

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

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.

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 fiber optic and wireless communications industries and the electronics industry.

Automated test equipment is Advantest's most significant segment, accounting for approximately 78% of net sales and 72% of operating losses (excluding corporate) in fiscal 2001.

Automated Test Equipment

Advantest's automated test equipment business depends largely upon the capital expenditures of manufacturers of semiconductors and companies that specialize in testing of semiconductors. Capital expenditure levels by these manufacturers and companies, in turn, depend upon the demand for semiconductors, and thus the volume of semiconductors produced. The worldwide semiconductor manufacturing industry has been highly cyclical with recurring periods of excess inventory. Memory semiconductors have traditionally experienced greater cyclical variations in growth rates than non-memory semiconductors. Cyclical changes in semiconductor demand have had a severe effect on the semiconductor industry's demand for semiconductor test systems and other automated test equipment components. Advantest believes that automated test equipment demand is generally more volatile than semiconductor demand because during downturns in the semiconductor industry manufacturers of semiconductors and companies that specialize in testing semiconductors typically decrease their capital expenditures, including investment in automated test equipment, by a much greater percentage than the percentage reduction in their sales of semiconductors. The downturn in demand for semiconductors that began during the second half of 2000 continued and deepened through 2001 and has adversely affected Advantest's sales of automated test equipment. In particular, Advantest's net sales from automated test equipment decreased by 53.5% in the second half of fiscal 2001 compared to the first half of fiscal 2001.

Introduction of new semiconductor test systems is a key element in generating sales in both memory and non-memory automated test equipment. The memory semiconductor market has traditionally evolved through periodic breakthroughs in capacity and performance specifications of memory semiconductors. The automated test equipment industry has followed suit with the development of automated test equipment capable of testing each new semiconductor generation. The last major innovation in the memory semiconductor market was the introduction of DDR-SDRAM and RDRAM semiconductors in 1999. Advantest believes that the next major innovation in the memory semiconductor market will be the mass production of semiconductors that operate at data rates of 533 megabits per second or higher. Memory semiconductors that are currently mass-produced operate at data rates between 133 and 266 megabits per second. This and other advances in memory semiconductors are expected to drive demand for new memory semiconductor test systems with upgraded functionality and higher testing speeds. Advantest has commenced development of memory semiconductor test systems capable of testing the next generation of high-end semiconductors.

In the non-memory semiconductor test system market, Advantest believes a key to its growth will be the introduction of semiconductor test systems that efficiently test the multiple functions of SoC semiconductors. Advantest also believes its ability to deliver SoC semiconductor test systems at low cost will be an important factor that determines Advantest's success in the SoC semiconductor test system market. In recent years, the market for non-memory (including SoC) semiconductor test systems has been approximately two to three times as large as the market for memory semiconductor test systems.

Advantest believes that existing market share is a significant competitive factor in the semiconductor test system industry. Customers typically purchase new automated test equipment from current equipment suppliers for system compatibility reasons. In addition, Advantest believes that established manufacturers enjoy competitive advantages based on technology and know-how already acquired. These trends benefit market leaders in their efforts to maintain and increase sales of semiconductor test systems. Advantest began to focus on developing semiconductor test systems for the current generation of SoC semiconductors that work with digital consumer electronics and communications network equipment at a later time than some of its competitors and currently has a market share of approximately 11% in SoC semiconductor test systems. Advantest therefore faces challenges in increasing its market share in non-memory semiconductor test systems. On the other hand, because Advantest is the leading manufacturer of memory semiconductor test systems, the tendency to purchase from current equipment suppliers may help Advantest retain or increase its market share in this market.

Within both the memory and non-memory semiconductor test system markets, there is a shift in emphasis from back-end testing of semiconductors to front-end testing. This results from efforts by semiconductor manufacturers to lower the overall cost of semiconductor production by identifying non-functioning dies early in the production process. In June 2001, Advantest introduced the T5375, its latest front-end semiconductor test system for DRAM semiconductors and the T5771, its latest front-end semiconductor test system for flash memory semiconductors. Advantest released the T6673, a system capable of performing front-end testing of SoC semiconductors, in July 2001. Advantest also expects the increased use of self-test technology to drive future demand for front-end semiconductor test systems that work smoothly with self-test technologies. Because of this shift in emphasis in testing processes, Advantest currently believes that the proportion of front-end semiconductor test systems to back-end test systems sold will increase in the future. A decrease in back-end semiconductor test systems sold will adversely affect the sale of test handlers, which are only used in back-end testing. Advantest does not sell probers, which are used in front-end testing.

Advantest believes that the construction by some semiconductor manufacturers of new facilities to produce semiconductors using 300 millimeter wafers has resumed following a delay in investment during 2001. The construction of these facilities is expected to contribute to demand for additional or faster semiconductor test systems that enable manufacturers to derive the full manufacturing efficiencies expected from using 300 millimeter wafers.

During fiscal 2001, Asia (excluding Japan) was the geographic area in which Advantest's operating results were most adversely affected by the downturn in the semiconductor market. Advantest's sales in Asia (excluding Japan) as a percentage of total net sales decreased to 31.6% in fiscal 2001 from 50.6% in fiscal 2000 primarily as a result of significantly lower sales of automated test equipment in Taiwan. Net sales in Taiwan were particularly affected because many of the independent providers of semiconductor test services and foundries are located in Taiwan. Companies in Japan, the United States and Europe that design semiconductors reduced or eliminated their orders to these test services companies and foundries during fiscal 2001 before decreasing their own production. Advantest has always included these semiconductor companies in Japan, the United States and Europe in its marketing efforts related to sales to test services companies and foundries because these subcontractors often consult with their customers before investing in automated test equipment. Advantest expects sales

to semiconductor test services companies and foundries as a proportion of total sales to increase from current levels upon any recovery in the semiconductor market.

Advantest believes that pricing pressure with respect to automated test equipment tends to increase during periods when, despite a general lack of visibility regarding the timing of a recovery, semiconductor manufacturers and testing companies believe that near-term demand for semiconductors will improve. During these periods, semiconductor manufacturers and testing companies seek to increase their production capacities in anticipation of increased demand for semiconductors, while minimizing their capital expenditures at the same time. Advantest believes that it is currently entering such a period.

Sales of test handlers are primarily generated by the sale of semiconductor test systems. Sales of device interfaces are driven, in most part, by increases in new semiconductor product lines introduced to market. In fiscal 2001, almost all test handlers and device interfaces were sold to customers of Advantest's semiconductor test systems. Each semiconductor test system comes equipped with operating and application software. Advantest's other products and services in the automated test equipment segment primarily include equipment leasing, used machine sales and fees generated from maintenance, repairs and other support services.

Measuring Instruments

Demand for Advantest's measuring instruments is closely tied to growth rates in the fiber optic and wireless communications industries. In fiscal 2001, approximately 65% 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.

Global investment levels in fiber optic communications infrastructure began to decrease substantially in early 2001. Excess capacity of fiber optic networks in the United States, Europe and Japan caused a severe decrease in investment in the build-out of fiber optic networks in these countries during 2001. Advantest's net sales of fiber optic communications instruments decreased by 51.3% in fiscal 2001 compared to fiscal 2000.

Investment levels in wireless communications networks during 2001 decreased significantly less than investment levels in fiber optic networks. Despite the global economic downturn and the deteriorating financial condition of many wireless communications service providers, particularly in the United States and Europe, investment in third-generation wireless networks in Japan and Korea, the expansion of existing wireless networks in the United States and in Europe and the build-out of wireless communications infrastructure as an alternative to wireline networks in lesser-developed countries continued through 2001, although at a lower rate than in 2000. In addition, products incorporating Bluetooth, a global standard for short-range wireless communications, continued to be introduced to the market in 2001. Advantest's net sales of wireless communications instruments decreased by 8.5% in fiscal 2001 compared to fiscal 2000.

Demand for general measuring instruments is affected by the impact on electronics manufacturers of global consumer spending levels and economic growth. Demand for general measuring instruments in fiscal 2001 was adversely affected by the continuing global economic downturn. Sales of general measuring instruments constituted 9.8% of net sales of Advantest's measuring instruments segment in fiscal 2000 and 10.6% in fiscal 2001.

In addition to selling products it manufactures, Advantest sells in Japan products manufactured by Rohde & Schwarz GmbH & Co., KG. These products are predominantly used in designing and testing high frequency devices and audio/video electronics. Sales of Rohde & Schwarz products constituted 14.5% of net sales of Advantest's measuring instruments segment in fiscal 2000 and 15.7% in fiscal 2001. Advantest purchases products from Rohde & Schwarz at wholesale prices, and records the total sales

price as net sales from the sale of measuring instruments. Sales of Rohde & Schwarz products also decreased significantly in fiscal 2001 compared to fiscal 2000 due to the global economic downturn.

Advantest and Tektronix, Inc. mutually agreed to terminate as of June 28, 2002 the arrangement under which Tektronix was the sole distributor of Advantest's measuring instruments in North America for nine years. Under the distribution arrangement, Advantest sold to Tektronix its measuring instruments at wholesale prices, and Advantest recorded these wholesale prices as net sales from the sale of measuring instruments. Advantest commenced direct sales of its measuring instruments in North America in July 2002. Advantest believes that it will need to expend significant efforts to establish its own distribution channels in North America to reach its targeted customer base. In addition, Advantest has commenced direct sales of its measuring instruments products in North America during a period when demand for all measuring instruments is weak. As a result, Advantest expects its sales of measuring instruments in North America to decline in fiscal 2002. In fiscal 2001, Advantest recorded net sales of ¥2.9 billion from the sale to Tektronix of Advantest measuring instruments.

Research and Development

Research and development expenses are a significant portion of Advantest's annual operating expenses. Advantest's research and development expenses were ¥23,481 million in fiscal 1999, ¥28,541 million in fiscal 2000 and ¥26,674 million in fiscal 2001, which resulted in research and development expenses as a percentage of net sales of 14.8% in fiscal 1999, 10.3% in fiscal 2000 and 28.0% in fiscal 2001.

Advantest expects to continue to make substantial investments in research and development, with approximately ¥24 billion currently budgeted for research and development in fiscal 2002. Advantest believes that maintaining research and development efforts, even in times of weak demand, is critical to the success of Advantest's business.

Personnel

During fiscal 2001, Advantest implemented cost-cutting measures to counter the significant downturn in its business that commenced in early 2001. These measures included a reduction in the number of Advantest 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 severance costs of ¥1,590 million related to severance packages, excluding standard retirement benefits, of the employees that accepted early retirement and layoffs and recorded the charge in cost of sales and selling, general and administrative expenses. The classification was dependent on whether the employee related to manufacturing activities or other activities. At March 31, 2002, Advantest had paid approximately ¥514 million of the severance cost liability. The remaining amount was paid in April 2002. The effect of the consolidation of business operations was insignificant.

Through its cost-cutting measures, Advantest also reduced the compensation of employees in Japan classified as manager level and above in fiscal 2001. 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 one-time 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's mid- to long-term growth strategy contemplates the addition of a substantial number of technical personnel, including system engineers, over the next several years. Advantest expects a majority of these new hires to support the growth of its non-memory automated test equipment business

through its customer support and sales divisions. The other new hires will join Advantest's research and development division. The addition of these new hires will increase Advantest's future selling, general and administrative expenses and its research and development expenses. This increase in expenses related to personnel is also expected to adversely affect Advantest's mid- to long-term operating income.

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 42% of Advantest's net sales in fiscal 2001 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 was generally stronger during fiscal 1999 and the first half of fiscal 2000 than in the respective corresponding periods in the previous year, but weakened during the second half of fiscal 2000 and in fiscal 2001. Recently, in fiscal 2002, the Japanese yen has again strengthened.

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.

Outlook

Beginning in the second half of 2000, semiconductor demand decreased significantly. This decrease in demand continued and deepened through fiscal 2001. Worldwide semiconductor sales declined 32.0% in 2001 compared to 2000, with memory semiconductor sales contracting by 49.5% and non-memory semiconductor sales by 26.5%. The decrease in semiconductor production volumes has had a significant adverse effect on the capital expenditure levels of Advantest's customers and, therefore,

demand for Advantest's products. Advantest's net sales from automated test equipment declined by 69.3% in fiscal 2001 compared to fiscal 2000 to ¥74,206 million.

Advantest believes that the decline in semiconductor demand and capital expenditure levels of its customers was more severe in the second half of fiscal 2001 than the first half of fiscal 2001. Advantest's net sales from automated test equipment decreased by 53.5% in the second half of fiscal 2001 compared to the first half of fiscal 2001 from ¥50,667 million to ¥23,539 million. World Semiconductor Trade Statistics estimates as of May 2002 that worldwide semiconductor sales in 2002 will grow by 2.3% compared to 2001, with the market for memory semiconductors increasing by 10.2% and the market for non-memory semiconductors increasing by 0.6%. World Semiconductor Trade Statistics also estimates that semiconductor sales will increase by 21.7% in 2003 compared to 2002. Advantest believes there exists a substantial lack of visibility regarding semiconductor demand that makes it very difficult to estimate the timing and extent of improvements in, and the future growth of, worldwide semiconductor sales. However, Advantest currently believes that an improvement in worldwide semiconductor sales is expected to commence toward the end of 2002. Upon review of Advantest's preliminary sales figures for the first three months of fiscal 2002 and its backlog of customer orders as of the date of this annual report, Advantest currently estimates that its net sales of automated test equipment for the first half of fiscal 2002 will be higher than its net sales for the second half of fiscal 2001. Advantest also estimates that net sales of automated test equipment in the second half of fiscal 2002 will be higher than net sales in the first half of fiscal 2002, resulting in net sales for fiscal 2002 that exceed net sales for fiscal 2001. However, Advantest's estimates of its future net sales are based upon a number of estimates and assumptions which are subject to significant business, economic and competitive uncertainties and contingencies, including the assumption that the semiconductor industry grows in 2002 and 2003 at the rates estimated by World Semiconductor Trade Statistics. Advantest believes that the substantial lack of visibility regarding semiconductor demand also renders it very difficult to estimate the timing of any improvement in Advantest's sales and profits.

Advantest generated approximately 65% of its net sales in its measuring instruments segment from sales to the fiber optic and wireless communications industries in both fiscal 2000 and fiscal 2001. The decrease in global investment by the communications sector, particularly in fiber optic networks, adversely affected Advantest's financial results for fiscal 2001. During 2001, there was a severe decrease in investment in fiber optic networks in the United States, Europe and Japan. As a result of this change in investment levels, net sales of Advantest's fiber optic communications instruments in fiscal 2001 decreased by 51.3% compared to fiscal 2000. Investment levels in wireless communications networks declined significantly less than investment levels in fiber optic communications networks during 2001. Advantest's net sales of wireless communications instruments in fiscal 2001 decreased by 8.5% compared to fiscal 2000.

Advantest expects its sales and profits from its measuring instruments segment in fiscal 2002 to be adversely affected by continuing low investment levels in communications infrastructure. Advantest believes that excess capacity of fiber optic networks in the United States, Europe and Japan will continue throughout 2002 and into 2003. Advantest also believes that investment in wireless communications infrastructure in the United States and Europe will continue to decrease as investment in the build-out of existing wireless networks slows down. Investment in third-generation wireless networks in Japan peaked in fiscal 2000 and Advantest expects future investment to continue to decline. However, Advantest expects investment in wireless communications networks in 2002 to continue in Asia (excluding Japan) at similar levels to 2001 as investment in third-generation wireless networks in Korea and in wireless communications infrastructure in other Asian countries continue.