital to growing its overall business. In recent years, the non-memory semiconductor test system market has been approximately two to three times as large as the memory semiconductor test system market. Advantest may need to reduce sales prices for its non-memory semiconductor test systems, particularly SoC semiconductor test systems and, therefore, reduce its margins from current levels in order to grow its non-memory semiconductor test system business.

***Advantest may not recoup its investment in, or otherwise benefit from the successful adoption of, OPENSTAR***

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest is currently expending time and resources to design and create, as well as promote the adoption of, OPENSTAR, an industry-wide, open architecture that seeks to address the rapidly changing testing requirements of SoC semiconductors. Advantest is leading the efforts in the design and creation and for the

---

## **Table of Contents**

adoption of OPENSTAR because it believes that OPENSTAR will provide an opportunity for late entrants to the SoC automated test equipment market, such as Advantest, to increase their market share. However, the development of OPENSTAR is not complete and there can be no assurance that OPENSTAR will ever develop into a viable architecture. In addition, the adoption of this standard depends on a number of factors, such as the active participation of other systems and module equipment manufacturers and the support of a substantial number of semiconductor manufacturers. Advantest believes that other automated test equipment companies are also in the process of developing new testing platforms of their own. There can be no assurance that the OPENSTAR standard will be adopted by the semiconductor industry or, if adopted, that this standard will be successful. If OPENSTAR is not adopted by the semiconductor industry, Advantest will not recoup its investment in this new open architecture.

Furthermore, even if OPENSTAR is broadly accepted by the semiconductor industry, the consequences of the adoption of OPENSTAR on Advantest's automated test equipment business are uncertain. OPENSTAR is an open architecture that allows all semiconductor industry participants to participate, therefore the adoption of the new standard could result in the increase of the number of market participants and in a loss of market share for Advantest. In addition, OPENSTAR is a new standard and, therefore, will require all automated test equipment manufacturers, including Advantest, to re-design their products. There can be no assurance that Advantest will be able to design and manufacture products based on this new standard that meet the cost and technical requirements of SoC semiconductor manufacturers. These and other uncertainties that can result from the adoption of OPENSTAR could adversely affect Advantest's SoC automated test equipment business.

### ***Advantest is facing significant price pressure in both of its business segments***

Price pressure in Advantest's businesses is adversely affecting Advantest's operating margins. Advantest believes that price pressure with respect to automated test equipment is strongest during periods when demand, in terms of volume, for semiconductors is increasing, but there exists pressure on the market price for semiconductors. During these periods, semiconductor manufacturers and testing companies seek to increase their production capacities, while minimizing their capital expenditures at the same time. Advantest believes that, despite a general lack of visibility regarding the timing of a real recovery in the semiconductor market, it is in such a period. With respect to its measuring instruments segment, Advantest has continued to experience significant price pressure following the drop in capital investment levels in the communications industry and the downturn in the global economy beginning in the later part of 2000. A further increase in price pressure will adversely affect Advantest's future operating results and financial condition.

### ***Demand for Advantest's products, in particular its wireless and fiber optic measuring instruments, is being negatively affected by continued restraint on investments by the communications industry***

Advantest's measuring instrument business depends, in large part, on demand from wireless communications and fiber optic network equipment and components manufacturers and service providers. Of Advantest's net sales from measuring instruments, sales of measuring instruments to these manufacturers and service providers accounted for approximately 70% in fiscal 2001 and 50% in fiscal 2002, respectively. Capital expenditures by manufacturers and service providers in the communications industry grew significantly between 1995 and 2000. However, beginning in early 2001 several factors contributed to a significant decrease in capital expenditures by the communications sector, particularly in the fiber optic communications industry. These factors include:

- the global economic downturn, particularly in the United States;
- excess capacity of fiber optic communications networks due to the failure of demand for high-speed voice, data and video services to increase at the rate anticipated;

## Edgar Filing: ADVANTEST CORP - Form 20-F

- the inability of some fiber optic and wireless communications companies, particularly in the United States, to service debt obligations incurred in connection with the roll-out of their networks, and the resulting deterioration in the financial condition and, in some cases, bankruptcy of these companies; and

## **Table of Contents**

- delays in the roll-out of third-generation wireless services worldwide, particularly in Europe and the United States.

The decrease in, and continued restraint on, capital spending adversely affected demand for Advantest's products. Consequently, Advantest's net sales from measuring instruments fell in fiscal 2002 by 39% compared to fiscal 2001 to ¥12,830 million, consisting of net sales of ¥5,989 million in the first half of fiscal 2002 and ¥6,841 million in the second half of fiscal 2002. The adverse conditions in the communications industry have also affected demand for semiconductors, in particular semiconductors incorporated in high-end wireless handsets, which, in turn, has affected Advantest's sales of automated test equipment. Advantest believes that investment levels in communications networks, particularly in fiber optic networks, will continue to be weak in fiscal 2003 and will adversely affect Advantest's sales and profits from measuring instruments and automated test equipment.

*The market for automated test equipment is highly concentrated, and Advantest may not be able to increase sales of its products because of the limited opportunities*

The market for automated test equipment, particularly for memory semiconductor test systems, is highly concentrated, with a small number of large semiconductor manufacturers, test houses and foundries accounting for a large portion of total sales in the automated test equipment industry. Advantest believes that this state of the market will become even more severe in the future as a move towards consolidation in the semiconductor industry has recently begun, with larger semiconductor device manufacturers, foundries and test houses acquiring smaller, often financially-troubled, semiconductor market participants. Advantest's ability to increase sales will depend in large part upon its ability to obtain or increase orders from large-volume customers.

*Advantest's largest customers currently account for a significant part of its net sales, and the loss of one or more of these customers could harm its business*

Advantest's success depends on its continued ability to develop and manage relationships with its major customers, a small number of which currently accounts for a significant portion of its net sales. Advantest's largest customer accounted for approximately 18% of total net sales in fiscal 2000, 16% in fiscal 2001 and 12% in fiscal 2002. Sales to Advantest's five largest customers, all of which were automated test equipment customers, accounted for approximately 41% of total net sales in fiscal 2000, 37% in fiscal 2001 and 38% in fiscal 2002. The loss of one or more of these major customers could materially harm Advantest's business.

*The failure by Advantest to meet demand for its products upon a significant recovery in the automated test equipment market would likely adversely affect its future market share and financial results*

As part of its cost-cutting efforts during the last two fiscal years, Advantest has reduced the number of full-time employees from 4,805 at the end of fiscal 2000 to 3,519 at the end of fiscal 2002. If the market for automated test equipment were to experience an increase in demand similar to that experienced in 2000 when the automated test equipment market grew by approximately 63%, Advantest would require a significant increase in personnel in order to fully capitalize on such a recovery. The failure of Advantest to meet the demand for its products during any such a recovery could result in Advantest losing one or more of its existing large-volume customers or losing the opportunity to establish a strong relationship with a large-volume customer with which it currently does little or no business. Any such failure would likely adversely affect Advantest's future market share and its financial results.

*If Advantest does not introduce new products and services in a timely manner, its products and services will become obsolete, and its operating results will suffer*

Advantest sells its products in several industries that are characterized by rapid technological changes, frequent new product and service introductions and evolving industry standards. Advantest anticipates that future



## **Table of Contents**

demand for its automated test equipment will be driven, in large part, by advances in semiconductor technology, which create new testing requirements that are not adequately addressed by currently installed semiconductor test systems. These advances include:

- the introduction of SoC semiconductors that incorporate more advanced memory, logic and analog circuits;
- investment by semiconductor manufacturers in facilities that use 300 millimeter wafers in the production of semiconductors; and
- the use of self-test technologies that employ circuit designs incorporated into the circuits of semiconductor chips to simplify the front-end testing functions performed by automated test equipment.

Advantest also believes demand for its automated test equipment, as well as its measuring instruments, will be strongly affected by the level of demand for high-speed wireless and wireline data services and digital consumer products. Advances in technologies used in those products and services frequently require new testing equipment and measuring instruments. Without the timely introduction of semiconductor test systems and measuring instruments capable of effectively testing and measuring equipment that use new technologies, Advantest's products and services will become technologically obsolete over time, in which case Advantest's business, financial condition and results of operations would suffer. In addition, advances in technology typically lead to declining average prices for testing equipment and measuring instruments based on older technologies or processes.

### ***Advantest may not recoup costs incurred in the development of new products***

Enhancements to existing products and the development of new generations of products are, in most cases, costly processes. Furthermore, because the decision to purchase automated test equipment generally involves a significant commitment of capital, the sale of this equipment typically involves a lengthy sales period and requires Advantest to expend substantial funds and sales efforts to secure the sale. Advantest's enhancements or new generations of products may not generate net sales in excess of development and sales costs if, for example, these new enhancements or products are quickly rendered obsolete by changing customer preferences, the introduction by Advantest's competitors of products embodying new technologies or features, the introduction by Advantest's customers of new products that require different testing or measuring functions or the failure of the market for Advantest's customer's products to grow at the rate, or to the levels, anticipated by Advantest. This risk is particularly acute with respect to SoC semiconductor test systems because, in general, new SoC product lines are introduced to market more frequently than new memory semiconductor product lines. In some cases, Advantest must anticipate industry trends and develop products in advance of the commercialization of its customers' products. This requires Advantest to make significant investments in product development well before it determines the commercial viability of these innovations. If Advantest's customers fail to introduce their devices in a timely manner or the market rejects their devices, Advantest may not recover its investments in product development through sales in significant volume.

### ***Advantest's dependence on subcontractors and on sole source or a limited number of suppliers for its components and parts may prevent it from delivering an acceptable product on a timely basis***

Advantest relies on subcontractors to perform the low-end assembly requirements for its semiconductor test systems. For example, Advantest has been outsourcing the insertion and interconnection of the numerous circuit boards in each semiconductor test system beginning in fiscal 2001. In addition, many of the components used in Advantest's semiconductor test systems are produced by suppliers based on Advantest's specifications. Advantest's reliance on these subcontractors and suppliers gives it less control over the manufacturing process and exposes it to significant risks, especially inadequate manufacturing capacity, late delivery, substandard quality and high costs. In addition, Advantest depends on sole source, or a limited number of, suppliers for a portion of its components and parts. Advantest does not maintain long-term supply

agreements with most of its suppliers, and it purchases most of its components and parts through individual purchase orders. If suppliers

## **Table of Contents**

become unable to provide components or parts in the volumes needed or at acceptable prices, Advantest would have to identify and procure acceptable replacements. Furthermore, the markets for semiconductors and other specialized components have, in the past, experienced periods of inadequate supply to meet demand. The process of selecting subcontractors or suppliers and of identifying suitable replacement components and parts is a lengthy process and can result in Advantest being unable to deliver products meeting customer requirements on a timely basis. Advantest has, in the past, been unable to deliver its products according to production schedules due to the inability of suppliers to supply components and parts based on Advantest's specifications and due to other shortages in components and parts.

*Advantest's operating results are subject to significant fluctuations, which could cause the market price of its American Depositary Shares, or ADSs, and shares to decline*

Advantest's operating results have varied significantly from period to period and will continue to vary in the future, due to a number of factors. For example, after recording record sales and profits in fiscal 2000, Advantest experienced approximately a 66% decrease in net sales in fiscal 2001, which contributed to Advantest recording a net loss of ¥23.9 billion in fiscal 2001. In fiscal 2002, Advantest recorded net sales of ¥97.7 billion, an increase of 2.6% compared to fiscal 2001, and decreased its net losses to ¥13.0 billion.

Fluctuations in sales of automated test equipment can be explained in large part by cyclical changes in production capacity and demand for semiconductors. Advantest's operating results can also be negatively affected by other factors, including:

- its inability to quickly adjust to unanticipated declines or shortfalls in projected demand and market prices for its products;
- the timing of investments in product development in anticipation of future orders;
- the rate of technological change that requires the introduction of new products;
- the long selling process involved in the sale of automated test equipment;
- the relatively small number of total units sold in the semiconductor test system market;
- order cancellations or delays by customers;
- the difficulty of forecasting revenues from large system sales;
- delays in collection of, or increases in provisions for, accounts receivable due to the financial condition of customers;
- increases in required provisions for product warranty costs and write-downs of inventory;
- any real or perceived decrease in performance and reliability of Advantest products, which leads to a decline in Advantest's reputation;

- changes in the timing of product orders due to, among other things:
  - unexpected delays in the introduction of new products by Advantest's customers;
  - reduced demand for products made by Advantest's customers;
  - lifecycles of its customers' products ending earlier than expected;
  - uncertain market acceptance of products developed by its customers; or
  - a decline in operating results of Advantest's customers; and
- changes in costs and availability of components, parts, equipment and labor.

Downward fluctuations in Advantest's operating results may result in decreases in the market price of its ADSs and shares.

---

**Table of Contents**

***Advantest faces aggressive competition in all areas of its business, and if Advantest does not compete effectively, its business may be harmed***

Advantest faces substantial competition throughout the world in both of its operating segments. Advantest's primary competitors in the semiconductor test system market include Teradyne, Inc. and Agilent Technologies, Inc. In addition, Advantest competes in the semiconductor test systems market with several other smaller companies, particularly in the SoC semiconductor test system market. In measuring instruments, Advantest competes with a number of significant competitors in all of its major product categories and across its targeted industries. Agilent Technologies is the leading provider of measuring instruments in many of Advantest's product categories. Some of Advantest's competitors have greater financial and other resources than Advantest.

Advantest faces many challenges in its businesses, including increased pressure from customers to produce automated test equipment that reduces testing costs. Advantest must continue to enhance its business processes to lower the cost of its products, as well as introduce enhancements that otherwise lower overall testing costs, to compete successfully. Advantest also expects its competitors to continue to introduce new products with improvements in price and performance, as well as increase their customer service and support offerings. Significant increases in competition may erode Advantest's profit margin and weaken its earnings.

***Advantest's third-party distributors for its measuring instruments may fail to increase sales***

Advantest is dependent on its third-party distribution channels in its measuring instrument business. Sales through third-party distributors accounted for 40.0% of sales of measuring instruments in fiscal 2000, 48.7% in fiscal 2001 and 47.4% in fiscal 2002. Substantially all of Advantest's distribution agreements have one-year terms and are automatically renewed unless cancelled before the end of the term. Advantest may not be able to grow its measuring instrument business if its distribution channels fail to increase sales of Advantest products. Most of Advantest's agreements with its third-party distributors in Japan and other parts of Asia are nonexclusive, and many of these distributors have similar agreements with Advantest's competitors. An affiliate of Rohde & Schwarz GmbH & Co. KG is the sole distributor of Advantest's measuring instruments in Europe. Rohde & Schwarz also manufactures its own measuring instruments, some of which compete with Advantest's products. Rohde & Schwarz sells Advantest products in Europe in conjunction with sales efforts for its own products. There can be no assurance that these third-party distributors will not prioritize sales efforts relating to their own products or products of other competitors over Advantest's products.

***Advantest's commencement of direct sales of its measuring instruments in North America could adversely affect its future sales in North America***

Advantest commenced direct sales of its measuring instrument products in North America in July 2002. Between May 1993 and June 2002, Tektronix, Inc. was the sole distributor of Advantest's measuring instruments in North America. Advantest's annual sales of measuring instruments in North America were approximately ¥5.1 billion in fiscal 2000, ¥2.9 billion in fiscal 2001 and ¥0.7 billion in fiscal 2002. Advantest's sales of measuring instruments in North America in fiscal 2002 decreased as it started to establish its own distribution network. In addition, Advantest has commenced direct sales of its measuring instruments products in North America during a period when the overall communications industry market and demand for all measuring instruments is weak. There can be no assurance that Advantest will be able to establish a successful distribution network in North America or that it will, in any future period, match or exceed the revenue or profit levels for its measuring instruments achieved under the distribution arrangement with Tektronix.

***Advantest's failure to meet its customers' technical and cost requirements in a timely manner would adversely affect its current and future sales***

Many of Advantest's customers require semiconductor test systems and measuring instruments that are customized to meet specific technical and cost requirements. The failure of Advantest to meet its customers

---

## **Table of Contents**

technical and cost requirements or to deliver conforming equipment in a timely manner can result in its products being replaced by equipment of a competitor or an alternative technology solution. Advantest's inability to provide a product that meets requested performance criteria at an acceptable cost when required by its customer would severely damage its reputation with that customer and could adversely affect future sales efforts with respect to that customer.

### ***Advantest's business is subject to economic, political and other risks associated with international sales and operations***

Advantest's business is subject to risks associated with doing business internationally because it sells its products, and purchases parts and components from, around the world. In fiscal 2002, 42.2% of Advantest's total net sales came from Asia (excluding Japan), a majority of which consists of sales in Taiwan and Korea, 8.9% from North America and 9.1% from Europe. Advantest anticipates that net sales from international operations will continue to represent a substantial portion of its total net sales. In addition, some of Advantest's manufacturing facilities and suppliers are located in the United States, Korea and Malaysia. Accordingly, Advantest's future results could be harmed by a variety of factors, including:

- political and economic instability, natural calamities or other risks related to countries where Advantest manufactures its products, procures its components and parts or sells its products;
- trade protection measures and import or export licensing requirements;
- potentially negative consequences from changes in tax laws;
- difficulty in staffing and managing widespread operations;
- differing protection of intellectual property; and
- difficulties in collecting accounts receivable because of distance and different legal rules.

### ***Fluctuations in exchange rates could reduce Advantest's profitability***

Advantest derives a majority of its net sales from products sold to customers located outside of Japan. Approximately 60% of Advantest's fiscal 2002 net sales were from products sold to overseas customers. Most of Advantest's products are manufactured in Japan, but approximately 40.4% of Advantest's net sales in fiscal 2002 were made in currencies other than the yen, predominantly the U.S. dollar. A strengthening in the yen relative to the U.S. dollar and, to a much lesser extent, currencies of those other countries where Advantest does business would increase the prices of Advantest products as stated in U.S. dollars and in those other currencies and could hurt sales in those countries. In addition, significant fluctuations in the exchange rate between the yen and foreign currencies, especially the U.S. dollar, could require Advantest to lower its prices with respect to foreign sales of its products that are priced in yen, and reduce the yen equivalent amounts of its foreign sales for products that are based in U.S. dollars or other foreign currencies, and thus reduce its profitability. These fluctuations could also cause prospective customers to push out or delay orders because of the increased relative cost of Advantest's products. In the past, there have been significant fluctuations in the exchange rate between the yen and the currencies of countries in which Advantest does business.

*Advantest's intellectual property rights may be inadequate to provide meaningful protection of its proprietary rights*

Advantest relies on a combination of patents, licenses, copyrights, trademarks, utility model rights, design rights and confidentiality provisions to establish and protect its proprietary rights. For instance, with respect to the device interface market, Advantest has taken legal actions based on its patent and utility model rights against small manufacturers that sell replicas of Advantest's products and, in some instances, have obtained injunctions against sales of replicas. However, in general, it is difficult for Advantest to gain access to, and investigate, the products with respect to which Advantest believes its intellectual property rights have been infringed. Therefore,



## **Table of Contents**

Advantest cannot ensure that its patents and other intellectual property rights will provide meaningful protection of its proprietary rights. Nevertheless, Advantest is focused on protecting its intellectual property rights and will continue to monitor and police these rights.

***Third parties may claim Advantest is infringing their intellectual property, and Advantest could suffer significant liabilities, litigation costs or licensing expenses or be prevented from selling its products***

Advantest may be unknowingly infringing the intellectual property rights of others and may be held responsible for that infringement. To date, Advantest has not been the subject of a material intellectual property claim. However, any future litigation regarding patents or other intellectual property could be costly and time consuming, and divert management and key personnel from Advantest's business operations. If Advantest loses a claim, it might be forced to pay significant damages, obtain licenses, modify its products or processes, stop making products or stop using processes. A license could be very expensive to obtain or may not be available at all. Similarly, changing Advantest's products or processes to avoid infringing the rights of others may be costly or impractical.

***The current technology labor market is very competitive, and Advantest's business will suffer if Advantest is unable to hire and retain engineers and other key personnel***

Advantest's future success depends partly on its ability to attract and retain highly qualified engineers for its research and development and customer service and support divisions. If Advantest fails to hire and retain a sufficient number of these personnel, it will not be able to maintain and expand its business. Advantest may need to revise its compensation and other personnel related policies to retain its existing officers and employees and attract and retain the additional personnel that it expects to require.

***Chemicals used by Advantest may become subject to more stringent regulations, and Advantest may incur significant expenses to comply with these regulations***

Advantest uses chemicals, the manufacture, processing and distribution of which are subject to environmental related laws, regulations and rules of Japanese governmental agencies, as well as by various industry organizations and other regulatory bodies in other countries. These regulatory bodies may strengthen existing regulations governing chemicals used by Advantest and may also commence regulation of other chemicals used by Advantest. For instance, Advantest uses lead solder for mounting electronic parts and components for its products. Further, to cool its semiconductor test systems, Advantest uses a particular type of perfluorocarbon, or PFC, that is regulated under the laws of Japan and certain other jurisdictions. Advantest believes that it is in compliance with current regulations; however, Advantest must be prepared to adapt to regulatory requirements in all relevant countries as requirements change. Advantest may be required to incur significant expenditures in adapting to new requirements. Any failure by Advantest to comply with applicable government or industry regulations could result in the imposition of fines or restrictions on its ability to carry on or expand its operations.

***If Advantest's main research and development and production facilities for semiconductor test systems or the facilities of its subcontractors and suppliers were to experience catastrophic loss, its results of operations would be seriously harmed***

Advantest's main research and development and production facilities for semiconductor test systems, as well as many of Advantest's smaller facilities that manufacture test handlers, device interfaces and measuring instruments, are located in Japan. Japan suffers from relatively frequent earthquake activity. If Advantest's facilities, particularly its semiconductor test system manufacturing plant, were to experience a catastrophic

## Edgar Filing: ADVANTEST CORP - Form 20-F

loss, it would materially disrupt Advantest's operations, delay production, shipments and revenue, and result in large expenses to repair or replace the facility. Similar disruptions to Advantest's business may occur if the facilities of Advantest's subcontractors and suppliers were to experience a catastrophic loss. Advantest has insurance to cover

## **Table of Contents**

most potential losses at its manufacturing facilities, other than those that result from earthquakes. However, this insurance may not be adequate to cover all possible losses.

### **Risks Related to Ownership of ADSs or Common Stock**

*Yen-dollar fluctuations could cause the market price of the ADSs to decline and reduce dividend amounts payable to ADS holders as expressed in U.S. dollars*

Fluctuations in the exchange rate between the Japanese yen and the U.S. dollar will affect the U.S. dollar equivalent of the Japanese yen price of the shares on the Tokyo Stock Exchange and, as a result, are likely to affect the market price of the ADSs. Advantest has historically paid dividends on its shares twice a year. If Advantest declares cash dividends, dividends on the shares represented by the ADSs will be paid to the depositary in Japanese yen and then converted by the depositary into U.S. dollars. Therefore, exchange rate fluctuations will also affect the dividend amounts payable to ADS holders following conversion into U.S. dollars of dividends paid in Japanese yen on the shares represented by the ADSs.

*As a holder of ADSs, you will have fewer rights than a shareholder has, and you must act through the depositary to exercise those rights*

The rights of shareholders under Japanese law to take actions, including voting their shares, receiving dividends and distributions, bringing derivative actions, examining Advantest's accounting books and records and exercising appraisal rights, are available only to holders of record on Advantest's register of shareholders or Advantest's register of beneficial shareholders. Because the depositary, through its custodian agents, is the registered holder of the shares underlying the ADSs, only the depositary can exercise those rights in connection with the deposited shares. The depositary will make efforts to vote the shares underlying a holder's ADSs as instructed by the holder and will pay to the holder the dividends and distributions collected from Advantest. However, in the holder's capacity as an ADS holder, that holder will not be able to bring a derivative action, examine Advantest's accounting books and records or exercise appraisal rights through the depositary.

*There are restrictions on the withdrawal of shares from Advantest's depositary receipt facility*

Under Advantest's ADS program, each ADS represents the right to receive one-fourth of one share. To withdraw any shares, a holder of ADSs has to surrender for cancellation American Depositary Receipts, or ADRs, evidencing 400 ADSs or any integral multiple thereof. Each ADR bears a legend to that effect. As a result, holders of ADSs are unable to withdraw fractions of shares or units or receive any cash settlement from the depositary in lieu of withdrawal of fractions of shares or units. Holders of shares representing less than one unit, or 100 shares, may require Advantest to repurchase those shares, whereas holders of ADSs representing less than one unit of shares are unable to exercise this right because the holders of these ADSs are unable to withdraw the underlying shares. Under Advantest's ADS program, an ADS holder cannot cause the depositary to require Advantest to repurchase fractions of shares or units on its behalf. For a further discussion of the ADSs and the ADS program, see "Description of American Depositary Receipts" set forth in Advantest's registration on Form F-1 filed with the Securities and Exchange Commission on July 22, 2002. For a further discussion of the Japanese unit share system, see "Additional Information" Memorandum and Articles of Association "The Unit Share System" .

### **Enforcement of Civil Liabilities**

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest is a limited liability, joint-stock corporation incorporated under the laws of Japan. Almost all of Advantest's directors, executive officers and corporate auditors reside in Japan. All or substantially all of Advantest's assets and the assets of these persons are located in Japan and elsewhere outside the United States. It may not be possible, therefore, for investors to effect service of process within the United States upon Advantest.

## **Table of Contents**

or these persons or to enforce against Advantest or these persons judgments obtained in United States courts predicated upon the civil liability provisions of the federal securities laws of the United States. Advantest's Japanese counsel, Nagashima Ohno & Tsunematsu, has advised Advantest that there is doubt as to the enforceability in Japan, in original actions or in actions for enforcement of judgments of United States courts, of liabilities predicated solely upon the federal securities laws of the United States.

### **ITEM 4. INFORMATION ON THE COMPANY**

#### **4.A HISTORY AND DEVELOPMENT OF THE COMPANY**

Advantest commenced operations in July 1954. Advantest was incorporated in December 1954 under the name Takeda Riken Industry Co., Ltd. as a limited liability, joint-stock company in Japan under the Commercial Code of Japan. At the time of incorporation, Takeda Riken's primary business was the design, manufacture and sale of measuring instruments for Japanese electronics manufacturers. In 1971, Takeda Riken entered into its first distribution agreement with a foreign distributor, thereby launching the company's long-term goal of becoming a global manufacturer of testing and measuring products. Takeda Riken commenced producing automated test equipment for the semiconductor industry in 1972. Takeda Riken changed its registered name to Advantest Corporation in 1985.

Advantest's largest capital investment during the last three fiscal years was the construction of a second building at its main research and development center in Gunma, Japan. The construction was completed in April 2001 with a total investment amount of ¥4.0 billion. In addition, Advantest completed the expansion of its Gunma measuring instruments plant in October 2001 at a total cost of approximately ¥1.8 billion.

Advantest completed construction of its research and development facility in Fukuoka, Japan in June 2002 and this facility commenced operations in July 2002. This facility adds to Advantest's research and development capabilities in the semiconductor test systems field. This facility also serves as a customer support center for Advantest's customers in Asia. The total cost of this facility was approximately ¥1.5 billion. Advantest did not engage in any other large capital expenditure projects in fiscal 2002.

As of June 1, 2003, Advantest does not have any major capital expenditures in progress.

Advantest's principal executive offices are located at Shinjuku-NS Building, 4-1, Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo 163-0880, Japan. Advantest's telephone number in Japan is (81-3) 3342-7500.

#### **4.B BUSINESS OVERVIEW**

##### **Overview**

Advantest designs, manufactures and sells:

- automated test equipment used in the manufacture of semiconductors; and
- measuring instruments used in the design, production and maintenance of electronics hardware, including wireless communications and fiber optic equipment and digital consumer products.

Advantest is a leading manufacturer of automated test equipment. Advantest produces a wide range of automated test equipment required by semiconductor companies for the testing of semiconductor products. This equipment includes:

- *semiconductor test systems*, which perform the actual testing;
- *test handlers*, which set the semiconductors to be tested on the semiconductor test system during testing and remove them after testing;

## **Table of Contents**

- *device interfaces*, which connect the semiconductors to the semiconductor test system; and
- *software*, which includes operating and test programs that control the automated test equipment and feature a user-friendly interface for generating such test programs.

Advantest provides its customers with comprehensive solutions to their semiconductor testing needs, including a variety of service and support functions provided by its highly trained staff of service engineers located worldwide. Advantest manufactures automated test equipment for use with memory semiconductors and non-memory semiconductors, such as system-on-a-chip, or SoC, semiconductors. Advantest is one of the world's leading manufacturers of semiconductor test systems and is the world's leading manufacturer of semiconductor test systems for memory semiconductors.

In the measuring instruments segment, Advantest offers products that electronic equipment and parts manufacturers and communications network operators use to check the performance of equipments and components. For example, Advantest manufactures spectrum analyzers that are used to evaluate the performance of transmission equipment used in wireless communications networks and also produces similar equipment used to check and adjust transmission equipment used in fiber optic networks. Advantest also distributes general measuring instruments useful in the development, manufacture and maintenance of a wide range of electronic devices and equipment.

## **Industry Overview**

Advantest offers standardized and customized testing systems and measuring instruments used in the semiconductor, communications and electronics industries. Each of these industries continues to experience rapid changes in products, technology and demand. These changes include:

- the move to lower-cost, smaller, faster and more powerful and energy efficient semiconductors;
- the increasing levels of wireless communications penetration worldwide, including a rise in use of wireless local access networks, or LANs;
- the improvement in communications infrastructure in Asia, particularly in the People's Republic of China;
- the use of fiber optic networks to provide high-speed voice, data and video services; and
- the increasing focus on the production of electronic devices that incorporate semiconductor and communications technologies.

Despite the continuing global economic downturn, Advantest believes that these trends will continue to provide it with long-term growth opportunities in both its automated test equipment and measuring instrument business segments.

## ***Automated Test Equipment Industry***

## Edgar Filing: ADVANTEST CORP - Form 20-F

The following table sets forth the size of the market for memory, non-memory (including SoC) and all semiconductor test systems between 1996 and 2002 as estimated by Advantest.

	Year ended December 31,						
	1996	1997	1998	1999	2000	2001	2002
	(in millions)						
Memory	\$ 1,600	\$ 1,700	\$ 1,200	\$ 1,100	\$ 1,700	\$ 900	\$ 700
Non-memory	1,900	2,200	2,200	3,000	5,000	1,700	1,700
<b>Total</b>	<b>\$ 3,500</b>	<b>\$ 3,900</b>	<b>\$ 3,400</b>	<b>\$ 4,100</b>	<b>\$ 6,700</b>	<b>\$ 2,600</b>	<b>\$ 2,400</b>



**Table of Contents**

Demand for existing and new product lines and product pricing in the automated test equipment industry are affected mainly by:

- the level of demand for semiconductors worldwide and the resulting capital expenditure decisions of semiconductor manufacturers;
- advancements in semiconductor technology; and
- changes in semiconductor manufacturing processes.

Among the factors set forth above, weak demand in the worldwide semiconductor market, in particular weak market prices for semiconductors, and the resulting restraint in capital expenditure levels of manufacturers were primarily responsible for the depressed market for automated test equipment in 2002. Advantest estimates that the market size for semiconductor test systems in 2002 was approximately \$2.4 billion, close to 8% smaller than the market in 2001, and, in particular, the memory semiconductor test system market contracted by over 20% to approximately \$700 million.

***Semiconductor Demand***

Demand for automated test equipment is closely tied to the volume of semiconductors produced and the resulting capital expenditure decisions of semiconductor manufacturers.

Semiconductors are generally classified as either memory or non-memory. Memory semiconductors are used in electronic systems to store data and program instructions. Non-memory semiconductors include semiconductors that incorporate non-memory circuits, which include logic and analog circuits. Logic circuits process digital data to control the operations of electronic systems. Analog circuits process analog signals translated from real world phenomena such as sound, light, heat and motion. SoC semiconductors are a subset of non-memory semiconductors that combine advanced logic circuits with analog and/or memory circuits on a single chip. SoC semiconductors are used in a variety of sophisticated products, including wireless communications and fiber optic equipment, wireless handsets and digital consumer products.

Semiconductor sales have increased significantly over the long-term. However, semiconductors, and in particular memory semiconductors, have experienced significant cyclical variations in growth rates. It is estimated that worldwide sales of all semiconductors increased from approximately \$50 billion in 1990 to approximately \$204 billion in 2000, with almost all of the growth occurring during the years between 1992 and 1995 and between 1999 and 2000. In 2001, worldwide semiconductor sales fell by over \$65 billion, or 32%, compared to the previous year. In 2002, there was a marginal increase in worldwide semiconductor sales compared to the previous year. Nevertheless, the sales levels in 2002 remain far below the levels in 2000. The following table sets forth the size of the market for memory, non-memory (including SoC) and all semiconductors between 1996 and 2002 and the projected market size between 2003 and 2006 as compiled and estimated by World Semiconductor Trade Statistics as of May 2003.

Actual							Projected			
Year ended December 31,							Year ending December 31,			
1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006

Edgar Filing: ADVANTEST CORP - Form 20-F

	(in millions)					(in millions)					
Memory	\$ 36,018	\$ 29,335	\$ 22,993	\$ 32,286	\$ 49,227	\$ 24,875	\$ 27,041	\$ 30,771	\$ 40,105	\$ 37,121	\$ 37,804
Non-memory	95,948	107,868	102,619	117,093	155,167	114,088	113,672	126,146	145,636	163,309	170,126
Total	\$ 131,966	\$ 137,203	\$ 125,612	\$ 149,379	\$ 204,394	\$ 138,963	\$ 140,713	\$ 156,917	\$ 185,741	\$ 200,430	\$ 207,930

During 1996 and the first half of 1997, prices of memory semiconductors declined sharply as increases in supply outstripped demand as a result of technology advancements, excess inventories accumulated in 1995 and a global slowdown in sales of personal computers. Between 1995 and 1998, worldwide sales of memory semiconductors declined by approximately 57%. During the same period, worldwide sales of non-memory semiconductors grew in every year except 1998. The non-memory semiconductor market grew by approximately

## **Table of Contents**

13% over that three-year period. The non-memory semiconductor market is less volatile because these semiconductors are used in a larger variety of commercial products and equipment. The market for memory and non-memory semiconductors improved significantly in 1999 and the first half of 2000 due to corrections in inventories and improvements in demand for personal computers, wireless handsets and other consumer products.

In the second half of 2000, market prices for both memory and SoC semiconductors began to decrease significantly. This downturn continued and deepened throughout 2001, and despite increased demand generated by some segments of the digital consumer electronics market, in particular the digital versatile disk, or DVD, and high-end wireless handset markets, market prices for semiconductors remained depressed and the overall market for semiconductors remained weak in 2002. This weakness was a result of, among other factors:

- the global economic downturn, particularly in the United States;
- sluggish sales levels in the personal computer industry; and
- continued low levels of investment in communications infrastructure.

In periods of rapid decline in the semiconductor market, the capital expenditures of semiconductor manufacturers, including their purchases of automated test equipment, generally decline at a faster pace than the decline in semiconductor sales. In addition, sales of automated test equipment generally do not experience significant increases following a downturn in the semiconductor market until semiconductor manufacturers determine that the market for semiconductors is experiencing a real recovery.

While it appears that the semiconductor market bottomed out in the second half of fiscal 2001 and has started to slowly improve, Advantest believes that the market price for semiconductors remains depressed. Advantest believes that there still exists a substantial lack of visibility regarding semiconductor demand. World Semiconductor Trade Statistics estimates as of May 2003 that the market for memory semiconductors, lead by DDR-SDRAM and other high-end semiconductors, will grow at a compound annual growth rate of approximately 8.7% over the next four years to \$37.8 billion in 2006. The same source estimates that the non-memory semiconductor market will grow at a compound annual growth rate of approximately 10.6% over the next four years to \$170.1 billion in 2006.

### *Advances in Semiconductor Technology*

Advantest believes that demand for automated test equipment is also affected by the rate of change and development in semiconductor technology. Current changes in the semiconductor industry relate to the growing importance of digital consumer products and communications technologies. Demand for faster semiconductors that are smaller in size, incorporate more functions and require less power to operate is being driven by:

- growing demand for, and continuous improvements in, consumer electronics, such as digital cameras, DVDs, plasma display panels, liquid crystal displays, or LCDs, electronic organizers and television game consoles; and
-

## Edgar Filing: ADVANTEST CORP - Form 20-F

requirements of communications network equipment, such as network routers, switches and base stations, as well as wireless handsets and other Internet access devices, to enable advances in Internet hardware and software applications, increases in infrastructure performance and simplification and miniaturization of Internet access devices.

The development of SoC semiconductors with lower cost, smaller size, higher performance and lower power consumption has created demand for sophisticated automated test equipment that can simultaneously test SoC semiconductors logic, analog and memory circuits. Further advances in SoC semiconductor technology are expected, and Advantest believes these advances will create demand for new, high-performance automated test equipment optimized for use with these advanced semiconductors.

## **Table of Contents**

Advantest also believes that the integration of SoC semiconductors into a range of consumer electronics and communications equipment will drive demand for low-cost SoC semiconductor test systems. SoC semiconductors are often customized for applications in specific products, which results in a large variety of SoC semiconductor product lines that are often produced in relatively smaller volumes. Lower production volumes result in test costs occupying a higher percentage of the total cost of manufacturing.

Demand for personal computers with higher performance and capabilities is also driving changes in the memory semiconductor sector. This demand is causing manufacturers to shift from the production of traditional dynamic random access memory, or DRAM, semiconductors, which are the most widely used memory semiconductors in computer systems today, to semiconductors that allow higher-speed data transfer, such as double data rate synchronous DRAM, or DDR-SDRAM. Advantest believes that this shift is creating demand for automated test equipment capable of handling these new types of memory semiconductors. Advantest believes that the next major innovation in the memory market will be the mass production of semiconductors that operate at data rates of 533 megabits per second per input/output, or Mbps/I/O, or higher. Memory semiconductors that are currently mass-produced operate at data rates of 266 Mbps/I/O.

### ***Changes in Semiconductor Manufacturing Processes***

Semiconductor manufacturers are continuously introducing production efficiencies to maintain competitiveness. These cost-cutting efforts include subcontracting, changes in production and testing methods and the introduction of new testing technologies.

#### ***Subcontracting***

In recent years, semiconductor manufacturing and testing processes have become more complex and capital intensive. As a result, an increasing portion of the manufacturing and testing functions are being subcontracted out, in particular by companies that design, but outsource the production of, semiconductors, namely fabless design companies, in order to reduce fixed costs. This trend has resulted in an increase in the number of test houses and foundries. Foundries either perform testing in-house or outsource their testing needs to test houses. This trend towards subcontracting, particularly to test houses, has increased the number of potential customers for automated test equipment manufacturers, although it has not significantly affected total demand for automated test equipment. In addition, Advantest believes that foundries and test houses require automated test equipment compatible with the product lines of multiple semiconductor designers. Advantest believes this compatibility requirement gives automated test equipment manufacturers with broader product lines and larger market shares an advantage over smaller competitors.

#### ***Manufacturing Efficiencies***

One of the recent advances in semiconductor manufacturing processes is the production of semiconductors using 300 millimeter wafers. Wafers are flat pieces of silicon from which multiple semiconductor chips are constructed using photo-etching and other manufacturing processes. The use of 300 millimeter wafers will allow manufacturers to increase average semiconductor production per wafer by 125% when compared to production using conventional 200 millimeter wafers. Many manufacturers announced delays in investment in 300 millimeter wafer plants beginning in the second half of 2000 due to negative trends in the semiconductor market. However, Advantest believes that investment in these plants by some manufacturers resumed at the end of 2002 and that investment will continue to increase during 2003. Investment in these facilities is expected to lead to demand for new automated test equipment with increased throughput capabilities for manufacturers to capture fully the cost efficiencies associated with the use of 300 millimeter wafers.

## Edgar Filing: ADVANTEST CORP - Form 20-F

Another recent advance in semiconductor manufacturing processes involves increasing the proportion of testing done on the front-end of the manufacturing process as compared to the back-end in order to reduce manufacturing costs. Traditionally, each semiconductor is tested at two different stages during the semiconductor

## **Table of Contents**

manufacturing process. Front-end testing is generally used to test the conductivity and other electrical characteristics of a die, or an individual block on a wafer containing the circuits of a single semiconductor chip, after it has been fabricated, but before it has been cut out of the wafer and packaged, to eliminate non-functioning dies. After a functioning die is packaged as a semiconductor chip, back-end testing is performed to determine if the semiconductor chip was damaged during packaging and if the packaged product fully meets performance specifications. By performing more thorough tests on the front-end, manufacturers are able to detect more defective dies before packaging. At the same time, the amount of testing done by back-end semiconductor test systems can be reduced, which increases throughput. This shift towards front-end testing has increased the proportion of sales of front-end semiconductor test systems compared to sales of back-end test systems over the last three years. However, the scope of the increase has not been as large as anticipated by Advantest and it believes that the proportion of front-end semiconductor test systems that will be sold in the market in 2003 will be approximately the same as the proportion sold in 2002.

### *New Testing Technologies*

Semiconductor designers and manufacturers are striving to further reduce costs through the development of self-test technologies. Self-test technologies are designed into circuits which are added on to semiconductor chips and simplify testing performed by automated test equipment and reduce the aggregate time and cost required for testing. However, Advantest believes that testing using self-test technologies is less reliable than that using automated test equipment. Advantest believes that self-test technologies will be used primarily in semiconductors that enable semiconductor companies to recover their initial design and manufacturing costs. This includes high value-added semiconductors, such as certain SoCs, that, at the design stage, are expected to have large future production volumes.

Numerous semiconductor manufacturers, as well as technology joint ventures and start-up companies, are working to establish industry standards for self-test technology. Advantest expects self-test technologies to continue to advance. Advantest has seen a recent increase in demand for automated test equipment capable of working smoothly with self-test technologies and Advantest expects demand for these products to continue to increase over the next several years.

Advantest believes that semiconductor manufacturing processes will continue to evolve. The introduction of new manufacturing processes will likely cause test costs to occupy a higher percentage of the total cost of manufacturing and, therefore, increase price pressure on the automated test equipment industry. Advances in the semiconductor industry will also require automated test equipment with new and more sophisticated testing functions. Advantest believes that these trends provide it with an opportunity to distinguish itself from its competitors through the delivery of new products that are priced and designed to meet the specific needs of its customers.

### *Measuring Instruments Industry*

Advantest's measuring instruments mainly serve the needs of the communications industry and the electronics industry. Demand for Advantest's instruments, therefore, is directly dependent upon conditions in these two industries.

### *Communications Industry*

A significant portion of measuring instrument sales is made to communications service providers and network equipment and components manufacturers. These service providers and manufacturers use measuring instruments to develop, manufacture, install, deploy and validate the performance of both wireless and wireline communications equipment, including network routers, switches and base stations, as well as wireless

handsets and other Internet access devices. Measuring instruments are also used to monitor and maintain communications networks on a continual basis.



## **Table of Contents**

Levels of wireless penetration in developed countries have grown rapidly in the last eight years. Some lesser-developed countries have built wireless communications infrastructures as an alternative to wireline networks. In addition, commercial operations of wireless networks that use third-generation wireless technology were launched in Japan in the fall of 2001. Furthermore, for short-range wireless communications, manufacturers have begun to introduce to market products that incorporate Bluetooth and wireless LAN technology. However, the stagnation of the global economy and the poor financial condition of many wireless communications service providers, particularly in the United States and Europe, have adversely affected investment levels in wireless communications networks. In addition, Advantest believes that significant investment in the United States and Europe in wireless communications networks that utilize third-generation wireless technology will not be made until 2004 due to the costs associated with the new technology. Advantest believes that future investment in third-generation wireless networks in Japan will decline, but nevertheless continue in the near-term. Advantest also believes that investment levels in wireless communications networks in 2003 will decline in Asia (excluding Japan) compared to 2002, primarily due to the postponement in Korea, other than in certain cities, of its plans to provide services using third-generation wireless technology, thereby resulting in reduced capital expenditures in 2003.

Growing demand for Internet access and data transmission services fueled the roll-out of high-speed fiber optic networks and the laying of subsea fiber optic cables through 2000. Fiber optics, together with advanced communication technologies such as wavelength division multiplex, or WDM, enable high-speed, high-volume transmission of voice, data and video services by simultaneously transmitting multiple signals over a single optic fiber. However, investment levels in fiber optic networks in the United States, Europe and Japan decreased drastically beginning in early 2001 due to transmission capacity levels in excess of current demand for high-speed, high-volume communications services. The global economic slowdown and high debt levels incurred in the build-out of existing networks also contributed to this severe decrease in investment levels. Investment levels in fiber optic networks remained weak during 2002. Investment in fiber optic networks in many countries has not commenced due to the high costs associated with the build-out of these networks and insufficient demand for high-speed, high-volume communications services. Advantest does not expect investment in fiber optic communications infrastructure to begin to recover at least until 2004. Advantest also believes that any short- to medium-term improvement in capital investment by the fiber optic communications industry will be limited to the installation of fiber optic connections between fiber optic networks and the premises of users.

Despite reduced investment in communications infrastructure during the current downturn, Advantest believes that the communications industry continues to provide it with significant long-term business opportunities. The build-out and expansion of wireless networks using both current and third-generation technologies is expected to continue throughout the world, although at a slower pace than in the late 1990s. The introduction of new applications that require high transmission speeds and the increase in demand for services that require the transfer of high volumes of data are expected to lead to the upgrade and expansion of fiber optic networks and an increase in users in the United States, Europe and Japan and the build-out of new networks in other countries. Advantest believes that these trends will continue to create demand for its strong product line of spectrum analyzers, network analyzers, optical network analyzers, optical spectrum analyzers, optical chirp test sets, optical time domain reflectometers and other measuring instruments.

## ***Electronics Industry***

The electronics industry designs, develops and manufactures a wide range of products, including computers and consumer electronics. Electronic components produced by the electronic industry are also incorporated into various other products, such as automobiles and factory automation equipment. Measuring instruments are used by engineers and manufacturers to design electronic components and equipment, validate their performance and functionality and improve the efficiency of the overall design and production process.

Like the semiconductor industry, the electronics industry has benefited from significant technological advances in recent years, particularly in the field of digital electronics. The growth in digital electronics has been



## **Table of Contents**

driven primarily by the growth in personal computers and related systems and the increase in embedded digital controls within advanced electronic and electrical devices, such as digital cameras, DVDs, digital organizers and television game consoles. However, Advantest believes the continuing global economic downturn and the resulting decreases in consumer spending levels continue to have an adverse effect on sales of measuring instruments. Demand for measuring instruments aimed at the electronics industry is affected by the impact on electronics manufacturers of global consumer spending levels and the rate of economic growth.

## **Business Strategy**

Advantest's key corporate goals include:

- consolidating its position as the leading supplier of automated test equipment for memory semiconductors;
- growing its market share for SoC semiconductor test systems;
- focusing on the development of measuring instruments that address the testing needs of high-growth industries; and
- enhancing its operating efficiency to improve profitability.

To achieve these goals, Advantest plans to:

*Continue to address industry trends, identify customer needs and deliver products ahead of its competitors*

Advantest will continue to work closely with major semiconductor manufacturers from their product design stage to understand customer needs relating to emerging technologies and applications. Based on this knowledge and its strong technological expertise, Advantest seeks to develop advanced automated test equipment and solutions ahead of its competitors. For example, Advantest is pursuing the following strategies for its automated test equipment business:

- developing semiconductor test systems with increased test speeds and throughput capabilities in line with the technological development of memory, SoC and other semiconductors;
- designing semiconductor test systems for the next generation of 300 millimeter semiconductor wafer production that will achieve improved throughput by simultaneously testing higher numbers of dies;
- proactively developing products to address the recent shift in emphasis in the semiconductor industry toward front-end testing of dies; and

- using its production and software development skills to provide semiconductor test systems optimized for flash memory semiconductors, while maintaining a high level of throughput.

*Strengthen the SoC semiconductor test system business*

Advantest believes that the market for non-memory (including SoC) semiconductor test systems in 2002 was close to two and a half times the size of the market for memory semiconductor test systems. In addition, Advantest expects the SoC semiconductor market, which is the largest segment of the non-memory semiconductor market, to grow at a faster rate in the long term than the memory semiconductor market. Based on this belief, Advantest has developed a full line of SoC semiconductor test systems to meet the demands of a large number of manufacturers for the testing of a wide variety of SoC semiconductors.

Advantest is currently promoting the adoption of OPENSTAR, an industry-wide, open architecture for SoC automated test equipment which allows all participants in the SoC semiconductor manufacturing industry, including automated test equipment manufacturers, to design and manufacture equipment and products based on this standard. Under this standard, semiconductor manufacturers, test houses and foundries will be able to test

---

## **Table of Contents**

different lines of semiconductors using a single base system, consisting of the frame and primary parts of the semiconductor test system, and by adding and replacing modules to meet the testing requirements of specific SoC semiconductors. Advantest believes that the primary benefits of OPENSTAR for users of automated test equipment will be reduced testing costs and greater procurement options. In addition, Advantest believes that OPENSTAR will allow automated test equipment makers to better utilize product development resources and reduce the time required for product development, thereby resulting in the timely introduction of new testing solutions in response to rapid changes in the testing requirements of SoC semiconductors. Advantest also hopes that the reduction in testing costs, and thus the lowering of overall manufacturing costs of SoC semiconductors, will help foster further demand for SoC semiconductors to be used in digital electronics and other products. Finally, Advantest believes that the adoption of a new open architecture will provide an opportunity for late entrants to the SoC automated test equipment market, such as Advantest, to increase their market share. For a discussion of the risks associated with Advantest's efforts to promote OPENSTAR, see [Key Information](#) [Risk Factors](#). Advantest may not recoup its investment in, or otherwise benefit from the successful adoption of, OPENSTAR.

### ***Address testing requirements of application specific semiconductor products***

During the current period of sluggish overall demand for semiconductors, certain segments of the application specific semiconductor products group, in particular liquid crystal display, or LCD, driver integrated circuits, have experienced strong demand. LCD driver integrated circuits are semiconductors used to display images on LCD panels. Advantest believes to have had over a 50% market share in semiconductor test systems for LCD driver integrated circuits sold during fiscal 2002. In August 2002, Advantest released an optional add-on component for its LCD driver integrated circuit semiconductor test system which allows for testing of semiconductors used in organic light-emitting diode, or OLED, displays. OLED technology is one of the candidates to replace LCD technology as the technology used in the next-generation of displays. Advantest's product line for application specific semiconductor products also includes semiconductor test systems that test:

- radio frequency integrated circuits, or RFICs, which are used in wireless communications equipment; and
- CCD (charge coupled device) and CMOS (complementary metal oxide semiconductors), which are used in consumer products, such as digital cameras, to convert images into digital signals.

### ***Focus sales and support efforts on key automated test equipment accounts worldwide***

Advantest believes that a small number of large semiconductor manufacturers, test houses and foundries account for a large portion of total sales in the automated test equipment industry. Advantest sells semiconductor test systems to many of these customers on a regular basis. Advantest is seeking to expand its business with these high-volume customers and develop new relationships with the remaining potential major customers. Over the past several years, Advantest has opened additional overseas sales and support offices, many of which are located near the corporate headquarters or main research and development and manufacturing facilities of these high-volume customers. These offices are expected to facilitate Advantest's efforts to continue conducting collaborative development activities with leading semiconductor manufacturers.

### ***Focus on developing measuring instrument products that meet the testing needs and cost structure of customers***

Advantest believes that the global economic slowdown, as well as increased competition in the communications and electronic component industries, has caused its measuring instrument customers to place greater emphasis on reducing total production and measuring costs. To meet these customer needs, Advantest has developed an innovative component module-based system called the Wizard of Module Test, or WMT. The WMT system uses a single external frame for measuring instruments. This frame contains a maximum of twenty slots into which modules

containing different functions can be inserted to create measuring instruments with the

## **Table of Contents**

desired testing functions. The use of a single external frame for its measuring instruments reduces the cost of production for Advantest, thereby reducing total production and measuring costs for its customers. Advantest believes that WMT also results in reduced development costs for hardware and software and shorter product development times for new measuring instruments.

## **Products**

Advantest has two lines of business: the manufacture and sale of automated test equipment and the manufacture and sale of measuring instruments.

### ***Automated Test Equipment***

Automated test equipment is used during the semiconductor manufacturing process to confirm that a semiconductor functions properly. Automated test equipment consists of semiconductor test systems, test handlers or probers, device interfaces, and software.

Semiconductor test systems consist of a mainframe and one or more test heads. During testing, a device interface is attached to the test head. During the front-end testing process, wafers are attached to and detached from the device interface by a prober. Electric signals are transmitted between the die and the semiconductor test system through contact probes located in the device interface. After front-end testing is completed, the wafer is diced into separate dies and properly functioning dies are packaged into semiconductor chips. During back-end testing, test handlers are used to load these chips onto the device interface, and electric signals are transmitted between the semiconductor chips and the semiconductor test system via the device interface. The results are stored in a database, and then analyzed by the semiconductor test system's hardware circuits and software programs. Each different semiconductor design requires a customized software program to analyze the test data.

Factors in the performance and other characteristics of automated test equipment that are important to customers include:

*Throughput.* Throughput is measured by the number of semiconductors that can be tested by a machine during a specified time.

*Test Speed.* Test speed is the speed at which the semiconductor is made to function by the automated test equipment during testing. Test speed is measured in terms of megahertz, or MHz.

*Timing Accuracy.* Timing accuracy is the automated test equipment's accuracy of control over the timing of testing signals generated.

*Maximum Pin Count.* Maximum pin count is the maximum number of pins on the semiconductor that can be tested by the automated test equipment at any given time.

## Edgar Filing: ADVANTEST CORP - Form 20-F

*Size.* Smaller machines reduce the amount of floor space occupied and electricity consumed by the automated test equipment.

*Temperature.* Semiconductor manufacturers perform tests on semiconductors at varying temperatures to ensure proper operation under extreme conditions.

*Compatibility.* Automated test equipment that are compatible with predecessor systems cut down on the time required to develop new test programs and otherwise allow for effective utilization by customers of existing resources.

*Quality.* Quality is determined by the reliability of test results produced and whether the equipment can maintain stable operation under different testing environments.

Advantest's semiconductor test systems typically have a commercial life of approximately three years. In most cases, the sales price of a semiconductor test system product line gradually decreases over its commercial life.



**Table of Contents**

Advantest classifies its automated test equipment as memory semiconductor test systems, non-memory (including SoC) semiconductor test systems, test handlers and device interfaces, and other products and services. Other products and services include equipment leasing, used machine sales and fees generated from maintenance, repairs and other support services. The following table sets forth the amount of net sales attributable to sales of each of these types of products in fiscal 2000, 2001 and 2002.

Category	Fiscal 2000	Fiscal 2001	Fiscal 2002
	(in millions)		
Memory semiconductor test systems	¥ 140,486	¥ 40,698	¥ 41,327
Non-memory (including SoC) semiconductor test systems	41,191	11,360	17,898
Test handlers and device interfaces	51,710	16,761	18,934
Other	8,112	5,387	6,751
Total	¥ 241,499	¥ 74,206	¥ 84,910

**Memory Semiconductor Test Systems**

Advantest's semiconductor test systems for memory semiconductors are designed to test high-speed/high performance memory semiconductors used in applications such as networking and personal computing, as well as multimedia, digital television, high-definition television and personal communications. Advantest's market share in memory semiconductor test systems fell from 60.6% in 2001 to 51.9% in 2002. Advantest believes its overall market share declined in 2002 because the proportion of semiconductor test systems that perform front-end testing of DRAM and flash memory semiconductors sold in the market increased compared to other memory semiconductor test systems. Advantest has a much stronger market share in back-end memory semiconductor test systems than in front-end memory semiconductor test systems. Advantest is currently working towards increasing its market share in front-end memory semiconductor test systems.

Advantest's top four product lines of memory semiconductor test systems are the T5580 series, the T5590 series, the T5370 series and the T5770 series.

**T5580 Series.** The T5586 is one of the most advanced testers of high-bandwidth DRAM products, such as SDRAM and DDR-SDRAM, on the market. The T5586 is the latest upgrade to the T5571 and T5581, which together sold over 1,000 units between 1996 and 1998 in response to the introduction of SDRAM semiconductors.

**T5590 Series.** Advantest's newest semiconductor test system aimed at the high-speed SRAM, DDR-SRAM, DDR2-SDRAM, SGRAM and DRAM semiconductor markets is the T5593. SRAM, or static random access memory, is a type of memory semiconductor that, unlike the more common DRAM, does not need to be refreshed while the power supply remains on. SGRAM, or synchronized graphics random access memory, is a type of memory semiconductor used for graphics. The T5593 is designed for use in the production of super high-speed memory devices.

**T5370 Series.** The T5375 is a multi-functional semiconductor test system that reduces testing costs for manufacturers. The T5375 can be used in the front-end testing of DRAM semiconductors, as well as for back-end flash memory testing. By increasing the functions of the system,

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest has succeeded in selling to a larger customer base. The T5375 can test up to 256 devices at one time and increases front-end testing speed by using a block-by-block testing system to stop further testing on dies that fail any one test. The T5375 operates on programs that are compatible with the T5586. The T5375 is aimed at capturing increased market share in front-end DRAM testing and has double the throughput capabilities of the T5371, the predecessor to the T5375, thereby lowering overall testing costs for its customers. The T5375 is particularly suited to the production of semiconductors in manufacturing facilities that use 300 millimeter wafers due to its higher throughput

## **Table of Contents**

capabilities. The T5370 series was Advantest's best selling semiconductor test system product line in fiscal 2001 and fiscal 2002.

*T5770 Series.* Flash memory semiconductors require more types of front-end testing than other types of semiconductors. Advantest's latest front-end flash memory semiconductor test system is the T5771. The T5771 has increased throughput capabilities and is expected to lower testing costs for manufacturers compared to its predecessor model, the T5722A, and to the models currently offered by Advantest's competitors. The T5771ES, a more compact version of the T5771 offers specifications and features that are similar to the T5771, but has a lower maximum throughput. Compared to the T5771, the T5771ES occupies approximately one-eighth of the space and requires considerably less power to operate. The T5771ES is used mainly in the research and development of new flash memory semiconductors.

### ***Non-Memory Semiconductor Test Systems***

Advantest's non-memory semiconductor test systems include SoC semiconductor test systems and semiconductor test systems for application specific semiconductor products.

#### ***SoC Semiconductor Test Systems***

Advantest's SoC semiconductor test systems combine the analog testing expertise of its measuring instruments divisions with its state-of-the-art digital semiconductor test systems. SoC semiconductors combine digital circuits with analog and/or memory circuits on a single semiconductor chip.

Advantest's market share in SoC semiconductor test systems fell from 11.2% in 2001 to 9.3% in 2002.

Advantest's three product lines aimed at SoC semiconductors are the T6680, the T6670 and the T6500 series.

*T6680 Series.* The T6683 is Advantest's latest model in the T6680 series. The T6683 is designed to perform testing of a wide variety of existing high-end SoC semiconductors. The T6683 can test semiconductor chips with a maximum pin count of 1024, thus matching the trend of SoC semiconductors with increasing pin counts. The T6683 is designed to test SoC semiconductors that are incorporated into high-speed communications network equipment, third-generation wireless handsets and digital consumer products.

*T6670 Series.* The T6673 is Advantest's latest version of its lower-cost alternative in the T6600 family. The T6673 is designed to reduce total test costs associated with the production of SoC semiconductors. The T6673 is designed to test SoC semiconductors incorporated into high-speed communication network equipment and wireless handsets, digital consumer products and other electronic systems. The T6673 is capable of both front- and back-end testing of SoC semiconductors.

## Edgar Filing: ADVANTEST CORP - Form 20-F

*T6500 Series.* In October 2002, Advantest released its latest line in the T6500 series, the T6575, T6565 and T6535. These semiconductor test systems are designed to test semiconductors, primarily microcontrollers, produced on large-scale production lines. Microcontrollers are complete computing systems contained on a single semiconductor chip and programmed to specific customer requirements. The T6500 series is approximately one-third in size, and uses approximately 50% less power, as compared to Advantest's predecessor product line, and incorporates the testing functions within the test head, thus resulting in test frames that consist of the display monitor and the power supply. Further, the T6500 series operates on programs that are compatible with the T6680 and T6670 series.

### *Semiconductor Test Systems for Application Specific Semiconductor Products*

Advantest manufactures other semiconductor test systems that meet the specialized needs of its customers for testing application specific semiconductor products. Application specific semiconductor products are non-

## **Table of Contents**

memory semiconductors that are designed to perform specific functions in a specific application, such as LCD driver integrated circuits which are semiconductors used to display images on LCD panels. Advantest believes that its diverse product line allows it to attract additional customers, and results in increased sales of its product offerings. These semiconductor test systems for application specific semiconductor products include the following:

*T6371.* The T6371 is a semiconductor test system for semiconductors used with high-definition LCD equipment. This system can simultaneously test multiple semiconductors for LCD equipment with a total of up to 1,280 pins. Advantest also introduced in August 2002 an optional add-on component for the T6300 series that provides high-speed, high-precision testing of integrated circuits used in organic light-emitting diode, or OLED, displays. OLED technology is one of the candidates to replace LCD technology as the technology used in the next generation of displays.

*T7611.* The T7611 is a radio frequency integrated circuit, or RFIC, semiconductor test system. RFICs are used in wireless communications to send and receive radio frequency signals. The T7611 can also test radio frequency modules that use Bluetooth, a next-generation wireless protocol.

*T8531.* The T8531 is used to evaluate and analyze semiconductors that convert images into digital signals. These semiconductors are used in consumer products, such as digital cameras.

## ***Test Handlers***

Test handlers are used with semiconductor test systems to handle, thermally condition, contact and sort semiconductors and other electronic components during the back-end testing stage of the manufacturing process.

Advantest's test handlers are sold primarily in conjunction with the sale of its semiconductor test systems. During fiscal 2002, almost all handlers sold, measured in units, were sold to customers of Advantest's semiconductor test systems. Advantest's test handlers are capable of working with the semiconductor test systems of its competitors.

Test handlers are designed with different characteristics for memory and non-memory semiconductors. Memory semiconductors require relatively long test times. To achieve acceptable throughput rates, Advantest's memory semiconductor test handlers handle up to 128 semiconductors per test head at a time. Non-memory semiconductors, including SoC semiconductors, require relatively short test times and Advantest's high-end handlers handle eight semiconductors at a time.

*Memory Semiconductor.* Advantest's high-end test handler for memory semiconductor test systems is the M6771AD. The M6771AD achieves maximum throughput of up to 7,200 semiconductors per hour through the use of a new tray transport mechanism that shortens the time between tests to approximately half of the time associated with Advantest's lower-end model. Manufacturers can elect to use two M6771AD test handlers per semiconductor test system to double the throughput of the automated test equipment. In November 2002, Advantest introduced the M6542AD, which is a test handler designed to be used during back-end testing of DDR-SDRAM and other high-speed SDRAM. The M6542AD is designed to prevent the generation of excessive heat during simultaneous testing by employing a newly developed temperature control technology. Advantest also has other test handler product lines for memory semiconductor test systems that meet varying cost and functional needs of its customers.

*Non-memory Semiconductor.* Advantest's test handler for SoC and other non-memory semiconductor test systems is the M4541AD. The M4541AD achieves maximum throughput of up to 6,000 semiconductors per hour. The M4541AD can handle up to eight devices per test head, which is twice the capacity of its predecessor.

## **Table of Contents**

Automated test equipment for front-end testing use probers, rather than test handlers, and probe cards to handle wafers during the testing process. Advantest does not manufacture probers. Advantest's semiconductor test systems work with probers manufactured by outside suppliers during front-end testing.

### ***Device Interfaces***

A device interface is a mechanism through which test signals are transmitted between the device being tested and a semiconductor test system. Well-designed device interfaces enhance the utility of a semiconductor test system by allowing it to test different semiconductor product lines and, therefore, reduce the cost of testing to manufacturers.

Advantest manufactures device interfaces for semiconductor test systems and is continuously developing new device interfaces featuring increased throughput, precision and ease of maintenance to meet the demands of next-generation semiconductors. Advantest believes that the rate at which new semiconductor designs are introduced to the market will continue to increase in the long term.

Advantest competes with numerous small and independent electronics manufacturers in providing device interfaces for its semiconductor test systems. Advantest believes that as the complexity of the testing requirements of next-generation semiconductors increases, Advantest will enjoy competitive advantages based upon technical knowledge derived from designing and manufacturing semiconductor test systems.

### ***Software***

Advantest develops and installs standard and customized software for its automated test equipment. The operating system software controls the operations, and the interaction between different functions, of the automated test equipment. Application software is used to develop and operate test programs for specific semiconductor product lines. Advantest also develops software that analyzes test results.

### ***Measuring Instruments***

Advantest currently offers approximately 80 types of measuring instruments that are used in the design, development, manufacture, installation, deployment, operation and maintenance of electronic equipment and systems. Advantest's measuring instruments are used primarily by manufacturers of equipment and components and service providers in the wireless communications industry, the fiber optic communications industry and the electronics industry.

Advantest categorizes its measuring instrument business into three categories: wireless communications instruments; fiber optic communications instruments; and other instruments. Other instruments include general measuring instruments, radio frequency, or RF, component analyzer instruments, and Rohde & Schwarz products sold by Advantest in Japan. The following table sets forth the amount of net sales generated by Advantest through sales of measuring instruments in each of these categories in fiscal 2000, 2001 and 2002.

Edgar Filing: ADVANTEST CORP - Form 20-F

Category	Fiscal 2000	Fiscal 2001	Fiscal 2002
		(in millions)	
Wireless Communications Instruments	¥ 8,281	¥ 7,578	¥ 4,778
Fiber Optic Communications Instruments	14,655	7,139	1,532
Other Instruments	12,077	6,321	6,520
Total	¥ 35,013	¥ 21,038	¥ 12,830

In January 2002, Advantest introduced its first measuring instrument model to feature Wizard of Module Test, or WMT. The WMT system uses a single external frame for measuring instruments. This frame contains a maximum of twenty slots into which modules containing different functions can be inserted to create measuring



## **Table of Contents**

instruments with the desired testing functions. The WMT system also enables the testing functions of existing measuring instruments to be upgraded by replacing old modules with new modules. Advantest believes that WMT will enhance the appeal of Advantest products to its targeted customers by reducing total production and measuring costs for its customers.

### ***Wireless Communications Instruments***

Advantest manufactures and sells spectrum analyzers and network analyzers that are integral to the design and production of wireless communications equipment, including wireless handsets and base stations, as well as satellite communication systems. These products generate and measure electronic communications signals and are used to design, manufacture, check and adjust instruments that transmit and receive communications signals. Advantest's current best-selling products in this category are spectrum analyzers and network analyzers designed for different current technology standards for wireless communications, including personal digital cellular telephone, or PDC, global system for mobile communications, or GSM, and code-division multiple access, or CDMA. PDC is the primary wireless communications standard used in Japan. GSM is the primary wireless communications standard used in Europe and Asia (excluding Japan). CDMA is a wireless communications standard used primarily in the United States of America, Japan and Korea.

During the last five years, Advantest has introduced several upgrades to its spectrum analyzers aimed at capturing market share in the third-generation wireless communications industry. Services provided using third-generation wireless networks were launched in Japan in the fall of 2001 and other countries are expected to follow in the next several years. Advantest's high-end spectrum analyzers are, through the use of appropriate software options, compatible with the differing third-generation wireless communications protocols expected to be used in Japan, Korea, North America and Europe.

Advantest is also developing new products that evaluate new consumer products incorporating Bluetooth. In March 2002, Advantest introduced to market a Bluetooth conformance tester that measures the radio frequency of, and the characteristics of transmissions between, Bluetooth-enabled products. This new measuring instrument is based on the WMT system.

### ***Fiber Optic Communications Instruments***

Advantest offers measuring instruments for fiber optic communications networks and products that enable the development, production, installation, verification and maintenance of fiber optic networks. Advantest recently introduced its latest high-end optical spectrum analyzer, which measures wavelengths and levels of optical signals transmitted through WDM transmission systems. Transmission systems that incorporate WDM can send multiple optical signals with different wavelengths through one fiber optic cable. Advantest's optical spectrum analyzer features high dynamic range and high wavelength resolution, which result in precise measurements and evaluations of wavelength characteristics.

Advantest products in this category also include optical network analyzers and high-speed bit-error rate testing systems that measure key transmission properties of high-speed optical and electrical signals. These products are used by network equipment and components manufacturers, as well as service providers, to test the proper functioning of fiber optic components and networks. Advantest also manufactures and sells optical time domain reflectometers that detect defective points in subsea fiber optic lines. Advantest introduced a multi-wavelength meter in March 2002 that measures wavelengths and power levels of individual transmission channels within fiber optic networks. Advantest also introduced a dispersion optical time domain reflectometer that measures chromatic dispersion of fiber optics in July 2002.

*Other Instruments*

Advantest's general measuring instruments are used by a wide variety of customers across all electronics-related industries. These instruments are primarily used by engineers in research and development.

## **Table of Contents**

manufacturing, calibration and maintenance. Advantest has a full line of electronics design and manufacturing measuring instruments, including:

- multimeters and electrometers that measure direct current, or DC, and alternating current, or AC, voltage, resistance, frequencies and other characteristics of basic electronic components;
- instruments that monitor and evaluate power sources; and
- DC voltage and current generators that are used in the measurement of DC characteristics of items ranging from semiconductors to power devices.

On March 31, 2003, Advantest sold all of the shares of its Japanese subsidiary specializing in the development and manufacturing of general measuring instrument. Advantest decided to sell the subsidiary in order to focus its resources on the development of measuring instruments for industries, such as the wireless and wireline communications industries, which Advantest believes offers the greatest growth opportunities. Advantest plans to continue to offer its customers general measuring instruments through a distribution agreement with its former subsidiary.

RF component analyzer instruments are specialized measuring instruments sold to a subset of Advantest's customers for its wireless communications instruments. These instruments are primarily targeted at research labs and production lines for wireless communication devices and related electronic components. In January 2002, Advantest introduced to market a new RF component analyzer instrument that measures the increasingly complex radio frequency components used in third-generation wireless communications networks. This instrument features the WMT system.

Advantest also distributes in Japan signal generators, signal analyzers, spectrum analyzers, network analyzers and power meters manufactured by Rohde & Schwarz GmbH & Co. KG of Germany. Rohde & Schwarz's devices are predominantly used in designing and testing high-frequency devices and audio/video electronics. Advantest believes that Rohde & Schwarz's product line complements Advantest's because many of its products meet measuring needs that are not addressed by Advantest's product lines. Advantest is the exclusive distributor of Rohde & Schwarz products in Japan. An affiliate of Rohde & Schwarz is Advantest's sole distributor of measuring instruments in Europe. The cross distribution agreement with Rohde & Schwarz and its affiliate is automatically renewed each year unless cancelled by either party on 90-day prior written notice.

## **Customers**

Advantest's customers for its automated test equipment include many of the world's leading semiconductor device manufacturers, as well as a number of foundries and test houses. Advantest sells its measuring instruments to a broad array of manufacturers and service providers in the communications and electronics industries. Advantest's largest customer accounted for approximately 18% in fiscal 2000, 16% in fiscal 2001 and 12% in fiscal 2002. Advantest's five largest customers, all of which are automated test equipment customers, accounted for approximately 41% in fiscal 2000, 37% in fiscal 2001 and 38% in fiscal 2002.

## **Geographic Sales**

## Edgar Filing: ADVANTEST CORP - Form 20-F

Approximately 60% of Advantest's fiscal 2002 net sales were derived from products sold to customers located outside Japan. The following table sets forth Advantest's net sales by geographic area, as well as net sales by geographic area as a percentage of total net sales, for Advantest's last three fiscal years. Net sales are classified into geographic areas based on the location to which the products are shipped, rather than the jurisdictions of incorporation of the purchasers.

**Table of Contents**

Market	Fiscal 2000		Fiscal 2001		Fiscal 2002	
	Net Sales		Net Sales		Net Sales	
	(in millions)	%	(in millions)	%	(in millions)	%
Japan	¥ 78,649	28.5	¥ 37,748	39.6	¥ 38,873	39.8
Asia (excluding Japan)	139,936	50.6	30,069	31.6	41,261	42.2
North America	40,700	14.7	19,143	20.1	8,666	8.9
Europe	17,227	6.2	8,284	8.7	8,940	9.1
Total	¥ 276,512	100.0%	¥ 95,244	100.0%	¥ 97,740	100.0%

**Japan.** Advantest believes that its strongest customer relationships are with Japanese semiconductor manufacturers. Advantest enjoys a strong market position in Japanese markets for high-end memory semiconductor test systems. In addition, Advantest had approximately a 34% market share in the Japanese SoC semiconductor test system market in 2002. Advantest currently expects sales of semiconductor test systems for semiconductors used to display images on LCD panels to comprise a substantial portion of total non-memory semiconductor test system sales in Japan in fiscal 2003. Advantest is working to solidify its market leadership in Japan by continuing to work closely with its major customers to identify their needs during the early stages of their product development cycles. Advantest's measuring instruments have also done comparatively well in Japan, with approximately 74% of its total fiscal 2002 net sales from measuring instruments derived from sales in Japan. However, Advantest experienced a substantial decrease in sales of wireless communications measuring instruments in Japan due to the completion of the initial build-out of third-generation wireless networks in Japan.

**Asia (excluding Japan).** Asia is the largest market for automated test equipment, with manufacturers located in Taiwan, Korea and Singapore accounting for a majority of semiconductor production in Asia. Advantest views its relationships with these companies as critical to its automated test equipment business. In addition, many Japanese, U.S. and European manufacturers have shifted production to Asia, either to subsidiaries or foundries and test houses. Capital expenditure decisions for subsidiaries are usually made at the company's headquarters. Foundries and test houses, a majority of which are located in Taiwan, often consult with their customers before investing in automated test equipment. Therefore, Advantest's performance in Asia will also depend on its ability to maintain strong relationships with customers in Japan, the United States and Europe. Sales of automated test equipment in Asia during 2002 increased primarily due to increased orders from foundries and test houses in Taiwan, offset in part by a decrease in sales in Singapore. In the communications industry, Advantest believes investment in fiber optic and wireless networks in Asia will increase in the long term, although investment levels may remain at their current low levels until the global economy improves.

**North America.** Advantest's marketing efforts in this region are centered in the United States. Advantest's market share of semiconductor test systems sold in the United States was approximately 7% in 2002, down from approximately 16% in 2001. Advantest lost market share in the United States during 2002 due to a significant decrease in capital expenditures by one of its customers. Automated test equipment is marketed and sold in North America through Advantest Corporation's subsidiary, Advantest America Inc. Advantest commenced direct sales of its measuring instrument products in North America in July 2002 following the termination, by mutual agreement, of the arrangement under which Tektronix was the sole distributor of Advantest's measuring instruments in North America for nine years. Advantest is focused on increasing its market share in the United States.

**Europe.** Sales in Europe constituted approximately 10% of worldwide sales of Advantest's automated test equipment in fiscal 2002. Advantest's market share of semiconductor test systems sold in Europe increased to approximately 32% in 2002 from 14% in 2001. This gain was primarily a result of increased sales to one of Advantest's customers in Europe. Advantest's principal European markets are Germany, Italy and France. An affiliate of Rohde & Schwarz GmbH & Co. KG is the sole distributor of Advantest's measuring instruments in Europe.



## **Table of Contents**

### **Sales and Marketing**

Advantest sells its automated test equipment globally through direct sales channels. Advantest's direct sales department includes engineers who have in-depth knowledge of the customer's business and technology needs. Some of these engineers are account managers for Advantest's largest accounts. Currently Advantest has 7 sales offices in Japan, 6 in Asia (excluding Japan), 8 in North America and 6 in Europe. Advantest maintains its sales and support centers in close physical proximity to key customer sites to identify its customers' needs in the early stage of product development and to provide required support in a timely fashion. Advantest is also strengthening its relationships with test houses through limited minority investments as a part of its sales and marketing strategy.

Advantest believes that the best marketing strategy is to demonstrate the ability to develop products that meet the customer's specific needs, produce and deliver them in the required time and quantity, and support the customer and the product with sufficient technical and maintenance support. Advantest holds exhibitions from time to time at which it markets its automated test equipment and measuring instrument product lines to its target customers. Advantest also markets by participating in industry trade shows and advertising in trade magazines.

Advantest offers operating lease contracts for automated test equipment in Japan and Taiwan through its subsidiary, Advantest Finance Inc. Advantest derived revenues from operating lease contracts of approximately ¥668 million in fiscal 2000, ¥1,472 million in fiscal 2001 and ¥3,558 million in fiscal 2002. The length of lease contracts generally range from one to three years. The residual value of the automated test equipment is normally estimated at the time the automated test equipment is first leased. Automated test equipment returned at the end of leases are either leased again to the original customer or to another customer, or sold in the used-equipment market. Advantest carries casualty insurance on leased test equipment for its customers in Japan. Lessees outside Japan are required under contract to obtain and carry casualty insurance on leased test equipment. Advantest believes that the continuing increase in revenues from leasing contracts in fiscal 2002 is mainly as a result of decisions by its customers to diversify their sources of equipment procurement in response to the adverse effects on their business of the downturn in the semiconductor market.

Approximately half of Advantest's sales of measuring instruments in Japan are made directly to the customer. Most sales of measuring instruments in the rest of Asia are made through local distributors. Advantest sells its measuring instruments in Europe through a cross-marketing arrangement with an affiliate of Rohde & Schwarz GmbH & Co. KG. Advantest is the exclusive distributor of Rohde & Schwarz's measuring instruments in Japan. From July 2002, Advantest America Measuring Solutions, Inc., a wholly-owned subsidiary of Advantest Corporation, replaced Tektronix, Inc. as the sole distributor of Advantest's measuring instruments in North America.

Advantest has a web page targeted at customers in Japan in its measuring instruments segment. Through this web page, Advantest customers can receive real-time calculations of quotations and average delivery time for new purchases of measuring instruments. Advantest has also commenced upgrading services of its measuring instruments software.

### **Support and Customer Service**

Advantest's support and customer service programs are designed to respond to all of the semiconductor testing-related needs of its customers. Advantest provides its services through its worldwide network of sales and customer support offices. These services consist of the following elements:

- ***Semiconductor Design Phase Support.*** Advantest engineers work with semiconductor manufacturing companies during the design phase of new semiconductor product lines and provide support to enable the use of automated test equipment for large-scale production.



## Table of Contents

- **Application Software Support.** Each different semiconductor design requires customized software programs for analysis of test data. Advantest engineers assist customers in designing application software and test programs that optimize production throughput, reliability and capacity.
- **Procurement Support.** The procurement process for automated test equipment is time consuming and complicated. Automated test equipment consist of multiple components, including semiconductor test systems, test handlers or probers, device interfaces and software. Advantest sales personnel and engineers work with customers to identify the automated test equipment components and related optional functions that best address their needs.
- **Installation and Upgrade Support.** The introduction of a new line of semiconductors by a manufacturer typically requires either the purchase of new automated test equipment or an upgrade of the customer's existing system. Upon the sale of a new system, Advantest's engineers provide installation services and work with the customer to integrate the purchased system with the customer's existing manufacturing infrastructure. Advantest engineers also assist the customer in upgrading existing automated test equipment, which helps the customer make more cost-efficient investments in automated test equipment.
- **Training Support.** Advantest offers on-site training, as well as training at Advantest's facilities, on the operation and maintenance of its automated test equipment.
- **Maintenance Support.** Advantest's maintenance support services consist of:
  - **Call Center Support.** Advantest currently offers call center support services for hardware and software in Japan.
  - **Internet Support.** The Advantest customer support website offers maintenance tips and access to a database with possible solutions to automated test equipment problems. Advantest customers can also make on-line requests for maintenance work and check on the status of equipment sent in for repair through Advantest's web page.
  - **Repairs and Parts.** Requests for repairs or parts can be made through the Advantest website or by phone, and Advantest has established a system under which it endeavors to deliver requested parts to customers in Japan within 24 hours of request. In April 2002, Advantest outsourced the storage, inventory management and delivery of parts to a third party.
  - **Remote Surveillance.** Advantest can equip its automated test equipment with a remote surveillance function. This function allows Advantest engineers to remotely monitor the performance of its customers' automated test equipment for more timely and effective maintenance.
  - **Service Contracts.** Advantest offers a wide range of service and maintenance contracts, which gives customers the flexibility to select the program best suited to their needs. Customers may purchase service contracts that extend maintenance beyond the initial warranty period which is generally 12 months.
  - **Worldwide Presence.** Advantest provides maintenance support through 14 customer support centers in Japan, 9 in other parts of Asia, 9 in North America and 5 in Europe.

Advantest includes in the sales price of its semiconductor test systems fees for initial set-up services. These set-up services include operational support at the time of initial installment. Advantest also provides free of charge call center and Internet support during the initial maintenance warranty period.

## Edgar Filing: ADVANTEST CORP - Form 20-F

For its measuring instruments, Advantest offers technical support and maintenance, calibration and recycling services. Customers can contact Advantest in Japan and the United States through toll-free numbers, fax, e-mail and its web site. Optional maintenance contracts and calibration services are available in addition to product warranties. An affiliate of Rohde & Schwarz offers customer support services for Advantest in Europe under a distribution agreement.

## **Table of Contents**

### **Manufacturing and Supplies**

Advantest's principal manufacturing plant for semiconductor test systems is located in Gunma, Japan. The floor space at this plant is 300 meters by 100 meters. This floor space has no partitions and semiconductor test systems under production are transported from station to station on air pallets that use hover technology. The plant is highly automated and testing and production systems within the plant are interconnected by a sophisticated local area network using advanced data management software. This network allows Advantest factory managers to check on the status of systems under production at any given time through a central computer.

Advantest uses an enterprise resource planning system that processes new information on a real-time basis and uses sophisticated data management software that converts sales orders into production specifications and manufacturing plans. This system also interconnects Advantest's multiple production and warehousing facilities to its information network. In October 2002, Advantest introduced a supply chain planning system that can perform real-time, high-speed simulations of both material sourcing needs and production line additions.

In fiscal 2001, Advantest commenced outsourcing labor-intensive portions of the semiconductor test system manufacturing process to reduce its fixed costs. Advantest personnel have been replaced by a third-party subcontractor that manages and conducts the insertion and interconnection of the numerous circuit boards in each test system. These services are provided by the subcontractor at Advantest's manufacturing plant. As part of its cost-reduction efforts, Advantest also announced in April 2003 that it intends to consolidate many of its manufacturing processes for both its automated test equipment and measuring instruments businesses through an internal reorganization. This reorganization is expected to be consummated on or around July 1, 2003.

Advantest purchases substantially all of its components and parts from outside suppliers. Approximately 85% of these components and parts are made-to-order based on Advantest's specifications. Advantest assembles these components and parts to produce automated test equipment in configurations specified by customers. Advantest generally retains the necessary design and intellectual property rights related to these components and parts. In its effort to reduce fixed costs, Advantest subcontracts low-end assembly requirements to its subcontractors.

The majority of components and parts used by Advantest are available from a number of different suppliers. However, a portion of its components and parts are obtained from sole or a limited number of suppliers. In addition, the market for semiconductors and other components used by Advantest in automated test equipment have, in the past, experienced periods of inadequate supply to meet demand. Advantest has, in the past, been unable to deliver its semiconductor test systems and measuring instruments according to production schedules due to shortages in some of its key components. Advantest does not maintain long-term supply agreements with most of its suppliers and it purchases most of its components and parts through individual purchase orders.

The average costs of components and parts used by Advantest during the last three fiscal years have remained relatively stable. Advantest believes this relative price stability results from the fact that Advantest negotiates the terms of the purchase orders directly with its suppliers and the fact that the prices of the made-to-order components set forth in the purchase orders are primarily influenced by the technical specifications of the relevant components and parts.

Some of the peripheral products related to Advantest's semiconductor test systems are manufactured in plants both inside and outside of Japan to reduce delivery periods and manufacturing costs. Device interfaces are manufactured in Japan, the United States, Germany, Korea and Malaysia and test handlers are manufactured in Japan.

Advantest's measuring instruments are manufactured principally in Gunma, Japan.

## Table of Contents

### Seasonality

As sales levels of automated test equipment are subject, in large part, to sales levels of semiconductors, which can fluctuate significantly within any year, Advantest does not traditionally experience higher sales during any certain period of the year as compared to other periods of the year. However, Advantest believes that, in general, in comparison to its competitors, it generates a greater proportion of its sales from automated test equipment in the second and fourth quarters of each fiscal year because a larger proportion of Advantest's customers are Japanese companies as compared to its competitors. Advantest believes that Advantest's Japanese customers, a vast majority of which operates on a March 31 fiscal year, often make a large portion of their capital investment decisions at the end of their second and fourth fiscal quarters.

### Competition

Advantest faces substantial competition throughout the world in the automated test equipment industry. Advantest believes that the principal factors of competition are:

- *Performance.* The performance of automated test equipment is determined by its accuracy, test speed, throughput and ability to test semiconductors with large pin counts. High performance automated test equipment reduces the customer's cost of testing.
- *Reliability.* Automated test equipment that operates with minimal downtime allows semiconductor production and engineering work to proceed without frequent intervention and provides more cost-effective operation.
- *Delivery Time.* Manufacturers require timely delivery of automated test equipment, especially in periods of high demand.
- *Software.* Automated test equipment that uses software that is easier to use and more powerful reduces the amount of engineering resources needed to develop test programs and operate automated test equipment.
- *Price.* The need for more sophisticated automated test equipment often translates into higher testing costs for semiconductor manufacturers. In addition, as the efficiency of the fabrication process has increased, test costs have come to represent a higher proportion of the total cost of manufacturing. The current downturn in the semiconductor market, in particular with respect to market prices for semiconductors, has also increased the proportion that test costs occupy within total manufacturing costs. Advantest is currently facing significant price pressure in its automated test equipment business.
- *System Architecture.* Semiconductor test system architecture that is modular expands the product life of the automated test equipment because the system can be adapted to meet the customer's new requirements, while largely retaining compatibility with existing test programs.
- *Customer Support.* Customer specific applications programs, worldwide service and customer training contribute to the efficient use of automated test equipment and minimize the customer's cost of testing.
- *Qualified Technical Personnel.* Having in place a team of highly qualified engineers and other customer service and support personnel is essential for securing sales and maintaining and developing strong relationships with key customers.

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest's primary competitors in both the memory and non-memory semiconductor test system markets include Teradyne, Inc. and Agilent Technologies, Inc. In addition, Advantest competes in the semiconductor test system market with several other smaller companies, particularly in the SoC semiconductor test system market. Advantest currently is the leading manufacturer worldwide of memory semiconductor test systems with a market share of 51.9% in 2002. Advantest believes that its success in the memory semiconductor test system market has been driven by its dedication to introducing new product lines and improvements to its existing product lines, as well as its commitment to customer support and service. Advantest, however, faces challenges in increasing its

## **Table of Contents**

9.3% market share in SoC semiconductor test systems. Some of Advantest's competitors also have greater financial and other resources than Advantest. Advantest may also face additional competition in both the memory and non-memory semiconductor test system markets from start-up companies with newer technologies or products.

In the measuring instruments industry, Advantest competes based on the same types of factors as in the automated test equipment industry, including:

- speed, accuracy and cost of measuring;
- price;
- technology;
- scalability and flexibility of products;
- ease of product use;
- time required to deliver products based on new technologies;
- adherence to industry standards;
- ability to support emerging industry protocols; and
- ability to provide localized service and support on a worldwide basis.

Advantest believes that it faced a significant amount of price pressure on its measuring instrument products in fiscal 2002 primarily due to continuing weak demand in its customers' industries and excess inventory on the part of its competitors. Advantest expects price pressure to remain strong in fiscal 2003.

Advantest has a number of significant competitors in all of its measuring instruments categories. Agilent Technologies is the leading provider of measuring instruments in many of Advantest's product categories. Some of Advantest's competitors, including Agilent Technologies, have advantages based on geographic location, better distribution systems and more diverse product lines. In addition, new competitors, including start-up companies, communication equipment and components manufacturers and electronics manufacturers, may develop new technologies that more effectively address Advantest's targeted markets at lower cost.

## **Patents, Licenses and other Intellectual Property**

Advantest has a policy of seeking patents worldwide on technology considered of particular strategic importance. While Advantest does not consider any one or group of patents, licenses, copyrights, trademarks, utility model rights, design rights or confidentiality provisions to be so important that their expiration or termination would materially affect Advantest's business, Advantest considers all of its intellectual property to be important.

### **Legal Proceedings**

Advantest is not a party, and has not been a party in the recent past, to any material legal proceedings. To Advantest's knowledge, there currently is no threat of any such proceeding.



**Table of Contents****Glossary**

Analog circuits	Circuits on a semiconductor that monitor, condition, amplify or transform analog signals, which are signals that vary continuously over a wide range of values. Analog circuits process analog signals translated from real world phenomena such as sound, light, heat and motion.
Bit-error rate test system	An instrument that measures the frequency of errors in data transmissions carried through communications networks and equipment.
CCD	Charge Coupled Device. An electronic device that converts image into electric charge and processes it into electronic signals.
CMOS	Complementary Metal Oxide Semiconductors. These semiconductors use both negative and positive circuits, and require less power to operate than most other semiconductors which use only one type of circuit.
Die	An individual block on a wafer containing the circuits of a single semiconductor chip.
DDR-SDRAM	Double Data Rate Synchronous Dynamic Random Access Memory. Advanced memory semiconductor that can be read from, or written to, at double the rate of traditional SDRAM semiconductors.
DDR-SRAM	Double Data Rate Static Random Access Memory. Memory semiconductor with double the total memory bandwidth of traditional SRAM semiconductors.
DDR2-SDRAM	The next generation of DDR-SDRAM semiconductors with significantly increased memory bandwidth.
Digital circuits	Circuits on a semiconductor that perform binary arithmetic functions on data represented by a series of on/off states.
DRAM	Dynamic Random Access Memory. A type of memory semiconductor that is used in electronic systems to store data and program instructions. It is the most common type of RAM and must be refreshed with electricity thousands of times per second or else it will fade away.
Flash memory	A type of memory semiconductor that retains memory content when the power is turned off, and is electrically re-writeable.
Foundries	Companies that manufacture semiconductors based on their customers' semiconductor designs.
Integrated circuit	A combination of multiple transistors on a base material, usually silicon. All semiconductors are very complicated integrated circuits with thousands of transistors.
LCD drivers	Liquid Crystal Display drivers. Semiconductors used to display images on liquid crystal display panels.
Logic circuits	Circuits on a semiconductor that process, rather than store, information.
Mask	A piece of glass on which an integrated circuit's circuitry design is laid out. Integrated circuits may require up to 20 different layers of design, each with its own mask. In the integrated circuit production process, a light shines through the mask leaving an image of the design on the wafer.
Memory circuits	Circuits on a semiconductor that store data and programs.

**Table of Contents**

Memory semiconductors	Semiconductors that contains only memory circuits.
Microcontroller	Complete computing system contained on a single integrated circuit that is programmed to specific customer requirements.
Network analyzer	An instrument that measures the frequency characteristics of electronic circuitry and components.
Non-memory semiconductors	Semiconductors that contain circuits other than memory circuits.
OLED	Organic light-emitting diode. A technology which, when used in displays, produces self-luminous displays that do not require back-lighting. OLED technology is one of the candidates to replace LCD as the technology used in the next generation of displays.
OPENSTAR	An open architecture for SoC automated test equipment which Advantest is currently promoting to be adopted as an industry-wide standard.
Optical chirp test set	An instrument that measures chirp of optical pulses. Chirp is the slight shifts in wavelength that occur when lasers rapidly emit optical pulses and has the effect of interfering with signal quality.
Optical time domain reflectometer	An instrument that identifies, and measures the distance to, breaks in fiber optic lines.
RAM	Random Access Memory. A type of memory semiconductor, forming the main memory of a computer where applications and files are run.
RFIC	Radio Frequency Integrated Circuit. A semiconductor that is used to process radio frequency signals transmitted by wireless devices.
SDRAM	Synchronous Dynamic Random Access Memory. A type of memory semiconductor based on standard DRAM semiconductors, but has sophisticated features that make them considerably faster.
Semiconductor	The basic building block used to create an increasing variety of electronic products and systems. Essentially, semiconductors transmit electricity only under certain circumstances, such as when given a positive or negative charge. A semiconductor's ability to conduct can be turned on or off by manipulating those charges and this allows the semiconductor to act as an electric switch.
Semiconductor modules	Semiconductors that are mounted on a circuit board and combined with other circuit components.
SGRAM	Synchronous Graphics Random Access Memory. A memory semiconductor used for graphics.
SoC semiconductor	System-on-a-Chip semiconductor. A semiconductor that combines advanced logic technologies with analog and/or memory technologies on a single semiconductor.
Spectrum analyzer	An instrument that measures wavelengths, ranges and other characteristics of signals.
SRAM	Static Random Access Memory. A type of memory semiconductor that is used in electronic systems to store data and program instructions. Unlike the more common DRAM, it does not need to be refreshed.
Test houses	Companies that provide testing services to semiconductor manufacturers.

**Table of Contents**

Wafer	A thin, round, flat piece of silicon base from which most semiconductors are manufactured.
WDM	Wavelength division multiplex. Advanced communication technology that enables high-speed, high-volume transmission of voice, data and video services by simultaneously transmitting multiple signals over a single optic fiber.
Wireless LAN	Wireless Local Area Network. Group of computers and devices that share a common wireless link and typically share the resources of a single server within a small geographic area.
WMT	Wizard of Module Test. A component-module based system for measuring instruments developed by Advantest. Advantest has registered or filed applications to register WMT as its trademark with the appropriate authorities in 12 countries, including Japan.

**4.C ORGANIZATIONAL STRUCTURE**

As of June 1, 2003, Advantest Corporation had 22 Japanese subsidiaries and 20 overseas subsidiaries. The following table sets forth for each of Advantest Corporation's principal subsidiaries the country of incorporation and the principal activities of the subsidiary.

<u>Name of Subsidiary</u>	<u>Country of Incorporation</u>	<u>Principal Activities</u>
Advantest Laboratories Ltd.	Japan	Research and development of measuring and testing technologies
Advantest Customer Support Corporation	Japan	Maintenance service of automated test equipment and measuring instruments
Advanmechatec Co., Ltd.	Japan	Manufacture of test handlers
Advantest Instruments Corporation	Japan	Manufacture of measuring instruments
Advanmicrotec Co., Ltd.	Japan	Manufacture of components used in Advantest products
Advanelectron Co., Ltd.	Japan	Manufacture of automated test equipment
Advantest Finance Inc.	Japan	Leasing of Advantest products
Advantest America Corporation (Holding Co.)	U.S.A.	Headquarters of North American operations
Advantest America, Inc.	U.S.A.	Sales of automated test equipment
Advantest (Europe) GmbH	Germany	Headquarters of European operations and sales of automated test equipment
Advantest Asia Pte. Ltd.	Singapore	Headquarters of Asian operations
Advantest Taiwan Inc.	Taiwan	Sales of automated test equipment
Advantest (Singapore) Pte. Ltd.	Singapore	Sales of automated test equipment

Each of the subsidiaries listed above is a direct or indirect wholly-owned subsidiary of Advantest Corporation. On March 31, 2003, Advantest sold all of its shares of Advantest AD Corporation, its Japanese subsidiary specializing in the development and manufacturing of general measuring instruments.

Advantest announced in April 2003 that, as part of its efforts to consolidate many of its manufacturing processes for both its automated test equipment and measuring instruments businesses, Advantest will spin off on or around July 1, 2003, the back-end manufacturing of its automated test equipment business and a part of its measuring instruments business to Advanelectron Co., Ltd., which manufactures automated test equipments.

**Table of Contents**

Advantest will then cause Advantest Instruments Corporation, which manufactures measuring instruments, to be merged into Advanelectron Co., Ltd. on or around July 1, 2003. The surviving corporation will be renamed Advantest Manufacturing, Inc. and Advantest Corporation will hold 100% of the capital stock of the surviving corporation. Advantest does not anticipate that these transactions will have a material effect on Advantest's future consolidated financial position or results of operations.

**4.D PROPERTY, PLANTS AND EQUIPMENT**

As of June 1, 2003, Advantest owned manufacturing facilities in Japan, the United States, Korea and Malaysia.

Set forth below is a list of each of Advantest's material properties, the use and location of the property and the approximate size of the property on which the facility is located.

<u>Name</u>	<u>Location</u>	<u>Approximate Size (m<sup>2</sup>)</u>	<u>Use</u>
Gunma Plant	Gunma, Japan	88,512	Manufacture of semiconductor test systems
Gunma Plant II	Gunma, Japan	93,438	Manufacture of measuring instruments
Menuma Plant	Saitama, Japan	64,183	Manufacture of automated test equipment components
Ohtone R&D Center	Saitama, Japan	85,817	Research and development of semiconductor test systems; manufacture of handlers; research and development and manufacture of E-beam lithography systems; manufacture of device interfaces
Gunma R&D Center	Gunma, Japan	250,887	Research and development of semiconductor test systems, device interfaces and measuring instruments
Advantest Laboratory	Miyagi, Japan	68,030	Basic technology research

In addition to its manufacturing facilities, Advantest's properties include owned and leased sales offices and customer support centers throughout the world and research facilities in Japan, the United States and France. Advantest owns each of its significant properties.

Advantest considers all of its principal manufacturing facilities and other significant properties to be in good condition and adequate to meet the needs of its operations. Advantest does not maintain internal records of the exact productive capacity and extent of utilization of its manufacturing facilities. It would require unreasonable effort and expense to determine this information because Advantest alters the volume, quantity and nature of its manufactured products as necessary in response to changes in demand and other market conditions, and revamps its manufacturing processes to take advantage of technological innovations. However, Advantest believes that its manufacturing facilities are currently operating at utilization levels that are substantially in line with prevailing market demand for its products.

Advantest believes that there does not exist any material environmental issues that may affect the company's utilization of its assets.

As of June 1, 2003, Advantest does not have any material plans to construct, expand or improve its facilities.

**ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

**5.A OPERATING RESULTS**

You should read the following discussion and analysis of Advantest's financial condition and results of operations together with Key Information Selected Financial Data and its audited consolidated financial

## **Table of Contents**

statements as of March 31, 2002 and 2003 and for each of the years in the three year period ended March 31, 2003 and the notes to such statements appearing elsewhere in this annual report. These consolidated financial statements have been prepared under accounting principles generally accepted in the United States of America.

### **Overview**

Advantest's business segments are automated test equipment and measuring instruments. Automated test equipment is used during the semiconductor production process to confirm that a semiconductor functions properly. Automated test equipment manufactured by Advantest consists of semiconductor test systems, test handlers, device interfaces and software. Advantest classifies its semiconductor test systems as equipment for either memory or non-memory semiconductors. Automated test equipment is Advantest's most significant segment, accounting for approximately 87% of net sales in fiscal 2002.

Measuring instruments are used primarily by manufacturers and network service providers to design, manufacture, check and adjust communications equipment and networks and other electronic devices and equipment. Advantest's measuring instruments primarily serve the wireless and fiber optic communications industries and the electronics industry.

### ***Automated Test Equipment***

The market for automated test equipment is highly cyclical and competitive. Demand for automated test equipment can vary significantly from year to year. Demand for automated test equipment depends, to a large extent, on:

- the level of demand and market prices for semiconductors worldwide and the resulting capital expenditure decisions of semiconductor manufacturers;
- advancements in semiconductor technology; and
- changes in semiconductor manufacturing processes.

Among the factors set forth above, weak demand in the worldwide semiconductor market, particularly with respect to market prices of semiconductors, and the resulting restraint in capital expenditure levels of manufacturers were primarily responsible for the depressed market for automated test equipment in 2002. For a detailed discussion of these factors and their affect on demand for automated test equipment, see [Information on the Company Business Overview Industry Overview](#) .

Advantest's net sales from automated test equipment increased by 14.4% in fiscal 2002 compared to fiscal 2001 following a decrease of 69.3% in fiscal 2001 compared to fiscal 2000. Advantest experienced an increase in net sales in the second half of fiscal 2002 of 41.7% compared to the first half of fiscal 2002 as the semiconductor market appears to have bottomed out in the second half of fiscal 2001 and to have started to slowly improve. However, Advantest believes that the market price for semiconductors remains depressed and that there still exists a substantial lack of visibility regarding semiconductor demand.

Advantest's net sales and operating results in fiscal 2002 were also affected by sales mix and price pressure. Advantest's best selling non-memory semiconductor test systems in fiscal 2002 were the T6300 series, which tests LCD driver integrated circuits used in LCD displays, and the T6500 series, Advantest's lower cost alternative in its SoC semiconductor test system product line-up. Demand for these semiconductor test systems was driven by expanded production during 2002 of digital consumer electronics that incorporate semiconductors, including wireless handsets, DVD devices and digital cameras. These semiconductors typically are mass-produced and carry per unit market prices that are lower than high-end SoC semiconductors and high-bandwidth

## **Table of Contents**

DRAM and SRAM products. Therefore, Advantest's customers that produce these semiconductors required less expensive semiconductor test systems in order to reduce their overall manufacturing costs.

During fiscal 2002, Advantest's older semiconductor test system models sold better than its newer models. Advantest believes that demand for its older models was driven by the need of its customers to increase their production capacities, while minimizing their capital expenditures at the same time. In most cases, the sales price of a semiconductor test system product line gradually decreases over its commercial life.

Advantest also faced significant price pressure in almost all of its product lines during fiscal 2002. Advantest believes that price pressure with respect to automated test equipment tends to be strongest during periods when demand, in terms of volume, for semiconductors is increasing, but there exists pressure on the market price for semiconductors. Advantest believes that, despite a general lack of visibility regarding the timing of a real recovery in the semiconductor market, it is in such a period.

These factors contributed to a reduction in Advantest's average net sales per unit sold during fiscal 2002 and also adversely affected Advantest's operating margins in its automated test equipment segment.

## ***Measuring Instruments***

Advantest net sales from measuring instruments fell in fiscal 2002 by 39.0% compared to fiscal 2001 following a 39.9% decrease in fiscal 2001 compared to fiscal 2000.

Demand for Advantest's measuring instruments is closely tied to growth rates in the wireless and fiber optic communications industries. In fiscal 2002, approximately 49% of net sales of Advantest's measuring instruments segment were derived from sales to communication network equipment and components manufacturers and, to a lesser extent, service providers. Overall investment levels in communications infrastructure decreased significantly during 2002. Major contributing factors to this decrease were:

- the stagnation of the global economy,
- the poor financial condition of many wireless and wireline communications service providers, particularly in the United States and Europe, and
- the completion of the build-out of third-generation wireless communications networks in Japan.

For a detailed discussion of these and other factors affecting investment levels in the communications industry, see [Information on the Company Business Overview Industry Overview](#).



## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest also sells general measuring instruments, demand for which is affected by the impact on electronics manufacturers of global consumer spending levels and economic growth. Demand for general measuring instruments in fiscal 2002 was adversely affected by the continuing global economic downturn. On March 31, 2003, Advantest sold all of its shares of its Japanese subsidiary specializing in the development and manufacturing of general measuring instruments. Beginning in April 2003, Advantest offers its customers general measuring instruments through a distribution agreement with its former subsidiary.

Advantest also sells in Japan products manufactured by Rohde & Schwarz GmbH & Co., KG. These products are predominantly used in designing and manufacturing high frequency devices and audio/video electronics. Sales of Rohde & Schwarz products constituted 15.7% of net sales of Advantest's measuring instruments segment in fiscal 2001 and 22.6% in fiscal 2002. Advantest purchases products from Rohde & Schwarz at wholesale prices, and records the total sales price as net sales from the sale of measuring instruments as Advantest assumes the risks of ownership upon the purchase of products from Rohde & Schwarz. Sales of Rohde & Schwarz products fell by 14.2% in fiscal 2002 compared to fiscal 2001.

---

**Table of Contents**

Advantest and Tektronix, Inc. mutually agreed to terminate effective June 28, 2002 the arrangement under which Tektronix was the sole distributor of Advantest's measuring instruments in North America for nine years. Advantest commenced direct sales of its measuring instruments in North America in July 2002. Advantest's sales of measuring instruments in North America decreased by approximately 74% in fiscal 2002 compared to fiscal 2001.

Advantest continued to face a significant amount of price pressure on its measuring instrument products in fiscal 2002 primarily due to continuing weak demand in its customers' industries and excess inventory on the part of its competitor.

***Research and Development***

Research and development expenses are a significant portion of Advantest's annual operating expenses. Advantest's research and development expenses were ¥28,541 million in fiscal 2000, ¥26,674 million in fiscal 2001 and ¥23,615 million in fiscal 2002, which resulted in research and development expenses as a percentage of net sales of 10.3% in fiscal 2000, 28.0% in fiscal 2001 and 24.2% in fiscal 2002. Advantest expects to continue to make substantial investments in research and development, with approximately ¥20.0 billion currently budgeted for research and development in fiscal 2003. The amount of Advantest's research and development budget for fiscal 2003 is subject to change based on its results of operations during fiscal 2003 and changes in its expectations for future periods.

***Personnel***

During fiscal 2002, Advantest implemented further cost-cutting measures to counter the weakness in its business that continued through fiscal 2002. These measures included a reduction during fiscal 2002 in the number of Advantest employees by approximately 700 through a voluntary early retirement program offered to employees in Japan and lay-offs of employees in foreign locations and the sale of all of its shares of a subsidiary in Japan pursuant to a management buyout. Advantest recorded severance costs of ¥3,595 million related to severance packages, excluding standard retirement benefits, of the employees that accepted early retirement and layoffs and recorded the charge in selling, general and administrative expenses. As of March 31, 2003, Advantest had paid approximately ¥3,250 million of the severance cost liability. Substantially all of the remaining amount was paid in April 2003. During fiscal 2001, Advantest reduced the number of its employees by approximately 600 and recorded severance costs of ¥1,590 million, of which ¥514 million was paid in fiscal 2001 and ¥1,076 of which was paid in April 2002.

Advantest reduced the compensation of employees in Japan classified as manager level and above during fiscal 2001 and followed with a second round of reductions during fiscal 2002. Furthermore, in April 2002, Advantest abolished its policy, which was applicable mostly in Japan, of granting regularly scheduled raises for management-level employees. Under the new policy, the salaries of management-level employees are reviewed and adjusted annually primarily based on individual job performance and Advantest's results of operation for the relevant year. Advantest also implemented a reduction in compensation in fiscal 2002 for all non-management-level employees in Japan that generally had the effect of canceling out the regularly scheduled raises for these employees.

Advantest plans to continue its periodic recruitment of new graduates as part of its mid- to long-term growth strategy. Advantest expects that a majority of these new hires will join the research and development division or the customer support/service division to support the growth of Advantest's businesses. The remainder of these new hires is expected to join Advantest's sales or administrative divisions. The addition of these new hires will increase Advantest's future selling, general and administrative expenses and its research and development expenses.



## **Table of Contents**

### ***Currency Fluctuations***

Advantest is affected to some extent by fluctuations in foreign currency exchange rates. Advantest is principally exposed to fluctuations in the value of the Japanese yen against the U.S. dollar and, to a much lesser extent, other currencies of countries where Advantest does business. Advantest's consolidated financial statements, which are presented in Japanese yen, are affected by foreign currency exchange fluctuations through both translation risk and transaction risk.

Translation risk is the risk that Advantest's consolidated financial statements for a particular period or for a particular date will be affected by changes in the prevailing exchange rates of the currencies in which subsidiaries of Advantest Corporation prepare their financial statements against the Japanese yen. Even though the fluctuations of currencies against the Japanese yen can be substantial and, therefore, significantly impact comparisons with prior periods and among various geographic markets, the translation effect is a reporting consideration and does not reflect Advantest's underlying results of operations. Advantest does not hedge against translation risk.

Transaction risk is the risk that the currency structure of Advantest's costs and liabilities will deviate from the currency structure of sales proceeds and assets. Advantest produces substantially all of its products, including all semiconductor test systems, in Japan. A small portion of the components and parts used in Advantest's semiconductor test systems is purchased in currencies other than the yen, predominantly the U.S. dollar. Approximately 40.4% of Advantest's net sales in fiscal 2002 were made in currencies other than the yen, predominantly the U.S. dollar.

Advantest enters into foreign exchange forward contracts to address a portion of its transaction risk. This has reduced, but not eliminated, the effects of foreign currency exchange rate fluctuations against the Japanese yen, which in some years can be significant.

Generally, a weakening of the Japanese yen against other currencies, particularly the U.S. dollar, has a positive effect on Advantest's operating income and net income. A strengthening of the Japanese yen against other currencies, particularly the U.S. dollar, has the opposite effect. The Japanese yen weakened against the U.S. dollar during the second half of fiscal 2000 and in fiscal 2001. However, the Japanese yen generally strengthened against the U.S. dollar during fiscal 2002 compared to fiscal 2001.

Advantest's business is subject to risks associated with doing business internationally, and its business could be impacted by certain governmental, economic, fiscal, monetary or political policies or factors, including trade protection measures and import or export licensing requirements, that may materially affect, directly or indirectly, Advantest's operations or its future results.

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

Advantest has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities in preparing its consolidated financial statements in conformity with U.S. GAAP. Critical accounting policies are accounting policies that require the application of management's most difficult, subjective or complex judgments and often require management to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. The following is not intended to be a comprehensive list of all of Advantest's accounting policies. Advantest's significant accounting policies are more fully described in note 1 to Advantest's consolidated financial statements included elsewhere in this annual report. In many cases, U.S. GAAP specifically dictates the accounting treatment of a particular transaction, with no need for judgment in its application. There are also areas in which management's judgment in selecting an available alternative would not produce materially different results. Set forth below is a description of accounting

## Edgar Filing: ADVANTEST CORP - Form 20-F

policies under U.S. GAAP that Advantest has identified as critical to understanding its business and the reported financial results and condition of the company.

## **Table of Contents**

### ***Revenues***

With respect to automated test equipment and components that require installation, Advantest recognizes revenue from sales when the equipment or component is accepted by the customer, as evidenced by the customer's signature on the installation contract following the completion of installation of the automated test equipment or component. In certain instances, Advantest has experienced delays in recognizing revenues from the sale of newly introduced semiconductor test systems, test handlers and device interfaces because customers require additional testing time prior to acceptance to confirm that the installed product meets their technical requirements. With respect to components for automated test equipment that do not require installation work, Advantest recognizes revenue upon shipment or delivery based on when passage of title and risk of loss occurs as provided in the terms of the sales contract.

Advantest recognizes revenues from sales of measuring instruments upon shipment or delivery based on when passage of title and risk of loss occurs as provided in the terms of the sales contract. With respect to the small number of measuring instruments that require installation, Advantest recognizes revenue from sales when the measuring instrument is accepted by the customer as evidenced by the customer's signature on the installation contract.

### ***Inventory***

Advantest's inventory consists of on-hand inventory, including inventory located at customer sites, and inventory that is on-order and subject to a contract that is non-cancelable. Advantest states its inventory at the lower of cost or market. Cost is determined using the average cost method. Advantest determines the market for finished goods by determining net realizable value and for raw materials by identifying replacement cost. Advantest reviews its inventory and determines the appropriate amount of any inventory write-downs periodically based on these reviews. Impairment occurs from the discontinuation of product lines, inventory in excess of estimated usage, the release of new products which render inventory obsolete and declines in net realizable value of Advantest's inventory located at customer sites. Advantest recognizes inventory write-downs in cost of sales.

Advantest's inventory decreased by ¥17,893 million, or 33.8%, during fiscal 2002 to ¥34,995 million at March 31, 2003. Advantest recorded inventory write-downs in the amount of ¥2,553 million in fiscal 2002 following write-downs of ¥20,150 million in fiscal 2001. The write-down of ¥2,553 million in fiscal 2002 consisted of ¥1,629 million from the discontinuation of product lines, including those product lines that were replaced by new product lines, and ¥924 million due to declines in net realizable value of Advantest's inventory located at customer sites. Advantest may be required to take additional charges for excess and obsolete inventory in fiscal 2003 or other future periods if the current weakness in its businesses causes further reductions to Advantest's inventory valuations. In addition, unexpected changes in testing technology can render Advantest's inventory obsolete. Advantest evaluates its inventory levels based on its estimates and forecasts of demand for its products.

### ***Accounts Receivable***

Advantest maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. Advantest provides an allowance for doubtful accounts for all specific accounts receivable that it judges are probable of not being collected. Advantest has not recorded any allowances for accounts receivable for its largest customers, a majority of which are large, well-capitalized semiconductor manufacturers, test houses and foundries. Advantest requires a deposit from most customers for its measuring instruments. Advantest believes that the amounts of these deposits are sufficient to offset the amounts of any possible defaults on accounts receivable of these customers.

Advantest periodically reviews its estimated allowances for doubtful accounts taking into account the customer's payment history, assessing the customer's current financial position and considering other information that is publicly available and the customer's credit worthiness. Additional reviews are undertaken

---

**Table of Contents**

upon reports of significant changes in the financial condition of Advantest's significant customers and the semiconductor industry in general.

The continuing weakness in the semiconductor market has caused certain Advantest customers to experience shortages of cash flows which have impacted their ability to make required payments. At the end of fiscal 2002, Advantest increased its allowance for doubtful accounts by ¥707 million. These amounts were charged to selling, general and administrative expenses. Additional allowances may be necessary during fiscal 2003 if conditions in the industries of Advantest's customers do not improve in the near-term. A prolonged economic downturn in the United States and Europe could increase the likelihood of continued weakness in the industries of Advantest's customers and, therefore, result in an increase in Advantest's allowance for doubtful accounts. Conversely, a reversal of allowances made for accounts receivable that are later collected will decrease the selling, general and administrative expenses for the current fiscal period.

*Accrued Warranty Expense*

Advantest's automated test equipment and measuring instrument products are generally subject to a 12-month maintenance warranty. In addition, under certain circumstances, Advantest is responsible for the repair of defective components and parts. Advantest provides an allowance for estimated warranty expenses when product revenue is recognized as part of its selling, general and administrative expenses. The allowance for estimated warranty expenses represents management's best estimate at the time of sale of the total costs that Advantest will incur to repair or replace components or parts that fail while still under warranty. Advantest records its allowance for estimated warranty expenses based on the historical ratio of actual repair expenses to corresponding sales. The foregoing evaluations are inherently uncertain as they require estimates as to maintenance costs and failure rates related to different product lines. Consequently, actual warranty costs may differ from the estimated amounts and could result in additional warranty expenses. If actual warranty costs significantly exceed the amount of Advantest's allowance for warranty expenses, it would negatively affect the future results of operations of Advantest.

*Deferred Tax Assets*

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. At March 31, 2003, Advantest has recorded on its consolidated balance sheet, net deferred tax assets of ¥42,912 million of which ¥20,905 million represents net operating losses, or NOL, carried forward available to offset future taxable income. In order to fully realize these NOLs, Advantest will need to generate taxable income in excess of approximately ¥52,085 million prior to when the NOLs expire. Based upon projections for future taxable income over the periods in which the deferred tax assets are deductible, including management's expectations of future semiconductor and automated test equipment market prospects, the results of cost cutting measures including the termination of redundant employees and other factors, management believes it is more likely than not that Advantest will realize the benefits of these deductible differences, including NOLs, net of the existing valuation allowance, at March 31, 2003. The amount of the deferred tax assets considered realizable, however, could be reduced in the near term if estimates of future taxable income are reduced and the effect of any such reduction on Advantest's consolidated financial position and results of operations could be significant.

**Results of Operations Fiscal 2002 Compared with Fiscal 2001**

*Net Sales*



Advantest's net sales increased by ¥2,496 million, or 2.6%, compared with fiscal 2001 to ¥97,740 million in fiscal 2002. This increase resulted from an increase in sales in the automated test equipment segment, partially

---

**Table of Contents**

offset by a decrease in the measuring instruments segment. The estimated effect of changes in exchange rates during fiscal 2002 was to increase Advantest's net sales by ¥266 million.

The following is a discussion of net sales for Advantest's automated test equipment and measuring instrument business segments. Net sales amounts discussed represent only sales to unaffiliated customers.

***Automated Test Equipment Segment***

In fiscal 2002, net sales from Advantest's automated test equipment segment accounted for 86.9% of total net sales. Net sales from Advantest's automated test equipment segment increased by ¥10,704 million, or 14.4%, compared to fiscal 2001 to ¥84,910 million in fiscal 2002. Advantest's net sales in the second half of fiscal 2002 were ¥49,786 million, which resulted in a ¥14,662 million, or 41.7%, increase compared to the first half of fiscal 2002. The estimated effect of changes in exchange rates during fiscal 2002 was to increase Advantest's net sales from its automated test equipment segment by ¥280 million.

Net sales of memory semiconductor test systems increased by ¥629 million, or 1.5%, compared to fiscal 2001 to ¥41,327 million in fiscal 2002. This increase was generally attributable to increased sales of the T5370 series, Advantest's best selling product line in fiscal 2002, partially offset by a decrease in units sold of the T5580 series and the adverse effects of sales mix and price pressure. For a discussion of sales mix and price pressure, see [Overview Automated Test Equipment](#). Advantest's market share in memory semiconductor test systems fell from 60.6% in 2001 to 51.9% in 2002. Advantest believes its market share declined in 2002 because the proportion of semiconductor test systems that perform front-end testing of DRAM and flash memory semiconductors sold in the market increased compared to other memory semiconductor test systems. Advantest has a much stronger market share in back-end memory semiconductor test systems than in front-end memory semiconductor test systems.

Net sales of non-memory semiconductor test systems increased by ¥6,538 million, or 57.6%, compared to fiscal 2001 to ¥17,898 million in fiscal 2002. This increase was generally attributable to increased sales in Japan, Korea and Taiwan of its T6300 series which tests LCD driver integrated circuits used in LCD displays, digital cameras and wireless handsets, and increased sales of the T6500 series resulting from expanded production of digital consumer electronics and DVD devices. This increase was offset, in part, by the adverse effects of sales mix and price pressure. For a discussion of sales mix and price pressure, see [Overview Automated Test Equipment](#). Despite the increase in sales of non-memory (including SoC) semiconductor test systems, Advantest's market share in SoC semiconductor test systems fell from 11.2% in 2001 to 9.3% in 2002.

Net sales of test handlers and device interfaces increased by ¥2,173 million, or 13.0%, compared to fiscal 2001 to ¥18,934 million in fiscal 2002, reflecting the increase in number of semiconductor test system units sold.

Net sales of other products in the automated test equipment segment increased by ¥1,364 million, or 25.3%, to ¥6,751 million in fiscal 2002.

***Measuring Instruments Segment***

## Edgar Filing: ADVANTEST CORP - Form 20-F

Net sales from Advantest's measuring instruments segment decreased by ¥8,208 million, or 39.0%, compared to fiscal 2001 to ¥12,830 million in fiscal 2002.

Net sales of wireless communications instruments decreased by ¥2,800 million, or 36.9%, compared to fiscal 2001 to ¥4,778 million in fiscal 2002. This decrease was primarily attributable to the decrease in investment in Japan in third-generation wireless communications networks following the completion of the initial build-out in fiscal 2000 and the decrease in investment in the United States and Europe in existing wireless communications networks. This decrease was partially offset by continued investment in Korea in third-generation wireless communications networks and in other parts of Asia in existing wireless communications networks, and an increase in Taiwan in the production of equipment used in wireless LANs.

## **Table of Contents**

Net sales of fiber optic communications instruments decreased by ¥5,607 million, or 78.5%, compared to fiscal 2001 to ¥1,532 million in fiscal 2002. This decrease was primarily attributable to the continuing contraction in investment in fiber optic communications networks in the United States, Europe and Japan which began in early 2001.

Net sales of other instruments increased by ¥199 million, or 3.1%, compared to fiscal 2001 to ¥6,520 million in fiscal 2002. Sales of Rohde & Schwarz products continued to be weak primarily due to the decrease in investment in Japan in wireless communications networks. The weak sales of general measuring instruments was primarily a result of the general downturn in consumer spending on digital consumer products due to the continuing global economic downturn.

## ***Geographic Markets***

Advantest experienced an increase in net sales in each of its geographic markets other than North America, with sales in Asia (excluding Japan) experiencing the largest increase.

Net sales in Asia increased by ¥11,192 million, or 37.2%, compared to fiscal 2001 to ¥41,261 million in fiscal 2002. This increase was primarily attributable to increased sales of automated test equipment to foundries and test houses in Taiwan and, to a lesser extent, increased sales of automated test equipment in Korea, partially offset by a decrease in sales of automated test equipment in Singapore. The estimated effect of changes in exchange rates during fiscal 2002 was to decrease Advantest's net sales from sales in Asia by ¥252 million.

Net sales in Japan increased by ¥1,125 million, or 3.0%, compared to fiscal 2001 to ¥38,873 million in fiscal 2002. This increase was attributable to increased sales of non-memory semiconductor test systems, in particular the T6300 LCD driver integrated circuit test systems. This increase was partially offset by a decrease in sales of wireless communications measuring instruments due to the completion of the initial build-out of third-generation wireless networks in Japan.

Net sales in North America decreased by ¥10,477 million, or 54.7%, compared to fiscal 2001 to ¥8,666 million in fiscal 2002. This decrease was primarily attributable to decreased sales of automated test equipment to semiconductor manufacturers in the United States due to a significant decrease in capital expenditures by one of Advantest's customers and, to a significantly lesser extent, decreased sales of measuring instruments to customers related to the wireless and fiber optic communications industries. The estimated effect of changes in exchange rates during fiscal 2002 was to decrease Advantest's net sales in North America by ¥216 million.

Net sales in Europe increased by ¥656 million, or 7.9%, compared to fiscal 2001 to ¥8,940 million in fiscal 2002. This increase was primarily attributable to increased sales of automated test equipment to one of Advantest's customers in Europe, partially offset by over a 69.3% decrease in the sales of Advantest's measuring instruments. The estimated effect of changes in exchange rates during fiscal 2002 was to increase Advantest's net sales from sales in Europe by ¥735 million.

## ***Operating Expenses***

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest's operating expenses decreased by ¥17,866 million, or 13.5%, compared with fiscal 2001 to ¥114,483 million in fiscal 2002.

Cost of sales decreased by ¥20,162 million, or 26.3%, compared to fiscal 2001 to ¥56,551 million in fiscal 2002. This decrease consists primarily of the effects of a reduction in inventory write-downs of ¥17,597 million in fiscal 2002 compared to fiscal 2001 and, to a much lesser extent, the effects of the decrease in the number of measuring instruments sold, partially offset by increased costs related to the increase in the number of semiconductor test system units sold during fiscal 2002.

**Table of Contents**

Cost of sales as a percentage of net sales of automated test equipment decreased from 78.2% in fiscal 2001 to 55.3% in fiscal 2002. The largest portion of Advantest's cost of sales for its automated test equipment consists of costs of parts and components. The average costs of parts and components during fiscal 2002 remained relatively stable compared to fiscal 2001. The decrease in cost of sales as a percentage of net sales of automated test equipment in fiscal 2002 was primarily due to a significant reduction in inventory write-downs in fiscal 2002 compared to fiscal 2001. Excluding the effects of inventory write-downs, Advantest's cost of sales as a percentage of net sales of automated test equipment remained relatively flat. However, Advantest continued to make efforts during fiscal 2002 to reduce fixed costs by outsourcing production and using temporary workers, automation and information technology in its manufacturing processes. Advantest also continued its efforts during fiscal 2002 to reduce its costs by reducing the number of employees, suspending factory operations for short periods during normal operating hours, further reducing overtime for personnel, reducing remuneration and continuing efficiency-enhancing measures, including the reduction in the number of existing product types and the standardizing of components and parts. These efforts, however, were offset by the adverse effects of sales mix and price pressure. For a discussion of sales mix and price pressure, see [Overview Automated Test Equipment](#).

Cost of sales as a percentage of net sales of measuring instruments decreased from 89.8% in fiscal 2001 to 77.2% in fiscal 2002. This decrease resulted primarily from a significant reduction in inventory write-downs in fiscal 2002 compared to fiscal 2001 and, to a lesser extent, the effects of cost-cutting measures. When calculated after excluding the effects of inventory write-downs, Advantest's cost of sales as a percentage of net sales of measuring instruments increased in fiscal 2002 compared to fiscal 2001. This increase was primarily a result of decreased utilization of Advantest's manufacturing capacity due to lower business levels in fiscal 2002 and continued price pressure felt by Advantest during fiscal 2002.

Research and development expenses decreased by ¥3,059 million, or 11.5%, compared to fiscal 2001 to ¥23,615 million in fiscal 2002. This decrease in research and development expenses reflects a decrease in compensation levels and the reduction in the number of employees, as well as a decrease in amounts paid to third party research facilities and the effects of Advantest's efforts to further focus its research and development efforts in light of continued weakness in Advantest's businesses.

Selling, general and administrative expenses increased by ¥5,355 million, or 18.5%, compared to fiscal 2001 to ¥34,317 million in fiscal 2002. This increase is primarily attributable to a ¥3,758 increase in product warranty expenses and a ¥3,563 increase in administrative expenses in fiscal 2002 compared to fiscal 2001. The increase in product warranty expenses is attributable to the amount of warranty claims in fiscal 2001 having been lower than historical averages, which thereby lowered the amount of accrued warranty expenses that Advantest needed to record during fiscal 2001 to cover net sales made during that period. Advantest believes that warranty claims as a percentage of net sales in fiscal 2002 were at historical averages. The increase in administrative expenses is attributable primarily to the increase in severance costs incurred in fiscal 2002 compared to fiscal 2001. These increases in selling, general and administrative expenses were partially offset by a decrease in selling expenses. This decrease is primarily attributable to the decrease in compensation levels and the reduction in the number of employees in fiscal 2002, as well as a reduction in advertising expenses incurred during fiscal 2002 compared to fiscal 2001.

***Operating Income (Loss)***

Operating loss decreased by ¥20,362 million, or 54.9%, compared to fiscal 2001 to a loss of ¥16,743 million in fiscal 2002.

Operating income of the automated test equipment segment increased by ¥20,569 million compared to fiscal 2001 from a loss of ¥20,104 million to income of ¥465 million in fiscal 2002.

## **Table of Contents**

Operating loss of the measuring instruments segment increased by ¥113 million compared to fiscal 2001 to a loss of ¥7,939 million in fiscal 2002.

Changes in operating income or loss for fiscal 2002 compared to fiscal 2001 reflect the factors discussed above.

### ***Other Income (Loss) and Expenses***

Interest and dividend income decreased by ¥313 million, or 43.5%, compared to fiscal 2001 to ¥407 million in fiscal 2002. This decrease was primarily due to a decrease in the amount of cash and cash equivalents and dividend income and the drop in interest rates in countries in which Advantest holds its cash and cash equivalents.

Interest expense decreased by ¥43 million, or 8.1%, compared to fiscal 2001 to ¥490 million in fiscal 2002. This decrease was primarily due to a lower average balance of obligations under capital leases outstanding during fiscal 2002 compared to fiscal 2001.

Other income decreased by ¥300 million, or 19.2%, compared to fiscal 2001 to a loss of ¥1,862 million in fiscal 2002. The decrease in other income resulted primarily from an increase in other-than-temporary declines in the fair value of investment securities and realized losses in investment securities in the amount of ¥611 million in fiscal 2002 compared to fiscal 2001 and the disposition during fiscal 2002 of other investments which resulted in a loss of ¥186 million. Foreign exchange gains and losses remained basically flat in fiscal 2002 compared to fiscal 2001. Foreign exchange gains and losses represent the difference between the value of foreign currency-denominated sales translated at prevailing exchange rates and either the value of sales amounts settled during the year, including those settled using foreign exchange forward contracts, or the value of accounts receivable and payables outstanding remeasured at the exchange rate in effect at the end of the fiscal year. The decrease in other income was offset by a decrease in Advantest's proportionate share of losses of an affiliate accounted for under the equity method from ¥794 million in fiscal 2001 to ¥109 million in fiscal 2002.

### ***Income Taxes***

Advantest's effective tax rate was 30.5% in fiscal 2002. Advantest's effective tax rate for fiscal 2001 was 37.9%. Advantest's statutory tax rate was 41.6% for fiscal 2002. The difference between the statutory tax rate of 41.6% and the effective tax rate of 30.5% in fiscal 2002 was primarily due to changes in valuation allowance and changes in deferred tax assets and liabilities, which were due to the effects of changes in the statutory income tax rate beginning April 1, 2004 as a result of amendments to the Japanese tax regulations enacted on March 24, 2003. For a more detailed discussion of income taxes of Advantest in fiscal 2001 and fiscal 2002, see Note 13 to Advantest's consolidated financial statements.

### ***Net Income (Loss)***

Advantest's net loss decreased by ¥10,912 million, or 45.6%, compared to fiscal 2001 resulting in a loss of ¥12,994 million in fiscal 2002. The changes in net loss for fiscal 2002 compared to fiscal 2001 reflect the factors discussed above.

***Other Comprehensive Income***

Advantest's other comprehensive income decreased by ¥4,221 million, or 312.7%, from income of ¥1,350 million in fiscal 2001 to a loss of ¥2,871 million in fiscal 2002. This decrease resulted primarily from a ¥4,355 million decrease in foreign currency translation gain from a gain of ¥1,440 million in fiscal 2001 to a loss of ¥2,915 million in fiscal 2002.



---

**Table of Contents**

**Results of Operations Fiscal 2001 Compared with Fiscal 2000**

*Net Sales*

Advantest's net sales decreased by ¥181,268 million, or 65.6%, compared with fiscal 2000 to ¥95,244 million in fiscal 2001. This decrease resulted from decreased sales in both business segments. The estimated effect of changes in exchange rates during fiscal 2001 was to increase Advantest's net sales by ¥3,827 million.

The following is a discussion of net sales for Advantest's automated test equipment and measuring instrument business segments. Net sales amounts discussed represent only sales to unaffiliated customers.

*Automated Test Equipment Segment*

In fiscal 2001, net sales from Advantest's automated test equipment segment accounted for 77.9% of total net sales. Net sales from Advantest's automated test equipment segment decreased by ¥167,293 million, or 69.3%, compared to fiscal 2000 to ¥74,206 million in fiscal 2001. The decrease in net sales was substantially more severe in the second half of fiscal 2001 compared to the first half of fiscal 2001 as net sales in the second half were ¥23,539 million, or 53.5% lower than the ¥50,667 million in net sales in the first half of fiscal 2001. The estimated effect of changes in exchange rates during fiscal 2001 was to increase Advantest's net sales from its automated test equipment segment by ¥3,827 million.

Net sales of memory semiconductor test systems decreased by ¥99,788 million, or 71.0%, compared to fiscal 2000 to ¥40,698 million in fiscal 2001. This decrease was generally attributable to volume decreases in units sold and, in particular, decreased sales of its best selling systems in fiscal 2000, the T5580 series and the T5370 series. Despite the significant drop in sales, Advantest retained a market share (measured in U.S. dollars) of over 60% in the memory semiconductor test systems market.

Net sales of non-memory semiconductor test systems decreased by ¥29,831 million, or 72.4%, compared to fiscal 2000 to ¥11,360 million in fiscal 2001. This decrease was generally attributable to volume decreases in units sold and, in particular, decreased sales of its lower-cost alternative in the T6600 family, the T6670 series. Despite this significant drop in sales, Advantest's market share (measured in U.S. dollars) grew from approximately 9% in fiscal 2000 to 11% in fiscal 2001 in the SoC semiconductor test systems market.

Net sales of test handlers and device interfaces decreased by ¥34,949 million, or 67.6%, compared to fiscal 2000 to ¥16,761 million in fiscal 2001, reflecting the decrease in number of semiconductor test system units sold.

Net sales of other products in the automated test equipment segment decreased by ¥2,725 million, or 33.6%, to ¥5,387 million in fiscal 2001.

*Measuring Instruments Segment*

## Edgar Filing: ADVANTEST CORP - Form 20-F

Net sales from Advantest's measuring instruments segment decreased by ¥13,975 million, or 39.9%, compared to fiscal 2000 to ¥21,038 million in fiscal 2001. The decrease in net sales was substantially more severe in the second half of fiscal 2001 compared to the first half of fiscal 2001 as net sales in the second half were ¥6,620 million, or 54.1% lower than the ¥14,418 million in net sales in the first half of fiscal 2001.

Net sales of fiber optic communications instruments decreased by ¥7,516 million, or 51.3%, compared to fiscal 2000 to ¥7,139 million in fiscal 2001. This decrease was primarily attributable to a severe contraction in investment in fiber optic communications networks in the United States, Europe and Japan during fiscal 2001.

Net sales of wireless communications instruments decreased by ¥703 million, or 8.5%, compared to fiscal 2000 to ¥7,578 million in fiscal 2001. This decrease was primarily attributable to a decrease in investment in

## **Table of Contents**

Japan in third-generation wireless communications networks and a decrease in investment in the United States and Europe in expanding existing wireless communications networks. Advantest believes this decrease was partially offset by an increase in investment in Korea in wireless communications networks utilizing third-generation wireless technology.

Net sales of other instruments decreased by ¥5,756 million, or 47.7%, compared to fiscal 2000 to ¥6,321 million in fiscal 2001. This decrease consisted of a decrease in sales of radio frequency component analyzer instruments, Rohde & Schwarz's measuring instruments and general measuring instruments. The decrease in sales of radio frequency component analyzer instruments was primarily attributable to the decrease in investment in wireless communications networks. The decrease in sales of Rohde & Schwarz's measuring instruments was primarily attributable to a general decrease in the number of units sold. The decrease in sales of general measuring instruments was primarily attributable to the effect of a general decrease in global consumer spending levels during the year on electronic consumer products.

## ***Geographic Markets***

Advantest experienced decreases in net sales in each of its geographic markets, with sales in Asia (excluding Japan) experiencing the largest decrease.

Net sales in Asia decreased by ¥109,867 million, or 78.5%, compared to fiscal 2000 to ¥30,069 million in fiscal 2001. This decrease was primarily attributable to decreased sales of Advantest's automated test equipment in Singapore, Korea and Taiwan. Net sales in Singapore and Korea are highly concentrated. Net sales in Taiwan were particularly lower in fiscal 2001 than in fiscal 2000 because of decreased sales to test houses and foundries, most of which are located in Taiwan. The estimated effect of changes in exchange rates during fiscal 2001 was to increase Advantest's net sales from sales in Asia by ¥1,304 million.

Net sales in Japan decreased by ¥40,901 million, or 52.0%, compared to fiscal 2000 to ¥37,748 million in fiscal 2001. This decrease was attributable to decreased sales of automated test equipment and, to a lesser extent, decreased sales of fiber optic and wireless communications measuring instruments.

Net sales in North America decreased by ¥21,557 million, or 53.0%, compared to fiscal 2000 to ¥19,143 million in fiscal 2001. This decrease was primarily attributable to decreased sales of automated test equipment to semiconductor manufacturers in the United States and, to a significantly lesser extent, decreased sales of measuring instruments to customers related to the fiber optic and wireless communications industries. The estimated effect of changes in exchange rates during fiscal 2001 was to increase Advantest's net sales in North America decreased by ¥1,888 million.

Net sales in Europe decreased by ¥8,943 million, or 51.9%, compared to fiscal 2000 to ¥8,284 million in fiscal 2001. This decrease was primarily attributable to decreased sales of automated test equipment to Advantest's largest customer in Europe and, to a lesser extent, over a 90% decrease in the sales of Advantest's measuring instruments. The estimated effect of changes in exchange rates during fiscal 2001 was to increase Advantest's net sales from sales in Europe by ¥635 million.

## ***Operating Expenses***

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest's operating expenses decreased by ¥59,258 million, or 30.9%, compared with fiscal 2000 to ¥132,349 million in fiscal 2001. The decrease principally reflects volume decreases in units sold, although cost of sales as a percentage of net sales increased, and decreases in selling, general and administrative expenses and research and development expenses.

Cost of sales decreased by ¥48,315 million, or 38.6%, compared to fiscal 2000 to ¥76,713 million in fiscal 2001. This decrease mainly consists of a decrease of ¥48,500 million, or 45.5%, for the automated test equipment

**Table of Contents**

segment, partially offset by a slight increase for the measuring instruments segment that was primarily due to write-downs of inventory for the measuring instruments segment.

Cost of sales as a percentage of net sales of automated test equipment increased from 44.1% in fiscal 2000 to 78.2% in fiscal 2001. The largest portion of Advantest's cost of sales for its automated test equipment consists of costs of parts and components. The average costs of parts and components during fiscal 2001 remained relatively stable compared to fiscal 2000. The increase in cost of sales as a percentage of net sales of automated test equipment in fiscal 2001 was primarily due to the increase in the proportion that fixed costs, consisting primarily of compensation to employees and depreciation and amortization, occupied of cost of sales and, to a lesser extent, an increase in inventory write-downs in fiscal 2001 compared to fiscal 2000. Advantest has made efforts over time to reduce fixed costs by increasing outsourcing of production, the use of temporary workers and the use of automation and information technology in its manufacturing processes. In addition, under its fiscal 2001 cost-cutting program, Advantest reduced its number of employees, suspended factory operations for short periods during normal operating hours, reduced overtime for personnel, reduced remuneration, primarily in Japan, for Advantest employees classified as manager level and above and initiated several efficiency-enhancing measures, including the reduction in the number of existing product types and the standardizing of components and parts. Advantest's inventory write-downs increased by ¥12,615 million, or 167.4%, compared to fiscal 2000 to ¥20,150 million in fiscal 2001. A significant majority of these write-downs related to inventory for Advantest's automated test equipment segment. The increase in write-downs in automated test equipment inventory is primarily attributable to the discontinuation of product lines, the release of new products which render inventory obsolete, a decrease in expected future sales of applicable semiconductor test system models and, to a much lesser extent, write-downs for used equipment.

Cost of sales as a percentage of net sales of measuring instruments increased from 52.8% in fiscal 2000 to 89.8% in fiscal 2001. This increase resulted primarily from the effects of the write-down in inventory taken during fiscal 2001 and decreased utilization of Advantest's manufacturing capacity due to lower business levels in fiscal 2001. In addition, Advantest's ratio of cost of sales to net sales of measuring instruments was adversely affected by increased price pressure in fiscal 2001 resulting from weak demand in its customers' industries and excess inventory on the part of its competitors.

Research and development expenses decreased by ¥1,867 million, or 6.5%, compared to fiscal 2000 to ¥26,674 million in fiscal 2001. This decrease in research and development expenses reflects a downward adjustment in Advantest's research and development budget in light of the negative trend in Advantest's business during fiscal 2001.

Selling, general and administrative expenses decreased by ¥9,076 million, or 23.9%, compared to fiscal 2000 to ¥28,962 million in fiscal 2001. This decrease in selling, general and administrative expenses is primarily attributable to a ¥7,793 million decrease in product warranty expenses in fiscal 2001 compared to fiscal 2000 and a ¥2,084 million decrease in selling expenses in fiscal 2001 compared to fiscal 2000. The decrease in product warranty expenses is attributable to the amount of warranty claims in fiscal 2001 being lower than historical averages and a decrease in the amount of estimated warranty expenses accrued during fiscal 2001 compared to the amount accrued during fiscal 2000 due to the decrease in sales. The decrease in selling expenses is primarily attributable to decreased sales of semiconductor test system units resulting in lower freight, packing and advertising expenses. The decrease in these selling, general and administrative expenses were partially offset by severance costs related to job cuts made in fiscal 2001.

***Operating Income (Loss)***

Operating income decreased by ¥122,010 million, or 143.7%, compared to fiscal 2000 resulting in a loss of ¥37,105 million in fiscal 2001.



## **Table of Contents**

Operating income of the automated test equipment segment decreased by ¥106,517 million, or 123.3%, compared to fiscal 2000 to a loss of ¥20,104 million in fiscal 2001.

Operating income of the measuring instruments segment decreased by ¥14,498 million, or 217.3%, compared to fiscal 2000 to a loss of ¥7,826 million in fiscal 2001.

The changes in operating income or loss for fiscal 2001 compared to fiscal 2000 reflect the factors discussed above.

### ***Other Income and Expenses***

Interest income decreased by ¥138 million, or 16.1%, compared to fiscal 2000 to ¥720 million in fiscal 2001. This decrease was primarily due to the drop in interest rates in Japan and a decrease in the amount of cash and cash equivalents.

Interest expense decreased by ¥102 million, or 16.1%, compared to fiscal 2000 to ¥533 million in fiscal 2001. This decrease was primarily due to a lower average balance of total long-term debt outstanding during fiscal 2001 compared to fiscal 2000.

Other income decreased by ¥2,696 million from income of ¥1,217 million in fiscal 2000 to a loss of ¥1,479 million in fiscal 2001. The decrease in other income resulted primarily from a decrease in foreign exchange gains in the amount of ¥948 million from ¥1,127 million in fiscal 2000 to ¥179 million in fiscal 2001, ¥794 million consisting of Advantest's proportionate share of losses of an affiliate accounted for under the equity method beginning in fiscal 2001 and the other-than-temporary declines in fair value of investment securities in the amount of ¥1,265 million in fiscal 2001. Foreign exchange gains and losses represent the difference between the value of foreign currency-denominated sales translated at prevailing exchange rates and either the value of sales amounts settled during the year, including those settled using foreign exchange forward contracts, or the value of accounts receivable and payables outstanding remeasured at the exchange rate in effect at March 31, 2002. In fiscal 2001, foreign exchange gain was favorably impacted compared to the prior year by the trend of greater weakening of the yen, particularly against the U.S. dollar. However, Advantest's total foreign exchange gain at the end of fiscal 2001 compared to fiscal 2000 decreased due to lower net sales in foreign currencies during fiscal 2001 and a decrease in the amount of accounts receivable at March 31, 2002 compared to March 31, 2001.

### ***Income Taxes***

Advantest's effective tax rate was 37.9% in fiscal 2001. Advantest's effective tax rate for fiscal 2000 was 38.5%. Advantest's statutory tax rate was 41.6% for fiscal 2000 and fiscal 2001. The difference between the statutory tax rate of 41.6% and the effective tax rate of 37.9% in fiscal 2001 was primarily due to changes in valuation allowance. For a more detailed discussion of income taxes of Advantest in fiscal 2000 and fiscal 2001, see Note 13 to Advantest's consolidated financial statements.

### ***Net Income***

Advantest's net income decreased by ¥77,027 million, or 145.0%, compared to fiscal 2000 resulting in a loss of ¥ 23,906 million in fiscal 2001. The changes in net income or loss for fiscal 2001 compared to fiscal 2000 reflect the factors discussed above.

***Other Comprehensive Income***

Advantest's other comprehensive income decreased by ¥3,050 million, or 69.3%, from ¥4,400 million in fiscal 2000 to ¥1,350 million in fiscal 2001. This decrease resulted primarily from a ¥3,772 million decrease in foreign currency translation gain from ¥5,212 million in fiscal 2000 to ¥1,440 million in fiscal 2001. The



## **Table of Contents**

decrease in foreign currency translation gain was partially offset by a ¥722 million decrease in net unrealized losses on marketable securities in fiscal 2001 as compared to fiscal 2000.

## **Environmental**

Advantest has been engaged in environmental preservation activities and is working towards the reduction in the citation, discharge or other release of environmental waste or other hazardous substances in connection with its business activities. Advantest's primary environmental activities during fiscal 2002 are as follows:

- *Environmental Measures for Products.* Advantest conducts environmental assessments of products from the development stages. Advantest is aiming for the use of lead-free solders for all of its products by December 2005.
- *Receive ISO 14001 Certification.* Advantest has received ISO 14001 certification for its seven domestic manufacturing and research and development facilities and is currently managing and controlling such facilities in accordance with applicable regulations.
- *Reduce Waste.* Advantest has achieved a 98% recovery of industrial waste and currently creates almost no landfill waste at four of its manufacturing facilities. Advantest is also striving to achieve a 98% recovery of industrial waste at its three domestic research and development facilities by the end of fiscal 2005.
- *Use of Safe Components.* Advantest has established an internal procurement standard for parts and components and has commenced its efforts to procure parts and components for its new products that do not contain certain hazardous materials. Advantest has conducted inspection on approximately 1,600 standard parts.
- *Conserve Energy.* Advantest's use of electricity as of the end of fiscal 2002 increased by 35% compared to the levels used in fiscal 1999, measured based on a per dollar of consolidated net sales basis. However, primarily due to the use of energy efficient equipment, the total usage of electricity decreased by 22% in fiscal 2002 compared to the levels of fiscal 1999.

Advantest expects that the rules and regulations related to environmental matters in Europe and Japan will further be strengthened in the future. In May 2003, Advantest established the Environmental Management Center and the Committee on Environmental Conservation, both directly supervised by the Board of Managing Directors. These two new groups will oversee the company's various environmental conservation activities and will focus on increased use of environmentally friendly, or green, product designs, the adoption of parts and components which do not contain certain hazardous materials and the promotion of product recycling and disposal.

Advantest spent approximately ¥835 million during fiscal 2002 to advance its environmental policies. Advantest expects to have similar levels of expenditures related to its environmental policies during fiscal 2003.

## **5.B LIQUIDITY AND CAPITAL RESOURCES**

## Edgar Filing: ADVANTEST CORP - Form 20-F

Net cash provided by operating activities was ¥4,967 million in fiscal 2002, compared to ¥9,009 million in fiscal 2001. Although Advantest's net loss in fiscal 2002 decreased by ¥10,912 million compared to fiscal 2001, net cash provided by operating activities decreased primarily due to changes in its operating assets and liabilities resulting from higher level of sales during the second half of fiscal 2002 compared to both the first half of fiscal 2002 and the second half of fiscal 2001.

Net cash used in investing activities was ¥8,419 million in fiscal 2002, compared to ¥18,573 million in fiscal 2001. The decrease was primarily attributable to a decrease in capital expenditures and in purchases of software.

---

## Table of Contents

Net cash used in financing activities was ¥14,488 million in fiscal 2002, compared to ¥9,463 million in fiscal 2001. The increase was primarily attributable to payments made in connection with Advantest's stock repurchase program, partially offset by larger principal payments on long-term debt made by Advantest during fiscal 2001.

Advantest's trade accounts receivable (less allowances for doubtful accounts) increased by ¥9,725 million, or 29.3%, during fiscal 2002 to ¥42,921 million as of March 31, 2003. The amount of trade accounts receivable increased by a greater proportion than the increase in net sales due to the higher level of sales in the second half of fiscal 2002 compared to the first half. Allowance for doubtful accounts increased by ¥707 million, or 132.6%, during fiscal 2002 to ¥1,240 million as of March 31, 2003. Advantest increased its allowance for doubtful accounts primarily as a result of provisions taken with respect to three of its customers.

Advantest's trade accounts payable increased by ¥6,345 million, or 142.8%, during fiscal 2002 to ¥10,787 million as of March 31, 2003. The amount of trade accounts payable increased primarily due to increased inventory procurement at the end of fiscal 2002 compared to the end of fiscal 2001 resulting from higher projected sales for the first half of fiscal 2003 estimated as of the second half of fiscal 2002 compared to the projected sales for the first half of fiscal 2002 estimated as of the second half of fiscal 2001.

Advantest's inventories decreased by ¥17,893 million, or 33.8%, during fiscal 2002 to ¥34,995 million as of March 31, 2003. This decrease primarily reflects the increase in net sales in the second half of fiscal 2002 compared to the second half of fiscal 2001 and the effects of tightening of controls over inventory procurement and reduction in production lead times. This decrease was partially offset by increased inventory procurement at the end of fiscal 2002 compared to the end of fiscal 2001 resulting from higher projected sales for the first half of fiscal 2003 estimated as of the second half of fiscal 2002 compared to the projected sales for the first half of fiscal 2002 estimated as of the second half of fiscal 2001.

Total capital expenditures decreased by approximately ¥6.9 billion, or 47.7%, compared to fiscal 2001 to ¥7.6 billion in fiscal 2002. Advantest's largest capital expenditures during fiscal 2002 consisted of its investment in equipment used in Advantest's test equipment leasing program and in equipment for research and development and manufacturing.

Advantest has budgeted ¥7.7 billion for capital expenditures in fiscal 2003. Advantest's expected capital expenditures in fiscal 2003 include:

- ¥2.7 billion allocated to equipment used in Advantest's test equipment leasing program; and
- ¥2.0 billion on equipment for research and development and manufacturing.

Advantest did not complete any large capital expenditures related to facilities and other infrastructure in fiscal 2002 other than the completion of its research and development facility in Fukuoka, Japan in June 2002. For a description of this capital expenditure project, see "Information on the Company History and Development of the Company". Advantest currently does not have any plans for large capital expenditure projects in fiscal 2003 or 2004.

The outstanding amount of Advantest's total long-term debt (including current installments) remained relatively flat at ¥26,869 million as of March 31, 2003. The current installments of long-term debt increased by ¥2,200 million to ¥2,243 million as of March 31, 2003. Advantest's

## Edgar Filing: ADVANTEST CORP - Form 20-F

long-term debt consists of secured borrowings with fixed interest rates ranging from 1.05% to 4.125%, with maturity dates ranging from 2003 to 2008, and unsecured bonds with fixed interest rates ranging from 0.88% to 1.88%, with maturity dates ranging from 2004 to 2005. Advantest's largest issue of bonds or notes currently outstanding consists of ¥20,000 million in principal amount of 1.88% unsecured bonds due December 14, 2005. All of Advantest's long-term debt is denominated in Japanese yen. As of March 31, 2003, Advantest's ratio of long-term debt (including current installments) to stockholders' equity was 12.8%, compared to 11.2% as of March 31, 2002.

**Table of Contents**

The following table reflects Advantest's current obligations and commitments to make future payments under contracts, contractual obligations and commercial commitments.

<b>Contractual Cash Obligation</b>	<b>Payments due by Period</b>				
	<b>Total</b>	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>4-5 years</b>	<b>After 5 years</b>
	(in millions)				
Long-Term Debt, including current installments	¥26,869	¥2,243	¥24,586	¥ 40	¥0
Capital Lease Obligations	133	114	19	0	0
Operating Leases	1,301	377	637	279	8
<b>Total Contractual Cash Obligations</b>	<b>¥28,303</b>	<b>¥2,734</b>	<b>¥25,242</b>	<b>¥319</b>	<b>¥8</b>

Advantest has various retirement and severance plans for employees, including contributory defined benefit retirement and severance plans consisting primarily of the Employees' Pension Fund plan. As described in note 16 to Advantest's consolidated financial statements, the unfunded portion of its benefit obligations as of March 31, 2003 amounted to ¥18,015 million, ¥14,219 million of which was recognized on Advantest's balance sheet as of March 31, 2003. Advantest has contributed to the Employees' Pension Fund plan in accordance with the funding requirements of applicable Japanese governmental regulations. Although there is presently no immediate or significant near-term increase expected in cash funding requirements, Advantest's cash funding requirements would be affected by any changes in interest rates, actual returns on plan assets and government regulations. The contributions paid by Advantest under the Employees' Pension Fund plan were ¥1,377 million in fiscal 2001 and ¥927 million in fiscal 2002. Advantest does not expect its contribution obligations in fiscal 2003 to be materially different from the amounts paid in fiscal 2002.

Advantest's funding and treasury policy (including funding for capital expenditures), which is overseen and controlled by its Finance Department, has been and is to fund substantially all of its cash needs through cash from operating activities, cash and cash equivalents on hand and, to a lesser extent, through external sources including debt financing. Advantest expects to fund its capital expenditures in fiscal 2003 from cash and cash equivalents on hand. In the event conditions in the semiconductor industry, and thus the automated test equipment industry, do not improve in the near to medium term, Advantest may need to fund future capital expenditures and other working capital needs through the incurrence of additional debt or dilutive issuances of equity securities.

Advantest's cash and cash equivalents balance decreased by ¥18,594 million in fiscal 2002 to ¥87,338 million as of March 31, 2003. At March 31, 2003, 79.3% of Advantest's cash and cash equivalents were held in Japanese yen.

**5.C RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES****Research and Development and Product Enhancement**

Advantest's research and development focuses on the development of new products and the refinement of existing products. Automated test equipment, in particular, is highly specialized and sold in relatively low volumes, and therefore requires a large and ongoing investment in development by Advantest to maintain competitiveness. Advantest also conducts research of basic technologies. Advantest's expenditures for

## Edgar Filing: ADVANTEST CORP - Form 20-F

research and development were approximately ¥28.5 billion in fiscal 2000, ¥26.7 billion in fiscal 2001 and ¥23.6 billion in fiscal 2002. Advantest employs over 1,000 engineers and other personnel in its research and development division.

Some of Advantest's current research and development activities include:

### *Basic Technology*

- development of devices for the measurement of millimeter waves, which consist of electromagnetic radiation with extremely high frequencies that are used in broadband communications and radars;

## **Table of Contents**

- development of testing and measuring technologies and components for photonic networks, which are networks that transmit communication signals entirely through optical or infrared signals. Advantest believes the communications industry will commence the roll-out of photonic networks around 2010;
- development of constituent technologies, including high speed, energy-saving micro switches and high speed samplers used in semiconductor test systems and millimeter wave measuring instruments; and
- development of methods to detect timing jitters in high bit-rate signals.

### *Automated Test Equipment*

- improvements in the functionality and size requirements of front-end DRAM and flash memory semiconductor test systems; and
- development of advanced automated test equipment that work smoothly with self-test circuits designed into SoC semiconductors.

### *Measuring Instruments*

- development of measuring instruments for devices that operate at extremely high frequencies and for networks that carry extremely high density transmissions; and
- continued development of component module-based measuring instruments. Modularization is a process through which functions of Advantest's measuring instrument product lines are installed into modules, thereby allowing for multi-functional instruments.

Advantest has four research and development facilities in Japan, two in the United States and one in France. Advantest merged its research and development operations at the Gyoda R&D Center, which served as a development facility for measuring instruments, with the Gunma R&D Center. In addition, Advantest's Kita Kyushu R&D Center commenced operations in June 2002. The Kita Kyushu R&D Center will focus on research and development for Advantest's business focused on automated test equipment for application specific semiconductor products which was launched in April 2002. This R&D Center is expected to provide timely and sophisticated support to semiconductor manufacturers and design companies in Kyushu, as well as in the rest of Asia.

In February 2002, Advantest established an SoC design center at its research and development facility in Santa Clara, California. Through this SoC design center, Advantest will work with top SoC design companies to develop new automated test equipment that meet the low-cost testing requirements of manufacturers of next-generation SoCs.

Advantest promotes joint development efforts between its various research facilities to capitalize on the capabilities of its researchers worldwide. Advantest's semiconductor test systems research and development team in Japan works closely with Advantest engineers in Santa Clara, California in the development of architecture platforms and software for next-generation semiconductor test systems. In addition, Advantest has integrated the primary research and development teams for semiconductor test systems and measuring instruments at its main research and development center in Japan. Advantest believes that cross-discipline interaction will result in further advances in automated test equipment for semiconductors that incorporate analog circuits.

Advantest is also engaged in cooperative research and development activities related to measuring instruments with Rohde & Schwarz, as well as other test and measurement companies and organizations.

***Electron-Beam Lithography***

Advantest is currently engaged in the research and development of electron-beam, or e-beam, lithography technology used to draw circuit patterns on semiconductors. Due to their throughput limitations, e-beam



## **Table of Contents**

lithography systems are currently only used in the production of high value-added semiconductors with limited production volumes and semiconductor prototypes. Advantest believes that further research and development will be necessary to develop the technology to make e-beam lithography systems with substantially increased throughput.

Semiconductor manufacturers and technology consortiums are also working to develop advanced lithography systems that use e-beam or other technologies.

For a description of Advantest's patents, licenses and other intellectual property, see [Information on the Company Business Overview Patents, Licenses and other Intellectual Property](#).

## **5.D TREND INFORMATION**

For a discussion of the trends that affect Advantest's business and operating results, see [Information on the Company Business Overview](#), [Operating and Financial Review and Prospects Operating Results](#) and [Operating and Financial Review and Prospects Liquidity and Capital Resources](#).

## **ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

### **6.A DIRECTORS AND SENIOR MANAGEMENT**

#### **Board of Directors and Corporate Auditors**

In June 2003, Advantest implemented a comprehensive reorganization of its senior management structure. Under this reorganization, Advantest reduced the size of its board of directors from 20 to seven and introduced a new operational management system called the corporate executive officer system. This reorganization is intended to streamline and revitalize meetings of the board of directors. Advantest also believes that the separation of the functions of the board of directors from that of its operational management will strengthen the monitoring and supervisory functions of the board of directors, while allowing newly appointed corporate executive officers to focus on implementing the business policies and strategies set by the board of directors. In addition, Advantest appointed an additional outside corporate auditor in June 2003 to strengthen the auditing function of its board of auditors.

The current members of the board of directors and corporate auditors of Advantest Corporation are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
-------------	------------	-----------------

## Edgar Filing: ADVANTEST CORP - Form 20-F

Hiroshi Oura	69	Chairman of the Board and Chief Executive Officer
Shinpei Takeshita	62	Vice Chairman of the Board
Toshio Maruyama	55	Representative Board Director, President of Corporate Executive Officers and Chief Operating Officer
Kiyoshi Miyasaka	58	Director and Senior Executive Officer
Junji Nishiura	57	Director and Senior Executive Officer
Hiroji Agata	56	Director and Senior Executive Officer
Hitoshi Owada	57	Director and Managing Executive Officer
Noboru Yamaguchi	61	Standing Corporate Auditor
Tadahiko Hirano	63	Standing Corporate Auditor
Keizo Fukagawa	67	Corporate Auditor
Takashi Takaya	61	Corporate Auditor

The business address for each of Advantest's board members and corporate auditors is c/o Advantest Corporation, Shinjuku-NS Building, 4-1, Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo 163-0880, Japan.

## Table of Contents

The term of each director listed above expires in June 2005. The term of each of Mr. Hirano as Standing Corporate Auditor and Mr. Takaya as Corporate Auditor expires in June 2007. The term of each of Mr. Yamaguchi as Standing Corporate Auditor and Mr. Fukagawa as Corporate Auditor expires in June 2004.

**Hiroshi Oura** has served as a Director of Advantest Corporation since 1989, when he joined the company, and as the Chairman of the Board and Chief Executive Officer since 2001. Mr. Oura also served as the President of Advantest Corporation from 1989 to 2001. From 1956 until 1989, Mr. Oura worked at Fujitsu Limited. Since 2000, Mr. Oura has been a member of the board of directors of the Japan Business Federation (formerly the Japan Federation of Economic Organization), a nationwide business association. Mr. Oura has also served as Trustee of the Japan Association of Corporate Executives since 1999, and as Vice President of the Board of the Japan Electric Measuring Instruments Manufacturers Association (JEMIMA) since 2001. Mr. Oura was elected as a director of Fujitsu Limited on June 24, 2003, and currently serves in that position.

**Shinpei Takeshita** has served as a Director of Advantest Corporation since 1985 and as the Vice Chairman of the Board since 2001. Mr. Takeshita served as the Vice President of Advantest Corporation from 1997 to 2001. Mr. Takeshita also served as the head of the Electron-Beam Lithography Division and oversaw all of Advantest's business divisions and business groups for the board from 1997 to 2001. Mr. Takeshita also served as the head of the Business Support Group from 1999 to 2001. Mr. Takeshita joined Advantest in 1964.

**Toshio Maruyama** has served as a Director of Advantest Corporation since 1989 and as President and Chief Operating Officer since 2001. Mr. Maruyama was appointed as the President of Corporate Executive Officers of Advantest in 2003. Mr. Maruyama has also served as the head of the Environmental Management Center since 2003. Mr. Maruyama served as the head of the ATE Sales Division from 1999 to 2001 and oversaw Advantest's e-commerce initiatives group for the board from 2000 to 2001. Mr. Maruyama joined Advantest in 1973.

**Kiyoshi Miyasaka** has served as a Director of Advantest Corporation since 1997, when he joined the company. Mr. Miyasaka was appointed as a Senior Executive Officer in 2003 and has overseen corporate planning and strategies of Advantest and has served as the head of the strategic business initiatives group since 2001. Mr. Miyasaka served as the development head of the NBU (new business unit) Development Division from 2000 to 2001. Mr. Miyasaka oversaw the ATE Business Group and the HI (test handler and semiconductor device interface) Business Group from 2000 to 2001. From 1967 to 1997, Mr. Miyasaka worked at Fujitsu Limited.

**Junji Nishiura** has served as a Director of Advantest Corporation since 1993. Mr. Nishiura was appointed as a Senior Executive Officer in 2003 to oversee Advantest's technologies and manufacturing. Mr. Nishiura served as the head of the ATE Business Division of the ATE Business Group from 1997 to 2001, the head of the ATE Business Group from 2000 to 2001 and oversaw Advantest's products from 2001 to 2003. Mr. Nishiura joined Advantest in 1970.

**Hiroji Agata** has served as a Director of Advantest Corporation since 1993. Mr. Agata was appointed as a Senior Executive Officer in 2003 to oversee Advantest's sales. Mr. Agata served as the deputy head of the ATE Sales Division from 1999 to 2001 and the head of the ATE Sales Division from 2001 to 2003. Mr. Agata joined Advantest in 1972.

**Hitoshi Owada** has served as a Director of Advantest Corporation since 1997. Mr. Owada was appointed as a Managing Executive Officer in 2003 to oversee the administration and finance of Advantest and has also served as the head of the Auditing Group since 2001. Mr. Owada served as the head of the Finance and Accounting Division from 1991 until June 2002 and the head of the Administration and Finance Division from 2001 to 2003. Mr. Owada joined Advantest in 1970.

Edgar Filing: ADVANTEST CORP - Form 20-F

**Noboru Yamaguchi** has served as a Standing Corporate Auditor of Advantest Corporation since 2001. Mr. Yamaguchi served as a Director of Advantest from 1995 to 2001. Mr. Yamaguchi served as the head of the

**Table of Contents**

Administration and Finance Division from 1995 to 2001. Mr. Yamaguchi joined Advantest in 1995. From 1965 to 1995, Mr. Yamaguchi worked at Fujitsu Limited.

**Tadahiko Hirano** has served as a Standing Corporate Auditor of Advantest Corporation since 2000. Mr. Hirano served as a Director of Advantest from 1993 to 1999. Mr. Hirano joined Advantest in 1991. From 1964 to 1991, Mr. Hirano worked at The Dai-Ichi Kangyo Bank, Limited.

**Keizo Fukagawa** has served as a Corporate Auditor of Advantest Corporation since 2001. Mr. Fukagawa has worked at Fujitsu Limited since 1960. Mr. Fukagawa has previously served as a director of Fujitsu Limited. Mr. Fukagawa currently serves as an advisor to Fujitsu Limited.

**Takashi Takaya** has served as a Corporate Auditor of Advantest Corporation since 2003. Mr. Takaya has worked at Fujitsu Limited since 1965. Mr. Takaya has previously served as a director of Fujitsu Limited. Mr. Takaya currently serves as a corporate auditor of Fujitsu Limited.

**Corporate Executive Officers**

In June 2003, Advantest introduced a new operational management system called the corporate executive officer system as described under Board of Directors and Corporate Auditors . Each corporate executive officer is appointed to his position by the board of directors for a term of one year.

Advantest's corporate executive officers as of June 2003 are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Toshio Maruyama	55	President of Corporate Executive Officers and Chief Operating Officer
Kiyoshi Miyasaka	58	Senior Executive Officer
Junji Nishiura	57	Senior Executive Officer
Hiroji Agata	56	Senior Executive Officer
Hitoshi Owada	57	Managing Executive Officer
Kenichi Mitsuoka	57	Managing Executive Officer
Takashi Tokuno	54	Managing Executive Officer
Norihito Kotani	55	Managing Executive Officer
Yuri Morita	55	Managing Executive Officer
Jiro Katoh	56	Executive Officer
Takao Tadokoro	54	Executive Officer
Hiroyasu Sawai	53	Executive Officer
Hiroshi Tsukahara	52	Executive Officer
Masao Shimizu	50	Executive Officer
Masao Araki	56	Executive Officer
Yoshiaki Furuse	55	Executive Officer
Yuichi Kurita	53	Executive Officer

## Edgar Filing: ADVANTEST CORP - Form 20-F

Yoshiro Yagi	51	Executive Officer
Hideaki Imada	48	Executive Officer

Mr. Maruyama, Mr. Miyasaka, Mr. Nishiura, Mr. Agata and Mr. Owada are also members of Advantest Corporation's board of directors.

**Kenichi Mitsuoka** was appointed as a Managing Executive Officer in 2003 and has served as the head of the Factory Automation Business Group and as the head of the Handler Division since 2001. Mr. Mitsuoka also served as the head of the Handler & Interface Business Group from 2000 to 2001. Mr. Mitsuoka served as a Director of Advantest Corporation from 1995 to 2003. Mr. Mitsuoka joined Advantest in 1973.

## **Table of Contents**

**Takashi Tokuno** was appointed as a Managing Executive Officer in 2003 and has also served as the head of the ATE Business Group since 2001. Mr. Tokuno served as the head of the ATE Software Division of the ATE Business Group from 1992 to 2001 and the deputy head of the ATE Business Group from 2000 to 2001. Mr. Tokuno served as a Director of Advantest Corporation from 1996 to 2003. Mr. Tokuno joined Advantest in 1971.

**Norihito Kotani** was appointed as a Managing Executive Officer in 2003 and has also served as the head of the Measuring Instruments Business Group and the Product Development Group since 2002 and the head of the Engineering Division since 2003. Mr. Kotani also served as the head of the 2nd Technology Department of the ATE Business Group from 1998 to 2000, the head of the SoC Tester Technology Division of the ATE Business Group and the head of the Third Development Department (semiconductor test systems for application specific semiconductor products) of the SoC Tester Business Division of the ATE Business Group from 2000 to 2001 and the head of the Technology Development Group from 2001 to 2003. Mr. Kotani served as a Director of Advantest Corporation from 1999 to 2003. Mr. Kotani joined Advantest in 1970.

**Yuri Morita** was appointed as a Managing Executive Officer in 2003 and has also served as the head of the Legal Department since 1996 and the head of the Administration and Finance Division and the deputy head of the Environmental Management Center since 2003. Mr. Morita served as the head of the Exports Control Office of the Export Control Division from 2000 to 2001 and the deputy head of the Administration and Finance Division (Legal, Intellectual Property and Export Control affairs) from 2001 to 2003 and the head of the General Affairs Division from February 2003 to June 2003. From 1972 to 1993, Mr. Morita worked at Fujitsu Limited and from 1994 to 1995 worked at Benesse Corp. Mr. Morita served as a Director of Advantest Corporation from 2000 to 2003. Mr. Morita joined Advantest in 1995.

**Jiro Katoh** was appointed as an Executive Officer in 2003 and has served as the head of the Technology Development Group since 2003. Mr. Katoh also served as the head of the System Engineering Division of the Measuring Instrument Business Group from 2001 to 2002, the deputy head of the Measuring Instrument Business Group from 2000 to 2003 and the head of the Engineering Division from 2002 to 2003. Mr. Kato served as a Director of Advantest Corporation from 1997 to 2003. Mr. Katoh joined Advantest in 1970.

**Takao Tadokoro** was appointed as an Executive Officer in 2003 and has served as the head of the ATE Sales Division since 2003. Mr. Tadokoro served as the head of the Manual and Training Department of the ATE Systems Engineering Division from 2000 until June 2002 and the head of the ATE Systems Engineering Division of the ATE Business Group from 1997 to 2003. Mr. Tadokoro served as a Director of Advantest Corporation from 1999 to 2003. Mr. Tadokoro joined Advantest in 1974.

**Hiroyasu Sawai** was appointed as an Executive Officer in 2003 and has served as the head of the ATE Systems Engineering Division since 2003. Mr. Sawai served as the head of the ATE International Account Sales (automated test equipment sales in Taiwan and Korea) of the ATE International Account Sales Department of the ATE Sales Division between 1997 and 2003, the head of the ATE International Account Sales Department between 2000 and 2003, the head of the ATE Fabless Outsourcing Solution Business Department between 2002 and 2003 and the deputy head of the ATE Sales Division from 2001 to 2003. Mr. Sawai served as a Director of Advantest Corporation from 1999 to 2003. Mr. Sawai joined Advantest in 1974.

**Hiroshi Tsukahara** was appointed as an Executive Officer in 2003 and has served as the head of the Device Interface Business Group and the head of the Device Interface Business Division since 2001. Mr. Tsukahara also served as the head of the Device Interface Technology R&D Department from 2001 to 2003. Mr. Tsukahara served as a Director of Advantest Corporation from 2001 to 2003. Mr. Tsukahara joined Advantest in 1974.

## Edgar Filing: ADVANTEST CORP - Form 20-F

**Masao Shimizu** was appointed as an Executive Officer in 2003 and has overseen SoC Tester Products at the ATE Business Group and served as the head of the 1st SoC Tester Business Division and the head of development of the 1st R&D Department since 2002. Mr. Shimizu also served as the head of the SoC Tester Business Division of the ATE Business Group from 2000 to 2001. Mr. Shimizu served as a Director of Advantest Corporation from 2001 to 2003. Mr. Shimizu joined Advantest in 1973.

**Masao Araki** was appointed as an Executive Officer in 2003 and has served as the deputy head of the Administration and Finance Division and the head of the General Affairs Division since 2003. From 1997 to



## **Table of Contents**

2002, Mr. Araki served as the Executive Vice President of Advantest Taiwan, Inc. and from 2002 to 2003, served as the President of Advantest Taiwan, Inc. and Advantest Taiwan Engineering Inc. Mr. Araki joined Advantest in 1973.

**Yoshiaki Furuse** was appointed as an Executive Officer in 2003 and has served as the head of the Measuring Instruments Sales and Marketing Group and has overseen the E-commerce Promotion Group since 2003. Mr. Furuse served as the deputy head of the Instrument Sales and Marketing Group from 1997 to 2003. Mr. Furuse joined Advantest in 1971.

**Yuichi Kurita** was appointed as an Executive Officer in 2003 and has served as the deputy head of the Administration and Finance Division since 2003. Mr. Kurita has also served as the head of the Investor Relations Office since 2001 and the head of the Finance Department since 2002. From 1973 to 2001, Mr. Kurita worked at Fujitsu Limited. Mr. Kurita joined Advantest in 2001.

**Yoshiro Yagi** was appointed as an Executive Officer in 2003 and has served as the deputy head of the ATE Sales Division since 2003. Mr. Yagi has also served as the head of the ATE Domestic Sales Division and as the head of the 1<sup>st</sup> Sales Division of the ATE Sales Group since 2003. From 2001 to 2003, Mr. Yagi served as the head of the 1<sup>st</sup> ATE Account Sales Department. Mr. Yagi joined Advantest in 1970.

**Hideaki Imada** was appointed as an Executive Officer in 2003 and has served as the deputy head of the ATE Sales Division since 2003. Mr. Imada has also served as the OAI Project Leader since 2003. From 2002 to 2003, Mr. Imada served as the head of the 2nd SoC Tester Business Division. Mr. Imada joined Advantest in 1978.

## **6.B COMPENSATION OF DIRECTORS AND EXECUTIVE OFFICERS**

### **Executive Compensation**

Advantest paid an aggregate of approximately ¥523.4 million in compensation during the year ended March 31, 2003 to its directors and corporate auditors as a group. Compensation for directors and corporate auditors must be authorized by the resolutions of the general meetings of shareholders. During fiscal 2002, all of Advantest's senior executive officers were directors of Advantest Corporation. In June 2003, Advantest reduced the size of its board of directors from 20 to seven.

For a description of Advantest's equity-based compensation plans, see [Share Ownership](#).

Advantest set aside or accrued during the year ended March 31, 2003 an aggregate of ¥142.6 million to provide retirement and severance benefits for its directors and corporate auditors.

## **6.C BOARD PRACTICES**

## **Directors**

The board of directors has the ultimate responsibility for the administration of the affairs of Advantest Corporation. Advantest's articles of incorporation limit the number of directors to 10. Directors are elected at a general meeting of shareholders, and the standard term of office of directors is two years. Directors may serve any number of consecutive terms. The board of directors elects one or more representative directors from among its members, each of whom has the authority individually to represent Advantest. From among its members, the board of directors may elect the chairman and the vice chairman. None of the directors of Advantest has a service contract with Advantest that provides for benefits upon termination of service.

## **Corporate Auditors**

Advantest's articles of incorporation provide for no more than four corporate auditors, and the current board of corporate auditors consist of two statutory auditors and two outside corporate auditors. Corporate auditors are elected at the general meeting of shareholders and the standard term of office of corporate auditors is four years. The two outside corporate auditors are those who have not been a director or employee of Advantest Corporation or any of its subsidiaries during the five-year period immediately prior to his or her election as a corporate auditor, as required under the Commercial Code of Japan. Advantest increased the number of required outside corporate auditors from one to two at the general meeting of shareholders held in June 2003 in order to strengthen the auditing function of the board of corporate auditors. Corporate auditors are under a statutory duty

**Table of Contents**

to oversee the administration of Advantest's affairs by its directors, to examine its financial statements and business reports to be submitted annually by its board of directors to the general meetings of the shareholders and to report their opinions thereon. They are also required to attend the meetings of the board of directors and to express their opinions, but are not entitled to vote.

Corporate auditors constitute the board of corporate auditors. The board of corporate auditors has a statutory duty to prepare and submit an audit report to the directors each year. A corporate auditor may note his or her opinion in the audit report if his or her opinion is different from the opinion expressed in the audit report. The board of corporate auditors is empowered to establish audit principles, the method of examination by corporate auditors of Advantest's affairs and financial position and other matters concerning the performance of the corporate auditors' duties.

Advantest does not have a remuneration committee.

**6.D EMPLOYEES**

Set forth below is a table listing the total number of full-time employees and a breakdown of persons employed by main category of activity and by geographic location, as of March 31, 2001, March 31, 2002 and March 31, 2003.

	<u>As of March 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
Full-time Employees	4,805	4,229	3,519
By Category of Activity:			
Administrative	536	436	376
Sales	381	364	307
Customer Support	1,052	967	860
Manufacturing	1,300	1,073	819
Research and Development	1,245	1,238	1,084
Other	291	151	73
By Geographic Location:			
Japan	3,911	3,414	2,761
Asia (excluding Japan)	433	385	356
North America	306	285	280
Europe	155	145	122

Most regular employees of Advantest Corporation and its subsidiaries in Japan are members of one of nine labor unions. None of Advantest's overseas employees is a member of a union. Advantest considers its labor relations with all of its workers to be good.

During fiscal 2001 and 2002, Advantest reduced the number of its employees through a number of methods, including a voluntary early retirement program offered to employees in Japan, lay-offs of employees in foreign locations, the consolidation of several business operations as part of its cost-cutting efforts and the sale of all of the shares of a subsidiary in Japan pursuant to a management buyout.

## Edgar Filing: ADVANTEST CORP - Form 20-F

During the fiscal year ended March 31, 2003, Advantest averaged approximately 364 temporary employees at any one time.

### **6.E SHARE OWNERSHIP**

The following table sets forth the beneficial ownership of shares of common stock of Advantest Corporation as of March 31, 2003 of each of Advantest's directors, corporate auditors and senior executive officers as of

**Table of Contents**

March 31, 2003. Also included is share ownership information with respect to Mr. Takashi Takaya, Advantest's newly elected corporate auditor as of June 2003, as well as corporate executive officers newly appointed as of June 2003.

<u>Name of Record/Beneficial Owner</u>	<u>Number of Shares</u>
Hiroshi Oura	69,520
Shinpei Takeshita	63,982
Toshio Maruyama	45,781
Kiyoshi Miyasaka	34,786
Shigeru Sugamori	33,026
Junji Nishiura	34,512
Isao Kitaoka	28,573
Hiroji Agata	28,693
Kenichi Mitsuoka	27,097
Takashi Tokuno	28,119
Hitoshi Owada	26,995
Masakazu Ando	27,431
Jiro Katoh	30,613
Tetsuo Aoki	24,564
Norihito Kotani	22,912
Takao Tadokoro	21,394
Hiroyasu Sawai	22,179
Yuri Morita	20,398
Hiroshi Tsukahara	15,526
Masao Shimizu	14,300
Noboru Yamaguchi	18,816
Tadahiko Hirano	6,503
Keizo Fukagawa	3,000
Takashi Takaya	0
Masao Araki	5,616
Yoshiaki Furuse	7,573
Yuichi Kurita	3,000
Yoshiro Yagi	6,363
Hideaki Imada	4,400

Each of the persons listed above owns less than one percent of the issued and outstanding shares of common stock of Advantest.

The numbers of shares owned by Advantest's directors, corporate auditors and officers include options and warrants that are currently exercisable for 483,600 shares of Advantest's common stock. For a description of these options and warrants, see Incentive Warrant Plan and Stock Option Plan. The number of shares of common stock owned by Advantest's directors, corporate auditors and officers does not reflect the number of shares representing less than one unit (100 shares) that are owned through the director and corporate auditor stock ownership association and allocated to an individual director, corporate auditor or officer. For a description of this association, see Stock Ownership Associations. For a description of the unit share system, see Additional Information Memorandum and Articles of Association The Unit Share System.

**Incentive Warrant Plan and Stock Option Plan**

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest adopted in May 1997, January 2000 and February 2001 incentive warrant plans for its officers and employees. Under the incentive warrant plans, Advantest issued, by resolution of the board of directors,

**Table of Contents**

bonds with detachable warrants and subsequently bought back all of the warrants and sold the warrants to its officers and employees.

The exercise period for the warrants issued in 1997 expired in May 2001. These warrants had an exercise price of ¥6,532.70 per share. The following table shows selected information related to the series of warrants with exercise periods that have not yet lapsed.

	<u>Second series</u>	<u>Third series</u>
Date of issue	January 27, 2000	February 5, 2001
Number of shares to be issued	99,000	319,500
Exercise price per share	¥ 21,840	¥ 14,018
Beginning of exercise period	March 1, 2000	March 1, 2001
End of exercise period	January 26, 2004	February 4, 2005
Number of directors and officers	20	22
Number of other employees	95	107

In June 2002 and June 2003, the shareholders of Advantest approved stock option plans for selected directors, officers, corporate auditors and employees of Advantest. The following table shows selected information related to these stock options.

	<u>First series</u>	<u>Second series</u>	<u>Third series</u>
Date of grant	July 5, 2002	April 25, 2003	June 27, 2003
Number of shares to be transferred/issued	735,000	14,000	734,000
Exercise price per share	¥ 8,148	¥ 8,148	5,160
Beginning of exercise period	April 1, 2003	May 1, 2003	April 1, 2004
End of exercise period	March 31, 2007	March 31, 2007	March 31, 2008
Number of directors, officers and corporate auditors of Advantest Corporation	23	0	25
Number of other employees	153	3	159

**Employee Stock Purchase Program**

As of August 1, 2002, eligible employees of Advantest America Corporation and its U.S. subsidiaries are able to participate in a new employee stock purchase program. Under the program, each eligible employee may authorize payroll deductions of up to 15% of their base salary toward the purchase of ADRs representing common stock of Advantest Corporation. In addition, Advantest will make an additional contribution equal to 15% of each eligible employee's payroll deductions toward the purchase of the ADRs.

**Stock Ownership Associations**

Advantest's director and corporate auditor stock ownership association is a partnership formed by the current and former directors, executive officers and corporate auditors of Advantest for the purpose of acquiring Advantest's stock. Only current directors, executive officers and corporate auditors and company advisors that formerly were directors or corporate auditors of Advantest may join the director and corporate

## Edgar Filing: ADVANTEST CORP - Form 20-F

auditor stock ownership association. Advantest established its director and corporate auditor stock ownership association in 1983. Any member of the association may request that record ownership of the stock held by that member be transferred, in lots of whole units, to that member. As of March 31, 2003, 27 current and former directors, executive officers, corporate auditors and company advisors were members of the director and corporate auditor stock ownership association, and the association held 3,158 shares of Advantest's common stock. Advantest also has an employee stock ownership association for other employees in Japan. As of March 31, 2003, the association had 625 members and held 189,458 shares of Advantest's common stock.



**Table of Contents****ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****7.A MAJOR SHAREHOLDERS**

As of March 31, 2003, 98,246,359 shares of Advantest's common stock were outstanding. Beneficial ownership of Advantest's common stock in the table below was prepared from publicly available records of the filings made by Advantest's shareholders regarding their ownership of Advantest's common stock under the Securities and Exchange Law of Japan.

Under the Securities and Exchange Law of Japan, any person who becomes, beneficially and solely or jointly, a holder, including, but not limited to, a deemed holder who manages shares for another holder pursuant to a discretionary investment agreement, of more than 5% of the shares with voting rights of a company listed on a Japanese stock exchange (including ADSs representing such shares) must file a report concerning the shareholding with the Director of the relevant local finance bureau. A similar report must be filed, with certain exceptions, if the percentage of shares held by a holder, solely or jointly, of more than 5% of the total issued shares of a company increases or decreases by 1% or more, or if any change to a material matter set forth in any previously filed reports occurs.

Based on publicly available information, the following table sets forth the beneficial ownership of holders of more than 5% of Advantest's common stock as of the dates indicated in the reports described below.

<u>Name of Beneficial Owner</u>	<u>Number of Shares</u>	<u>Percentage</u>
Fujitsu Limited	20,771,396	20.83%
Capital Guardian Trust Company	7,207,080	7.22%

The number of shares owned by Fujitsu Limited is based on a report filed under the Securities and Exchange Law of Japan stating that Fujitsu held or was deemed to hold beneficially, as of April 26, 2000, 20,771,396 shares of Advantest's common stock. This figure includes 16,023,600 shares of Advantest's common stock held by the trustee of a retirement benefit plan of Fujitsu. Fujitsu retained beneficial ownership of these 16,023,600 shares of common stock.

The number of shares owned by Capital Guardian Trust Company and its related entities is based on reports filed under the Securities and Exchange Law of Japan stating that Capital Guardian and its related entities held or were deemed to hold beneficially, as of April 30, 2003, 7,207,080 shares of Advantest's common stock.

**Table of Contents**

Based on information made publicly available on or after April 1, 2000, the following table describes transactions resulting in a 1% or more change in the percentage ownership held by major beneficial owners of Advantest's common stock.

<u>Name of Shareholder</u>	<u>Date of Transaction</u>	<u>Shares Owned Prior to Transaction</u>	<u>Percentage</u>	<u>Number of Shares Changed</u>	<u>Shares Owned After the Transaction</u>	<u>Percentage</u>
Capital Guardian Trust Company and its related entities	April 25, 2000	8,662,690	8.69%	(1,626,900)	7,035,790	7.06%
Fujitsu Limited	April 26, 2000		21.27%		20,771,396	20.83%
Capital Guardian Trust Company and its related entities	May 12, 2000	7,035,790	7.06%	(1,228,200)	5,807,590	5.82%
Capital Guardian Trust Company and its related entities	October 31, 2000	5,416,390	5.43%	1,126,160	6,542,550	6.56%
The Dai-Ichi Kangyo Bank, Limited and its related entities	October 31, 2000	5,550,287	5.57%	1,458,500	7,008,787	7.03%
Capital Guardian Trust Company and its related entities	April 30, 2001	6,542,550	6.56%	1,738,295	8,280,845	8.30%
The Dai-Ichi Kangyo Bank, Limited and its related entities*	July 31, 2001	7,008,787	7.03%	(1,097,700)	5,911,087	5.92%
The Nomura Securities Co., Ltd. and its related entities	February 28, 2002				5,726,595	5.74%
Capital Guardian Trust Company and its related entities	April 30, 2002	8,280,845	8.30%	1,392,105	9,672,950	9.69%
The Nomura Securities Co., Ltd. and its related entities	August 31, 2002				6,885,574	6.90%
The Nomura Securities Co., Ltd. and its related entities	September 30, 2002	6,885,574	6.90%	(2,897,700)	3,987,874	4.00%
Mizuho Corporate Bank, Ltd. and its related entities	December 31, 2002	5,920,787	5.93%	(1,112,200)	4,808,587	4.82%
Capital Guardian Trust Company and its related entities	April 30, 2003	9,672,950	9.69%	(2,465,870)	7,207,080	7.22%

\* Mizuho Corporate Bank, Ltd. is the successor to The Dai-Ichi Kangyo Bank, Limited created by a merger and corporate split among three Japanese banks on April 1, 2002.

As of March 31, 2003, Advantest had 98,246,359 outstanding shares of common stock. According to JPMorgan Chase Bank, depository for Advantest's ADSs, as of March 31, 2003, 815,700 shares of Advantest's common stock were held in the form of ADRs and there were three ADR holders of record in the United States. According to Advantest's register of shareholders and register of beneficial owners, as of March 31, 2003, there were 38,816 holders of common stock of record worldwide. As of March 31, 2003, there were 68 record holders of Advantest's common stock with addresses in the United States, whose shareholdings represented approximately 8.92% of the outstanding common stock on that date. Because some of these shares were held by brokers or other nominees, the number of record holders with addresses in the United States might not fully show the number of beneficial owners in the United States.

None of Advantest's shares of common stock entitles the holder to any preferential voting rights.

Advantest knows of no arrangements the operation of which may at a later time result in a change of control.

**7.B RELATED PARTY TRANSACTIONS**

**Business Relationships**

Advantest sells automated test equipment and measuring instruments to and purchases parts from Fujitsu Limited, an approximately 20% beneficial shareholder of Advantest Corporation, and its subsidiaries. Advantest

## **Table of Contents**

sells automated test equipment and measuring instruments to Fujitsu and its subsidiaries in arm s-length transactions. Advantest purchases parts from Fujitsu and its subsidiaries after receiving competitive bids from several suppliers. Advantest derived net sales of ¥2.3 billion in fiscal 2002 from the sale of automated test equipment and measuring instruments to Fujitsu and its subsidiaries. Advantest purchased parts from Fujitsu and its subsidiaries in the amount of ¥2.9 billion in fiscal 2002. Advantest had receivables from Fujitsu and its subsidiaries in the amount of ¥1.4 billion as of March 31, 2003. Advantest had payables to Fujitsu and its subsidiaries in the aggregate amount of ¥2.2 billion as of March 31, 2003. Advantest expects to continue to engage in arm s-length transactions with Fujitsu and its subsidiaries in the future.

Mr. Oura, the Chairman of the Board and Chief Executive Officer of Advantest Corporation, currently serves as an outside director of Fujitsu Limited. Mr. Fukagawa, a Corporate Auditor of Advantest Corporation since 2001, currently serves as an advisor to Fujitsu Limited. Mr. Takaya, a Corporate Auditor of Advantest Corporation since 2003, currently serves as a corporate auditor of Fujitsu Limited.

## **Loans**

As of March 31, 2003, Advantest has no outstanding loans to its directors and executive officers.

## **7.C INTERESTS OF EXPERTS AND COUNSEL**

Not applicable.

## **ITEM 8. FINANCIAL INFORMATION**

### **8.A CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION**

1-4. Consolidated Financial Statements. Advantest s audited consolidated financial statements are included under Item 18 Financial Statements . Except for Advantest s consolidated financial statements included under Item 18, no other information in this annual report has been audited by Advantest s auditors.

5. Not applicable.

6. Export Sales. See Information on the Company Business Overview Geographic Sales .

7. Legal and Arbitration Proceedings. See Information on the Company Business Overview Legal Proceedings .

8. Dividend Policy. See Key Information Selected Financial Data Dividends .

## **8.B SIGNIFICANT CHANGES**

See Operating and Financial Review and Prospects , Key Information Risk Factors and Information on the Company Business Overview Industry Overview for a discussion of significant adverse changes since the date of Advantest s latest annual financial statements.

**Table of Contents****ITEM 9. THE OFFER AND LISTING****9.A LISTING DETAILS**

The following table sets forth for the periods shown the reported high and low sales prices of Advantest's common stock on the Tokyo Stock Exchange and the ADSs on the New York Stock Exchange (from September 17, 2001).

	Tokyo Stock Exchange		New York Stock Exchange	
	Price Per Share		Price Per ADS	
	High	Low	High	Low
<b>Fiscal year ended March 31,</b>				
1999	¥ 9,700	¥ 4,960		
2000	27,000	8,800		
2001	26,200	9,910		
2002	15,300	4,800	\$ 22.75	\$ 10.25
2003	10,100	3,820	19.30	7.61
<b>Financial quarter ended/ending</b>				
June 30, 2001	15,300	10,400		
September 30, 2001	10,470	5,050	12.05	10.85
December 31, 2001	8,800	4,800	17.53	10.25
March 31, 2002	11,600	6,700	22.75	12.50
June 30, 2002	10,100	6,850	19.30	14.64
September 30, 2002	7,700	4,730	16.10	9.53
December 31, 2002	6,520	3,820	13.06	7.61
March 31, 2003	6,160	4,220	13.14	8.90
June 30, 2003 (through June 20, 2003)	5,130	4,830	11.00	10.27
<b>Month ended</b>				
December 31, 2002	6,520	5,240	13.06	10.63
January 31, 2003	6,160	5,280	13.14	10.89
February 28, 2003	5,520	5,110	11.65	10.51
March 31, 2003	5,330	4,220	11.34	8.90
April 30, 2003	4,390	3,750	9.39	7.99
May 31, 2003	4,700	3,920	9.91	8.35

**9.B PLAN OF DISTRIBUTION**

Not applicable.

**9.C MARKETS**

Advantest's common stock is traded on the First Section of the Tokyo Stock Exchange. In April 2000, Advantest's common stock was added to the Nikkei Stock Average, which is an index of 225 selected stocks from the First Section of the Tokyo Stock Exchange.

Since September 17, 2001, American Depositary Shares, each equal to one-fourth of one share of Advantest's common stock and evidenced by American Depositary Receipts, have been traded and listed on the New York Stock Exchange through a sponsored ADR facility operated by JPMorgan Chase Bank, as depositary.

**9.D SELLING SHAREHOLDERS**

Not applicable.

**Table of Contents**

**9.E DILUTION**

Not applicable.

**9.F EXPENSES OF THE ISSUE**

Not applicable.

**ITEM 10. ADDITIONAL INFORMATION**

**10.A SHARE CAPITAL**

Not applicable.

**10.B MEMORANDUM AND ARTICLES OF ASSOCIATION**

Set forth below is information relating to Advantest's common stock, including brief summaries of the relevant provisions of Advantest's articles of incorporation and share handling regulations and of the Commercial Code of Japan (the "Commercial Code") and related legislation, all as currently in effect.

**General**

Advantest's authorized share capital is 220,000,000 shares. The number of Advantest's issued share capital as of March 31, 2003, including treasury shares, was 99,783,385. All of the issued shares are fully paid and non-assessable. Under the Commercial Code, the transfer of shares is effected by delivery of share certificates. However, in order to assert shareholders' rights against Advantest, the transferee must have its name and address registered on Advantest's register of shareholders. For this purpose, shareholders are required to file their names, addresses and seals with the transfer agent. Advantest's transfer agent is Tokyo Securities Transfer Agent Co., Ltd., located at 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-0005, Japan. The shares have no par value.

The registered holder of deposited shares underlying the ADSs is the depository for the ADSs. Accordingly, holders of ADSs will not be able to directly assert their shareholders' rights against Advantest.



## Edgar Filing: ADVANTEST CORP - Form 20-F

A holder of shares may choose, at its discretion, to participate in the central clearing system for share certificates under the Law Concerning Central Clearing of Share Certificates and Other Securities of Japan. Participating shareholders must deposit certificates representing the shares to be included in this clearing system with Japan Securities Depository Center, Inc. ( JASDEC ). If a holder is not a participating institution in JASDEC, it must participate through a participating institution, such as a securities company or bank having a clearing account with JASDEC. All shares deposited with JASDEC will be registered in the name of JASDEC on Advantest's register of shareholders. Each participating shareholder will, in turn, be recorded in the register of beneficial owners prepared by Advantest based on information furnished to the transfer agent of Advantest by the participating institutions and JASDEC. These participating shareholders will be treated in the same way as shareholders registered on Advantest's register of shareholders. The register of beneficial owners is updated as of the record date on which shareholders entitled to rights pertaining to the shares are determined. The record date is usually March 31 and September 30 of each year. To transfer deposited shares, delivery of share certificates is not required. Entry of the share transfer in the book maintained by JASDEC for participating institutions, or in the book maintained by a participating institution for its customers, has the same effect as the delivery of share certificates. The registered beneficial owners may exercise the rights attached to the shares, such as voting rights, and will receive dividends (if any) and will receive notices to shareholders directly from Advantest. The shares held by a person as a registered shareholder and those held by the same person as a registered beneficial owner are aggregated for these purposes. Beneficial owners may at any time withdraw their shares from deposit and receive share certificates.

## **Table of Contents**

### **Objects and Purposes**

Article 2 of the articles of incorporation of Advantest states that its objective is to engage in the following business activities:

- the manufacture and sale of electric, electronic and physicochemical appliances and their applied equipment;
- the manufacture and sale of appliances, equipment and software related to any of the foregoing items;
- the lease and rental of equipment, appliances and other products incidental to each of the foregoing items;
- the temporary personnel service business; and
- any and all businesses incidental to any of the foregoing items.

### **Dividends**

Under its articles of incorporation, Advantest's financial accounts are closed on March 31 of each year, and year-end dividends, if any, are paid to shareholders and beneficial owners (or registered pledgees thereof) of record at that date. In addition to year-end dividends, the board of directors may by resolution declare an interim cash dividend to shareholders of record at September 30 of each year.

Under the articles of incorporation, Advantest is not required to pay any dividends unclaimed for a period of three years after the date on which the dividends first become payable.

The Commercial Code provides that Advantest must set aside the following amounts in its legal reserve until the amount of such legal reserve together with its additional paid-in capital has reached an amount equal to one quarter of its stated capital:

- an amount equal to at least one-tenth of any amount paid by Advantest as an appropriation of retained earnings (including any payment by way of year-end dividends and bonuses to directors and corporate auditors) for such fiscal year; and
- an amount equal to one-tenth of any interim dividend.

The amount of earnings distributable by Advantest as year-end dividends is limited to the excess of Advantest's net assets as appearing on Advantest's non-consolidated balance sheet as of the end of the last fiscal year, over the aggregate, as appearing on the same balance sheet where relevant, of:

- (i) its stated capital;
- (ii) its additional paid-in capital;
- (iii) its accumulated legal reserve;
- (iv) the legal reserve to be set aside in respect of the dividend concerned and any other proposed payment by way of appropriation of retained earnings; and
- (v) other amounts which are provided for by an ordinance of the Ministry of Justice of Japan.

In the case of interim dividends, net assets are calculated by reference to the balance sheet as of the end of the preceding fiscal year, and adjustments are made to reflect:

- (A) any subsequent payment by way of appropriation of retained earnings and the related transfer to legal reserve;
- (B) any subsequent transfer of retained earnings to stated capital; and

## **Table of Contents**

- (C) if Advantest has been authorized, pursuant to a resolution of the ordinary general meeting of shareholders held with respect to the previous fiscal year, to purchase shares of its common stock, the total amount of the purchase price of such shares authorized by such resolution that may be paid by Advantest.

Interim dividends may not be paid where there is a risk that at the end of the fiscal year net assets might be less than the aggregate of the amounts referred to in (i) through (v) above.

In Japan, the ex-dividend date and the record date for dividends precede the date of determination of the amount of the dividend to be paid. The market price of shares generally becomes ex-dividend on the third business day before the record date.

For information as to Japanese taxes on dividends, see [Taxation Japanese Taxation](#) .

## **Capital Accounts**

Under the Commercial Code, the entire amount of the issue price of new shares is required to be accounted for as stated capital, although Advantest may account for an amount not exceeding one-half of the issue price as additional paid-in capital. Advantest may at any time transfer the whole or any part of its additional paid-in capital and legal reserve to stated capital by resolution of the board of directors. Advantest may also reduce the sum of its legal reserve and additional paid-in capital to one-quarter or more of its stated capital by resolution of a general meeting of shareholders. The whole or any part of retained earnings which may be distributed as year-end dividends may also be transferred to stated capital by resolution of an ordinary general meeting of shareholders.

## **Stock Split**

Advantest may at any time split the outstanding shares into a greater number of shares by resolution of the board of directors. Advantest must give public notice of the stock split, specifying a record date for the stock split, not less than two weeks prior to the record date and, in addition, promptly after the stock split takes effect, give notice to each shareholder specifying the number of shares to which the shareholder is entitled by virtue of the stock split.

## **The Unit Share System**

### *General*

Consistent with the requirements of the Commercial Code, Advantest's articles of incorporation provide that 100 shares constitute one unit . Although the number of shares constituting a unit is included in the articles of incorporation, any amendment to the articles of incorporation reducing (but not increasing) the number of shares constituting a unit or eliminating the provisions for the unit of shares may be made by the resolution of the board of directors rather than by the special shareholders resolution, which is otherwise required for amending the articles of

incorporation. The number of shares constituting one unit, however, cannot exceed the lesser of 1,000 shares and one two hundredths (1/200) of the number of all issued shares.

***Voting Rights under the Unit Share System***

Under the unit share system, shareholders shall have one voting right for each unit of shares that they hold. Any number of shares less than a full unit will carry no voting rights.

## **Table of Contents**

### ***Share Certificate for Less Than a Full Unit of Shares***

Advantest's articles of incorporation provide that, in general, no share certificate for any number of shares less than a unit will be issued. As the transfer of shares normally requires delivery of share certificates, any fraction of a unit for which share certificates are not issued will not be transferable.

### ***Repurchase by Advantest of Shares Constituting Less Than a Full Unit***

A holder of shares constituting less than a full unit may require Advantest to purchase those shares at their market value in accordance with the provisions of Advantest's share handling regulations.

### ***Request by a Holder of Shares of Sales by Advantest of Shares to Constitute a Full Unit***

Advantest's articles of incorporation provide that a holder of shares constituting less than a full unit may request Advantest to sell to such holder such amount of shares which will, when added together with the shares constituting less than a full unit, constitute a full unit of shares in accordance with the provisions of Advantest's share handling regulations.

### ***Effect of the Unit Share System on Holders of ADRs***

A holder who owns ADRs evidencing less than 400 ADSs will indirectly own less than a whole unit of shares of common stock. Although, as discussed above, under the unit share system holders of less than a unit have the right to require Advantest to purchase their shares, holders of ADRs evidencing ADSs that represent other than integral multiples of whole units are unable to withdraw the underlying shares of common stock representing less than a unit and, therefore, are unable, as a practical matter, to exercise the rights to require Advantest to purchase such underlying shares unless Advantest's articles of incorporation are amended to eliminate the provision not to issue share certificates for the numbers of shares less than a unit. As a result, access to the Japanese markets by holders of ADRs through the withdrawal mechanism will not be available for dispositions of shares of common stock in lots less than a unit. The unit share system does not affect the transferability of ADSs, which may be transferred in lots of any size.

### **General Meeting of Shareholders**

Advantest holds its ordinary general meeting of shareholders within three months after the end of a fiscal year and normally in June of each year in Tokyo, Japan. In addition, Advantest may hold an extraordinary general meeting of shareholders whenever necessary by giving at least two weeks' advance notice. Under the Commercial Code, notice of any shareholders' meeting must be given to each shareholder having voting rights or, in the case of a non-resident shareholder, to his resident proxy or mailing address in Japan in accordance with Advantest's share handling regulations, at least two weeks before the date of the meeting. The record date for an ordinary general meeting of shareholders is March 31 each year.

Any shareholder holding at least 300 voting rights or 1% of the total number of voting rights for a period of six months or longer may propose a matter to be considered at a general meeting of shareholders by submitting a written request to a representative director of Advantest at least eight weeks before the date of such meeting.

### **Voting Rights**

A holder of shares constituting one or more whole units is entitled to one voting right per unit of shares subject to the limitations on voting rights set forth in the following paragraph. In general, under the Commercial Code, a resolution can be adopted at a general meeting of shareholders by a majority of voting rights represented at the meeting. The Commercial Code and Advantest's articles of incorporation require a quorum for the election of directors and corporate auditors of not less than one-third of the voting rights of all shareholders. Advantest's

## **Table of Contents**

shareholders are not entitled to cumulative voting in the election of directors. A corporate shareholder whose outstanding shares are in turn more than one-quarter directly or indirectly owned by Advantest does not have voting rights.

Shareholders may exercise their voting rights through proxies if those proxies are also shareholders who have voting rights.

The Commercial Code provides that a quorum of one-third of voting rights of all shareholders must be present at a shareholders meeting to approve any material corporate actions, such as:

- the amendment of the articles of incorporation;
- the reduction of stated capital;
- the removal of a director or corporate auditor;
- a dissolution, merger, consolidation or split-up of Advantest;
- the transfer of the whole or an important part of Advantest's business;
- the takeover by Advantest of the whole of the business of any other corporation;
- any issuance of new shares (including transfer of treasury stock) at a specially favorable price (or any issuance of stock acquisition rights with specially favorable conditions, or of bonds with stock acquisition rights with specially favorable conditions) to persons other than shareholders; and
- share exchanges or share transfers for the purpose of establishing 100% parent-subsidary relationships.

At least two-thirds of voting rights represented at the meeting must approve these actions.

The voting rights of holders of ADSs are exercised by the depositary based on instructions from those holders. With respect to voting by holders of ADRs, see Description of American Depositary Receipts set forth in Advantest's registration statement on Form F-1 filed with the Securities and Exchange Commission on July 22, 2002.

## **Subscription Rights**



## Edgar Filing: ADVANTEST CORP - Form 20-F

Holders of shares have no preemptive rights under Advantest's articles of incorporation. Under the Commercial Code, the board of directors may, however, determine that shareholders be given subscription rights in connection with a particular issue of new shares, stock acquisition rights or bonds with stock acquisition rights. In this case, the rights must be given on uniform terms to all shareholders as of a specified record date by at least two weeks' prior public notice to shareholders of the record date. Public or individual notice must be given to each of these shareholders at least two weeks before the date of expiration of the subscription rights.

Rights to subscribe for new shares may be transferable or non-transferable by determination of the board of directors. These rights may be made at a price substantially below the market price of the shares. Accordingly, rights offerings can result in substantial dilution or can result in rights holders not being able to realize the economic value of those rights.

### **Stock Acquisition Rights**

Subject to certain requirements, Advantest may issue stock acquisition rights by resolution of the board of directors. Except where the issue would be on specially favorable conditions, the issue of stock acquisition rights may be authorized by a resolution of the board of directors. Holders of stock acquisition rights may exercise their rights to acquire a certain number of shares within the exercise period as prescribed in the terms of their stock acquisition rights. Upon exercise of stock acquisition rights, Advantest will be obliged to issue the relevant number of new shares or alternatively to transfer the necessary number of existing shares held by it.

## **Table of Contents**

### **Liquidation Rights**

In the event of a liquidation of Advantest, the assets remaining after payment of all debts, liquidation expenses and taxes will be distributed among the shareholders in proportion to the respective numbers of shares they own.

### **Liability to Further Calls or Assessments**

All of Advantest's currently outstanding shares, including shares represented by the ADSs, are fully paid and non-assessable.

### **Record Date**

March 31 of each year is the record date for Advantest's year-end dividends, if declared. A holder of shares constituting one or more whole units who is registered as a holder on Advantest's register of shareholders or register of beneficial owners at the close of business as of March 31 is entitled to exercise shareholders' voting rights at the ordinary general meeting of shareholders with respect to the fiscal year ending on that March 31. September 30 of each year is the record date for interim dividends, if declared. In addition, Advantest may set a record date for determining the shareholders entitled to other rights and for other purposes by giving at least two weeks' public notice.

The shares generally trade ex-dividend or ex-rights in the Japanese stock exchanges on the third business day before a record date (or if the record date is not a business day, the fourth business day prior thereto), for the purpose of dividends or rights offerings.

### **Repurchase by Advantest of Shares**

Advantest may acquire its own shares (i) through a stock exchange on which such shares are listed or by way of tender offer (pursuant to an ordinary resolution of an ordinary general meeting of shareholders), (ii) by purchase from a specific party (pursuant to a special resolution of an ordinary general meeting of shareholders) or (iii) from a subsidiary of Advantest (pursuant to a resolution of the board of directors). When such acquisition is made by Advantest from a specific party other than a subsidiary of Advantest, any other shareholder may make a demand to a representative director, more than five calendar days prior to the relevant shareholders' meeting, that Advantest also purchase the shares held by such shareholder. Any such acquisition of shares must satisfy certain requirements, including that the total amount of the purchase price may not exceed the amount of the retained earnings available for dividend payments after taking into account any reduction, if any, of the stated capital, additional paid-in capital or legal reserve (if such reduction of the stated capital, additional paid-in capital or legal reserve has been authorized pursuant to a resolution of the relevant ordinary general meeting of shareholders), minus the amount to be paid by way of appropriation of retained earnings for the relevant fiscal year and the amount to be transferred to stated capital. However, if it is anticipated that the net assets on the balance sheet as at the end of the immediately following fiscal year will be less than the aggregate amount of the stated capital, additional paid-in capital and other items as described in (i) through (v) in Dividends above, Advantest may not acquire such shares.

Shares acquired by Advantest may be held by it for any period or may be cancelled by resolution of the board of directors. Advantest may also transfer to any person the shares held by it, subject to a resolution of the board of directors, and subject also to other requirements similar to

## Edgar Filing: ADVANTEST CORP - Form 20-F

those applicable to the issuance of new shares. Advantest may also utilize its treasury stock for the purpose of transfer to any person upon exercise of stock acquisition rights or for the purpose of acquiring another company by way of merger, share exchange or corporate split through exchange of treasury stock for shares or assets of the acquired company.

The Commercial Code generally prohibits any subsidiary of Advantest from acquiring shares of Advantest.

## **Table of Contents**

### **Disposal of the Shares by Advantest**

Advantest is not required to send notices to a shareholder if notices to such shareholder fail to arrive continuously for five years or more at the registered address of the shareholder in the Advantest's register of shareholders or at the address otherwise notified to Advantest.

In addition, Advantest may dispose of the Shares at the then market price of the Shares by a resolution of the Board of Directors and after giving at least three months' prior public notice as well as individual notice to the shareholder at the registered address of the shareholder in the Advantest's register of shareholders or to the address otherwise notified to Advantest, and hold or deposit the proceeds for the shareholder, the location of which is unknown, if (i) notices to the shareholder fail to arrive continuously for five years or more at the registered address of the shareholder in Advantest's register of shareholders or at the address otherwise notified to Advantest, and (ii) the shareholder fails to receive dividends on the Shares continuously for five years or more at the address registered in Advantest's register of shareholders or at the address otherwise notified to Advantest.

### **Acquisition or Disposition of Shares**

Under the Foreign Exchange and Foreign Trade Law and the cabinet orders and ministerial ordinances thereunder (collectively, the Foreign Exchange Regulations), all aspects of regulations on foreign exchange and trade transactions are, with minor exceptions relating to inward direct investments (which are not generally applicable to Advantest's shares), only subject to post transaction reporting requirements. Acquisitions and dispositions of shares of common stock or ADSs by non-residents of Japan (including foreign corporation not resident in Japan) are generally not subject to this reporting requirement. However, the Minister of Finance has the power to impose a licensing requirement for transactions in limited circumstances.

### **Dividends and Proceeds of Sales**

Under the Foreign Exchange Regulations as currently in effect, dividends paid on, and the proceeds of sales in Japan of, shares held by non-residents of Japan may in general be converted into any foreign currency and repatriated abroad. The acquisition of shares by non-residents of Japan by way of stock splits is not subject to any of the foregoing notification or reporting requirements.

### **Reporting of Substantial Shareholdings**

Pursuant to the Securities and Exchange Law of Japan and regulations thereunder, a person or group of persons beneficially holding more than 5% of the total shares with voting rights (for this purpose shares issuable upon exercise of stock acquisition rights held by the person or persons are counted in the calculation of the holding and the total shares in issue) of a company listed on any Japanese stock exchange or traded on the over-the-counter market is required to file with the director of a competent local finance bureau, within five business days a report containing the identity of such person or persons, the purpose of such holding and certain other information prescribed by regulations. A similar report must also be made (with certain exceptions) if the percentage of such holding subsequently increases or decreases by 1% or more or if any change occurs in material matters set out in reports previously filed.

**10.C MATERIAL CONTRACTS**

All contracts concluded by Advantest during the two years preceding this filing were entered into in the ordinary course of business.

**10.D EXCHANGE CONTROLS**

The Foreign Exchange and Foreign Trade Law of Japan and its related cabinet orders and ministerial ordinances (the Foreign Exchange Regulations ) govern the acquisition and holding of shares of capital stock of

## Table of Contents

Advantest by exchange non-residents and by foreign investors. The Foreign Exchange Regulations currently in effect do not, however, affect transactions between exchange non-residents to purchase or sell shares outside Japan using currencies other than Japanese yen.

Exchange non-residents are:

- individuals who do not reside in Japan; and
- corporations whose principal offices are located outside Japan.

Generally, branches and other offices of non-resident corporations that are located within Japan are regarded as residents of Japan. Conversely, branches and other offices of Japanese corporations located outside Japan are regarded as exchange non-residents.

Foreign investors are:

- individuals who are exchange non-residents;
- corporations that are organized under the laws of foreign countries or whose principal offices are located outside of Japan; and
- corporations (1) of which 50% or more of their shares are held by individuals who are exchange non-residents and/or corporations (a) that are organized under the laws of foreign countries or (b) whose principal offices are located outside of Japan or (2) a majority of whose officers, or officers having the power of representation, are individuals who are exchange non-residents.

In general, the acquisition of shares of a Japanese company (such as the shares of capital stock of Advantest) by an exchange non-resident from a resident of Japan is not subject to any prior filing requirements. In certain limited circumstances, however, the Minister of Finance may require prior approval of an acquisition of this type. While prior approval, as described above, is not required, in the case where a resident of Japan transfers shares of a Japanese company (such as the shares of capital stock of Advantest) for consideration exceeding ¥100 million to an exchange non-resident, the resident of Japan who transfers the shares is required to report the transfer to the Minister of Finance within 20 days from the date of the transfer, unless the transfer was made through a bank, securities company or financial futures trader licensed under Japanese law.

If a foreign investor acquires shares of a Japanese company that is listed on a Japanese stock exchange (such as the shares of capital stock of Advantest) or that is traded on an over-the-counter market in Japan and, as a result of the acquisition, the foreign investor, in combination with any existing holdings, directly or indirectly holds 10% or more of the issued shares of the relevant company, the foreign investor must file a report of the acquisition with the Minister of Finance and any other competent Ministers having jurisdiction over that Japanese company within 15 days from and including the date of the acquisition, except where the offering of the company's shares was made overseas. In limited circumstances, such as where the foreign investor is in a country that is not listed on an exemption schedule in the Foreign Exchange Regulations, a prior notification of the acquisition must be filed with the Minister of Finance and any other competent Ministers, who may then modify or prohibit the proposed acquisition.

## Edgar Filing: ADVANTEST CORP - Form 20-F

Under the Foreign Exchange Regulations dividends paid on, and the proceeds of sales in Japan of, shares held by non-residents of Japan may in general be converted into any foreign currency and repatriated abroad. Under the terms of the deposit agreement pursuant to which Advantest's ADSs are issued, the Depositary is required, to the extent that in its judgment it can convert yen on a reasonable basis into dollars and transfer the resulting dollars to the United States, to convert all cash dividends that it receives in respect of deposited shares into dollars and to distribute the amount received (after deduction of applicable withholding taxes) to the holder of ADSs.

**Table of Contents****10.E TAXATION**

*The discussion below is not intended to constitute a complete analysis of all tax consequences relating to ownership of the Shares or ADSs. Prospective purchasers of the Shares or ADSs should consult their own tax advisors concerning the tax consequences of their particular situations.*

The following is a general summary of the principal U.S. federal and Japanese national tax consequences of the acquisition, ownership and disposition of shares of common stock or ADSs by an investor that holds those shares or ADSs as capital assets within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the Code). This summary does not purport to address all the material tax consequences that may be relevant to holders of shares of common stock or ADSs, and does not take into account the specific circumstances of any particular investors, some of which (such as tax-exempt entities, banks, insurance companies, broker-dealers, traders in securities that elect to use a mark-to-market method of accounting for their securities holdings, regulated investment companies, real estate investment trusts, investors liable for alternative minimum tax, partnerships and other pass-through entities investors that own or are treated as owning 10% or more of Advantest's voting stock, investors that hold shares of common stock or ADSs as part of a straddle, hedge, conversion or constructive sale transaction or other integrated transaction and U.S. Holders (as defined below) whose functional currency is not the U.S. dollar) may be subject to special tax rules. This summary is based on the tax laws of the United States and Japan, judicial decisions, published rulings, administrative pronouncements, and United States Treasury regulations, as in effect on the date hereof, as well as on the current income tax convention between the United States and Japan (the Treaty), all of which are subject to change (possibly with retroactive effect), and to differing interpretations. U.S. Holders should note that the United States and Japan have reached an agreement in principle on the text of a new income tax treaty which, after a formal signature process, will be subject to ratification according to the procedures of each of the two countries. In addition, this summary is based upon the representations of the depository and the assumption that each obligation in the deposit agreement referred to in Description of American Depositary Receipts set forth in Advantest's registration statement on Form F-1 filed with the Securities and Exchange Commission on July 22, 2002, and in any related agreement, will be performed under its terms.

For purposes of this discussion, a U.S. Holder is any beneficial owner of shares of common stock or ADSs that is:

- (1) an individual citizen or resident of the United States,
- (2) a corporation or other entity organized in or under the laws of the United States or any State thereof or the District of Columbia,
- (3) an estate the income of which is subject to U.S. federal income tax without regard to its source, or
- (4) a trust that is subject to the primary supervision of a U.S. court and the control of one or more U.S. persons, or that has a valid election in effect under applicable Treasury regulations to be treated as a U.S. person.

An Eligible U.S. Holder is a U.S. Holder that:

- (1) is a resident of the United States for purposes of the Treaty,
- (2) does not maintain a permanent establishment or fixed base in Japan to which shares of common stock or ADSs are attributable and through which the U.S. Holder carries on or has carried on business (or, in the case of an individual, performs or has performed



independent personal services), and

- (3) is otherwise eligible for benefits under the Treaty with respect to income and gain derived in connection with the shares of common stock or ADSs.

A Non-U.S. Holder is any beneficial owner of shares of common stock or ADSs that is not a U.S. Holder.

## **Table of Contents**

If a partnership holds shares of common stock or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If the U.S. Holder is a partner or a partnership holding shares of common stock or ADSs, such holder is urged to consult its tax advisors.

This summary does not address any aspects of U.S. federal tax law other than income taxation, and does not discuss any aspects of Japanese tax law other than income taxation, inheritance and gift taxation and securities transfer taxation. Investors are urged to consult their tax advisors regarding the U.S. federal, state and local and Japanese and other tax consequences of acquiring, owning and disposing of shares of common stock or ADSs. In particular, where relevant, investors are urged to confirm their status as Eligible U.S. Holders with their tax advisors and to discuss with their tax advisors any possible consequences of their failure to qualify as Eligible U.S. Holders.

In general, taking into account the earlier assumptions, for purposes of the Treaty and for U.S. federal income and Japanese tax purposes, owners of ADRs evidencing ADSs will be treated as the owners of the shares of common stock represented by those ADSs, and exchanges of shares of common stock for ADSs, and exchanges of ADSs for shares of common stock, will not be subject to U.S. federal income or Japanese tax.

## **Japanese Taxation**

The following is a summary of the principal Japanese tax consequences (limited to national taxes) to holders of shares of capital stock of Advantest and of ADRs evidencing ADSs representing shares of common stock of Advantest who are non-resident individuals or non-Japanese corporations without a permanent establishment in Japan ( non-resident Holders ).

Generally, a non-resident of Japan or a non-Japanese corporation is subject to Japanese withholding tax on dividends paid by Japanese corporations. Stock splits in themselves are not subject to Japanese income tax.

In the absence of an applicable tax treaty, convention or agreement reducing the maximum rate of withholding tax, the rate of Japanese withholding tax applicable to dividends paid by Japanese corporations to non-residents of Japan or non-Japanese corporations is 20 percent. With respect to dividends paid on listed shares issued by a Japanese corporation (such as the shares of capital stock of Advantest) to any corporate or individual shareholders (including those shareholders who are non-Japanese corporations or Japanese non-resident individuals, such as non-resident Holders), except for any individual shareholder who holds 5 percent or more of the outstanding total of the shares issued by the relevant Japanese corporation, the aforementioned 20 percent withholding tax rate is reduced to (i) 10 percent for dividends due and payable on or after 1st April, 2003 but on or before December 31, 2003, (ii) 7 percent for dividends due and payable on or after January 1, 2004 but on or before March 31, 2008, and (iii) 15 percent for dividends due and payable on or after April 1, 2008. At the date of this annual report, Japan has income tax treaties, conventions or agreements whereby the above-mentioned withholding tax rate is reduced, in most cases to 15 percent for portfolio investors with, among other countries, Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, The Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland, the U.K., and the U.S.

Under the Tax Convention, as currently in force, the maximum rate of Japanese withholding tax which may be imposed on dividends paid by a Japanese corporation to an eligible U.S. holder generally is limited to 15 percent of the gross amount actually distributed. If the maximum tax rate provided for in the income tax treaty applicable to any particular non-resident Holder is lower than the withholding tax rate otherwise applicable under Japanese tax law, such non-resident Holder who is entitled to a reduced rate of Japanese withholding tax on payment of dividends on Advantest's shares of capital stock by Advantest is required to submit an Application Form for Income Tax Convention Regarding Relief from Japanese Income Tax on Dividends in advance through Advantest to the relevant tax authority before payment of dividends. A standing proxy for non-resident Holders of a Japanese corporation may provide this application service. With respect to ADRs, this reduced rate

Edgar Filing: ADVANTEST CORP - Form 20-F

is applicable if the Depositary or its agent submits two Application Forms (one before payment of dividends, the

## **Table of Contents**

other within eight months after Advantest's fiscal year-end). To claim this reduced rate, any relevant non-resident Holder of ADRs will be required to file a proof of taxpayer status, residence and beneficial ownership (as applicable) and to provide other information or documents as may be required by the Depository. A non-resident Holder who is entitled, under an applicable income tax treaty, to a reduced treaty rate lower than the withholding tax rate otherwise applicable under Japanese tax law, but failed to submit the required application in advance will be entitled to claim the refund of withholding taxes withheld in excess of the rate under an applicable tax treaty from the relevant Japanese tax authority.

Gains derived from the sale of shares of capital stock of Advantest or ADRs outside Japan by a non-resident Holder holding such shares or ADRs as portfolio investors are, in general, not subject to Japanese income or corporation tax. U.S. holders are not subject to Japanese income or corporation tax with respect to such gains under the Tax Convention.

Japanese inheritance and gift taxes at progressive rates may be payable by an individual who has acquired shares of capital stock or ADRs as a legatee, heir or donee even though neither the individual nor the deceased nor donor is a Japanese resident.

Holders of shares of capital stock of Advantest or ADRs should consult their tax advisors regarding the effect of these taxes and, in the case of U.S. holders, the possible application of the Estate and Gift Tax Treaty between the U.S. and Japan.

## **U.S. Federal Income Taxation**

### ***U.S. Holders***

#### ***Taxation of Dividends***

Subject to the passive foreign investment company rules discussed below, under U.S. federal income tax law, the gross amount of any distribution made by Advantest in respect of shares of common stock or ADSs (without reduction for Japanese withholding taxes) will constitute a taxable dividend to the extent paid out of current or accumulated earnings and profits of Advantest, as determined for U.S. federal income tax purposes. That dividend generally will be included in the gross income of a U.S. Holder, as ordinary income, when the dividend is actually or constructively received by the U.S. Holder, in the case of shares of common stock, or by the depository, in the case of ADSs. The dividend will not be eligible for the dividends-received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations. However, pursuant to recently enacted legislation, dividends paid to certain U.S. Holders (including individuals) may be eligible for preferential tax rates.

A dividend paid in Japanese yen will be included in gross income in a U.S. dollar amount based on the Japanese yen/U.S. dollar exchange rate in effect on the date that dividend is included in the income of the U.S. Holder, regardless of whether the payment is converted into U.S. dollars. If the Japanese yen received as a dividend is not converted into U.S. dollars on the date of receipt, a U.S. Holder will have a basis in such Japanese yen equal to its U.S. dollar value on the date of receipt. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is included in the gross income of a U.S. Holder through the date that payment is converted into U.S. dollars (or otherwise disposed of) will be treated as U.S. source ordinary income or loss.

## Edgar Filing: ADVANTEST CORP - Form 20-F

To the extent, if any, that the amount of any distribution received by a U.S. Holder in respect of shares of common stock or ADSs exceeds Advantest's current and accumulated earnings and profits, as determined for U.S. federal income tax purposes, the distribution first will be treated as a tax-free return of capital to the extent of the U.S. Holder's adjusted tax basis in those shares or ADSs, and any balance in excess of that adjusted tax basis generally will be treated as U.S. capital source gain.

---

**Table of Contents**

Distributions of additional shares of common stock that are made to U.S. Holders with respect to their shares of common stock or ADSs and that are part of a pro rata distribution to all of Advantest's shareholders generally will not be subject to U.S. federal income tax.

For U.S. foreign tax credit purposes, dividends included in gross income by a U.S. Holder in respect of shares of common stock or ADSs will constitute income from sources outside the United States, and generally will be treated separately, together with other items of passive income (or, in the case of some holders, financial services income) in computing foreign tax credit limitations. Subject to generally applicable limitations under U.S. federal income tax law and the Treaty, any Japanese withholding tax imposed in respect of a Advantest dividend may be claimed as a credit against the U.S. federal income tax liability of a U.S. Holder, if the U.S. Holder so elects (or as a deduction from that U.S. Holder's taxable income). Special rules generally will apply to the calculation of foreign tax credits in respect of dividend income that qualifies for preferential tax rates under recently enacted legislation. Additionally, special rules apply to individuals whose foreign source income during the taxable year consists entirely of qualified passive income and whose creditable foreign taxes paid or accrued during the taxable year do not exceed \$300 (\$600 in the case of a joint return). Further, under some circumstances, a U.S. Holder that:

- (i) has held shares of common stock or ADSs for less than a specified minimum period,
- (ii) is obligated to make payments related to Advantest dividends, or
- (iii) holds the shares of common stock or ADSs in an arrangement in which the holder's expected economic return, after non-U.S. taxes, is insubstantial,

will not be allowed a foreign tax credit for Japanese taxes imposed on Advantest dividends.

Investors are urged to consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances. The Internal Revenue Service (the IRS) has expressed concern that parties to whom ADSs are released may be taking actions that are inconsistent with the claiming of foreign tax credits by U.S. Holders of ADSs. Accordingly, investors should be aware that the discussion above regarding the creditability of Japanese withholding tax on dividends could be affected by future actions that may be taken by the IRS.

*Taxation of Capital Gains*

A U.S. Holder's tax basis in shares of common stock or ADSs generally will equal the U.S. dollar cost of such shares of common stock or ADSs. In general, upon a sale or other disposition of shares of common stock or ADSs, a U.S. Holder will recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the amount realized and the U.S. Holder's tax basis in those shares or ADSs. Subject to the passive investment company rules discussed below, such gain or loss generally will be capital gain or loss and, if the U.S. Holder's holding period for those shares or ADSs exceeds one year, will be long-term capital gain or loss. Some U.S. Holders, including individuals, are eligible for preferential rates of U.S. federal income tax in respect of long-term capital gain. Under U.S. federal tax law, the deduction of capital losses is subject to limitations. Any gain or loss recognized by a U.S. Holder in respect of the sale or other disposition of shares of common stock or ADSs generally will be treated as U.S. source income or loss for foreign tax credit purposes.

*Passive Foreign Investment Companies*

## Edgar Filing: ADVANTEST CORP - Form 20-F

Advantest does not believe that it is, for U.S. federal income tax purposes, a passive foreign investment company (a PFIC ), and intends to continue its operations in such a manner that it will not become a PFIC in the future. The PFIC determination is made annually and is based on the value of Advantest's assets (including goodwill) and composition of income. Advantest's calculation of goodwill is based, in part, on the market value of its shares of common stock, which is subject to change and over which Advantest has limited control.

## **Table of Contents**

Accordingly, Advantest can provide no assurance that it will not become a PFIC in the current or any future taxable year due to changes in its asset or income composition or a decrease in the price of its common stock. If Advantest becomes a PFIC, U.S. Holders could be subject to additional U.S. federal income taxes on gain recognized with respect to the shares of common stock or ADSs and on certain distributions. In addition, an interest rate charge may apply to certain taxes treated as having been deferred by the U.S. Holder under the PFIC rules. If a U.S. Holder holds shares of common stock or ADSs in any year in which Advantest is a PFIC, such U.S. Holder will be required to make additional annual filings with the IRS. U.S. Holders are urged to consult their tax advisors concerning the U.S. federal income tax consequences of holding shares of common stock or ADSs if Advantest were considered a PFIC in any year.

### ***Non-U.S. Holders***

A Non-U.S. Holder generally will not be subject to any U.S. federal income or withholding tax in respect of distributions on shares of common stock or ADSs unless the Non-U.S. Holder conducts a trade or business within the United States and the distributions are effectively connected with that trade or business.

A Non-U.S. Holder generally will not be subject to U.S. federal income tax in respect of gain recognized on a sale or other disposition of shares of common stock or ADSs, unless (i) the gain is effectively connected with a trade or business conducted by the Non-U.S. Holder within the United States, or (ii) the Non-U.S. Holder is an individual who was present in the United States for 183 or more days in the taxable year of the disposition and other conditions are met.

### ***Backup Withholding and Information Reporting***

In general, except in the case of certain exempt recipients (such as corporations), information reporting requirements will apply to dividends paid to a U.S. Holder in respect of shares of common stock or ADSs, and to the proceeds received by a U.S. holder upon the sale, exchange or redemption of shares of common stock or ADSs within the United States or through certain U.S.-related financial intermediaries. Furthermore, a backup withholding tax may apply to those amounts if a U.S. Holder fails to provide an accurate tax identification number or certain other information in the required manner. The amount of backup withholding imposed on a payment to a U.S. Holder will generally be refunded or allowed as a credit against the holder's U.S. federal income tax liability provided that the required information is properly furnished to the IRS.

Dividends paid to a Non-U.S. Holder in respect of shares of common stock or ADSs, and proceeds received upon the sale, exchange or redemption of shares of common stock or ADSs by a Non-U.S. Holder, generally are exempt from information reporting and backup withholding under current U.S. federal income tax law. However, a Non-U.S. Holder may be required to provide certification to ensure that exemption.

## **10.F DIVIDENDS AND PAYING AGENTS**

Not applicable.



**10.G STATEMENT BY EXPERTS**

Not applicable.

**10.H DOCUMENTS ON DISPLAY**

Advantest files annual reports on Form 20-F and furnishes semi-annual and other periodic reports on Form 6-K with the Commission. You may read and copy (at prescribed rates) any reports, statements or other information on file at the public reference facilities maintained by the Commission at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 or by accessing the Commission's home page (<http://www.sec.gov>). The ADSs are

**Table of Contents**

listed on the New York Stock Exchange under the symbol "ATE", and Advantest's reports and other information may also be inspected at the New York Stock Exchange, 20 Broad Street, New York, New York 10005. In addition, copies of contracts referred to in this annual report may be inspected at the principal executive offices of Advantest, located at Shinjuku-NS Building, 4-1 Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo 163-0880, Japan.

**10.I SUBSIDIARY INFORMATION**

Not applicable.

**ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Advantest is exposed to market risk from changes in foreign currency exchange rates, interest rates and equity security prices and credit. Advantest considers risks related to equity security prices to be immaterial. Advantest does not hold or issue financial instruments for trading purposes.

*Foreign Currency Exchange Rate Risk*

The tables below summarize information as of March 31, 2003 and March 31, 2002 on instruments and transactions that are sensitive to foreign currency exchange rates, including assets and liabilities denominated in U.S. dollars, Euros, New Taiwan dollars and Singapore dollars, and foreign exchange forward contracts. During fiscal 2001, all assets and liabilities denominated in German marks were reclassified as a part of the assets and liabilities denominated in Euros. The information in each table is presented in Japanese yen equivalents, which is Advantest's reporting currency.

*Foreign Currency Denominated Assets and Liabilities*

Foreign currency denominated assets and liabilities that are sensitive to exchange rates between such foreign currency and the Japanese yen are presented by denominated currency. All of these assets and liabilities are stated at fair value.

<u>In Yen Functional Currency</u>	<b>As of March 31, 2003</b>			
	<b>Assets and Liabilities Denominated in</b>			
	<u>U.S.\$</u>	<u>Euro</u>	<u>NT\$</u>	<u>S\$</u>
	(in millions)			
Cash and cash equivalents	¥ 7,142	¥ 2,561	¥ 1,365	¥ 1,915
Accounts receivable	8,142	1,318	500	95

Edgar Filing: ADVANTEST CORP - Form 20-F

Accounts payables and accruals	(4,534)	(421)	(202)	(67)
--------------------------------	---------	-------	-------	------

**As of March 31, 2002**  
**Assets and Liabilities Denominated in**

**In Yen Functional Currency**

	U.S.\$	Euro	NT\$	S\$
	(in millions)			
Cash and cash equivalents	¥ 11,001	¥ 2,831	¥ 185	¥ 3,091
Accounts receivable	5,234	512	3,398	357
Accounts payables and accruals	(952)	(566)	(601)	(88)

**Table of Contents**

Other foreign currency denominated assets and liabilities that are sensitive to exchange rates between such foreign currency and a currency other than the Japanese yen are presented on a combined basis below. All of the assets and liabilities are stated at fair value.

As of March 31, 2003

**Yen Value of Cross Currency Assets and Liabilities**

	(in millions)
Cash and cash equivalents	¥1,386
Accounts receivable	778
Accounts payables and accruals	(249)

As of March 31, 2002

**Yen Value of Cross Currency Assets and Liabilities**

	(in millions)
Cash and cash equivalents	¥604
Accounts receivable	387
Accounts payables and accruals	(4)

*Foreign Exchange Forward Contracts*

Foreign exchange forward contracts used by Advantest are primarily to reduce foreign currency exchange risk. Foreign exchange forward contracts are presented by the notional balances with weighted average exchanges rates. There are no outstanding foreign exchange forward contracts as of March 31, 2003. All of the forward contracts outstanding as of March 31, 2002 matured within two months.

As of March 31, 2002

	Contract Amounts	Value of Contracts Using Current Exchange Rate as of March 31, 2002	Fair Value	Average Contractual Exchange Rate
		(in millions)		
To sell U.S. dollars/receive yen	¥1,846	¥1,861	¥(15)	¥131.85
Total	¥1,846	¥1,861	¥(15)	

*Interest Rate Risk*

The table below presents the principal cash flows and related weighted average interest rates by year of maturity for Advantest's long-term debt obligations by expected maturity dates as of March 31, 2003.

Edgar Filing: ADVANTEST CORP - Form 20-F

Type of Debt and Average Interest Rate	Expected Maturity Date						Total	Fair Value
	2004	2005	2006	2007	2008	Thereafter		
	(in millions)							
Secured Borrowings (2.77%)	¥43	¥43	¥43	¥30	¥10		¥ 169	¥ 182
Unsecured Bonds (1.64%)	2,200	4,500	20,000				26,700	27,233
<b>Total</b>	<b>¥2,243</b>	<b>¥4,543</b>	<b>¥20,043</b>	<b>¥30</b>	<b>¥10</b>		<b>¥26,869</b>	<b>¥27,415</b>

The table below presents the principal cash flows and related weighted average interest rates by year of maturity for Advantest's long-term debt obligations by expected maturity dates as of March 31, 2002.

Type of Debt and Average Interest Rate	Expected Maturity Date						Total	Fair Value
	2003	2004	2005	2006	2007	Thereafter		
	(in millions)							
Secured Borrowings (2.79%)	¥ 43	¥ 43	¥ 43	¥ 42	¥ 30	¥ 10	¥ 211	¥ 225
Unsecured Bonds (1.64%)		2,200	4,500	20,000			26,700	27,420
<b>Total</b>	<b>¥ 43</b>	<b>¥ 2,243</b>	<b>¥ 4,543</b>	<b>¥ 20,042</b>	<b>¥ 30</b>	<b>¥ 10</b>	<b>¥ 26,911</b>	<b>¥ 27,645</b>

**Table of Contents**

***Credit Risk Management***

The concentration of credit risks with respect to accounts receivable is limited due to the strong financial profile and geographic diversity of its largest customers.

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

**12.A DEBT SECURITIES**

Not applicable.

**12.B WARRANTS AND RIGHTS**

Not applicable.

**12.C OTHER SECURITIES**

Not applicable.

**12.D AMERICAN DEPOSITARY SHARES**

Not applicable.

**PART II**

**ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

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

None.

**ITEM 15. CONTROLS AND PROCEDURES**

(a) Within 90 days prior to the date of this report, Advantest performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures. Disclosure controls and procedures are designed to ensure that the material financial and non-financial information required to be disclosed in Form 20-F and filed with the Securities and Exchange Commission is recorded, processed, summarized and reported timely. The evaluation was performed under the supervision of Hiroshi Oura, Advantest's chief executive officer, and Hitoshi Owada, Advantest's principal financial and accounting officer. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable, rather than absolute, assurance of achieving the desired control objectives. Managerial judgment was necessary to evaluate the cost-benefit relationship of possible controls and procedures. Based on the foregoing, Mr. Oura and Mr. Owada concluded that Advantest's disclosure controls and procedures were effective.

(b) There have been no significant changes in Advantest's internal controls or in other factors that could significantly affect internal controls subsequent to the date of the evaluation. Therefore, no corrective actions were taken.

**Table of Contents**

**ITEM 16. [RESERVED]**

**PART III**

**ITEM 17. FINANCIAL STATEMENTS**

Not applicable.

**ITEM 18. FINANCIAL STATEMENTS**

The following financial statements are filed as part of this annual report on Form 20-F.



**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

<u>Independent Auditors Report</u>	F-2
<u>Consolidated Balance Sheets as of March 31, 2002 and 2003</u>	F-3
<u>Consolidated Statements of Income for the years ended March 31, 2001, 2002 and 2003</u>	F-4
<u>Consolidated Statements of Stockholders Equity for the years ended March 31, 2001, 2002 and 2003</u>	F-5
<u>Consolidated Statements of Cash Flows for the years ended March 31, 2001, 2002 and 2003</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7

F-1

**Table of Contents**

**INDEPENDENT AUDITORS REPORT**

The Board of Directors and Stockholders

Advantest Corporation:

We have audited the accompanying consolidated financial statements (expressed in yen) of Advantest Corporation and subsidiaries as listed in the accompanying index. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in 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 financial position of Advantest Corporation and subsidiaries as of March 31, 2002 and 2003, and the results of their operations and their cash flows for each of the years in the three-year period ended March 31, 2003, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements as of and for the year ended March 31, 2003 have been translated into United States dollars solely for the convenience of the reader. We have recomputed the translation and, in our opinion, the consolidated financial statements expressed in yen have been translated into United States dollars on the basis set forth in note 2 of the notes to consolidated financial statements.

/s/ KPMG

Tokyo, Japan

April 25, 2003 except for the last paragraph of note 17 which is as of June 27, 2003

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS**

March 31, 2002 and 2003

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen		U.S. Dollars
	(Millions)		(Thousands)
<b>ASSETS</b>			
Current assets:			
Cash and cash equivalents	¥ 105,932	87,338	\$ 726,606
Trade accounts receivable, less allowance for doubtful accounts of ¥533 million in 2002 and ¥1,240 million (\$10,316 thousand) in 2003	33,196	42,921	357,080
Inventories	52,888	34,995	291,140
Deferred tax assets	16,507	14,158	117,787
Other current assets	3,100	2,603	21,656
	<u>211,623</u>	<u>182,015</u>	<u>1,514,269</u>
Investment securities	8,244	6,928	57,637
Property, plant and equipment, net	58,488	55,431	461,156
Deferred tax assets	19,475	29,215	243,053
Intangible assets, at cost, less accumulated amortization	6,897	5,291	44,018
Other assets	2,835	2,344	19,501
	<u>307,562</u>	<u>281,224</u>	<u>2,339,634</u>
Total assets	¥ 307,562	281,224	\$ 2,339,634
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>			
Current liabilities:			
Current installments of long-term debt	¥ 43	2,243	\$ 18,661
Current installments of obligations under capital leases	259	114	948
Trade accounts payable	4,442	10,787	89,742
Income taxes payable	71	1,949	16,215
Deferred tax liabilities	84		
Accrued bonus	2,780	2,098	17,454
Accrued expenses	12,717	8,811	73,303
Accrued warranty expenses	2,836	2,396	19,933
	<u>23,232</u>	<u>28,398</u>	<u>236,256</u>
Total current liabilities	23,232	28,398	236,256
Long-term debt, excluding current installments	26,868	24,626	204,875
Obligations under capital leases, excluding current installments	134	19	158
Deferred tax liabilities	594	461	3,835
Accrued pension and severance cost	13,540	14,219	118,295
Other liabilities	2,202	2,526	21,015
	<u>66,570</u>	<u>70,249</u>	<u>584,434</u>
Total liabilities	66,570	70,249	584,434
Minority interests	276	312	2,596
Commitments and contingencies			

Edgar Filing: ADVANTEST CORP - Form 20-F

Stockholders' equity:

Common stock, Authorized 220,000,000 shares; issued 99,783,385 shares in 2002 and 2003	32,363	32,363	269,243
Capital surplus	32,973	32,973	274,318
Retained earnings	178,998	162,547	1,352,304
Accumulated other comprehensive income (loss)	(1,184)	(4,055)	(33,735)
Treasury stock, 325,654 shares in 2002 and 1,537,026 shares in 2003, at cost	(2,434)	(13,165)	(109,526)
	<u>240,716</u>	<u>210,663</u>	<u>1,752,604</u>
Total stockholders' equity			
Total liabilities and stockholders' equity	<u>¥ 307,562</u>	<u>281,224</u>	<u>\$ 2,339,634</u>

See accompanying notes to consolidated financial statements.

F-3

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF INCOME**

Years ended March 31, 2001, 2002 and 2003

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
	<b>Yen</b>			<b>U.S. Dollars</b>
		(Millions)		(Thousands)
Net sales	¥ 276,512	95,244	97,740	\$ 813,145
Cost of sales	125,028	76,713	56,551	470,474
Gross profit	151,484	18,531	41,189	342,671
Research and development expenses	28,541	26,674	23,615	196,464
Selling, general and administrative expenses	38,038	28,962	34,317	285,499
Operating income (loss)	84,905	(37,105)	(16,743)	(139,292)
Other income (expense):				
Interest and dividends income	858	720	407	3,386
Interest expense	(635)	(533)	(490)	(4,077)
Minority interests	(12)	(83)	(107)	(890)
Equity in losses of affiliates		(794)	(109)	(907)
Other	1,217	(685)	(1,646)	(13,694)
	1,428	(1,375)	(1,945)	(16,182)
Income (loss) before income taxes	86,333	(38,480)	(18,688)	(155,474)
Income taxes	33,212	(14,574)	(5,694)	(47,371)
Net income (loss)	¥ 53,121	(23,906)	(12,994)	\$ (108,103)
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
	<b>Yen</b>			<b>U.S. Dollars</b>
Net income (loss) per share:				
Basic	¥ 534.44	(240.38)	(131.99)	\$ (1.10)
Diluted	533.24	(240.38)	(131.99)	(1.10)

See accompanying notes to consolidated financial statements.



**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

Years ended March 31, 2001, 2002 and 2003

	2001	2002	2003	2003
		Yen (Millions)		U.S. Dollars (Thousands)
<b>Common stock:</b>				
Balance at beginning of year	¥ 32,146	32,207	32,363	\$ 269,243
Warrants exercised	61	156		
<b>Balance at end of year</b>	<b>32,207</b>	<b>32,363</b>	<b>32,363</b>	<b>269,243</b>
<b>Capital surplus:</b>				
Balance at beginning of year	32,735	32,802	32,973	274,318
Warrants exercised	67	171		
<b>Balance at end of year</b>	<b>32,802</b>	<b>32,973</b>	<b>32,973</b>	<b>274,318</b>
<b>Retained earnings:</b>				
Balance at beginning of year	159,228	207,876	178,998	1,489,168
Net income (loss)	53,121	(23,906)	(12,994)	(108,103)
Cash dividends	(4,473)	(4,972)	(3,457)	(28,761)
<b>Balance at end of year</b>	<b>207,876</b>	<b>178,998</b>	<b>162,547</b>	<b>1,352,304</b>
<b>Accumulated other comprehensive income (loss):</b>				
Balance at beginning of year	(6,934)	(2,534)	(1,184)	(9,850)
Other comprehensive income (loss), net of tax	4,400	1,350	(2,871)	(23,885)
<b>Balance at end of year</b>	<b>(2,534)</b>	<b>(1,184)</b>	<b>(4,055)</b>	<b>(33,735)</b>
<b>Treasury stock:</b>				
Balance at beginning of year	(2,581)	(2,422)	(2,434)	(20,250)
Treasury stock purchased	(226)	(43)	(10,731)	(89,276)
Treasury stock sold	385	31		
<b>Balance at end of year</b>	<b>(2,422)</b>	<b>(2,434)</b>	<b>(13,165)</b>	<b>(109,526)</b>
<b>Total stockholders' equity</b>	<b>¥ 267,929</b>	<b>240,716</b>	<b>210,663</b>	<b>\$ 1,752,604</b>
<b>Disclosure of comprehensive income (loss):</b>				
Net income (loss)	¥ 53,121	(23,906)	(12,994)	\$ (108,103)
Other comprehensive income (loss), net of tax	4,400	1,350	(2,871)	(23,885)
<b>Total comprehensive income (loss)</b>	<b>¥ 57,521</b>	<b>(22,556)</b>	<b>(15,865)</b>	<b>\$ (131,988)</b>



See accompanying notes to consolidated financial statements.

F-5



**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

Years ended March 31, 2001, 2002 and 2003

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
		Yen (Millions)		U.S. Dollars (Thousands)
Cash flows from operating activities:				
Net income (loss)	¥ 53,121	(23,906)	(12,994)	\$ (108,103)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:				
Depreciation and amortization	10,214	11,289	10,942	91,032
Provision for doubtful accounts	243	272	707	5,882
Gain on sale of marketable securities, net	(102)			
Loss (gain) on sale of non-marketable securities, net	8	(22)	144	1,198
Equity in losses of affiliates		794	109	907
Loss (gain) on sale of property, plant and equipment	134	(147)	2	17
Deferred income taxes	(3,218)	(15,808)	(8,012)	(66,656)
Changes in assets and liabilities:				
Trade accounts receivable	(42,469)	72,155	(11,634)	(96,789)
Inventories	(24,103)	29,594	17,415	144,884
Trade accounts payable	8,877	(34,314)	6,963	57,928
Income taxes payable	15,616	(26,289)	1,878	15,624
Accrued expenses and bonus	7,833	(3,485)	(3,973)	(33,053)
Accrued warranty expenses	2,259	(3,127)	(440)	(3,661)
Other	1,184	2,003	3,860	32,113
	<u>29,597</u>	<u>9,009</u>	<u>4,967</u>	<u>41,323</u>
Cash flows from investing activities:				
Proceeds from sale of non-marketable securities	17	38	7	58
Acquisition	(1,465)			
Purchases of investments in affiliates		(1,425)		
Purchases of non-marketable securities	(426)	(2,228)	(1,000)	(8,319)
Proceeds from sale of property, plant and equipment	907	644	583	4,850
Purchases of intangible assets	(2,901)	(2,374)	(947)	(7,879)
Purchases of property, plant and equipment	(12,280)	(13,184)	(6,827)	(56,797)
Other	18	(44)	(235)	(1,955)
	<u>(16,130)</u>	<u>(18,573)</u>	<u>(8,419)</u>	<u>(70,042)</u>
Cash flows from financing activities:				
Proceeds from issuance of long-term debt	4,500			
Principal payments on long-term debt	(10,197)	(4,342)	(42)	(349)
Principal payments on obligations under capital leases	(591)	(450)	(260)	(2,163)
Proceeds from sale of treasury stock	377	31		
Payments to acquire treasury stock	(226)	(43)	(10,733)	(89,293)
Proceeds from issuance of shares	346	308		
Dividends paid	(4,471)	(4,968)	(3,453)	(28,727)
Other	(4)	1		
	<u>(4)</u>	<u>1</u>	<u>(3,453)</u>	<u>(28,727)</u>

Edgar Filing: ADVANTEST CORP - Form 20-F

Net cash used in financing activities	(10,266)	(9,463)	(14,488)	(120,532)
Net effect of exchange rate changes on cash and cash equivalents	1,888	1,417	(654)	(5,441)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Net change in cash and cash equivalents	5,089	(17,610)	(18,594)	(154,692)
Cash and cash equivalents at beginning of year	118,453	123,542	105,932	881,298
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Cash and cash equivalents at end of year	<u>¥ 123,542</u>	<u>105,932</u>	<u>87,338</u>	<u>\$ 726,606</u>
<b>Supplemental data:</b>				
Cash paid during the year for:				
Income taxes	¥ 20,151	27,731	507	\$ 4,218
Interest	719	529	490	4,077

See accompanying notes to consolidated financial statements.

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(1) Description of Business and Summary of Significant Accounting Policies and Practices**

*(a) Description of Business*

Advantest Corporation (the Company) and its subsidiaries (hereafter collectively referred to as Advantest) are engaged in the design, manufacture, and sale of automated test equipment for semiconductors. Advantest has a diverse product line that meets the needs of semiconductor manufacturers, as well as assembly and testhouses worldwide, for sophisticated systems that test the operation and performance of different types of semiconductors. Advantest equips its automated test equipment with sophisticated, yet easy-to-use, operating systems and testing software. Advantest supports its products and customers through a worldwide customer service network staffed by trained technical and maintenance personnel.

Advantest also designs, manufactures, and sells standard and customized measuring instruments that are used by the communications, electric equipment and systems industries. These instruments are used by Advantest's customers to improve time-to-market, lower costs of manufacturing and improve the quality of their products.

The Company was incorporated on December 2, 1954 under the name of Takeda Riken Industry Co., Ltd. as a limited liability, joint-stock company in Japan under the Commercial Code of Japan. Takeda Riken Industry Co., Ltd. changed its legal name to Advantest Corporation in 1985.

*(b) Principles of Consolidation*

The Company and its domestic subsidiaries maintain their records and prepare their financial statements in accordance with accounting principles generally accepted in Japan, and its foreign subsidiaries in conformity with the standards of the country of their domicile. Certain adjustments and reclassifications have been incorporated in the accompanying consolidated financial statements to present them in conformity with accounting principles generally accepted in the United States of America. These adjustments are not recorded in the statutory books of account.

The consolidated financial statements include the financial statements of the Company and its majority owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

*(c) Cash Equivalents*

Cash equivalents consist of deposits and certificates of deposit with an initial maturity of three month or less from the date of purchase. For purposes of the consolidated statements of cash flows, Advantest considers all highly liquid debt instruments with original maturities of three months or less to be cash equivalents.

*(d) Inventories*

Inventories are stated at the lower of cost or market. Cost is determined using the average cost method.

*(e) Investments in Affiliated Companies*

Investments in affiliated companies owned 20% to 50%, where Advantest exercises significant influence over their operating and financial policies, are accounted for on the equity method.

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

***(f) Investment Securities***

Investment securities at March 31, 2002 and 2003 consist of equity securities. Advantest classifies its equity securities in one of two categories: trading or available-for-sale. Trading securities are bought and held principally for the purpose of selling them in the near term. All equity securities not included in trading are classified as available-for-sale.

Trading and available-for-sale securities are recorded at fair value. Unrealized holding gains and losses on trading securities are included in earnings. Unrealized holding gains and losses, net of the related tax effect, on available-for-sale securities are excluded from earnings and are reported as a separate component of other comprehensive income (loss) until realized. Realized gains and losses from sale of available-for-sale securities are determined on a specific-identification basis.

A decline in the market value of any available-for-sale security below cost that is deemed to be other than temporary results in a reduction in carrying amount to fair value. The impairment is charged to earnings and a new cost basis for the security is established. Dividend income is recognized when earned.

As of March 31, 2002 and 2003, all equity securities held by Advantest are classified as available-for-sale.

***(g) Derivative Financial Instruments***

Derivative financial instruments are accounted for under Statement of Financial Accounting Standards ( SFAS ) No. 133, Accounting for Derivative Instruments and Hedging Activities , and SFAS No. 138, Accounting for Certain Derivative Instruments and Certain Hedging Activities, an amendment of FASB Statement No. 133 . SFAS No. 133, as amended, standardizes the accounting for derivative instruments, including certain derivative instruments embedded in other contracts. Under SFAS No. 133, as amended, entities are required to carry all derivative instruments in the consolidated balance sheets at fair value. The accounting for changes in the fair value (that is, gains or losses) of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and, if so, on the reason for holding the instrument. If certain conditions are met, entities may elect to designate a derivative instrument as a hedge of exposures to changes in fair values, cash flows, or foreign currencies. If the hedged exposure is a fair value exposure, the gain or loss on the derivative instrument is recognized in earnings in the period of change together with the offsetting loss or gain on the hedged item attributable to the risk being hedged. If the hedged exposure is a cash flow exposure, the effective portion of the gain or loss on the derivative instrument is reported initially as a component of other comprehensive income (loss) and subsequently reclassified into earnings when the forecasted transaction affects earnings. Any amounts excluded from the assessment of hedge effectiveness as well as the ineffective portion of the gain or loss are reported in earnings immediately. If the derivative instrument is not designated as a hedge, the gain or loss is recognized in earnings in the period of change.

## Edgar Filing: ADVANTEST CORP - Form 20-F

The Company uses foreign exchange forward contracts to manage currency exposure, resulting from changes in foreign currency exchange rates, on trade accounts receivable. Advantest regularly enters into these contracts in U.S. dollars to hedge its non-Japanese currency net monetary exposures. However, these contracts do not qualify for hedge accounting since they do not meet the hedging criteria specified by SFAS No. 133.

Foreign exchange forward contracts generally have maturities of less than two months. These contracts are used to reduce Advantest's risk associated with exchange rate movements, as gains and losses on these contracts are intended to offset exchange losses and gains on underlying exposures. Changes in fair value of foreign exchange forward contracts are recognized in earnings under the caption of other income (expense).

Advantest does not, as a matter of policy, enter into derivative transactions for the purpose of speculation.

F-8

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

***(h) Property, Plant and Equipment***

Property, plant and equipment is stated at cost. Equipment under capital leases is stated at the present value of minimum lease payments.

Depreciation is computed principally using the declining-balance method except for buildings and machinery and equipment under capital leases for the Company and its domestic subsidiaries and the straight-line method over estimated useful lives of the assets for foreign subsidiaries. Buildings are principally depreciated using the straight-line method over their estimated useful lives. Depreciation for machinery and equipment under capital leases is computed using the straight-line method over the lease term. The depreciation period for significant assets ranges from 15 years to 50 years for buildings, 4 years to 10 years for machinery and equipment, and 2 years to 5 years for furniture and fixtures.

Depreciation expense was ¥8,293 million, ¥8,938 million and ¥8,670 million (\$72,130 thousand) in the years ended March 31, 2001, 2002 and 2003, respectively.

***(i) Intangible Assets and Other Assets***

Intangible assets principally consist of licenses, goodwill and computer software for internal-use, including computer software under capital leases. Other assets consist of investments, security deposits and prepaid expenses, of which no one individual item was material to the consolidated financial statements of Advantest.

Advantest capitalizes certain costs incurred to purchase or develop software for internal-use. Costs incurred to develop software for internal-use are expensed as incurred during the preliminary project stage which includes, costs for making strategic decisions about the project, determining performance and system requirements and vendor demonstration cost. Costs incurred subsequent to the preliminary project stage through implementation are capitalized. Advantest also expenses costs incurred for internal-use software projects in the post implement stage such as costs for training and maintenance.

Costs incurred to develop software to be included with and sold as part of the Company's automated test equipment are capitalized subsequent to the attainment of technological feasibility in accordance with the provisions of SFAS No.86, Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed. To date, costs incurred subsequent to the attainment of technological feasibility have been insignificant and, therefore, have been charged directly to expense. Costs incurred prior to reaching technological feasibility are expensed as incurred.

## Edgar Filing: ADVANTEST CORP - Form 20-F

The cost of software is amortized straight-line over the estimated useful life, which is generally five years. The cost of computer software under capital leases is amortized straight-line over the lease term. The remaining weighted average life of software at March 31, 2003 is 2.3 years.

In June 2001, the Financial Accounting Standards Board (the FASB ) issued SFAS No. 141, Business Combinations , and SFAS No. 142, Goodwill and Other Intangible Assets . SFAS No. 141 requires the use of the purchase method of accounting for business combinations and establishes certain criteria for the recognition of intangible assets separately from goodwill. Under SFAS No. 142 goodwill is no longer amortized, but instead is tested for impairment at least annually. Intangible assets with definite useful lives are amortized over their respective estimated useful lives and reviewed for impairment in accordance with SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets . Any recognized intangible assets determined to have an indefinite useful life are not amortized, but instead is tested for impairment until its life is determined to be no longer indefinite.



---

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

Upon adoption of SFAS No. 142, Advantest has reassessed the useful lives and residual values of all intangible assets and made any necessary amortization period adjustments with no significant effects. In connection with the transitional impairment evaluation, SFAS No. 142 requires Advantest to perform an assessment of whether there is an indication that goodwill is impaired as of April 1, 2002. To accomplish this, Advantest must (1) identify its reporting units, (2) determine the carrying amount of each reporting unit by assigning the assets and liabilities, including the existing goodwill and intangible assets to those reporting units, and (3) determine the fair value of each reporting unit and compare this value with the carrying amount of the reporting unit. In the event that the carrying amount of such reporting unit exceeded fair value, Advantest would be required to proceed to the second step to measure the implied fair value of goodwill. Advantest completed its transitional impairment test with no indication of impairment identified. Advantest performs its annual impairment test at the end of each year. Advantest completed its annual impairment test at end of the year ended March 31, 2003, with no indication of impairment identified.

***(j) Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of***

Advantest accounts for long-lived assets in accordance with the provisions of SFAS No. 144. SFAS No. 144 requires that long-lived assets and certain identifiable intangibles with definite useful lives be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

***(k) Accrued Warranty Expenses***

Advantest's products are generally subject to warranty, and Advantest provides an allowance for such estimated costs when product revenue is recognized. To prepare for future repairs during warranty periods, estimated repair expenses over the warranty period are accrued based on the historical ratio of actual repair expenses to corresponding sales.

***(l) Accrued Pension and Severance Cost***

The Company and certain of its domestic subsidiaries have retirement and severance defined benefit plans covering substantially all of their employees. The benefits are based on years of service and the employee's compensation and vest after one year of service. Prior service cost that results from amendments to the plan is amortized over the average remaining service period of the employees expected to receive benefits. Unrecognized net gain and loss is also amortized over the average remaining service period of the employees expected to receive benefits. See note 16 to the consolidated financial statements for further discussion.

*(m) Revenue Recognition*

*Automated test equipment*

Revenue from sales of automated test equipment which require installation work is recognized when the related installation work is completed and the equipment is accepted by the customer. Revenue from sales of parts for automated test equipment such as backup boards, which do not require installation work by Advantest, is recognized upon shipment if the terms of the sale are free on board ( FOB ) shipping point or upon delivery if the terms are FOB destination which coincide with the passage of title and risk of loss.

F-10

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

***Measuring instruments***

Revenue from sales of measuring instruments which do not require installation work by Advantest is recognized upon shipment if the terms of the sale are FOB shipping point and upon delivery if the terms are FOB destination. Revenue from sales of measuring instruments which require installation work is recognized when the related installation work is completed and the instrument is accepted by the customer. Advantest utilizes distributors to market certain of its measuring instruments which do not require installation work. Advantest recognizes revenues from sales of measuring instruments to distributors upon shipment or delivery of instruments to the distributors which coincide with the passage of title and risk of loss.

***Service fee***

Revenue from fixed-price, long-term service contracts is recognized on the straight-line basis over the contract term.

***Operating lease***

Revenue from operating leases is recognized on the straight-line basis over the lease term.

***(n) Selling, general and administrative expenses***

Shipping and handling costs totaled ¥1,917 million, ¥927 million and ¥774 million (\$6,439 thousand) for the years ended March 31, 2001, 2002 and 2003, respectively, and are included in selling, general and administrative expenses in the consolidated statements of income.

***(o) Research and Development***

Research and development costs are expensed as incurred.

*(p) Stock-Based Compensation*

Advantest applies the intrinsic value-based method of accounting prescribed by APB Opinion No. 25, Accounting for Stock Issued to Employees, and related interpretations, in accounting for its stock-based compensation plans. As such, stock-based compensation cost would be recorded on the date of grant only if the current market price of the underlying stock exceeded the exercise price. SFAS No. 123, Accounting for Stock-Based Compensation, as amended by SFAS No. 148, Accounting for Stock-Based Compensation Transition and Disclosure, an amendment of FASB Statement No. 123, establishes accounting and disclosure requirements using a fair value-based method of accounting for stock-based employee compensation plans. As allowed by SFAS No. 123, Advantest has elected to continue to apply the intrinsic value-based method of accounting described above, and has adopted the disclosure requirements of SFAS No. 123.

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Had Advantest determined stock-based compensation cost using the fair value-based method at the grant date for its stock options and warrants under SFAS No. 123, Advantest's net income (loss) and net income (loss) per share would have been reduced to the pro forma amounts indicated below:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen			U.S. Dollars
	(Millions) except for			(Thousands)
	per share data			except for
				per share data
<b>Net income (loss):</b>				
As reported	¥ 53,121	(23,906)	(12,994)	\$ (108,103)
Deduct: stock-based employee compensation cost	(1,797)		(2,592)	(21,564)
<b>Pro forma</b>	<b>¥ 51,324</b>	<b>(23,906)</b>	<b>(15,586)</b>	<b>\$ (129,667)</b>
<b>Basic net income (loss) per share:</b>				
As reported	¥ 534.44	(240.38)	(131.99)	\$ (1.10)
Pro forma	516.36	(240.38)	(158.32)	(1.32)
<b>Diluted net income (loss) per share:</b>				
As reported	¥ 533.24	(240.38)	(131.99)	\$ (1.10)
Pro forma	515.21	(240.38)	(158.32)	(1.32)

The per share weighted average fair value of stock options and warrants granted during the years ended March 31, 2001 and 2003 was ¥5,624 and ¥3,526 on the date of grant using the Black Scholes option-pricing model with the following weighted-average assumptions: the year ended March 31, 2001 expected dividend yield of 0.37%, risk-free interest rate of 0.6%, volatility of 58.1%, and an expected life of 4 years; the year ended March 31, 2003 expected dividend yield of 0.53%, risk-free interest rate of 0.6%, volatility of 67.8%, and an expected life of 4 years.

**(q) Income Taxes**

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

**(r) Net Income (Loss) per Share**

## Edgar Filing: ADVANTEST CORP - Form 20-F

Basic net income (loss) per share is calculated by dividing net income (loss) by the weighted average number of shares outstanding during the year. Diluted net income per share is calculated by dividing net income by the sum of the weighted average number of shares plus additional shares that would have been outstanding if potential dilutive shares had been issued for granted stock options and warrants.

At March, 31, 2001, 2002 and 2003, the Company had outstanding stock options and warrants exercisable into 787,037, 739,200 and 1,113,800 shares of common stock, respectively, which could potentially dilute net income per share in future periods.

F-12

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

***(s) Translation of Foreign Financial Statements***

Foreign currency financial statements have been translated in accordance with SFAS No. 52, Foreign Currency Translation . Under SFAS No. 52, the balance sheet accounts of non-Japanese subsidiaries, which are denominated in currencies other than the Japanese yen, are translated at rates of exchange prevailing at end of year. Revenue and expense accounts are translated at average rates of exchange in effect during the year. Resulting translation adjustments are included as a separate component of other comprehensive income (loss).

***(t) Foreign Currency Transactions***

Assets and liabilities denominated in foreign currencies are translated at the applicable current rates on the balance sheet date. All revenue and expenses associated with foreign currencies are converted at the rates of exchange prevailing when such transactions occur. The resulting exchange gains or losses are reflected in other income (expense) in the accompanying consolidated statements of income.

***(u) Use of Estimates***

Management of Advantest has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these consolidated financial statements in conformity with accounting principles generally accepted in the United States of America. Significant items subject to such estimates and assumptions include valuation allowances for trade accounts receivables, inventories and deferred tax assets, and assets and obligations related to employees retirement and severance plans. Actual results could differ from those estimates.

***(v) New Accounting Standards***

In June 2001, the FASB issued SFAS No. 143, Accounting for Asset Retirement Obligations . SFAS No. 143 applies to legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and (or) the normal operation of a long-lived asset, except for certain obligations of lessees. SFAS No. 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset and subsequently allocated to expense over the asset's useful life. Advantest adopted the provisions of SFAS No. 143 on April 1, 2003. The adoption of SFAS No. 143 did not have a material effect on Advantest's consolidated financial position and results of operations.

## Edgar Filing: ADVANTEST CORP - Form 20-F

In June 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities. SFAS No. 146 addresses financial accounting and reporting for costs associated with exit or disposal activities. It nullifies Emerging Issues Task Force Issue 94-3 (EITF 94-3), Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring). The principal difference between SFAS No. 146 and EITF 94-3 relates to the recognition of a liability for a cost associated with an exit or disposal activity. SFAS No. 146 requires that a liability be recognized for those costs only when the liability is incurred, that is, when it meets the definition of a liability in the conceptual framework of the FASB. SFAS No. 146 also establishes fair value as the objective for initial measurement of liabilities related to exit or disposal activities. Advantest adopted the provision of SFAS No. 146 for exit or disposal activities that are initiated after December 31, 2002. The adoption of SFAS No. 146 did not have a material effect on Advantest's consolidated financial position and results of operations.

F-13



**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

In December 2002, the Emerging Issues Task Force reached a final consensus on Issue 00-21 ( EITF 00-21 ), Revenue Arrangements with Multiple Deliverables . EITF 00-21 addresses how to determine whether an arrangement involving multiple deliverables contains more than one unit of accounting. In applying EITF 00-21, separate contracts with the same entity or related parties that are entered into at or near the same time are presumed to have been negotiated as a package and should, therefore, be evaluated as a single arrangement in considering whether there are one or more units of accounting. That presumption may be overcome if there is sufficient evidence to the contrary. EITF 00-21 also addresses how consideration should be measured and allocated to the separate units of accounting in the arrangement. Advantest is required to adopt the provisions of EITF 00-21 for the transactions entered into on and after June 15, 2003. Currently, management does not anticipate that the adoption of EITF 00-21 will have a material effect on Advantest's consolidated financial position and results of operations.

In January 2003, the EITF reached a final consensus on Issue 03-2 ( EITF 03-2 ), Accounting for the Transfer to the Japanese Government of the Substitutional Portion of Employee Pension Fund Liabilities . EITF 03-2 addresses accounting for a transfer to the Japanese government of the substitutional portion of an Employees' Pension Fund ( EPF ) plan which is a defined benefit pension plan established under the Welfare Pension Insurance Law. EITF 03-2 requires employers to account for the entire separation process of the substitutional portion from the EPF upon completion of the transfer to the government of the substitutional portion of the benefit obligation and related plan assets as the culmination of a series of steps in a single settlement transaction. Under this approach, the difference between the fair value of the obligation and the assets required to be transferred to the government should be accounted for and separately disclosed as a subsidy. The Company and its domestic subsidiaries have not decided to transfer the substitutional portion to the government. Accordingly, the impact on Advantest's consolidated financial statements, if any, can not be determined until a decision is made and the substitutional portion of the benefit obligation and plan assets are transferred to the government.

**(w) Reclassifications**

Certain reclassifications have been made to the prior years' consolidated financial statements to conform presentation used for the year ended March 31, 2003.

**(2) U.S. Dollar Amounts**

U.S. dollar amounts presented in the consolidated financial statements and related notes are included solely for the convenience of the reader. These translations should not be construed as representations as to what the yen amounts actually represent, or have been or could be converted into, U.S. dollars. For this purpose, the rate of ¥120.20 per U.S.\$1, the approximate current exchange rate at March 31, 2003, was used for the translation of the accompanying financial results of Advantest as of and for the year ended March 31, 2003.

**(3) Allowance for Doubtful Accounts**

Edgar Filing: ADVANTEST CORP - Form 20-F

Changes in the allowance for doubtful accounts are as follows:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
		Yen (Millions)		U.S. Dollars (Thousands)
Balance at beginning of year	¥ 159	261	533	\$ 4,434
Amount utilized	(141)	(9)	(103)	(857)
Provision for doubtful accounts	243	281	810	6,739
	<u>¥ 261</u>	<u>533</u>	<u>1,240</u>	<u>\$ 10,316</u>

F-14

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****(4) Inventories**

Inventories are composed of the following:

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen (Millions)		U.S. Dollars (Thousands)
Finished goods	¥ 12,018	8,863	\$ 73,735
Work in process	28,267	16,595	138,062
Raw materials	12,603	9,537	79,343
	<u>¥ 52,888</u>	<u>34,995</u>	<u>\$ 291,140</u>

Advantest recognized inventory write-downs in cost of sales of ¥20,150 million and ¥2,553 million (\$21,240 thousand) for the years ended March 31, 2002 and 2003, respectively. The write-downs of ¥2,553 million (\$21,240 thousand) for the year ended March 31, 2003 consist of ¥1,629 million (\$13,553 thousand) derived from discontinuation of products lines, including those lines that are being replaced by new product lines, and ¥924 million (\$7,687 thousand) due to declines in net realizable value of Advantest's inventory located at customer sites.

**(5) Property, Plant and Equipment**

Property, plant and equipment is composed of the following:

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen (Millions)		U.S. Dollars (Thousands)
Land	¥ 18,501	18,666	\$ 155,291
Buildings	49,969	50,780	422,463
Machinery and equipment	24,145	25,446	211,697
Furniture and fixtures	27,609	26,638	221,614
Construction in progress	1,491	929	7,729
	<u>121,715</u>	<u>122,459</u>	<u>1,018,794</u>

Edgar Filing: ADVANTEST CORP - Form 20-F

Less accumulated depreciation	63,227	67,028	557,638
	<u>¥ 58,488</u>	<u>55,431</u>	<u>\$ 461,156</u>

**(6) Goodwill and Other Intangible Assets**

The components of acquired intangible assets excluding goodwill at March 31, 2002 and 2003 were as follows:

	<u>2002</u>		<u>2003</u>		<u>2003</u>	
	Gross carrying amount	Accumulated amortization	Gross carrying amount	Accumulated amortization	Gross carrying amount	Accumulated amortization
	Yen				U.S. dollars	
	(Millions)				(Thousands)	
Intangible assets subject to amortization:						
Software	¥ 10,765	5,325	¥ 9,271	5,446	\$ 77,130	45,308
Other	1,107	520	1,277	681	10,624	5,665
Total	<u>¥ 11,872</u>	<u>5,845</u>	<u>¥ 10,548</u>	<u>6,127</u>	<u>\$ 87,754</u>	<u>50,973</u>

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Intangible assets not subject to amortization at April 1, 2002 and March 31, 2003 were insignificant.

Aggregate amortization expense for the years ended March 31, 2001, 2002 and 2003 was ¥1,684 million, ¥2,177 million and ¥2,292 million (\$19,068 thousand), respectively. Estimated amortization expense for the next five years ending March 31 is: ¥1,709 million (\$14,218 thousand) in 2004, ¥1,304 million (\$10,849 thousand) in 2005, ¥836 million (\$6,955 thousand) in 2006, ¥402 million (\$3,344 thousand) in 2007, and ¥150 million (\$1,248 thousand) in 2008, respectively.

The changes in the carrying amount of goodwill for the year ended March 31, 2003 were as follows:

	<u>2003</u>	<u>2003</u>
	Yen (Millions)	U.S. dollars (Thousands)
Balance at beginning of year	¥ 645	\$ 5,366
Balance at end of year	¥ 645	\$ 5,366

All amount of this goodwill is allocated to Automated test equipment segment.

Reconciliation of Net income (loss) and Net income (loss) per share to the amounts adjusted for the exclusion of goodwill amortization for the years ended March 31, 2001, 2002 and 2003 are as follows:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen (Millions) except for per share data			U.S. dollars (Thousands) except for per share data
Net income (loss):				
Reported net income (loss)	¥ 53,121	(23,906)	(12,994)	\$ (108,103)
Add back: goodwill amortization (net of tax)	117	122		
Adjusted net income (loss)	¥ 53,238	(23,784)	(12,994)	\$ (108,103)

Edgar Filing: ADVANTEST CORP - Form 20-F

Basic net income (loss) per share:				
Reported basic net income (loss) per share	¥ 534.44	(240.38)	(131.99)	\$ (1.10)
Add back: goodwill amortization (net of tax)	1.18	1.24		
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Adjusted net income (loss) per share	¥ 535.62	(239.14)	(131.99)	\$ (1.10)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Diluted net income (loss) per share:				
Reported diluted net income (loss) per share:	¥ 533.24	(240.38)	(131.99)	\$ (1.10)
Add back: goodwill amortization (net of tax)	1.18	1.24		
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Adjusted diluted net income (loss) per share:	¥ 534.42	(239.14)	(131.99)	\$ (1.10)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

**(7) Investment Securities**

Marketable securities consist of equity securities with an aggregate fair value of ¥2,131 million and ¥1,327 million (\$11,040 thousand), gross unrealized gains, which are determined based on the specific-identification method, of ¥531 million and ¥182 million (\$1,514 thousand), gross unrealized losses of ¥454 million and ¥28 million (\$233 thousand), and acquisition cost of ¥2,054 million and ¥1,173 million (\$9,759 thousand) as of March 31, 2002 and 2003, respectively.

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

Gross realized gains were ¥102 million, ¥71 million and nil for the years ended March 31, 2001, 2002 and 2003, respectively. Gross realized losses were nil, ¥1,265 million and ¥1,876 million (\$15,607 thousand) for the years ended March 31, 2001, 2002 and 2003, respectively. Gross realized gains and losses are principally included in other of cash flows from operating activities in the consolidated statements of cash flows.

Advantest maintains long-term investment securities, included in marketable securities and other investments, issued by nonpublic companies, which are recorded at cost. In addition, the fair values of such securities were not readily determinable.

**(8) Derivative Financial Instruments**

Derivative financial instruments are utilized by Advantest primarily to reduce foreign currency exchange risk. Advantest does not hold or issue financial instruments for trading purposes. Advantest generally does not require or place collateral for these financial instruments.

Derivative financial instruments contain an element of risk in the event the counterparties are unable to meet the terms of the agreements. However, Advantest minimizes risk exposure by limiting the counterparties to major international banks and financial institutions meeting established credit guidelines. Management of Advantest does not expect any counterparty to default on its obligations and, therefore, does not expect to incur any losses due to counterparty default on its obligations.

At March 31, 2002, Advantest had foreign exchange forward contracts to receive Japanese yen for U.S. dollars. The notional amounts of these contracts were ¥1,845 million at March 31, 2002. Advantest had no outstanding contracts at March 31, 2003. The fair values of these contracts at March 31, 2002 are shown in note 9 to the consolidated financial statements. These contracts do not qualify for hedge accounting since they do not meet the hedging criteria specified by SFAS No. 133. Changes in the fair values are recognized in earnings under the caption of other income (expense).

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****(9) Fair Value of Financial Instruments**

The following table presents the carrying amounts and estimated fair values of Advantest's financial instruments at March 31, 2002 and 2003. Fair value estimates made at a specific point in time based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgement and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

	2002		2003	
	Carrying amount	Fair value	Carrying amount	Fair value
Yen (Millions)				
Financial assets:				
Investment securities for which it is:				
Practicable to estimate fair value	¥ 2,131	2,131	1,327	1,327
Not practicable to estimate fair value	5,515	5,515	5,010	5,010
Financial liabilities:				
Foreign exchange forward contracts	15	15		
Long-term debt including current installments	26,911	27,645	26,869	27,415

	2003	
	Carrying amount	Fair value
U.S. Dollars (Thousands)		
Financial assets:		
Investment securities for which it is:		
Practicable to estimate fair value	\$ 11,040	11,040
Not practicable to estimate fair value	41,681	41,681
Financial liabilities:		
Long-term debt including current installments	223,536	228,078

The carrying amounts shown in the table are included in the consolidated balance sheets under the indicated captions.

The following methods and assumptions were used to estimate the fair value of each class of financial instruments:



*Cash and cash equivalents, trade accounts receivable, other current assets, trade accounts payable, and accrued expenses (nonderivatives):* The carrying amounts approximate fair value because of the short maturity of these instruments.

*Investment securities:* The fair values of equity investments are based on quoted market prices at the reporting date for those investments. It was not practicable to estimate the fair value of nonpublic companies; those investments are carried at their original cost.

*Long-term debt:* The fair value of Advantest's long-term debt is estimated by discounting the future cash flows of each instrument at rates currently offered to Advantest for similar debt instruments of comparable maturities by financial institutions.

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****(10) Leases Lessor**

Advantest provides leases that enable its customers to acquire automated test equipment. All leases are classified as operating leases. Lease terms range from 1 year to 5 years, and certain of the lease agreements are cancelable. The gross amount of machinery and equipment and the related accumulated depreciation on operating leases as of March 31, 2002 and 2003 were as follows:

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen		U.S. Dollars
	(Millions)		(Thousands)
Machinery and equipment	¥ 4,525	8,174	\$ 68,003
Less accumulated depreciation	1,582	3,101	25,798
	<u>¥ 2,943</u>	<u>5,073</u>	<u>\$ 42,205</u>

Depreciation and amortization of assets held under operating leases are included with depreciation and amortization expense.

These assets are included in Property, plant and equipment.

Future minimum rental income from equipment on noncancelable operating leases as of March 31, 2003 is as follows:

	Yen	U.S. Dollars
	(Millions)	(Thousands)
<b>Year ending March 31</b>		
2004	¥ 1,073	\$ 8,927
2005	301	2,504
2006	119	990
2007	65	541
Total minimum lease income	<u>¥ 1,558</u>	<u>\$ 12,962</u>

(11) Leases Lessee

Advantest is obligated under various capital leases for certain machinery and equipment and software that expire at various dates during the next three years. At March 31, 2002 and 2003, the gross amount of machinery and equipment and software, and the related accumulated depreciation and amortization recorded under capital leases were as follows:

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen		U.S. Dollars
	(Millions)		(Thousands)
Machinery and equipment	¥ 1,094	559	\$ 4,651
Software	365	245	2,038
	<u>1,459</u>	<u>804</u>	<u>6,689</u>
Less accumulated depreciation and amortization	1,082	678	5,641
	<u>¥ 377</u>	<u>126</u>	<u>\$ 1,048</u>

Depreciation and amortization of assets held under capital leases are included with depreciation and amortization expense.

Machinery and equipment is included in Property, plant and equipment and Software is included in intangible assets.

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Future minimum capital lease payments as of March 31, 2003 are as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
<b>Year ending March 31</b>		
2004	¥ 116	\$ 965
2005	17	142
2006	4	33
	<u>137</u>	<u>1,140</u>
Total minimum lease payments	137	1,140
Less amount representing interest (at rates ranging from 1.69% to 5.82%)	4	34
	<u>133</u>	<u>1,106</u>
Present value of net minimum capital lease payments	133	1,106
Less current installments	114	948
	<u>19</u>	<u>158</u>
Obligations under capital leases, excluding current installments	¥ 19	\$ 158

Advantest also has several noncancelable operating leases, primarily for computer and office equipment that expire over the next six years. Rent expense, including rental payments for cancelable leases, for the years ended March 31, 2001, 2002 and 2003 was ¥2,339 million, ¥2,301 million and ¥1,638 million (\$13,627 thousand), respectively.

Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) as of March 31, 2003 are as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
<b>Year ending March 31</b>		
2004	¥ 377	\$ 3,137
2005	335	2,787
2006	302	2,512
2007	225	1,872
2008	54	449
2009	8	67
	<u>1,301</u>	<u>10,824</u>
Total minimum lease payments	¥ 1,301	\$ 10,824

**(12) Long-Term Debt**

Long-term debt at March 31, 2002 and 2003 consists of the following:

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen		U.S. Dollars
	(Millions)		(Thousands)
Secured borrowings, due 2003 to 2008 with annual interest rates ranging from 1.05% to 4.125% in 2002 and 2003	¥ 211	169	\$ 1,406
Unsecured 1.05% bonds, due January 27, 2004	2,200	2,200	18,303
Unsecured 0.88% bonds, due February 5, 2005	4,500	4,500	37,438
Unsecured 1.88% bonds, due December 14, 2005	20,000	20,000	166,389
<b>Total long-term debt</b>	<b>26,911</b>	<b>26,869</b>	<b>223,536</b>
Less current installments	43	2,243	18,661
<b>Long-term debt, excluding current installments</b>	<b>¥ 26,868</b>	<b>24,626</b>	<b>\$ 204,875</b>

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The Company's unsecured 1.05% bonds and 0.88% bonds were issued with detachable warrants in connection with one of Advantest's stock-based compensation plans. As described in note 15 to the consolidated financial statements, upon issuance of each bond, the Company purchased all detachable warrants from the underwriter and distributed such warrants to the directors and selected employees of the Company and its subsidiaries. No gain or loss was recognized on the sale and purchase of the warrants. For financial reporting purpose, these transactions were accounted for as the issuance of debt to third parties and separately as the issuance of warrants to directors and employees.

At March 31, 2003, property, plant and equipment with a carrying amount of ¥415 million (\$3,453 thousand) was pledged as collateral for certain debt obligations in the amount of ¥53 million (\$441 thousand).

The aggregate maturities of long-term debt for each of the five years subsequent to March 31, 2003 are as follows:

<b>Year ending March 31</b>	<b>Yen (Millions)</b>	<b>U.S. Dollars (Thousands)</b>
2004	¥ 2,243	\$ 18,661
2005	4,543	37,795
2006	20,043	166,747
2007	30	250
2008	10	83
<b>Total long-term debt</b>	<b>¥ 26,869</b>	<b>\$ 223,536</b>

**(13) Income Taxes**

The components of income (loss) before income taxes and provision for income taxes as shown in the consolidated statements of income are as follows:

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2003</b>
		<b>Yen</b>		<b>U.S. Dollars</b>
		<b>(Millions)</b>		<b>(Thousands)</b>
<b>Income (loss) before income taxes:</b>				
The Company and domestic subsidiaries	¥ 63,910	(41,956)	(18,581)	\$ (154,584)
Foreign subsidiaries	22,423	3,476	(107)	(890)

Edgar Filing: ADVANTEST CORP - Form 20-F

	2001	2002	2003	2003
		Yen		U.S. Dollars
		(Millions)		(Thousands)
Provision for income taxes:				
Current:				
The Company and domestic subsidiaries	¥ 29,715	97	624	\$ 5,191
Foreign subsidiaries	6,715	1,137	1,694	14,094
Deferred:				
The Company and domestic subsidiaries	(3,312)	(15,905)	(6,939)	(57,729)
Foreign subsidiaries	94	97	(1,073)	(8,927)
	<u>¥ 33,212</u>	<u>(14,574)</u>	<u>(5,694)</u>	<u>\$ (47,371)</u>
	<u>¥ 86,333</u>	<u>(38,480)</u>	<u>(18,688)</u>	<u>\$ (155,474)</u>

F-21

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The company and its domestic subsidiaries are subject to a corporate tax of 30%, an inhabitant tax of between 18.1% and 20.7% and a deductible business tax of between 9.6% and 10.1%, which in the aggregate resulted in a statutory income tax rate of approximately 41.6%. Amendments to the Japanese tax regulations were enacted on March 24, 2003. As a result of these amendments, the statutory income tax rate was reduced from approximately 41.6% to 40.3% effective from the year beginning April 1, 2004. Consequently, the statutory tax rate is to be lowered to approximately 40.3% applicable for deferred tax assets and liabilities expected to be settled or realized subsequent to April 1, 2004. The adjustments of deferred tax assets and liabilities for this change in the tax rate are ¥1,117 million (\$9,293 thousand) and reflected in the consolidated statements of income for the year ended March 31, 2003.

A reconciliation of the Japanese statutory income tax rate and the effective income tax rate as a percentage of income before income taxes is as follows:

	<u>2001</u>	<u>2002</u>	<u>2003</u>
Statutory tax rate	41.6%	(41.6)%	(41.6)%
Increase (reduction) in income taxes resulting from:			
Earnings of foreign subsidiaries taxed at different rate from the statutory rate in Japan	(2.4)	(1.1)	(0.6)
Tax credits utilized	(0.7)	(0.1)	(0.4)
Expenses not deductible for tax purposes	0.2	0.2	0.3
Change in valuation allowance		3.1	7.3
Tax rate change			6.0
Other, net	(0.2)	1.6	(1.5)
	<u>38.5%</u>	<u>(37.9)%</u>	<u>(30.5)%</u>

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at March 31, 2002 and 2003 are presented below.

	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen		U.S. Dollars
	(Millions)		(Thousands)
Deferred tax assets:			
Inventories	¥ 9,447	8,521	\$ 70,890
Investments in affiliates	269	292	2,429
Accrued warranty expenses	775	594	4,942
Accrued business taxes	6	41	341
Accrued pension and severance cost	5,147	5,558	46,240
Other accrued expenses	1,316	1,617	13,453



Edgar Filing: ADVANTEST CORP - Form 20-F

Research and development expenses capitalized for tax purposes	4,818	3,253	27,063
Operating loss carryforward	11,511	20,905	173,918
Other	2,962	4,178	34,759
	<u>          </u>	<u>          </u>	<u>          </u>
Total gross deferred tax assets	36,251	44,959	374,035
Less valuation allowance	269	1,640	13,644
	<u>          </u>	<u>          </u>	<u>          </u>
Net deferred tax assets	35,982	43,319	360,391
	<u>          </u>	<u>          </u>	<u>          </u>
Deferred tax liabilities:			
Net unrealized gains on marketable securities	32	62	516
Property, plant and equipment	512	235	1,955
Other	134	110	915
	<u>          </u>	<u>          </u>	<u>          </u>
Total gross deferred tax liabilities	678	407	3,386
	<u>          </u>	<u>          </u>	<u>          </u>
Net deferred tax assets	¥ 35,304	42,912	\$ 357,005
	<u>          </u>	<u>          </u>	<u>          </u>

F-22

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

At March 31, 2003, Advantest had net operating losses carried forward for income tax purposes of approximately ¥52,085 million (\$433,319 thousand) which are available to reduce future income taxes, if any. Approximately ¥51,547 million (\$428,844 thousand) of the operating losses expires through 2008, ¥475 million (\$3,952 thousand) through 2023 and the remainder has an indefinite carry forward period.

Management of Advantest intends to reinvest certain undistributed earnings of the Company's foreign subsidiaries for an indefinite period of time. As a result, no provision for income taxes has been made on undistributed earnings of these subsidiaries not expected to be remitted in the foreseeable future, aggregating ¥5,845 million (\$48,627 thousand) as of March 31, 2003.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. At March 31, 2003, Advantest has recorded on its consolidated balance sheet, net deferred tax assets of ¥42,912 million (\$357,005 thousand) of which ¥20,905 million (\$173,918 thousand) represents net operating losses ( NOLs ) carried forward available to offset future taxable income. In order to fully realize these NOLs, the Company will need to generate taxable income in excess of approximately ¥52,085 million (\$433,319 thousand) during the period the NOLs expire. Based upon projections for future taxable income over the periods in which the deferred tax assets are deductible including management's expectations of future semiconductor and automated test equipment market prospects, the results of cost cutting measures including the termination of redundant employees and other factors, management believes it is more likely than not that Advantest will realize the benefits of these deductible differences including NOLs, net of the existing valuation allowance, at March 31, 2003. The amount of the deferred tax assets considered realizable, however, could be reduced in the near term if estimates of future taxable income are reduced and the effect on Advantest's consolidated financial position and results of operations could be significant.

Table of Contents

## ADVANTEST CORPORATION AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## (14) Other Comprehensive Income (Loss)

The accumulated balances for each classification of other comprehensive income (loss) are as follows:

	Foreign currency translation adjustments	Net unrealized gains on securities	Accumulated other comprehensive income (loss)
		Yen (Millions)	
Balance at April 1, 2000	¥ (7,848)	914	(6,934)
Change during the year	5,212	(713)	4,499
Reclassification adjustments for realized portion		(99)	(99)
	<u>5,212</u>	<u>(812)</u>	<u>4,400</u>
Balance at March 31, 2001	(2,636)	102	(2,534)
Change during the year	1,440	(453)	987
Reclassification adjustments for realized portion		363	363
	<u>1,440</u>	<u>(90)</u>	<u>1,350</u>
Balance at March 31, 2002	(1,196)	12	(1,184)
Change during the year	(2,915)	(159)	(3,074)
Reclassification adjustments for realized portion		203	203
	<u>(2,915)</u>	<u>44</u>	<u>(2,871)</u>
Balance at March 31, 2003	¥ (4,111)	56	(4,055)
	<u>Foreign currency translation adjustments</u>	<u>Net unrealized gains on securities</u>	<u>Accumulated other comprehensive income (loss)</u>

Edgar Filing: ADVANTEST CORP - Form 20-F

	U.S. Dollars (Thousands)		
Balance at March 31, 2002	\$ (9,950)	100	(9,850)
Change during the year	(24,251)	(1,323)	(25,574)
Reclassification adjustments for realized portion		1,689	1,689
	(24,251)	366	(23,885)
Balance at March 31, 2003	\$ (34,201)	466	(33,735)

F-24

Table of Contents

## ADVANTEST CORPORATION AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The related tax effects allocated to each component of other comprehensive income (loss) are as follows:

	Before-tax amount	Tax (expense) or benefit	Net-of-tax amount
Yen (Millions)			
<b>Year ended March 31, 2001:</b>			
Foreign currency translation adjustments	¥ 5,212		5,212
Net unrealized gains on securities:			
Net unrealized gains arising during the year	(1,221)	508	(713)
Less reclassification adjustments for net gains realized in earnings	(170)	71	(99)
	<u>          </u>	<u>          </u>	<u>          </u>
Net unrealized gains	(1,391)	579	(812)
	<u>          </u>	<u>          </u>	<u>          </u>
Other comprehensive income (loss)	¥ 3,821	579	4,400
	<u>          </u>	<u>          </u>	<u>          </u>
<b>Year ended March 31, 2002:</b>			
Foreign currency translation adjustments	¥ 1,440		1,440
Net unrealized gains on securities:			
Net unrealized gains arising during the year	(753)	300	(453)
Less reclassification adjustments for net gains realized in earnings	622	(259)	363
	<u>          </u>	<u>          </u>	<u>          </u>
Net unrealized gains	(131)	41	(90)
	<u>          </u>	<u>          </u>	<u>          </u>
Other comprehensive income (loss)	¥ 1,309	41	1,350
	<u>          </u>	<u>          </u>	<u>          </u>
<b>Year ended March 31, 2003:</b>			
Foreign currency translation adjustments	¥ (2,915)		(2,915)
Net unrealized gains on securities:			
Net unrealized gains arising during the year	(266)	107	(159)
Less reclassification adjustments for net gains realized in earnings	340	(137)	203
	<u>          </u>	<u>          </u>	<u>          </u>
Net unrealized gains	74	(30)	44
	<u>          </u>	<u>          </u>	<u>          </u>
Other comprehensive income (loss)	¥ (2,841)	(30)	(2,871)
	<u>          </u>	<u>          </u>	<u>          </u>
	<u>          </u>	<u>          </u>	<u>          </u>
	<u>          </u>	<u>          </u>	<u>          </u>

	U.S. Dollars (Thousands)		
<b>Year ended March 31, 2003:</b>			
Foreign currency translation adjustments	\$ (24,251)		(24,251)
Net unrealized gains on securities:			
Net unrealized gains arising during the year	(2,213)	890	(1,323)
Less reclassification adjustments for net gains realized in earnings	2,829	(1,140)	1,689
	<u>616</u>	<u>(250)</u>	<u>366</u>
Other comprehensive income (loss)	<u>\$ (23,635)</u>	<u>(250)</u>	<u>(23,885)</u>

**Table of Contents**

**ADVANTEST CORPORATION AND SUBSIDIARIES**

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

**(15) Stock-Based Compensation**

Advantest has two types of stock-based compensation plans as incentive plans for directors and selected employees. One plan uses stock options and the other plan uses bonds with detachable warrants.

In June 1998, the Company's shareholders approved a stock option plan for directors and certain employees. Under the stock option plan, the total number of shares authorized for grant totaled 415,000. Options were granted with an exercise price equal to the higher of (1) 1.05 times the average price of the preceding month on the date of each grant, (2) 1.05 times the closing price of the Company's shares traded on the Tokyo Stock Exchange on the date of each grant and (3) the average price of the treasury stock acquired in the markets, and had an exercise period of 4 years. The options vested fully upon grant. This plan was terminated and the unexercised stock options expired during the year ended March 31, 2003.

In May 1997, January 2000 and February 2001, the Company issued unsecured bonds with detachable warrants. Simultaneously with the issuance of the unsecured bonds, the Company purchased all of the detachable warrants from the underwriter and distributed such warrants to the directors and selected employees of the Company and its subsidiaries. By exercising a warrant, directors and selected employees can purchase the shares of the Company, the number of which is 654,014 shares, 99,000 shares and 319,500 shares at the exercise price of ¥6,533, ¥21,840 and ¥14,018 for warrants issued in May 1997, January 2000 and February 2001, respectively. Warrants were granted with an exercise price equal to 1.05 times the closing price of the Company's shares traded on the Tokyo Stock Exchange on the date of each grant. Under each plan, 5,934 warrants, 990 warrants and 3,195 warrants in May 1997, January 2000 and February 2001, respectively, were issued. The warrants vested fully immediately, and were exercisable up to 4 years from the date of grant. For financial reporting purposes, these transactions were accounted for as the issuance of debt to third parties and separately as the issuance of warrants to directors and employees. The issuance of the warrants to directors and employees was accounted for under APB Opinion No. 25. All unexercised warrants issued during the year ended March 31, 1998 expired in accordance with their original terms during the year ended March 31, 2002.

In July 2002, stock options were issued to directors, corporate auditors and certain employees under a new stock option plan approved by the Board of Directors. The number of granted shares totaled 735,000. Options were granted with an exercise price of 8,148 yen per share that is equal to the higher of (1) 1.05 times the average price of the preceding month on the date of grant and (2) the closing price of the Company's shares traded on the Tokyo Stock Exchange on the date of grant, and have an exercise period of 4 years. The options vested fully on April 1, 2003.

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Stock option and warrant activity during the years ended March 31, 2001, 2002 and 2003 is as follows:

	Number of shares	Weighted average exercise price	Weighted average exercise price
		Yen	U.S. Dollars
Balance at April 1, 2000	507,581	¥ 10,156	
Granted	319,500	14,018	
Exercised	(39,603)	(7,030)	
Expired	(441)	(6,533)	
Balance at March 31, 2001	787,037	11,883	
Exercised	(44,537)	(6,533)	
Expired	(3,300)	(15,914)	
Balance at March 31, 2002	739,200	12,187	\$ 101
Granted	735,000	8,148	68
Expired	(360,400)	(7,799)	(65)
Balance at March 31, 2003	1,113,800	10,942	91

At March 31, 2003, the range of exercise prices and weighted-average remaining contractual life of outstanding options and warrants, all of which are exercisable, was as follows:

Exercise price	Number outstanding	Weighted average remaining contractual life
Yen		
¥21,840	94,800	0.8 years
14,018	309,000	1.9 years
8,148	710,000	4.0 years
	1,113,800	

**(16) Accrued Pension and Severance Cost**



## Edgar Filing: ADVANTEST CORP - Form 20-F

The Company and certain of its subsidiaries have unfunded retirement and severance plans. On terminating employment, substantially all employees of the Company and the subsidiaries are entitled to lump-sum payments based on the employees' compensation and years of service.

The Company and its domestic subsidiaries also have the contributory defined benefit retirement and severance plans covering substantially all employees. The contributory plans mainly represent the Employees' Pension Fund ( EPF ) plan, composed of the substitutional portions based on the pay-related part of the old age pension benefits prescribed by the Welfare Pension Insurance Law in Japan and the corporate portions based on contributory defined benefit pension arrangements established at the discretion of the Company and its subsidiaries. Management considers that substitutional portions of the EPF, which are administered by a board of trustees composed of management and labor representatives, represent welfare pension plans carried on behalf of the Japanese government. These contributory plans are funded in conformity with the funding requirements of applicable Japanese governmental regulations. Plan assets mainly consist of listed equity securities and bonds.

F-27

Table of Contents

## ADVANTEST CORPORATION AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Information about the retirement and severance plans of Advantest are as follows:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
		Yen		U.S. Dollars
		(Millions)		(Thousands)
Components of net periodic benefit cost:				
Service cost	¥ 2,183	2,364	2,529	\$ 21,040
Interest cost	896	1,003	960	7,987
Expected return on plan assets	(660)	(619)	(622)	(5,175)
Amortization of unrecognized:				
Net transition obligation	214	214	214	1,780
Net actuarial gain or loss	(279)	(52)	318	2,645
Prior service cost		(27)	(117)	(973)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Net periodic benefit cost	¥ 2,354	2,883	3,282	\$ 27,304
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
	<u>2001</u>	<u>2002</u>	<u>2003</u>	
Weighted average assumptions as of March 31:				
Discount rate	3.0%	2.5%	2.5%	
Expected return on plan assets	3.0%	3.0%	3.0%	
Rate of compensation increase	3.3%	3.3%	3.3%	

The following table sets forth the plan's benefit obligation, fair value of plan assets, funded status at March 31, 2002 and 2003.

	<u>2002</u>	<u>2003</u>	<u>2003</u>
		Yen	U.S. Dollars
		(Millions)	(Thousands)
Change in benefit obligation:			
Balance at beginning of year	¥ 33,428	38,463	\$ 319,992
Service cost	2,364	2,529	21,040
Interest cost	1,003	960	7,987
Employee contributions	349	302	2,512
Actuarial gain or loss	4,373	(3,768)	(31,348)
Benefits paid	(1,526)	(2,931)	(24,384)
Divestiture		(1,048)	(8,719)
Plan amendment	(1,528)		

Edgar Filing: ADVANTEST CORP - Form 20-F

Balance at end of year	38,463	34,507	287,080
Change in plan assets:			
Balance at beginning of year	20,620	20,727	172,438
Employer contributions	1,377	927	7,712
Employee contributions	349	302	2,512
Actual return on plan assets	(1,291)	(3,377)	(28,095)
Benefits paid	(328)	(1,599)	(13,302)
Divestiture		(488)	(4,060)
Balance at end of year	20,727	16,492	137,205
Funded status	17,736	18,015	149,875
Unrecognized prior service cost	1,960	1,830	15,225
Unrecognized net transition obligation	(427)	(214)	(1,780)
Unrecognized net actuarial gain or loss	(5,729)	(5,412)	(45,025)
Accrued pension and severance cost recognized in the consolidated balance sheets	¥ 13,540	14,219	\$ 118,295

F-28

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The accumulated benefit obligation of ¥30,756 million and ¥29,411 million (\$244,684 thousand) at March 31, 2002 and 2003, respectively, did not exceed the sum of the fair value of plan assets and accrued pension and severance cost recognized in the consolidated balance sheets. Accordingly, no additional minimum pension liabilities are required to be recognized.

During the year ended March 31, 2002, Advantest reduced its number of employees by approximately 600 through a voluntary early retirement program offered to employees in Japan, lay-offs of employees in foreign locations and the consolidation of several business operations. Advantest recorded additional severance costs of ¥1,590 million related to severance packages of the employees that accepted early retirement and lay-offs and classified such charge in cost of sales and selling, general and administrative expenses. The classification was dependent on whether employees related to manufacturing activities or other activities. At March 31, 2002, Advantest had paid approximately ¥514 million of the liability. The remaining amount was paid in April 2002. The effect of the consolidation of several business operations was insignificant.

During the year ended March 31, 2003, Advantest also reduced its number of employees by approximately 700 through a voluntary early retirement program offered to employees in Japan and lay-offs of employees in foreign locations and a sale of all shares of a subsidiary in Japan pursuant to a management buyout. Advantest recorded additional severance costs of ¥3,595 million (\$29,908 thousand) related to severance packages of the employees that accepted early retirement and lay-offs and classified such charge in selling, general and administrative expenses. At March 31, 2003, Advantest had paid approximately ¥3,250 million (\$27,038 thousand) of the liability. Substantially all of the remaining liability was paid in April 2003.

**(17) Stockholders Equity**

Changes in the number of shares issued and treasury stock during the years ended March 31, 2001, 2002 and 2003 are as follows:

	<b>Total shares of common stock</b>	<b>Shares of treasury stock</b>
	<u>                    </u>	<u>                    </u>
Number of shares as of April 1, 2000	99,716,966	345,185
Exercise of warrants	18,603	
Exercise of stock options		(21,000)
Purchase of shares		11,410
Sale of shares		(11,500)
	<u>                    </u>	<u>                    </u>
Number of shares as of March 31, 2001	99,735,569	324,095
Exercise of warrants	47,816	
Purchase of shares		3,859
Sale of shares		(2,300)
	<u>                    </u>	<u>                    </u>

Edgar Filing: ADVANTEST CORP - Form 20-F

Number of shares as of March 31, 2002	99,783,385	325,654
Purchase of shares		1,211,372
	<hr/>	<hr/>
Number of shares as of March 31, 2003	99,783,385	1,537,026
	<hr/>	<hr/>

The Commercial Code of Japan, amended effective on October 1, 2001, provides that an amount equal to at least 10% of appropriations paid in cash be appropriated as a legal reserve until an aggregated amount of additional paid-in capital and the legal reserve equals 25% of common stock. Certain foreign subsidiaries are also required to appropriate their earnings to legal reserves under the laws of the respective countries.

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Cash dividends for the years ended March 31, 2001, 2002 and 2003 represent dividends paid out during those years. The accompanying consolidated financial statements do not include any provision for the dividend for the second half-year of ¥10 (\$0.08) per share, aggregating ¥982 million (\$8,170 thousand), subsequently proposed by the Board of Directors in respect of the year ended March 31, 2003.

The amount available for dividends under the Commercial Code of Japan is based on the amount recorded in the Company's books of account and amounted to ¥109,835 million (\$913,769 thousand) at March 31, 2003.

As approved by the ordinary shareholders' meeting on June 27, 2003, the Company was authorized to repurchase shares of its common stock pursuant to Article 210 of the Commercial Code of Japan within the upper limits of 3,000,000 shares and ¥20,000 million (\$166,389 thousand) acquisition cost by the end of the next ordinary shareholders' meeting.

**(18) Noncash Financing and Investing Activities**

Obligations under capital leases of ¥151 million, ¥11 million and nil were incurred in the years ended March 31, 2001, 2002 and 2003, respectively, when Advantest entered into leases for new machinery and equipment and software.

**(19) Accrued Warranty Expenses**

Advantest issues contractual product warranties under which it generally guarantees the performance of products delivered and services rendered for a certain period or term. Change in accrued warranty expenses for the year ended March 31, 2003 is summarized as follows:

	<u>2003</u>	<u>2003</u>
	Yen	U.S. Dollars
	(Millions)	(Thousands)
Balance at beginning of year	¥ 2,836	\$ 23,594
Addition	2,822	23,477
Utilization	(3,199)	(26,614)
Translation adjustment	(63)	(524)
Balance at end of year	¥ 2,396	\$ 19,933

**(20) Operating Segment and Geographic Information**

In accordance with SFAS No. 131, Advantest has two operating and reportable segments, which are the design, manufacturing, and marketing of automated test equipment and measuring instruments. These operating segments are determined based on the nature of the products and the markets. Automated test equipment is used to confirm that a semiconductor functions properly during the semiconductor manufacturing process at sites of manufactures of semiconductor or test houses. Automated test equipment consists of semiconductor test systems, test handlers or probers, semiconductor device interfaces and software. Test handlers or probers, semiconductor device interfaces and software are always with or incorporated in automated test equipment. Measuring instruments are used primarily by manufacturers of equipment and components and service providers of the fiber optic communications industry, the wireless communications industry and the electronics industry. Fundamental research and development activities and headquarters functions are represented by Corporate.

F-30

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Operating segment information during the years ended March 31, 2001, 2002 and 2003 are as follows:

	<u>Automated test equipment</u>	<u>Measuring instruments</u>	<u>Corporate</u>	<u>Total</u>
Yen (Millions)				
<b>As of and for the year ended March 31, 2001:</b>				
Net sales to unaffiliated customers	¥ 241,499	35,013		276,512
Depreciation and amortization	7,438	785	1,991	10,214
Operating income (loss)	86,413	6,672	(8,180)	84,905
Expenditures for additions to long-lived assets	9,562	1,657	5,114	16,333
Total assets	230,389	34,528	142,514	407,431
<b>As of and for the year ended March 31, 2002:</b>				
Net sales to unaffiliated customers	74,206	21,038		95,244
Depreciation and amortization	7,562	1,105	2,622	11,289
Operating income (loss)	(20,104)	(7,826)	(9,175)	(37,105)
Expenditures for additions to long-lived assets	7,718	1,936	4,804	14,458
Equity in losses of affiliates	(794)			(794)
Total assets	146,790	20,000	140,772	307,562
Equity investments	598			598
<b>As of and for the year ended March 31, 2003:</b>				
Net sales to unaffiliated customers	84,910	12,830		97,740
Depreciation and amortization	7,269	1,236	2,437	10,942
Operating income (loss)	465	(7,939)	(9,269)	(16,743)
Expenditures for additions to long-lived assets	5,844	648	1,072	7,564
Equity in losses of affiliates	(109)			(109)
Total assets	138,114	18,332	124,778	281,224
Equity investments	591			591

	<u>Automated test equipment</u>	<u>Measuring instruments</u>	<u>Corporate</u>	<u>Total</u>
U.S. Dollars (Thousands)				
<b>As of and for the year ended March 31, 2003:</b>				
Net sales to unaffiliated customers	\$ 706,406	106,739		813,145
Depreciation and amortization	60,474	10,283	20,275	91,032
Operating income (loss)	3,869	(66,048)	(77,113)	(139,292)
Expenditures for additions to long-lived assets	48,619	5,391	8,918	62,928
Equity in losses of affiliates	(907)			(907)
Total assets	1,149,035	152,512	1,038,087	2,339,634
Investments in affiliates	4,917			4,917

Adjustments to operating income (loss) in Corporate principally represent corporate general and administrative expenses and research and development expenses related to fundamental research activities that are not allocated to operating segments.



Additions to long-lived assets included in Corporate consist of purchases of software and fixed assets for general corporate use.

Total assets included in Corporate consist of cash and cash equivalents, assets for general corporate use and assets used for fundamental research activities, which are not allocated to reportable segments. Total assets in Corporate include cash and cash equivalents of ¥98,689 million, ¥83,052 million and of ¥59,672 million

**Table of Contents****ADVANTEST CORPORATION AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

(\$496,439 thousand) as of March 31, 2001, 2002 and 2003, respectively. Assets for general corporate use of ¥19,590 million, ¥19,008 million and of ¥18,083 million (\$150,441 thousand) as of March 31, 2001, 2002 and 2003, respectively.

One customer and its related entities and another customer and its related entities in the automated test equipment segment accounted for approximately 18% and 11% of total consolidated net sales for the year ended March 31, 2001, respectively. One customer and its related entities in the automated test equipment segment accounted for approximately 16% of total consolidated net sales for the year ended March 31, 2002. One customer and its related entities in the automated test equipment segment accounted for approximately 12% of total consolidated net sales for the year ended March 31, 2003.

Information as to Advantest's net sales and long-lived assets in various geographical areas is as follows:

Net sales to unaffiliated customers for the years ended March 31, 2001, 2002 and 2003 are as follows:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen			U.S. Dollars
	(Millions)			(Thousands)
Japan	¥ 78,649	37,748	38,873	\$ 323,403
North America	40,700	19,143	8,666	72,097
Europe	17,227	8,284	8,940	74,376
Asia	139,936	30,069	41,261	343,269
<b>Total</b>	<b>¥ 276,512</b>	<b>95,244</b>	<b>97,740</b>	<b>\$ 813,145</b>

Net sales from unaffiliated customers are based on the customer's location. Long-lived assets are those assets located in each geographic area. Net sales indicated as Asia are generated in Korea, Taiwan, Singapore and others in the amount of ¥34,579 million, ¥48,891 million and ¥56,466 million, and ¥9,734 million, ¥5,315 million and ¥15,020 million, and ¥13,321 million (\$110,824 thousand), ¥13,605 million (\$113,186 thousand) and ¥14,335 million (\$119,260 thousand) for the years ended March 31, 2001, 2002 and 2003, respectively. Substantially all net sales indicated as North America are generated in the United States of America.

Long-lived assets as of March 31, 2001, 2002 and 2003 are as follows:

Edgar Filing: ADVANTEST CORP - Form 20-F

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
	Yen			U.S. Dollars
	(Millions)			(Thousands)
Japan	¥ 57,943	56,191	52,961	\$ 440,607
North America	1,506	2,440	2,019	16,797
Europe	788	1,124	1,137	9,459
Asia	2,000	5,630	4,605	38,312
<b>Total</b>	<b>¥ 62,237</b>	<b>65,385</b>	<b>60,722</b>	<b>\$ 505,175</b>

There is no individually material country with respect to long-lived assets outside Japan. Substantially all long-lived assets indicated as North America are located in the United States of America.

**(21) Related Party Transactions**

Advantest sells products and purchases raw materials from its 20.5% owner and its group companies. The terms of sales are the same as those with third parties. Advantest purchases raw materials after receiving

Table of Contents

## ADVANTEST CORPORATION AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

competitive bids from several suppliers. Advantest also purchases various pieces of software, information system related services, research and development materials and services from related parties. Advantest had the following transactions with these related parties as of and for the years ended March 31:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
		Yen		U.S. Dollars
		(Millions)		(Thousands)
Sales of products	¥ 9,816	1,296	2,327	\$ 19,359
Purchases of raw materials	14,591	3,570	2,893	24,068
Receivables	6,714	467	1,381	11,489
Payables	7,947	1,392	2,198	18,286
Purchases of software, hardware and other	2,403	1,547	417	3,469
Research and development expenses, computer rentals, maintenance and other expenses	1,833	1,788	1,779	14,800

Advantest also has various capital lease contracts with a related company. Obligations under capital leases with this related company as of March 31, 2003 were ¥68 million (\$566 thousand).

**(22) Per Share Data**

The following table sets forth the computation of basic and diluted net income (loss) per share and cash dividends per share as of March 31:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2003</u>
		Yen		U.S. Dollars
		(Millions)		(Thousands)
		except for per share data		except for per share data
<b>Numerator:</b>				
Net income (loss)	¥ 53,121	(23,906)	(12,994)	\$ (108,103)
<b>Denominator:</b>				
Basic weighted average shares	99,394,909	99,453,203	98,445,111	
Dilutive effect of exercise of stock options and warrants	223,652			

Edgar Filing: ADVANTEST CORP - Form 20-F

Diluted weighted average shares		99,618,561	99,453,203	98,445,111	
Basic net income (loss) per share	¥	534.44	(240.38)	(131.99)	\$ (1.10)
Diluted net income (loss) per share		533.24	(240.38)	(131.99)	(1.10)
Cash dividends per share	¥	50.00	40.00	30.00	\$ 0.25

Cash dividends per share are computed based on dividends declared with respect to earnings for the periods.

**(23) Concentration**

As of and for the years ended March 31, 2001, 2002 and 2003, five customers accounted for approximately 31%, 20% and 35%, respectively, of accounts receivable and approximately 41%, 37% and 38%, respectively, of net sales.

F-33

**Table of Contents**

**ITEM 19. EXHIBITS**

**Index to Exhibits**

1.1	Amended and Restated Articles of Incorporation of the Registrant (English translation)
1.2	Regulations of the Board of Directors of the Registrant (English translation)
1.3	Regulations of the Board of Corporate Auditors of the Registrant (English translation)
2.1	Share Handling Regulations of the Registrant (English translation)
2.2	Form of Deposit Agreement among the Registrant, JPMorgan Chase Bank (as successor to Morgan Guaranty Trust Company of New York), as depository, and the owners and beneficial owners from time to time of American Depositary Receipts, including the form of American Depositary Receipt*
2.3	Form of ADR (included in Exhibit 2.2)
8.1	List of Principal Subsidiaries (See Organizational Structure in Information on the Company )
99.1	Section 906 Certification

---

\* Incorporated by reference to Advantest's registration statement on Form 20-F filed with the SEC on September 4, 2001 (file no. 1-15236).



**Table of Contents**

**CERTIFICATION**

I, Hiroshi Oura, certify that:

1. I have reviewed this annual report on Form 20-F of Advantest Corporation;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - (a) Designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - (c) Presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (and persons performing the equivalent function):
  - (a) All significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or any other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: June 30, 2003





**Table of Contents**

**CERTIFICATION**

I, Hitoshi Owada, certify that:

1. I have reviewed this annual report on Form 20-F of Advantest Corporation;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - (a) Designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - (c) Presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (and persons performing the equivalent function):
  - (a) All significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or any other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

