(English translation and a part of summary of the Annual Securities Report for the twelve-month period ended March 31, 2021, pursuant to the Financial Instruments and Exchange act of Japan.)

Annual Financial Report

For the fiscal year ended March 31, 2021

Advantest Corporation

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As used in this annual financial report, the term "FY" preceding a year means the twelve-month period ended March 31 of the year subsequent to the year referred to. For example, "FY 2020" refers to the twelve-month period ended March 31, 2021. All other references to years refer to the applicable calendar year.

"¥" or "yen" means Japanese yen.

Unless otherwise noted, all references and discussions of the financial position of Advantest Corporation (the "Company") and its consolidated subsidiaries (collectively, "Advantest"), results of operations and cash flows in this annual financial report are made with reference to Advantest's consolidated financial statements prepared in accordance with the International Financial Reporting Standards ("IFRS").

Cautionary Statement with Respect to Forward-Looking Statements

This annual financial 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;

• the environment in which Advantest purchases materials, components and supplies for the production of its products, including the availability of necessary materials, components and supplies during a significant expansion in the market in which Advantest operates; and

• changes in economic conditions, competitive environment, currency exchange rates or political stability in the major markets where Advantest produces, distributes or sells its products.

These risks, uncertainties and other factors also include those identified in "Risk Factors" and set forth elsewhere in this annual financial report.

1. Consolidated Financial Statements

(1) Consolidated Statement of Financial Position

Millions of Yen

	Note	As of March 31, 2020	As of March 31, 2021
Assets			
Current assets			
Cash and cash equivalents	7, 29	127,703	149,164
Trade and other receivables	8, 29	46,426	57,028
Inventories	9	58,943	64,340
Other current assets		6,871	8,563
Subtotal		239,943	279,095
Assets held for sale	11	199	-
Total current assets		240,142	279,095
Non-current assets			
Property, plant and equipment, net	12	35,072	41,613
Right-of-use-assets	14	11,184	11,668
Goodwill and intangible assets, net	13	51,025	54,543
Other financial assets	10, 29	2,867	10,211
Deferred tax assets	16	15,351	25,242
Other non-current assets		136	269
Total non-current assets		115,635	143,546
Total assets	6	355,777	422,641
Liabilities and Equity			
Liabilities			
Current liabilities			
Trade and other payables	17, 29	46,660	58,558
Income tax payables		7,793	8,619
Provisions	18	3,335	4,058
Lease liabilities	29	2,275	2,486
Other financial liabilities	29	1,892	3,509
Other current liabilities	22	8,582	12,581
Total current liabilities		70,537	89,811
Non-current liabilities			
Lease liabilities	29	9,013	9,364
Retirement benefit liabilities	19	40,622	36,891
Deferred tax liabilities	16	1,563	4,473
Other non-current liabilities		2,590	1,733
Total non-current liabilities		53,788	52,461
Total liabilities		124,325	142,272
Equity			
Share capital	20	32,363	32,363
Share premium	20	43,550	44,573
Treasury shares	20	(4,179)	(15,001)
Retained earnings	20	159,803	214,858
Other components of equity	20	(85)	3,576
Total equity attributable to owners of the parent		231,452	280,369
Total equity		231,452	280,369
Total liabilities and equity		355,777	422,641

(2) Consolidated Statement of Profit or Loss and Consolidated Statement of Comprehensive Income

Consolidated Statement of Profit or Loss

Millions of Yen

	Note	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Net sales	6, 22	275,894	312,789
Cost of sales	12, 13, 19	(119,397)	(144,498)
Gross profit		156,497	168,291
Selling, general and administrative expenses	12, 13, 18, 19, 23, 24	(97,751)	(105,870)
Other income	26	335	8,499
Other expenses		(373)	(194)
Operating income	6	58,708	70,726
Financial income	25	1,045	767
Financial expenses	25	(1,179)	(1,875)
Income before income taxes		58,574	69,618
Income taxes	16	(5,042)	169
Net income		53,532	69,787
Net income attributable to:			
Owners of the parent		53,532	69,787
Earnings per share:	28		Yen
Basic		270.12	353.87
Diluted		268.96	351.82

Consolidated Statement of Comprehensive Income

Millions of Yen

	Note	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Net income		53,532	69,787
Other comprehensive income (loss), net of tax			
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit pension plan	19, 20, 27	(2,144)	2,309
Net change in fair value measurements of equity instruments at fair value through other comprehensive income	20, 27	(169)	(666)
Items that may be subsequently reclassified to profit or loss			
Exchange differences on translation of foreign operations	20, 27	(3,490)	4,327
Total other comprehensive income (loss)		(5,803)	5,970
Total comprehensive income for the year		47,729	75,757
Comprehensive income attributable to:			
Owners of the parent		47,729	75,757

(3) Consolidated Statement of Changes in Equity

Millions of Yen

	Note	Equity attributable to owners of the parent						Total Equity
		Share capital	Share premium	Treasury shares	Retained earnings	Other components of equity	Total	
Balance as of April 1, 2019		32,363	43,018	(6,262)	125,927	3,685	198,731	198,731
Net income					53,532		53,532	53,532
Other comprehensive income (loss), net of tax						(5,803)	(5,803)	(5,803)
Total comprehensive income for the year		—	—	—	53,532	(5,803)	47,729	47,729
Purchase of treasury shares	20			(1,124)			(1,124)	(1,124)
Disposal of treasury shares	20		(315)	3,207	(1,185)		1,707	1,707
Dividends	21				(16,438)		(16,438)	(16,438)
Share-based payments	24		772				772	772
Other			75				75	75
Transfer from other components of equity to retained earnings	20				(2,033)	2,033	—	—
Total transactions with the owners		—	532	2,083	(19,656)	2,033	(15,008)	(15,008)
Balance as of March 31, 2020		32,363	43,550	(4,179)	159,803	(85)	231,452	231,452
Net income					69,787		69,787	69,787
Other comprehensive income (loss), net of tax						5,970	5,970	5,970
Total comprehensive income for the year		—	—	—	69,787	5,970	75,757	75,757
Purchase of treasury shares	20		(47)	(13,954)			(14,001)	(14,001)
Disposal of treasury shares	20		(302)	3,132	(1,439)		1,391	1,391
Dividends	21				(15,602)		(15,602)	(15,602)
Share-based payments	24		1,170				1,170	1,170
Other			202				202	202
Transfer from other components of equity to retained earnings	20				2,309	(2,309)	—	—
Total transactions with the owners		—	1,023	(10,822)	(14,732)	(2,309)	(26,840)	(26,840)
Balance as of March 31, 2021		32,363	44,573	(15,001)	214,858	3,576	280,369	280,369

(4) Consolidated Statement of Cash Flows

Millions of Yen

	Note	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Cash flows from operating activities:			
Income before income taxes		58,574	69,618
Adjustments to reconcile income before income taxes to net cash provided by (used in) operating activities:			
Depreciation and amortization		10,892	11,756
Share-based payment expense		882	1,624
Changes in assets and liabilities:			
Trade and other receivables		6,125	(9,365)
Inventories		(1,907)	(4,457)
Trade and other payables		1,444	11,048
Warranty provisions		460	707
Retirement benefit liabilities		1,665	(3,176)
Other		(831)	(735)
Subtotal		77,304	77,020
Interest and dividends received		836	152
Interest paid		(155)	(183)
Income taxes paid		(11,510)	(9,159)
Net cash provided by (used in) operating activities		66,475	67,830
Cash flows from investing activities:			
Proceeds from sale of equity instruments		111	—
Purchases of equity instruments		—	(6,817)
Purchases of debt instruments		(548)	—
Proceeds from sale of property, plant and equipment		234	109
Purchases of property, plant and equipment		(8,141)	(12,415)
Purchases of intangible assets		(741)	(862)
Proceed from transfer of business		—	3,295
Acquisition of subsidiary	31	(29,665)	(156)
Other		(69)	15
Net cash provided by (used in) investing activities		(38,819)	(16,831)
Cash flows from financing activities:			
Proceeds from disposal of treasury shares		1,708	1,415
Purchases of treasury shares		(1,124)	(14,028)
Dividends paid	21	(16,427)	(15,594)
Payments for lease liabilities	14	(2,073)	(2,208)
Other		—	—
Net cash provided by (used in) financing activities		(17,916)	(30,415)
Net effect of exchange rate changes on cash and cash equivalents		(1,980)	877
Net change in cash and cash equivalents		7,760	21,461
Cash and cash equivalents at the beginning of year		119,943	127,703
Cash and cash equivalents at the end of year	7	127,703	149,164

Notes to the Consolidated Financial Statements

1. Reporting Entity

Advantest Corporation (the "Company") is a public company located in Japan.

The Company's consolidated financial statements consist of the Company and its subsidiaries (collectively, "Advantest").

Advantest manufactures and sells semiconductor and component test system products and mechatronics-related products such as test handlers and device interfaces. Advantest also engages in research and development activities and provides maintenance and support services associated with these products.

2. Basis of Preparation

(1) Compliance with IFRS

Advantest prepares consolidated financial statements in accordance with the International Financial Reporting Standards ("IFRS") issued by the International Accounting Standard Board. As Advantest meets the requirements of a "Specified Companies applying Designated IFRS" pursuant to Article 1-2 of the "Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements", Advantest adopts Article 93 of the same ordinance.

The consolidated financial statements were approved on June 24, 2021 by Yoshiaki Yoshida, Representative Director, President and CEO and Atsushi Fujita, Chief Financial Officer of the Company.

(2) Basis of Measurement

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments measured at their fair values, as included in Significant Accounting Policies (see note 3 for additional details).

(3) Functional Currency and Presentation Currency

The consolidated financial statements are presented in Japanese Yen, which is the Company's functional currency.

3. Significant Accounting Policies

(1) Basis of Consolidation

Advantest's consolidated financial statements include financial statements of the Company and its subsidiaries. Subsidiaries are entities controlled by the Company. Control is obtained when the Company has risks or rights to variable returns from its involvement with the entity and has the ability to use its power over the entity to affect the variable returns.

The Company consolidates all subsidiaries from the date on which the Company acquires control until the date on which the Company loses control.

Inter-company balances and transactions are eliminated in consolidation.

Subsidiaries' financial statements are adjusted, if necessary, when their accounting policies differ from those of the Company. For subsidiaries with different reporting dates from that of the Company, the financial statements based on provisional settlement of accounts made as of the reporting date are used in the preparation of the consolidated financial statements. The reporting date of the subsidiaries is not more than 3 months earlier than that of the Company.

(2) Business combinations

Business combinations are accounted for using the acquisition method. Goodwill is measured as the excess of the total amount of the consideration transferred, the amount of any non-controlling interests in the acquiree and, if a business combination is achieved in stages, the amount of the fair value at the date of acquisition of acquirer's previously held equity interest in the acquiree over the net amounts recognized of the identifiable acquired assets and assumed liabilities (which is usually measured at fair value). If the initial accounting for a business combination is incomplete by the end of the reporting period in which the business combination occurs, the Company reports provisional amounts for the items for which the accounting is incomplete. During the measurement period, which does not exceed one year from the acquisition date, the Company retrospectively adjusts the provisional amounts recognized at the acquisition date. Acquisition-related costs are recognized as expenses in the period in which they are incurred.

(3) Foreign Currency Translation

1) Translation of Foreign Currency Transactions

Monetary assets and liabilities denominated in foreign currencies are converted into the functional currency of each entity using the exchange rate at the end of the reporting period. Foreign currency transactions are converted into the functional currency using the exchange rate prevailing at the transaction date. Foreign exchange gains and losses resulting from the currency conversion and settlement are recognized as financial income (expenses).

2) Translation of Foreign Operations

Assets and liabilities of foreign operations are translated into Japanese Yen using the exchange rate at the end of the reporting period, and revenue and expense items are translated using the average exchange rates during the period. Gains or losses derived from translating foreign operations' financial statements are recognized in other comprehensive income and presented in other components of equity.

(4) Financial Instruments

1) Non-derivative Financial Assets

Advantest classifies non-derivative financial assets into the following categories: financial assets measured at amortized cost, financial assets measured at fair value through other comprehensive income or financial assets measured at fair value through profit or loss.

Advantest initially recognizes financial assets measured at amortized cost on the date that they are originated. All other financial assets are recognized initially on the trade date, the date on which Advantest becomes party to the contractual provisions.

Advantest derecognizes a financial asset when contractual rights to the cash flows from the asset expire. In transferring contractual rights to the cash flows from a financial asset, Advantest will derecognize the financial asset if Advantest neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset and does not retain control of the financial asset.

Financial assets and liabilities are offset and presented net in the consolidated statement of financial position only when Advantest has a legally enforceable right to offset the recognized amounts and intends to settle on a net basis or to realize the asset and settle the liability simultaneously.

Financial assets measured at amortized cost

Financial assets are subsequently measured at amortized cost in case they meet the following requirements:

・The financial asset is held within a business model with the objective of collecting contractual cash flows.

・The contractual terms of the financial asset provide cash flows on specified dates that are solely payments of principal and interest on the principal amount outstanding.

Financial assets measured at amortized cost are initially measured at fair value (including direct transaction costs). The carrying amount of financial assets measured at amortized cost is subsequently measured using the effective interest method, and the expected credit losses are recognized as allowance for doubtful accounts. The expected credit losses are calculated based on historical loss experience or future recoverable amounts.

Financial assets measured at fair value through other comprehensive income

Advantest holds certain instruments with the purpose of expanding its revenue base by maintaining and strengthening business relations with the investees. These equity instruments are classified as financial assets measured at fair value through other comprehensive income by designation. They are initially and subsequently measured at fair value, and the changes in fair value are recognized in other comprehensive income (OCI). The cumulative amount of OCI is recognized in equity as other components of equity. If Advantest derecognizes financial assets, the cumulative gain or loss recognized in OCI is reclassified from other components of equity to retained earnings. Dividends on financial assets measured at fair value through other comprehensive income are recognized in profit or loss, except when they are considered to be return of the investment.

Financial assets measured at fair value through profit or loss

The other financial assets are classified as financial assets measured at fair value through profit or loss. These instruments are subsequently measured at fair value and the changes in fair value are recognized in profit or loss.

2) Non-derivative Financial Liabilities

Advantest classifies non-derivative financial liabilities into the following categories: financial liabilities measured at amortized cost or financial liabilities measured at fair value through profit or loss.

Advantest recognizes debt securities on the day when issued. Financial liabilities other than debt securities are initially recognized on the trade date, the date on which Advantest becomes party to contractual provisions.

Advantest derecognizes a financial liability when its contractual obligations are discharged, cancelled, or expire.

These financial liabilities measured at amortized cost are measured initially at fair value, less any directly attributable transaction costs and subsequently measured at amortized cost using the effective interest method. The amortization charge for each period is recognized as financial expenses in profit or loss.

These financial liabilities measured at fair value through profit or loss are measured initially at fair value. After initial recognition, these are subsequently measured at fair value and the changes in fair value are recognized in profit or loss.

3) Equity

Share capital

Share capital is included in equity. The direct issuance costs of share capital are deducted, net of tax, from share premium.

Treasury shares

Treasury shares are recognized at cost and deducted from equity. No gain or loss is recognized at purchase, sale and retirement of treasury shares.

4) Derivative Financial Instruments

Advantest uses derivative instruments primarily to manage exposures to foreign currency. The primary objective in holding derivatives is to reduce the volatility of earnings and cash flows associated with changes in foreign currency. The instruments are not designated for trading or speculative purposes. 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 the Company 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. Advantest generally does not require or provide collateral for these derivative financial instruments.

Derivative financial instruments are initially recognized at fair value and remeasured after initial recognition to their fair value. If the derivative instrument is not designated as a hedge, the gain or loss is recognized in earnings in the period of change.

The accounting for changes in the fair value (that are, gains or losses) of a derivative instrument depends on the objective for holding such instrument and whether it meets the criteria for designation as a cash flow hedge or a fair value hedge.

If certain conditions are met, Advantest may elect to designate a derivative instrument as a hedge of exposures to changes in fair values, cash flows, or a net investment in a foreign operation.

(5) Impairment

1) Non-derivative Financial Assets

Allowance for doubtful accounts against expected credit losses is recognized for financial assets that measured at amortized cost.

Advantest assesses at the end of each reporting period whether the credit risk that relates to financial assets has increased significantly or not since initial recognition. If the credit risk has not increased significantly, Advantest recognizes an amount equal to 12-month expected credit losses as allowance for doubtful accounts. If the credit risk has increased significantly, Advantest recognizes an amount equal to lifetime expected credit losses as allowance for doubtful accounts. Advantest determines whether the credit risk has increased significantly or not based on the change of default risk.

Advantest always recognizes an amount equal to lifetime expected credit losses for trade receivables as allowance for doubtful accounts. If there has been a significant decrease of impairment loss on financial assets after initial recognition, Advantest recognizes in profit or loss, as an impairment gain, the amount of reversal that is required to adjust the allowance for doubtful accounts.

2) Non-financial Assets

If there is any indication of impairment for non-financial assets other than inventories and deferred tax assets, the asset's recoverable amount is estimated, and the asset is tested for impairment. Goodwill is tested for impairment both annually and when there is any indication of impairment. An impairment loss is recognized if the recoverable amount of an asset, cash-generating unit (CGU) or CGU group is less than its carrying amount.

The recoverable amount of an asset, CGU or CGU group is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows associated with the asset, CGU or CGU group are discounted to present value using a pre-tax discount rate which reflects current market assessments of the time value of money and any risks specific to the asset, CGU or CGU group. For impairment testing purposes, assets are grouped together into the smallest assets, CGU or CGU group that generates cash inflows independently of cash inflows of other assets, CGU or CGU group. Goodwill is grouped together so that the impairment is tested for the smallest group of units used for internal reporting purposes. Goodwill acquired in a business combination is allocated to CGU or CGU group that is expected to benefit from the synergies of the business combination.

Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of CGU are allocated first to reduce the carrying amount of any goodwill allocated to that CGU or CGU group and then to reduce the carrying amounts of other assets in CGU or CGU group on a pro-rata basis.

Impairment losses on goodwill are not reversed. For all other assets, impairment losses are only reversed to the extent that the assets carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(6) Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits at call with banks, and other short term highly liquid investments with maturities of three months or less from the date of acquisition that are readily convertible to known amounts of cash and which are subject to insignificant risk of changes in value.

(7) Inventories

The cost of inventories includes purchase costs, processing costs and all other costs incurred to bring inventories to their present location and condition.

Inventories are measured at the lower of cost or net realizable value. If net realizable value is less than the cost, that difference is accounted for as a write off and recognized as an expense. The weighted average method is used to calculate cost. Net realizable value represents the estimated selling price in the ordinary course of business, less all estimated costs of completion and estimated costs necessary to make the sale.

(8) Property, Plant and Equipment (except Right-of-Use Assets)

Property, plant and equipment are measured by using the cost model and are stated at cost less accumulated depreciation and accumulated impairment losses.

The cost includes any costs directly attributable to the acquisition of the asset and dismantlement, removal and restoration costs.

Except for assets that are not subject to depreciation such as land, assets are depreciated using the straight-

line method over their estimated useful lives. The estimated useful lives of major asset items are as follows:
・Buildings：15 to 50 years
・Machinery and equipment：4 to 10 years
・Tool, furniture and fixture：2 to 10 years

The estimated useful lives, depreciation method and residual value are reviewed at each fiscal year end and if there are any changes made to the estimated useful lives, depreciation method and residual value, such changes are accounted for on a prospective basis as changes in estimate.

(9) Goodwill and Intangible Assets

1) Goodwill

Details on the measurement of goodwill at initial recognition are included in Business Combinations (see note (2) for additional details).

Goodwill is not amortized. It is allocated to CGU or group of CGUs that are identified according to types of business and regions and tested for impairment each fiscal year or when there is any indication of impairment. Impairment losses on goodwill are recognized in profit or loss, and no subsequent reversal is made.

After initial recognition, goodwill is presented at cost less accumulated impairment losses.

2) Intangible Assets (except Right-of-Use Assets)

Intangible assets acquired separately are measured at cost at the initial recognition, and the cost of intangible assets acquired through business combinations are recognized at fair value at the acquisition date.

Expenses on internally generated intangible assets are recognized as expense in the period when incurred, except for those that satisfy the criteria for recognition as assets. Internally generated intangible assets that satisfy the criteria for recognition as assets are stated at cost in the total amount of spending that is incurred after the assets first met recognition standards.

Intangible assets are subsequently measured at cost less accumulated amortization and accumulated impairment losses.

Intangible assets for which useful lives can be determined are amortized on a straight-line method over their estimated useful lives from the date the assets are available for use. These assets are also tested for impairment whenever there is any indication of impairment.

Estimated useful lives, residual values and amortization methods are reviewed at each fiscal year end and the effect of any changes in estimate are accounted for during the period in which the change occurred and on a prospective basis. The effect of any changes in estimate is recognized in the period in which the change occurs.

The estimated useful lives of major assets are as follows:
・Software：3 to 5 years
・Customer-related assets and technology-related assets：8 to 11 years

(10) Leases

1) Leases-Lessor

Advantest recognizes the lease transactions that do not transfer substantially all risks and rewards of ownership as property, plant and equipment in the consolidated statement of financial position and recognizes revenue on the straight line basis over the leasing period in the consolidated statement of profit or loss.

2) Leases-Lessee

Advantest recognizes right-of-use asset and lease liability at the inception of a lease contract. At the commencement date, a right-of-use asset is measured based on the amount of the initial measurement of the lease liability and depreciated on a straight-line basis over the lease term. The lease term is determined as the non-cancellable period of a lease, together with periods covered by an option to extend the lease if it is reasonably certain to be exercised and periods covered by an option to terminate the lease if it is reasonable certain not to be exercised.

A lease liability is recognized and measured at the present value of the lease payments that are not paid at the commencement date, discounted using the lessee's incremental borrowing rate. After the commencement date, the lease liability is measured by increasing or reducing the carrying amount to reflect interest on the lease liability and the lease payments made and re-measuring the carrying amount as necessary to reflect lease modifications.

Advantest has elected not to recognize short term leases and leases of low-value assets as right-of-use assets and lease liabilities, but expense over the lease term on a straight-line basis.

(11) Post-Employment Benefits

The Company and certain of its subsidiaries have retirement and severance defined benefit plans covering substantially all of their employees. For each defined benefit plan, the present value of defined benefit obligations, related current service cost and past service cost are calculated using the projected unit credit method. The discount rates are the yields of high quality corporate bonds that have maturity terms approximating those of the obligations which the benefits are expected to be paid. Net defined benefit liability (asset) is measured at the present value of the defined benefit obligation less the fair value of plan assets. Remeasurements of net of liabilities or assets for defined benefit plans are recognized in full as other comprehensive income in the period when they are incurred and reclassified to retained earnings immediately. Past service costs are recognized immediately in profit or loss.

The Company and certain of its subsidiaries have retirement and severance defined contribution plans. Defined contribution plans are post-employment benefit plans in which the employer makes a certain amount of contributions to fund post-employment benefits and does not bear more legal and constructive obligations than the amount contributed. The contribution in defined contribution plans are recognized in profit or loss in the period during which services were provided by employees.

(12) Provisions

Provisions are recognized when Advantest has present legal or constructive obligations as a result of past events, it is probable that outflows of resources embodying economic benefits will be required to settle the obligations, and reliable estimates of the obligations can be made.

When the effect of the time value of money is material, provisions are measured at the present value of the expenditures expected to be required to settle the obligations.

1) Warranty Provisions

Advantest's products are generally subject to warranty, and Advantest provides contractual product warranty services, when the performance of products sold does not meet expected product specifications. Estimated repair expenses over the warranty period are accrued based on the historical ratio of actual repair expenses to corresponding sales, when product revenue is recognized.

2) Asset Retirement Obligation

Estimated amounts for the costs of removing hazardous substances related to property, plant and equipment and restoring rented offices to the original condition are recorded in the provision for asset retirement obligation costs.

(13) Share-Based Compensation

Advantest applies the fair-valued-based method of accounting for share-based compensation and recognizes share-based compensation expenses in the consolidated statement of profit or loss. The cost of employee services received in exchange for an award of equity instruments is measured based on the grant-date fair value of the share options granted to employees. The cost is recognized on the straight line basis over the period during which an employee is required to provide service in exchange for the award. The Black Scholes pricing model is used to estimate the value of share options.

Expected dividend yield is determined by the Company's dividend ratio of the past and other associated factors. Risk free interest rate is determined by Japanese government bond yield for the period corresponding to expected life. Expected volatility is determined by historical volatility and trend of the Company's share prices, and other associated factors. Expected life is determined by the Company's option exercise history, post vesting employment termination behavior for similar grants, and other pertinent factors.

The cost of service received in performance-based stock remuneration plan is measured based on the grant-date fair value of the Company’s shares or any liabilities generated. The cost is recognized over the applicable period.

(14) Revenue

Advantest recognizes revenue based on the five-step model.

Step 1: Identify the contract(s) with a customer

Step 2: Identify the performance obligations (accounting treatment for goods or services separately)

Step 3: Determine the transaction price (amount of consideration)

Step 4: Allocate the transaction price to the performance obligations

Step 5: Recognize revenue when the entity satisfies a performance obligation

Advantest sells test system products of semiconductor and mechatronics-related products such as test handlers that handling semiconductor devices, the revenue for these is recognized when control of such products is transferred to customers as the performance obligation is satisfied based on contractual terms. The timing at which control of such products transferred to customers is determined upon delivery or acceptance.

Additionally, Advantest has performance obligation towards customers on the service contracts. Revenue from such service contracts is recognized over the contract term on the straight-line basis.

(15) Financial Income and Expenses

Financial income mainly consists of dividend income, interest income, foreign exchange gains and changes in the fair value of financial instruments measured at fair value through profit or loss. Dividend income is recognized on the date when the right of Advantest to receive the dividend is established. Interest income is recognized using the effective interest method as incurred.

Financial expenses mainly consist of interest expenses, foreign exchange losses and changes in the fair value of financial instruments measured at fair value through profit or loss. Interest expenses are recognized using the effective interest method as incurred.

(16) Income Taxes

Current and deferred taxes are stated as income taxes in the consolidated statement of profit or loss except when they relate to business combinations or on items recognized in other comprehensive income or directly in equity.

Current and deferred taxes related to items recognized in other comprehensive income are recognized as other comprehensive income.

1) Current Taxes

Current income taxes are measured at the amount that is expected to be paid to or refunded from the tax authorities. For the calculation of the tax amount, Advantest uses the tax rates and tax laws that have been enacted or substantively enacted by the end of the fiscal year.

2) Deferred Taxes

Deferred income taxes are calculated based on the temporary differences between the amounts used for tax purpose and the carrying amount for assets and liabilities at the fiscal year end. Deferred tax assets are recognized for deductible temporary differences, unused tax credits and unused tax losses to the extent that it is probable that future taxable profit will be available against which they can be utilized. Deferred tax liabilities are recognized for taxable temporary differences.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the fiscal year when the asset is realized or the liability is settled, based on the tax laws that have been enacted or substantively enacted by the fiscal year end.

Deferred tax assets and deferred tax liabilities are not recognized for the following temporary differences:

• taxable temporary differences on initially recognized goodwill

• temporary differences arising from the initial recognition of assets or liabilities in transactions that are not business combinations and at the time of transaction affect neither accounting profit nor taxable profit or tax loss

• taxable temporary differences on investments in subsidiaries to the extent that the timing of the reversal of the temporary difference is controlled and that it is probable the temporary difference will not reverse in the

foreseeable future
• deductible temporary differences on investments in subsidiaries to the extent that it is not probable the temporary differences will reverse in the foreseeable future

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same tax authority on the same taxable entity (including consolidated tax payments).

(17) Earnings per Share
Basic earnings per share is calculated by dividing net income or loss attributable to owners of the parent by the weighted average number of shares outstanding during the year. Diluted earnings per share reflects the maximum possible dilution from conversion, exercise, or contingent issuance of securities. All potentially dilutive securities are excluded from the calculation in a situation where there is a net loss attributable to owners of the parent.

4. Significant Accounting Judgments, Estimates and Assumptions

The preparation of the consolidated financial statements requires Advantest to make judgments, accounting estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. These estimates and assumptions are based on the best judgment of management in light of historical experience and various factors deemed to be reasonable according to the situation. The global epidemic of the new coronavirus (COVID-19) is not expected to have a material impact on our estimates and assumptions. Given their nature, however, actual results may differ from those estimates and assumptions.

The estimates and underlying assumptions are continuously reviewed. The effects of a change in these estimates and assumptions are recognized in the period of the change and subsequent periods.

The estimates and assumptions that could have a material effect on the amounts recognized in its consolidated financial statements are as follows:

(1) Valuation of Inventories

1) Amount recognized in the consolidated financial statements as of March 31, 2021

Inventories ¥64,340 million

2) Other information that deepens to the understanding of users of the consolidated financial statements regarding the content of accounting estimates

Inventories are measured at the lower of cost or net realizable value. If net realizable value is less than the cost, that difference is accounted for as a write off and recognized as an expense. Advantest may experience substantial losses in cases where the net realizable value drops dramatically as a result of deterioration in the market environment against the forecast.

(2) Impairment of Property, Plant and Equipment, Right-of-use Assets, Goodwill and Intangible Assets

1) Amount recognized in the consolidated financial statements as of March 31, 2021

Property, plant and equipment, net	¥41,613 million
Right-of-use assets	¥11,668 million
Goodwill and intangible assets, net	¥54,543 million

2) Other information that deepens to the understanding of users of the consolidated financial statements regarding the content of accounting estimates

Advantest performs an impairment test for property, plant and equipment, right-of-use assets, goodwill and intangible assets when there is any indication that the recoverable amount is less than the carrying amount of the assets. Goodwill is tested for impairment both annually and when there is any indication of impairment.

The impairment test is performed by comparing the carrying amount and the recoverable amount of cash-generating unit (CGU) or CGU group. If the recoverable amount is less than the carrying amount, impairment loss is recognized. The recoverable amount is mainly calculated based on the discounted cash flow model. The estimated future cash flows associated with CGU or CGU group are discounted to present value using a pre-tax discount rate which reflects current market assessments of the time value of money and any risks specific to CGU or CGU group. The estimated future cash flows associated with CGU or CGU group are based on the business plan for 3 years approved by management and the growth rate after 3 years.

CGU that has significant goodwill as of March 31, 2021 are Advantest Test Solutions, Inc. and Essai, Inc., and the amount of goodwill allocated to these CGUs are ¥6,738 million and ¥11,311 million, respectively. Essai, Inc. also has significant intangible assets of ¥17,672 million as of March 31, 2021.

The key assumptions in the impairment test of CGU above are the sales forecast to large-volume customers that form the basis of the three-year business plan, discount rate and growth rate after 3 years. Generally, a reduction rate of capital expenditures of semiconductor manufacturers during downturns in the semiconductor industry, including investments in semiconductor test systems, is much greater than a reduction rate of worldwide semiconductor sales.

These assumptions are based on the best estimates and judgments of management, but they could be affected by variable and uncertain future economic conditions. Any changes in these assumptions may have a material impact on amount recognized in the consolidated financial statements in future periods.

The method of calculating the recoverable amount of goodwill is included in Goodwill and Intangible Assets (see note 13 for additional details).

(3) Post-Employment Benefits

1) Amount recognized in the Consolidated Financial Statements as of March 31, 2021

Retirement benefit liabilities ¥36,891 million

2) Other information that deepens to the understanding of users of the consolidated financial statements regarding the content of accounting estimates

The Company and certain of its subsidiaries have retirement and severance plans, which are defined benefit and defined contribution plans covering substantially all of their employees. For defined benefit plans, the present value of defined benefit obligations on each of these plans and the service costs are calculated based on actuarial assumptions. These actuarial assumptions require estimates and judgments on variables such as discount rates. The key assumptions are discount rate and rate of compensation increase.

The actuarial assumptions are determined based on the best estimates and judgments made by management; however, there is the possibility that these assumptions may be affected by changes in uncertain future economic conditions, which may have a material impact on amount recognized in the consolidated financial statements in future periods.

These actuarial assumptions and related sensitivity analysis are included in Post-Employment Benefits (see note 19 for additional details).

(4) Provisions

1) Amount recognized in the Consolidated Financial Statements as of March 31, 2021

Provisions ¥4,058 million

2) Other information that deepens to the understanding of users of the consolidated financial statements regarding the content of accounting estimates

Advantest recognizes warranty provisions in the consolidated statement of financial position.

Advantest's products are generally subject to warranty, and Advantest provides contractual product warranty services when the performance of products sold does not meet expected product specifications.

Estimated repair expenses over the warranty period are accrued based on the historical ratio of the actual repair expenses to corresponding sales when product revenue is recognized.

Provisions is calculated by taking all possible future results into account; however, they may be affected by unexpected events or changes in conditions that may have a material impact on amount recognized in the consolidated financial statements in future periods.

The nature and amount of recognized provisions are included in Provisions (see note 18 for additional details).

(5) Income Taxes

1) Amount recognized in the Consolidated Financial Statements as of March 31, 2021

Income tax payable	¥8,619 million
Deferred tax assets	¥25,242 million

2) Other information that deepens to the understanding of users of the consolidated financial statements regarding the content of accounting estimates

(Current taxes)

Advantest, which conducts business around the world, makes reasonable estimates of income tax to be paid to local tax authorities in accordance with local laws and regulations, and recognizes income tax payable and current tax expense based on these estimates.

Calculating income tax payable and current tax expense requires estimates and judgments on various factors including the interpretation of tax regulations by taxable entities and the tax authority in the jurisdiction or experience of prior tax investigation.

Therefore, there may be differences between the amount recognized as income tax payable and current tax expense and the amount of actual income tax payable and current tax expense. These differences may have a material impact on amount recognized in the consolidated financial statements in future periods.

(Valuation of deferred tax assets)

Advantest judges the recoverability of deferred tax assets depending on taxable income based on future profitability and tax planning against deductible temporary differences. Advantest calculates taxable income that is likely to be earned in the future based on the business plan by reasonably estimating its timing, period and amount.

Key assumption for estimates of taxable income is sales forecast of each business unit as the basis for business plan. The semiconductor test equipment industry is subject to significant demand volatility in the semiconductor industry. Generally, a reduction rate of capital expenditures of semiconductor manufacturers during downturns in the semiconductor industry, including investments in semiconductor test systems, is much greater than a reduction rate of worldwide semiconductor sales. The semiconductor industry has been highly cyclical with recurring periods of excess inventory, which possibly have a severe effect on the semiconductor industry's demand for semiconductor test systems. Therefore, Advantest estimates the timing, period, and amount of taxable income taking into account deviation of past forecast and actual results as well as uncertainty due to future changes in economic conditions.

The timing, period, and amount of taxable income may have a material impact on amount recognized in the consolidated financial statements in future periods, if the result is different from forecast because of significant demand volatility in the semiconductor industry.

The contents and amounts related to income taxes are included in the Income Taxes (see note 16 for additional details).

5. New Accounting Standards and Interpretations Issued but not yet Applied

There is no material impact from new or revised accounting standards and interpretations that were issued by the date of approval of the consolidated financial statements.

6. Segment Information

(1) Overview of Reporting Segments

Advantest manufactures and sells semiconductor and component test system products and mechatronics-related products such as test handlers and device interfaces. Advantest also engages in research and development activities and provides maintenance and support services associated with these products. Advantest's organizational structure consists of three reportable operating segments, which are the design, manufacturing, and sale of semiconductor and component test systems, mechatronics systems and services, support and others. These reportable operating segments are determined based on the nature of the products and the markets. Segment information is prepared on the same basis that management reviews financial information for operational decision making purposes.

The semiconductor and component test system segment provides customers with test system products for the semiconductor industry and the electronic parts industry. Product lines provided in the semiconductor and component test system segment include test systems for SoC semiconductor devices and test systems for memory semiconductor devices.

The mechatronics system segment provides product lines such as test handlers, mechatronic-applied products, for handling semiconductor devices, device interfaces that serve as interfaces with the devices that are measured and operations related to nano-technology products.

The services, support and others segment consists of comprehensive customer solutions provided in connection with the above segments, test solutions of system level testing for such as semiconductor and modules, support services, sales of consumables, sales of used products, equipment lease business and others.

(2) Information of Reporting Segments

Accounting treatment applied to operating segments is the same as in the note "3. Significant Accounting Policies".

Advantest uses the operating income (loss) before share-based compensation expense for management's analysis of operating segment results.

Share-based compensation expense represents expenses for stock options and performance-based stock remuneration expense.

Segment income (loss) is presented on the basis of operating income (loss) before share-based compensation expense.

Inter-segment sales are based on market prices.

Fiscal year ended March 31, 2020 Millions of Yen

	Semiconductor and Component Test System Business	Mechatronics System Business	Services, Support and Others	Elimination and Corporate	Consolidated
Net sales					
Net sales to unaffiliated customers	197,084	36,293	42,517	—	275,894
Inter-segment sales	70	—	9	(79)	—
Total	197,154	36,293	42,526	(79)	275,894
Segment income (loss) (operating income (loss) before share-based compensation expense)	65,155	(497)	2,966	(8,034)	59,590
Adjustment: Share-based compensation expense	—	—	—	—	(882)
Operating income	—	—	—	—	58,708
Financial income	—	—	—	—	1,045
Financial expenses	—	—	—	—	(1,179)
Income before income taxes	—	—	—	—	58,574
(Other profit and loss items)					
Depreciation and amortization	4,073	1,262	5,099	458	10,892

Fiscal year ended March 31, 2021 Millions of Yen

	Semiconductor and Component Test System Business	Mechatronics System Business	Services, Support and Others	Elimination and Corporate	Consolidated
Net sales					
Net sales to unaffiliated customers	206,031	40,005	66,753	—	312,789
Inter-segment sales	1,172	—	—	(1,172)	—
Total	207,203	40,005	66,753	(1,172)	312,789
Segment income (loss) (operating income (loss) before share-based compensation expense)	61,617	4,955	10,419	(4,641)	72,350
Adjustment: Share-based compensation expense	—	—	—	—	(1,624)
Operating income	—	—	—	—	70,726
Financial income	—	—	—	—	767
Financial expenses	—	—	—	—	(1,875)
Income before income taxes	—	—	—	—	69,618
(Other profit and loss items)					
Depreciation and amortization	5,771	1,086	4,211	688	11,756

(Notes)

1. Adjustments to segment 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. Moreover, due to the transfer to one defined benefit corporate pension plan at Advantest Europe GmbH, the Company's subsidiary in Germany, ¥5,569 million income is included for the fiscal year ended March 31, 2021.

2. Segment income for the mechatronics system business for the fiscal year ended March 31, 2021 includes ¥2,451 million gain on the transfer of probe card business on July 30, 2020.

(3) Net Sales to Unaffiliated Customers by Segments of Products and Services

The segments of similar products and services are the same as the segments in the report.

(4) Net Sales to Unaffiliated Customers by Region

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Japan	14,789	14,021
Americas	18,521	30,164
Europe	6,064	8,002
Asia	236,520	260,602
Total	275,894	312,789

Net sales to unaffiliated customers are based on customer's location. Net sales indicated as Asia were mainly generated in China, Korea and Taiwan in the amount of ¥64,521 million, ¥63,355 million and ¥82,517 million for the fiscal year ended March 31, 2020 and ¥80,220 million, ¥76,588 million and ¥75,119 million for the fiscal year ended March 31, 2021, respectively. Substantially all net sales indicated as Americas were generated in the United States of America.

(5) Non-Current Assets（Property, Plant and Equipment, Right-of-Use Assets, Goodwill and Intangible assets, Other Non-Current Assets）by Region

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Japan	36,712	39,380
Americas	45,615	49,793
Europe	4,967	6,563
Asia	10,123	12,357
Total	97,417	108,393

Non-current assets are those assets located in each geographic area.

Substantially all non-current assets indicated as Americas were located in the United States of America. Substantially all non-current assets indicated as Europe were located in Germany. Non-current assets in Asia were primarily located in Korea, Taiwan, China and Singapore.

(6) Information of Main Customers

There was no customer group that accounted for 10% or more of the net sales for the fiscal year ended March 31, 2020 and 2021.

7. Cash and Cash Equivalents

The breakdown of cash and cash equivalents was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Cash and short-term deposits with maturities of three months or less	127,703	149,164

Cash and cash equivalents are classified as financial assets measured at amortized cost.

The balances of cash and cash equivalents on the consolidated statement of financial position agreed with the respective balances in consolidated statement of cash flows.

8. Trade and Other Receivables

The breakdown of trade and other receivables was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Note Receivables	2,326	2,897
Trade Receivables	42,139	51,098
Other Receivables	1,970	3,044
Less allowance for doubtful accounts	(9)	(11)
Total	46,426	57,028

Trade and other receivables are presented net of the allowance for doubtful accounts in the consolidated statement of financial position.

Trade and other receivables are classified as financial assets measured at amortized cost.

9. Inventories

The breakdown of inventories was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Finished goods	12,033	12,397
Work in process	20,843	22,977
Raw materials and supplies	26,067	28,966
Total	58,943	64,340

Inventory valuation losses recognized as an expense due to the decline in profitability for the fiscal years ended March 31, 2020 and 2021 were ¥3,468 million and ¥3,307 million, respectively.

10. Other Financial Assets

The breakdown of other financial assets was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Financial assets that are measured at fair value through profit or loss		
Debt instruments	772	371
Financial assets that are measured at fair value through other comprehensive income		
Equity instruments	703	8,379
Financial assets measured at amortized cost	1,392	1,461
Total	2,867	10,211
Non-current assets	2,867	10,211
Total	2,867	10,211

11. Assets Held for Sale

The breakdown of assets held for sale was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Assets held for sale	199	—

Advantest classified some land and buildings as assets held for sale in the fiscal year ended March 31, 2020, and discontinued the classification of assets held for sale and reclassified them as property, plant and equipment during the fiscal year ended March 31, 2021.

12. Property, Plant and Equipment, Net

(1) Increase or Decrease Table

Changes in carrying amount of property, plant and equipment were as follows:

Fiscal year ended March 31, 2020 Millions of Yen

	Land	Buildings	Machinery	Equipment and Furniture	Construction in progress	Total
Balance at beginning of year	10,158	9,052	9,884	1,147	545	30,786
Acquisition	—	642	7,019	1,099	364	9,124
Acquisition through business combinations	—	350	1,614	34	—	1,998
Sales and disposals	—	(2)	(218)	(6)	—	(226)
Reclassification to assets held for sale	(367)	(96)	—	—	—	(463)
Depreciation	—	(736)	(4,049)	(551)	—	(5,336)
Exchange differences	(178)	(382)	(231)	(32)	(14)	(837)
Others	—	20	—	6	—	26
Balance at end of year	9,613	8,848	14,019	1,697	895	35,072

Fiscal year ended March 31, 2021 Millions of Yen

	Land	Buildings	Machinery	Equipment and Furniture	Construction in progress	Total
Balance at beginning of year	9,613	8,848	14,019	1,697	895	35,072
Acquisition	—	484	10,521	936	888	12,829
Sales and disposals	—	(3)	(637)	(8)	—	(648)
Reclassification from assets held for sale	199	—	—	—	—	199
Depreciation	—	(862)	(5,489)	(745)	—	(7,096)
Exchange differences	182	395	551	85	44	1,257
Balance at end of year	9,994	8,862	18,965	1,965	1,827	41,613

Gross carrying amount, accumulated depreciation and impairment losses and carrying amount of property, plant and equipment were as follows:

Millions of Yen

	Land	Buildings	Machinery	Equipment and Furniture	Construction in progress	Total
As of March 31, 2020						
Gross carrying amount	10,554	34,348	46,956	9,417	895	102,170
Accumulated depreciation and impairment losses	941	25,500	32,937	7,720	―	67,098
Carrying amount	9,613	8,848	14,019	1,697	895	35,072

Millions of Yen

	Land	Buildings	Machinery	Equipment and Furniture	Construction in progress	Total
As of March 31, 2021						
Gross carrying amount	11,114	35,434	54,026	9,511	1,827	111,912
Accumulated depreciation and impairment losses	1,120	26,572	35,061	7,546	―	70,299
Carrying amount	9,994	8,862	18,965	1,965	1,827	41,613

Depreciation expense is included in cost of sales and selling, general and administrative expenses in the consolidated statement of profit or loss.

(2) Impairment Losses

No significant impairment losses were recorded on property, plant and equipment for the years ended March 31, 2020 and 2021, respectively.

(3) Commitments Related to Acquisition of Fixed Assets

Commitments related to acquisition of fixed assets were as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Acquisition of Fixed Assets	135	62

13. Goodwill and Intangible Assets

(1) Increase or Decrease Table

Changes in carrying amount of goodwill and intangible assets were as follows:

Fiscal year ended March 31, 2020 Millions of Yen

	Goodwill	Software	Intangible assets recognized by business combination	Others	Total
Balance at beginning of year	24,847	1,070	―	202	26,119
Acquisition	―	741	―	―	741
Acquisition through business combinations	22,560	1	5,613	―	28,174
Sales and disposals	―	(6)	―	―	(6)
Amortization	―	(439)	(2,967)	(25)	(3,431)
Exchange differences	(488)	(16)	(75)	(3)	(582)
Others	―	10	―	―	10
Balance at end of year	46,919	1,361	2,571	174	51,025

Fiscal year ended March 31, 2021 Millions of Yen

	Goodwill	Software	Intangible assets recognized by business combination	Others	Total
Balance at beginning of year	46,919	1,361	2,571	174	51,025
Acquisition	―	862	―	―	862
Acquisition through business combinations	(14,741)	―	19,008	―	4,267
Sales and disposals	―	(1)	―	(45)	(46)
Amortization	―	(564)	(1,769)	(23)	(2,356)
Exchange differences	600	31	156	4	791
Balance at end of year	32,778	1,689	19,966	110	54,543

(Notes)

“Intangible assets recognized by business combination” which was included in “Others” in the fiscal year ended March 31, 2020 was presented separately from the fiscal year ended March 31, 2021 due to its increased materiality. To reflect these changes in presentation, a reclassification was made for the fiscal year ended March 31, 2020.

“Intangible assets recognized by business combination” were customer-related assets and technology-related assets.

Gross carrying amount, accumulated amortization and impairment losses and carrying amount of goodwill and intangible assets were as follows:

Millions of Yen

	Goodwill	Software	Intangible assets recognized by business combination	Others	Total
As of March 31, 2020					
Gross carrying amount	46,919	3,250	5,548	281	55,998
Accumulated amortization and impairment losses	—	1,889	2,977	107	4,973
Carrying amount	46,919	1,361	2,571	174	51,025
As of March 31, 2021					
Gross carrying amount	32,778	4,164	24,923	242	62,107
Accumulated amortization and impairment losses	—	2,475	4,957	132	7,564
Carrying amount	32,778	1,689	19,966	110	54,543

Amortization expense is included in cost of sales and selling, general and administrative expenses in the consolidated statement of profit or loss.

The intangible assets at the end of the fiscal year ended March 31, 2021 were mainly intangible assets of ¥17,672 million recognized by the business combination of Essai, Inc., and the remaining amortization period at the end of the fiscal year ended March 31, 2021 was 10 years.

(2) Impairment Test for Goodwill

Carrying amount of goodwill allocated to CGU or CGU group was as follows:

Millions of Yen

CGU or CGU group	As of March 31, 2020	As of March 31, 2021
Semiconductor and component test system business		
-Japan	8,589	8,737
Services, support and others		
-Japan	5,890	5,992
-Advantest Test Solutions, Inc.	6,624	6,738
-Essai, Inc.*	25,816	11,311

The recoverable amount of CGU or CGU group is calculated by its value in use based on the business plan for 3 years approved by management and the growth rate. The business plan reflects the past experience using external and internal data, for the cash flows exceeding the period, its value in use is calculated by the growth rate that does not exceed the expected long-term growth rate of the market CGU or CGU group belongs to.

A pre-tax discount rate used for measuring its value in use for fiscal years ended March 31, 2020 and 2021 were 17.0% - 19.2% and 18.7% - 21.5%, respectively. Since the recoverable amount of CGU or CGU group is well above the carrying amount, the probability that the recoverable amount is less than the carrying amount is expected low even when the primary assumption of the goodwill changes to reasonable extent.

* Please see note 31 for Essai, Inc.

(3) Research and Development Expenses

Research and development expenses included in selling, general and administrative expenses for fiscal years ended March 31, 2020 and 2021 were ¥40,070 million and ¥42,678 million, respectively.

14. Leases

(1) Leases- Lessor

Advantest provides leases that enable its customers to use its semiconductor test systems. All leases are classified as operating leases. Lease terms range from 1 year to 5 years, and certain of the lease agreements are cancelable. Maturity analysis for operating lease fee were as follows:

Fiscal year ended March 31, 2020 — Millions of Yen

	Due within 1 year	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years	Total
Leasing fee	88	30	18	—	—	—	136

Fiscal year ended March 31, 2021 — Millions of Yen

	Due within 1 year	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years	Total
Leasing fee	219	55	36	—	—	—	310

(2) Leases- Lessee

Advantest leases certain office space and office equipment under the lease contracts.

Profit and loss related to right-of-use assets was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Depreciation expense of right-of-use assets		
Buildings	1,635	1,935
Others	490	368
Total	2,125	2,303
Interest expense related to lease liabilities	135	141
Expenses related to short-term leases	3	1
Expenses related to leases of low-value assets	40	47

Carrying amount related to right-of-use assets was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Right-of-use assets		
Buildings	10,358	10,873
Others	826	795
Total	11,184	11,668

The increase in right-of-use assets were ¥3,176 million and ¥2,458 million for the fiscal year ended March 31, 2020 and 2021, respectively.

In cases where the lessee is able to exercise an extension option without the lessor's consent, it is considered that the lessee has an extension option. In case where the lessee is able to terminate its lease contract in the middle of the contract, it is considered that the lessee has a termination option. Each of the affiliates exercises these options, as necessary.

Total cash outflows for leases were ¥2,116 million and ¥2,256 million for the fiscal year ended March 31, 2020 and 2021, respectively.

Of the changes in liabilities arising from financing activities, lease liabilities were as follows:

Fiscal year ended March 31, 2020 Millions of Yen

	As of April 1, 2019	Adjustments recognized on adoption of IFRS 16	As of April 1, 2019 (After adjustment)	Changes arising from cash flows	Non-cash changes		As of March 31, 2020
					Increase of right-of-use assets	Others	
Lease liabilities	—	10,344	10,344	(2,073)	3,176	(159)	11,288

Fiscal year ended March 31, 2021 Millions of Yen

	As of April 1, 2020	Changes arising from cash flows	Non-cash changes		As of March 31, 2021
			Increase of right-of-use assets	Others	
Lease liabilities	11,288	(2,208)	2,458	312	11,850

Maturity analyses for lease liabilities as of March 31, 2021 is disclosed in note 29.

15. Subsidiaries

Major subsidiaries were as follows:

Name	Location	Principal business	Ownership interest Voting rights (%)
Advanfacilities Co., Ltd.	Saitama, Japan	Providing welfare services	100.0
Advantest Laboratories Ltd.	Miyagi, Japan	Research and development of measuring and testing technologies	100.0
Advantest Finance Inc.	Tokyo, Japan	Leasing of the Company’s products and sales of used products	100.0
Advantest Kyushu Systems Co., Ltd.	Fukuoka, Japan	Development, sales and support of the Company’s products	100.0
Advantest Component, Inc.	Miyagi, Japan	Development and manufacturing of the parts	100.0
Advantest America, Inc.	California, U.S.A.	Development and sales of the Company’s products	100.0
Advantest Test Solutions, Inc.	California, U.S.A.	Design and sales of the Company’s products	100.0
Essai, Inc.	California, U.S.A.	Design, manufacturing and sales of the Company’s products	100.0
Advantest Europe GmbH	Munich, Germany	Development and sales of the Company’s products	100.0
Advantest Taiwan Inc.	Hsinchu, Taiwan	Sales of the Company’s products	100.0
Advantest (Singapore) Pte. Ltd.	Singapore	Sales of the Company’s products	100.0
Advantest Korea Co., Ltd.	Cheonan, Korea	Support for sales of the Company’s products	100.0
Advantest (China) Co., Ltd.	Shanghai, China	Support for sales of the Company’s products	100.0
Advantest (M) Sdn. Bhd.	Penang, Malaysia	Manufacturing of the Company’s products	100.0

16. Income Taxes

(1) Deferred Tax Assets and Liabilities

The breakdown of deferred tax assets and liabilities was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Deferred tax assets		
Inventories	2,238	2,824
Warranty provisions	839	1,199
Retirement benefit liabilities	5,329	7,504
Accrued expenses	2,524	4,067
Research and development expenses capitalized for tax purposes	2,119	2,314
Operating loss carryforwards	458	327
Property, plant and equipment and Intangible assets	1,976	8,424
Tax credits	505	9
Lease liabilities	2,821	3,023
Others	944	1,765
Total deferred tax assets	19,753	31,456
Deferred tax liabilities		
Net change in fair values of financial assets	(101)	(108)
Undistributed earnings of foreign subsidiaries	(1,428)	(1,935)
Right-of-use assets	(2,798)	(2,980)
Property, plant and equipment and Intangible assets	(1,027)	(5,476)
Others	(611)	(188)
Total deferred tax liabilities	(5,965)	(10,687)
Net deferred tax assets	13,788	20,769

Net deferred tax assets were included in the following line items in the consolidated statement of financial position.

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Deferred tax assets	15,351	25,242
Deferred tax liabilities	1,563	4,473

Changes in net deferred tax assets were as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Net deferred tax assets		
Balance at beginning of year	9,529	13,788
Recognized in profit or loss	4,806	9,629
Recognized in other comprehensive income	778	1,152
Acquisition through business combinations	(663)	(4,201)
Others	(662)	401
Balance at end of year	13,788	20,769

Advantest recognizes deferred tax assets after taking into consideration taxable temporary differences, the forecasted future taxable profits and tax planning.

Deductible temporary differences, operating loss carryforwards and tax credits that are not recognized as deferred tax assets in the consolidated statement of financial position were as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Deductible temporary differences	101,837	74,433
Operating loss carryforwards	23,105	115
Tax credits	539	549

The expiration dates of operating loss carryforwards and tax credits that were not recognized as deferred tax assets in the consolidated statement of financial position were as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Operating loss carryforwards		
Not later than 1 year	–	–
Later than 1 year and not later than 5 years	22,921	–
Later than 5 years	184	115
Total	23,105	115
Tax credits		
Not later than 1 year	2	—
Later than 1 year and not later than 5 years	13	8
Later than 5 years	524	541
Total	539	549

The taxable temporary difference related to investments in subsidiaries for which deferred tax liabilities were not recognized for the fiscal years ended March 31, 2020 and 2021 were not material, respectively.

Deferred tax liabilities are not recognized for this difference for which Advantest can control timing of the reversal and that will unlikely reverse in the foreseeable future.

(2) Income Tax Expense

The breakdown of income tax expense was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Income tax expense		
Current income tax expense	9,848	9,460
Deferred income tax expense		
Origination and reversal of temporary differences	5,670	6,572
Changes in unrecognized deferred tax assets	(10,472)	(16,236)
Adjustments to deferred tax assets and liabilities due to changes in tax rate	(4)	35
Total	5,042	(169)

Current income tax expense includes tax benefit from operating loss carryforwards that were not recognized as deferred tax assets. The amounts of current income tax expense which were decreased by this for the years ended March 31, 2020 and 2021 were ¥8,535 million and ¥7,025 million, respectively.

(3) Reconciliation between Applicable Tax Rate and Effective Tax Rate

Reconciliation between the applicable tax rate and the effective tax rate was as follows:

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Applicable tax rate	30.5%	30.5%
Differences in statutory tax rate of foreign subsidiaries	(0.8)	(2.4)
Tax credits	(5.0)	(5.0)
Non-deductible expenses	0.4	0.8
Undistributed earnings of foreign subsidiaries	0.6	0.7
Changes in unrecognized deferred tax assets	(17.9)	(23.3)
Effect of tax rate changes	0.0	0.1
Others	0.8	(1.6)
Effective tax rate	8.6%	(0.2)%

The Company and its domestic subsidiaries are primarily affected by the corporation tax, resident tax and business tax. The statutory income tax rate calculated based on these rates for the fiscal years ended March 31, 2020 and 2021 were 30.5% and 30.5%, respectively.

Its foreign subsidiaries are affected by the corporation tax and other taxes at the domicile of each subsidiary.

17. Trade and Other Payables

The breakdown of trade and other payables was as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Accounts payables	26,615	35,902
Accrued expenses	15,226	18,254
Other payables	4,819	4,402
Total	46,660	58,558

18. Provisions

The change in warranty provisions for the year ended March 31, 2021 was summarized as follows:

Millions of Yen

	Warranty Provisions
Balance at beginning of year	3,335
Increase during the year	6,682
Decrease due to intended use	(5,976)
Reversal during the year	―
Exchange differences	17
Balance at end of year	4,058
Current liabilities	4,058
Total	4,058

Advantest's products are generally subject to warranty, and Advantest provides contractual product warranty services, when the performance of products sold does not meet expected product specifications. Estimated repair expenses over the warranty period are accrued based on the historical ratio of actual repair expenses to corresponding sales, when product revenue is recognized. Most of these expenses are expected to be incurred in the next fiscal year.

19. Post-Employment Benefits

Advantest has post-employment plans as follows:

(Defined benefit corporate pension plan and retirement and severance plans for Japan)

The Company and its domestic subsidiaries have a defined benefit corporate pension plan and unfunded retirement and severance plans (point-based benefits system) covering substantially all employees. The Company and its domestic subsidiaries shifted a part of defined benefit corporate pension plan to defined contribution plan on October 1, 2018.

The assets due to the shift to defined contribution plan will be transitioned for four years. Outstanding amount to be transitioned are included in trade and other payables and other non-current liabilities in the consolidated statement of financial position, respectively.

The benefits for both defined benefit corporate pension plan and retirement and severance plans (point-based benefits system) are calculated based on accumulated points allocated to employees each year according to their job classification and their performance.

In defined benefit corporate pension plan, in accordance with the Defined-Benefit Corporate Pension Act of Japan, the Company and its domestic subsidiaries have an obligation to make contributions to Advantest Pension Fund (the Fund) which manages the corporate pension plans. The directors of the Fund are responsible for faithfully executing operations in compliance with laws and regulations, and any orders issued by the Minister of Health, Labor and Welfare, and the Director-General of Regional Bureaus of Health and Welfare based on laws and regulations, as well as the rules of the Fund and the resolution of the Board of Representatives. And the directors are jointly and severally liable for responsible if they fail to manage and operate the Fund. The actual management of the contributions is conducted by trustees in accordance with rules approved by the Board of Representatives.

The Company and its domestic subsidiaries are required to make contributions to the Fund and obligated to make contributions in the amount stipulated by the Fund. Contributions are also regularly reviewed and adjusted as necessary to the extent permitted by laws and regulations. The Company and its domestic subsidiaries decided to introduce a risk reserve contribution at ¥6,018 million, which will be contributed for five years within future expected risks in fiscal year ended March 31, 2021.

Plan assets are managed on the basis of soundness. However, financial instruments have inherent investment risks. Discount rates and other aspects of defined benefit plan obligations are based on pension actuarial assumptions. There is a risk when these pension actuarial assumptions are changed.

The retirement and severance plans (point-based system) are principally unfunded. The Company terminated retirement benefit trusts in fiscal year ended March 31, 2020.

(Defined benefit pension plans for foreign subsidiaries)

Certain foreign subsidiaries also have defined benefit pension plans covering substantially all of their employees. Benefits payable under the plans are based on employee compensation levels and years of service.

Advantest Europe GmbH, the Company's subsidiary in Germany, has had various post-employment plans, mainly defined benefit corporate pension plans. As of January 1, 2021, these plans were transferred to one defined benefit corporate pension plan. The transfer resulted in Gain on the transfer of post-employment benefits plan, which is included in other income in the consolidated statement of profit or loss in the fiscal year ended March 31, 2021.

(Defined contribution plan)

In defined contribution plan, the Company and its domestic subsidiaries pay fixed contributions over entitlement period, and employees manage the contributed funds by themselves. Benefit is paid by a trustee organization, and the Company and its domestic subsidiaries' obligation is limited to the contribution.

(1) Defined Benefit Obligations and Plan Assets

The changes in present value of defined benefit obligations and fair value of plan assets of the Company and certain of its consolidated subsidiaries were as follows:

Japanese Plans

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Defined benefit obligations:		
Balance at the beginning of year	49,815	49,506
Service cost	1,324	1,282
Interest cost	252	287
Remeasurements:		
Actuarial (gain) or loss – Changes in demographic assumptions	240	17
Actuarial (gain) or loss – Changes in financial assumptions	(540)	(414)
Benefits paid	(1,585)	(1,316)
Balance at the end of year	49,506	49,362
Plan assets:		
Balance at the beginning of year	30,394	29,220
Interest income	153	170
Remeasurements:		
Actual return on plan assets, excluding interest income	(632)	4,729
Employer contributions	569	559
Benefits paid	(1,071)	(1,014)
Return of retirement benefit trust	(193)	—
Balance at the end of year	29,220	33,664
Effects of asset ceiling	—	—
Net liability amount recognized in the consolidated statement of financial position	20,286	15,698

Non-Japanese Plans

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Defined benefit obligations:		
Balance at the beginning of year	26,653	28,371
Service cost	695	737
Interest cost	464	403
Remeasurements:		
Actuarial (gain) or loss – Changes in demographic assumptions	493	775
Actuarial (gain) or loss – Changes in financial assumptions	1,178	3,660
Benefits paid	(198)	(309)
Exchange differences	(1,108)	2,643
Decrease due to the pension plan change	—	(5,569)
Other	194	254
Balance at the end of year	28,371	30,965
Plan assets:		
Balance at the beginning of year	8,546	8,035
Interest income	155	130
Remeasurements:		
Actual return on plan assets, excluding interest income	(884)	604
Employer contributions	477	297
Plan participants' contributions	194	—
Benefits paid	(86)	(51)
Exchange differences	(367)	757
Other	—	—
Balance at the end of year	8,035	9,772
Effects of asset ceiling	—	—
Net liability amount recognized in the consolidated statement of financial position	20,336	21,193

(2) Plan Assets

The fair value of pension plan assets by asset category was as follows:

Japanese Plans

Millions of Yen

	As of March 31, 2020			As of March 31, 2021		
	With quoted market price in an active market	With no quoted market price in an active market	Total	With quoted market price in an active market	With no quoted market price in an active market	Total
Cash and cash equivalents	4,370	—	4,370	514	—	514
Equity securities:						
Japanese companies	1	—	1	—	—	—
Pooled funds	—	6,256	6,256	—	12,041	12,041
Debt securities:						
Pooled funds	—	5,818	5,818	—	5,880	5,880
Hedge funds	—	9,679	9,679	—	11,062	11,062
Life insurance company general accounts and separate accounts	—	3,096	3,096	—	4,167	4,167
Total	4,371	24,849	29,220	514	33,150	33,664

Non-Japanese Plans

Millions of Yen

	As of March 31, 2020			As of March 31, 2021		
	With quoted market price in an active market	With no quoted market price in an active market	Total	With quoted market price in an active market	With no quoted market price in an active market	Total
Cash and cash equivalents	4,667	—	4,667	2,518	—	2,518
Equity securities:						
Pooled funds	—	2,004	2,004	—	4,118	4,118
Debt securities:						
Pooled funds	—	1,119	1,119	—	2,681	2,681
Commodities	—	245	245	—	455	455
Total	4,667	3,368	8,035	2,518	7,254	9,772

Investment policies of Advantest are designed to ensure adequate plan assets are available to provide future payments of pension benefits to eligible participants by attaining necessary long-term total returns on plan assets. Taking into consideration the expected returns, associated risks and correlations of returns between asset categories in plan assets, Advantest determines an optimal combination of equity, debt securities and other investments as Policy Asset Allocation (“PAA”). Plan assets are invested in accordance with PAA with mid-term to long-term viewpoint, which is revised periodically to the extent considered necessary to achieve the expected long-term rate of return on plan assets.

The Company and certain of its subsidiaries expect to contribute ¥4,097 million including risk reserve contribution to defined benefit plans during the following fiscal year.

(3) Actuarial Assumptions

The significant actuarial assumptions used to determine the present value of defined benefit obligations were as follows:

Japanese Plans

	As of March 31, 2020	As of March 31, 2021
Discount rate (%)	0.6	0.6
Rate of compensation increase (%)	2.3	2.3

Non-Japanese Plans

	As of March 31, 2020	As of March 31, 2021
Discount rate (%)	1.5	1.1
Rate of compensation increase (%)	2.6	2.6

The effects on defined benefit obligations of 0.5% increase or decrease in the discount rate were as follows.

The sensitivity analysis is based on an assumption that all other variables other than the one analyzed are held constant. In reality, changes in other assumptions may impact the analysis.

Japanese Plans

Millions of Yen

	Changes in actuarial assumptions	As of March 31, 2020	As of March 31, 2021
Discount rate	0.5% increase	(3,102)	(2,985)
	0.5% decrease	3,421	3,283

Non-Japanese Plans

Millions of Yen

	Changes in actuarial assumptions	As of March 31, 2020	As of March 31, 2021
Discount rate	0.5% increase	(2,527)	(2,349)
	0.5% decrease	2,954	2,727

The weighted average duration of defined benefit obligations was as follows:

Japanese Plans

	As of March 31, 2020	As of March 31, 2021
Weighted average duration (Years)	13	12

Non-Japanese Plans

	As of March 31, 2020	As of March 31, 2021
Weighted average duration (Years)	23	19

(4) Employee Benefit Expenses

The total amount of employee benefit expenses in the consolidated statement of profit or loss for the ended March 31, 2020 and 2021 were ¥72,052 million and ¥78,778 million, respectively.

20. Equity and Other Equity Items

(1) Share Capital

1) Authorized Shares

The number of authorized shares as of March 31, 2020 and 2021 were 440,000,000 ordinary shares.

2) Fully Paid Issued Shares

The movement of the number of issued shares was as follows:

	Number of ordinary issued shares
As of April 1, 2019	199,566,770
Increase (decrease)	—
As of March 31, 2020	199,566,770
Increase (decrease)	—
As of March 31, 2021	199,566,770

The shares issued by the Company are non-par value ordinary shares that have no restriction of rights.

(2) Treasury Shares

The movement of treasury shares was as follows:

	Number of shares
As of March 31, 2020	1,152,069
As of March 31, 2021	3,132,075

(Note) 1. Advantest's share (537,830 shares as of March 31, 2020, 694,832 shares as of March 31, 2021), which is being kept as performance-based stock remuneration in trust account, is included in the number of treasury shares at the end of each fiscal period.

2. The share repurchase from the resolution of the Board of Directors' meeting held on July 30,

2020, resulted in an increase of treasury shares by 2,494,600 for the fiscal year ended March 31, 2021.

(3) Surplus

1) Share Premium

Under the Companies Act of Japan, at least 50% of the proceeds of certain issues of common shares shall be credited to share capital. The remainder of the proceeds shall be credited to additional paid-in capital within share premium.

2) Retained Earnings

The Companies Act provides that a 10% dividend of retained earnings shall be appropriated as additional paid-in capital or as a legal reserve until the aggregate amount of the additional paid-in capital and the legal reserve within retained earnings equals 25% of share capital.

(4) Other Components of Equity

Millions of Yen

	Remeasurements of defined benefit pension plan (Note 1)	Exchange differences on translation of foreign operations (Note 2)	Net change in fair value measurements of equity instruments at fair value through other comprehensive income (Note 3)	Total
As of April 1, 2019	—	3,243	442	3,685
Increase (decrease)	(2,144)	(3,490)	(169)	(5,803)
Transfer to retained earnings	2,144	—	(111)	2,033
As of March 31, 2020	—	(247)	162	(85)
Increase (decrease)	2,309	4,327	(666)	5,970
Transfer to retained earnings	(2,309)	—	—	(2,309)
As of March 31, 2021	—	4,080	(504)	3,576

(Note) 1. Remeasurements of defined benefit pension plan include differences in return on plan assets and interest income on plan assets and differences between actuarial assumptions and actual results.
2. Exchange differences on translation of foreign operations are exchange differences resulting from the translation of financial statements of foreign operations.
3. Net change in fair value measurements of equity instruments at fair value through other comprehensive income is cumulative in nature.

21. Dividends

(1) Dividends Paid

Fiscal year ended March 31, 2020

Resolution	Class of shares	Amount of dividend (Millions of Yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on May 22, 2019	Ordinary shares	8,320	42	March 31, 2019	June 4, 2019
Board of Directors' meeting held on October 30, 2019	Ordinary shares	8,151	41	September 30, 2019	December 2, 2019

(Note) 1. Dividend of ¥11 million to treasury shares for the BIP Trust and the ESOP Trust is included in the amount of dividend which was resolved at the Board of Directors' meeting held on May 22, 2019.
2. Dividend of ¥22 million to treasury shares for the BIP Trust and the ESOP Trust is included in the amount of dividend which was resolved at the Board of Directors' meeting held on October 30, 2019.

Fiscal year ended March 31, 2021

Resolution	Class of shares	Amount of dividend (Millions of Yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on May 21, 2020	Ordinary shares	8,157	41	March 31, 2020	June 2, 2020
Board of Directors' meeting held on October 29, 2020	Ordinary shares	7,493	38	September 30, 2020	December 1, 2020

(Note) 1. Dividend of ¥22 million to treasury shares for the BIP Trust and the ESOP Trust is included in the amount of dividend which was resolved at the Board of Directors' meeting held on May 21, 2020.
2. Dividend of ¥26 million to treasury shares for the BIP Trust and the ESOP Trust is included in the amount of dividend which was resolved at the Board of Directors' meeting held on October 29, 2020.

(2) Dividends Whose Record Date is in the Fiscal Year under Review but Whose Effective Date is in the Following Fiscal Year

Resolution	Class of shares	Amount of dividend (Millions of Yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on May 21, 2021	Ordinary shares	15,770	80	March 31, 2021	June 3, 2021

(Note) Dividend of ¥56 million to treasury shares for the BIP Trust and the ESOP Trust is included in the amount of dividend.

22. Revenue

(1) Disaggregation of Revenue

As disclosed in note 6, Advantest has three reportable operating segments: "semiconductor and component test system business", "mechatronics system business" and "services, support and others". Net sales disaggregated by region and segment were as follows:

Fiscal year ended March 31, 2020 Millions of Yen

	Semiconductor and Component Test System Business	Mechatronics System Business	Services, Support and Others	Elimination and Corporate	Consolidated
Main regions					
Japan	5,941	4,316	4,611	(79)	14,789
Americas	5,951	3,009	9,561	—	18,521
Europe	3,613	337	2,114	—	6,064
Asia	181,649	28,631	26,240	—	236,520
Total	197,154	36,293	42,526	(79)	275,894

Fiscal year ended March 31, 2021 Millions of Yen

	Semiconductor and Component Test System Business	Mechatronics System Business	Services, Support and Others	Elimination and Corporate	Consolidated
Main regions					
Japan	7,683	3,278	4,232	(1,172)	14,021
Americas	5,935	2,189	22,040	—	30,164
Europe	5,243	555	2,204	—	8,002
Asia	188,342	33,983	38,277	—	260,602
Total	207,203	40,005	66,753	(1,172)	312,789

The breakdown of semiconductor and component test system business was as follows:

Fiscal year ended March 31, 2020 Millions of Yen

	SoC	Memory	Total
Semiconductor and Component Test System Business	154,931	42,223	197,154

Fiscal year ended March 31, 2021 Millions of Yen

	SoC	Memory	Total
Semiconductor and Component Test System Business	141,451	65,752	207,203

Revenue is accounted for in accordance with the account policy described in the note 3 “Significant Accounting Policies.” The transaction price is measured based on the amount promised in the contracts with customers and includes no significant financing components because there are no contracts with long payment terms from the satisfaction of performance obligation to payment of transaction price. Additionally, there are no significant revenue including variable consideration.

In case there are multiple performance obligations in the contract, transaction price is allocated to each individual performance obligation based on the standalone selling price which is calculated from reasonably available information including prices of similar transactions.

(2) Contract Balances

Receivables and liabilities from contracts with customers were as follows:

Fiscal year ended March 31, 2021 Millions of Yen

	As of April 1, 2019	As of March 31, 2020	As of March 31, 2021
Receivables from contracts with customers			
- Note and trade receivables	50,391	44,465	53,995
Contract liabilities			
- Advance receipt	5,576	7,689	11,392

Advance receipt is included in "Other current liabilities" in the consolidated statement of financial position.

There are no significant amounts of revenue from the balance of contract liabilities as of April 1, 2019 and 2020, respectively that Advantest will recognize in the following fiscal years onward. Mostly, contract liabilities as of April 1, 2019 and 2020 are recognized as revenue in the fiscal years ended March 31, 2020 and 2021, respectively.

(3) Transaction Price Allocated to the Remaining Performance Obligations

Advantest applies the practical expedients for exemption on disclosure of information on remaining performance obligations because it has no significant transactions with performance obligation terms exceeding one year. Additionally, the consideration from contracts with customers, which is not included in the transaction price, is insignificant.

23. Selling, General and Administrative Expenses

The breakdown of selling, general and administrative expenses was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Employee benefit expenses	59,712	65,389
Depreciation and amortization	7,696	9,774
Others	30,343	30,707
Total	97,751	105,870

24. Share-Based Compensation

(1) Share Option

Advantest has share-based compensation plans using share options as incentive plans for directors (excluding directors who are audit and supervisory committee members and outside directors), executive officers and executive employees. Share options have been issued to directors, executive officers and certain employees of the Company and its subsidiaries under share option plans approved by the Board of Directors. Options were generally granted with an exercise prices of per share that were equal to the higher of (1) 1.05 times the average price of the Company's common shares of the preceding month on the date of grant and (2) the closing price of the Company's common shares traded on the Tokyo Stock Exchange on the date of grant. The options have an exercise period of 4 years for No.13, 3 years for No.14, 15, 16 and 17, respectively.

The exercisable share option plans were as follows:

No.	Number of shares to be issued/ delivered	Grant date	Exercise Period	Settlement Method	Vesting Conditions
13	1,924,000	August 16, 2016	From April 1, 2017 to March 31, 2021	Quotient Clearance	The persons who are director (excluding directors who are audit and supervisory committee members and outside directors), executive officer, employee, adviser, part-time worker or any other similar position of the Company or its subsidiaries after grant date (August 16, 2016) to vesting date (March 31, 2017) are entitled.
14	898,000	December 15, 2017	From April 1, 2019 to March 31, 2022	Quotient Clearance	The persons who are director (excluding directors who are audit and supervisory committee members and outside directors), executive officer, employee, adviser, part-time worker or any other similar position of the Company or its subsidiaries after grant date (December 15, 2017) to vesting date (March 31, 2019) are entitled.
15	418,000	August 10, 2018	From August 11, 2020 to August 10, 2023	Quotient Clearance	The persons who are director (excluding directors who are audit and supervisory committee members and outside directors), executive officer, employee, adviser, part-time worker or any other similar position of the Company or its subsidiaries after grant date (August 10, 2018) to vesting date (August 10, 2020) are entitled.
16	416,000	July 12, 2019	From July 13, 2021 to July 12, 2024	Quotient Clearance	The persons who are director (excluding directors who are audit and supervisory committee members and outside directors), executive officer, employee, adviser, part-time worker or any other similar position of the Company or its subsidiaries after grant date (July 12, 2019) to vesting date (July 12, 2021) are entitled.
17	192,000	July 13, 2020	From July 14, 2022 to July 13, 2025	Quotient Clearance	The persons who are director (excluding directors who are audit and supervisory committee members and outside directors), executive officer, employee, adviser, part-time worker or any other similar position of the Company or its subsidiaries after grant date (July 13, 2020) to vesting date (July 13, 2022) are entitled.

The exercise price of the share options is subject to adjustment, if there is a share split or consolidation of shares, or if new shares are issued or treasury shares are sold at a price that is less than the market price.

Share option activity was as follows:

	Fiscal year ended March 31, 2020		Fiscal year ended March 31, 2021	
	Number of shares	Weighted average exercise price (Yen)	Number of shares	Weighted average exercise price (Yen)
Outstanding at beginning of year	1,978,000	2,155	1,547,000	2,482
Granted	416,000	3,090	192,000	6,990
Exercised	(847,000)	2,016	(673,000)	2,065
Expired	—	—	(28,000)	2,541
Forfeited	—	—	—	—
Outstanding at end of year	1,547,000	2,482	1,038,000	3,585
Exercisable at end of year	713,000	2,094	430,000	2,544

Weighted-average share prices as of exercised date were ¥4,322 and ¥6,914 for share option plans exercised during fiscal years ended March 31, 2020 and 2021, respectively.

The outstanding share options were as follows:

As of March 31, 2020

Exercise Price	Outstanding		Exercisable	
	Number of shares	Weighted average remaining contractual life (Years)	Number of shares	Weighted average remaining contractual life (Years)
1,382	278,000	1.0	278,000	1.0
2,540	418,000	3.4	—	—
2,549	435,000	2.0	435,000	2.0
3,090	416,000	4.3	—	—

As of March 31, 2021

Exercise Price	Outstanding		Exercisable	
	Number of shares	Weighted average remaining contractual life (Years)	Number of shares	Weighted average remaining contractual life (Years)
2,540	243,000	2.4	243,000	2.4
2,549	187,000	1.0	187,000	1.0
3,090	416,000	3.3	－	－
6,990	192,000	4.3	－	－

The fair value of share option was estimated using the Black Scholes pricing model with the following assumptions:

No.	16	17
Expected life (year)	3.44	3.37
Risk-free rate (%)	(0.21)	(0.15)
Expected volatility (%)	39.33	44.68
Expected dividend yield (%)	1.61	0.98

Share-based compensation expenses were ¥237 million and ¥347 million for fiscal years ended March 31, 2020 and 2021, respectively.

(2) Performance-Based Stock Remuneration Plan

1) Outline of the Performance-Based Stock Remuneration Plan

Advantest has performance-based stock remuneration plan (the "Plan") for directors (excluding directors who are audit and supervisory committee members and outside directors), executive officer and employees as an incentive.

In the Plan, Advantest contributes funding to the share delivery trust (the "Trust") whose trust period is approximately 3 years set by itself. The Trust uses the fund to purchase the Company's shares, and it will give the shares to the members of the Plan depending on the achievement of the designated performance indicators for designated periods after the end of three-consecutive fiscal years started from April 1, 2018, 2019 and 2020, respectively.

Eligibility for the Plan is director (excluding directors who are audit and supervisory committee members and outside directors), executive officers or employees over the designated periods.

The number of granted points which are base of the number of shares is calculated by average of performance achievement of designated performance indicators, the consolidated financial results of net sales, net income, operating ratio and ROE for designated periods.

The Plan is booked as share-settled type share-based compensation. The Plan does not have exercise price because deliver the shares as remuneration.

2) Number of Estimated Granted Points and Fair Value

The fair values of the Plan granted in the fiscal year ended March 31, 2020 and 2021 were ¥4,149 and ¥5,261, respectively. The fair values were calculated based on the market price of the Company's share at the grant date and expected dividends.

As described in 1), the number of granted points is calculated based on the payment rate between 0% and 150% depending on the achievement of the designated performance indicators for three-consecutive fiscal years, and they will be distributed in a lump. 100% is defined as basic points.

3) Share-Based Compensation Expense

Share-based compensation expenses from the Plan were ¥534 million and ¥823 million for the fiscal year ended March 31, 2020 and 2021, respectively.

4) Basic Points Activity

Basic points activity was as follows:

	Fiscal year ended March 31, 2020		Fiscal year ended March 31, 2021	
	Number of basic points	Weighted average exercise price (Yen)	Number of basic points	Weighted average exercise price (Yen)
Outstanding at beginning of year	204,081	2,509	409,369	3,344
Granted	209,660	4,149	122,685	5,261
Exercised	(216)	2,509	(6,898)	2,544
Expired	—	—	—	—
Forfeited	(4,156)	2,964	(12,576)	3,460
Outstanding at end of year	409,369	3,344	512,580	3,811
Exercisable at end of year	—	—	—	—

25. Financial Income and Expenses

(1) Financial Income

The breakdown of financial income was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Interest income		
Financial assets measured at amortized cost	806	124
Dividend income		
Financial assets measured at fair value through other comprehensive income	0	15
Financial assets measured at fair value through profit or loss	4	4
Foreign exchange gain	189	—
Gain on investments in securities		
Financial assets measured at fair value through profit or loss	42	624
Others	4	—
Total	1,045	767

(Notes) “Gain on investments in securities” which was included in “Others” in the fiscal year ended March 31, 2020 was presented separately from the fiscal year ended March 31, 2021 due to its increased materiality. To reflect these changes in presentation, a reclassification was made for the fiscal year ended March 31, 2020.

(2) Financial Expenses

The breakdown of financial expenses was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Interest expense		
Financial liabilities measured at amortized cost	155	182
Foreign exchange loss	—	633
Changes in fair value of the contingent consideration	1,024	1,059
Others	—	1
Total	1,179	1,875

26. Other Income

The breakdown of other income was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Gain on the transfer of post-employment benefits plan (Note 1)	—	5,569
Gain on the transfer of probe card business (Note 2)	—	2,451
Others	335	479
Total	335	8,499

(Note 1) Details about gain on the transfer of post-employment benefits plan is described in note 19.

(Note 2) Gain on the transfer of probe card business on July 30, 2020 is in relation to mechatronics system segment.

27. Other Comprehensive Income

Each component of other comprehensive income, reclassification adjustments to net income and tax effects were as follows:

Millions of Yen

	Fiscal year ended March 31, 2020			Fiscal year ended March 31, 2021		
	Pretax amount	Tax (expense) or benefit	Net of tax amount	Pretax amount	Tax (expense) or benefit	Net of tax amount
Remeasurements of defined benefit pension plan						
Gains (losses) during the year	(2,862)	718	(2,144)	1,151	1,158	2,309
Net change during the year	(2,862)	718	(2,144)	1,151	1,158	2,309
Net change in fair value measurements of equity instruments at fair value through other comprehensive income						
Gains (losses) during the year	(229)	60	(169)	(660)	(6)	(666)
Net change during the year	(229)	60	(169)	(660)	(6)	(666)
Exchange differences on translation of foreign operations						
Gains (losses) during the year	(3,490)	—	(3,490)	4,327	—	4,327
Reclassification adjustments to Net income	—	—	—	—	—	—
Net change during the year	(3,490)	—	(3,490)	4,327	—	4,327
Total other comprehensive income	(6,581)	778	(5,803)	4,818	1,152	5,970

28. Earnings per Share

The basis of calculation of basic earnings per share and diluted earnings per share were as follows:

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Net income attributable to owners of the parent (Millions of Yen)	53,532	69,787
Net income not attributable to owners of the parent (Millions of Yen)	—	—
Net income to calculate basic earnings per share (Millions of Yen)	53,532	69,787
Net income adjustment (Millions of Yen)	—	—
Net income to calculate diluted earnings per share (Millions of Yen)	53,532	69,787
Weighted average number of ordinary shares—basic	198,180,901	197,207,848
Dilutive effect of stock options	770,946	746,925
Dilutive effect of performance-based stock remuneration	77,264	401,433
Weighted average number of ordinary shares—diluted	199,029,111	198,356,206
Basic earnings per share (Yen)	270.12	353.87
Diluted earnings per share (Yen)	268.96	351.82
Financial instruments not included in the calculation of diluted earnings per share because they have anti-dilutive effect	—	—

29. Financial Instruments

(1) Capital Management

Advantest seeks out the most appropriate methods to enhance capital efficiency considering safety and liquidity for the sake of securing the fund.

Advantest raises fund through bonds and bank loans when required. Derivative transactions for speculation purposes is prohibited by Advantest's policy, and limited to transactions to avoid the risks discussed later.

Advantest manages net interest-bearing debt, where cash and cash equivalents are deducted from interest-bearing debt, and capital. The amounts as of each fiscal year end were as follows:

Millions of Yen

	As of March 31, 2020	As of March 31, 2021
Interest-bearing debt(Note 1)	—	—
Cash and cash equivalents	(127,703)	(149,164)
Net interest-bearing debt(Note 2)	(127,703)	(149,164)
Capital (equity attributable to owners of the parent company)	231,452	280,369

(Note) 1. Interest-bearing debt consists of bonds and bank loans. There was no outstanding as of March 31, 2020 and March 31, 2021.

2. The figure represents the net amount of cash and cash equivalents after deducting interest-bearing.

Advantest monitors financial indicators in order to maintain a well-balanced capital structure that ensures an appropriate return on equity and a stable and flexible financial condition for future investment.

Advantest monitors credit ratings for a financial stability and flexibility, and ROE (return on equity) for profitability, while focusing on changes in the domestic and overseas environment.

(2) Basic Policy on Financial Risk Management

Advantest is exposed to financial risks (credit risks, liquidity risks, foreign exchange risks, and market price fluctuation risks) in the process of its management activities and it manages risks based on a specific policy in order to avoid or reduce said risks. The results of risk management are quarterly reported by the Accounting Department to management.

Advantest's policy limits derivatives to transactions for the purpose of mitigating risks from transactions based on actual demand. Therefore, Advantest does not transact derivatives for speculation purposes or trading purposes.

(3) Credit Risk

Receivables such as notes and trade receivables, resulting from operating activities of Advantest are exposed to customers' credit risks.

Equity securities held for strategic purposes are exposed to the issuer's credit risks.

Additionally, derivative transactions in order to hedge foreign exchange fluctuation risks are exposed to credit risks of counter party financial institutions.

Advantest strives to mitigate collection risk in accordance with credit management standards and procedures in selling goods and services.

Advantest assesses the credit standing of customers and manages collection date and outstanding balance for each customer to ensure smooth collection of trade receivables.

Advantest minimizes risk exposure by limiting the counterparties to major international banks and financial institutions meeting established credit guidelines.

Any maximum exposure to credit risk in financial assets is stated in the carrying amounts presented in the consolidated statement of financial position.

Aging of Trade and other receivables that are past due but not impaired as of March 31, 2020 was as follows:

Millions of Yen

	As of March 31, 2020				
	Financial assets that are measured at an amount equal to 12-month expected credit losses	Financial assets that are measured at an amount equal to lifetime expected credit losses			Total
		Trade and other receivables	Financial assets whose credit risk has increased significantly	Financial assets whose credit is impaired	
Before due date	1,924	41,429	－	－	43,353
Within 90 days	34	2,414	－	－	2,448
Over 90 days, within 180 days	12	610	－	－	622
Over 180 days	－	12	－	－	12
Total	1,970	44,465	－	－	46,435

Aging of Trade and other receivables as of March 31, 2021 was as follows:

Millions of Yen

	As of March 31, 2021				
	Financial assets that are measured at an amount equal to 12-month expected credit losses	Financial assets that are measured at an amount equal to lifetime expected credit losses			Total
		Trade and other receivables	Financial assets whose credit risk has increased significantly	Financial assets whose credit is impaired	
Before due date	3,025	50,547	—	—	53,572
Within 90 days	—	2,451	—	—	2,451
Over 90 days, within 180 days	7	490	—	—	497
Over 180 days	12	507	—	—	519
Total	3,044	53,995	—	—	57,039

Impairment is accounted for using the allowance for doubtful accounts, not directly reducing the carrying amount of financial assets.

The allowance for doubtful accounts against the financial assets is included in "Trade and other receivables" and "Other financial assets" in the consolidated statement of financial position.

The change in the allowance for doubtful accounts was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Balance at the beginning of year	13	9
Increase during the year	9	11
Decrease due to intended use	—	—
Reversal during the year	(13)	(9)
Exchange differences	—	—
Balance at the end of year	9	11
Current	9	11
Non-current	—	—
Total	9	11

The amount of allowance for doubtful accounts of the financial assets for which credit losses were occurred as of March 31,2020 and 2021 were zero. Allowance for doubtful accounts which are other than the mentioned above were mostly lifetime expected credit losses of Trade and other receivables.

(4) Liquidity Risk

Advantest establishes a financing plan based on the annual business plan and the Accounting Department monitors and collects information on the balance of liquidity-on-hand and interest-bearing debt and reports it to management.

In addition, Advantest manages liquidity risks with the balance of liquidity-on-hand maintained at a proper level by working out the financing plan on a timely basis, and by taking into consideration the financial environment.

The financial liability balance by maturity was as follows:

As of March 31, 2020

Millions of Yen

	Carrying amount	Contractual cash flow	Due within 1 year	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
Non-derivative financial liabilities								
Trade and other payables	46,660	46,660	46,660	—	—	—	—	—
Lease liabilities	11,288	11,757	2,355	2,266	2,121	1,883	1,861	1,271
Other financial liabilities	1,892	1,892	1,892	—	—	—	—	—
Total	59,840	60,309	50,907	2,266	2,121	1,883	1,861	1,271

As of March 31, 2021

Millions of Yen

	Carrying amount	Contractual cash flow	Due within 1 year	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
Non-derivative financial liabilities								
Trade and other payables	58,558	58,558	58,558	—	—	—	—	—
Lease liabilities	11,850	12,076	2,529	2,436	2,220	2,030	1,950	911
Other financial liabilities	3,509	3,509	3,509	—	—	—	—	—
Total	73,917	74,143	64,596	2,436	2,220	2,030	1,950	911
Derivative financial liabilities								
Foreign exchange forward contract	11	11	11	—	—	—	—	—
Total	11	11	11	—	—	—	—	—

(5) Foreign Exchange Risk

1) Foreign Exchange Risk Management

As part of developing its global business, Advantest has foreign currency receivables and payables, which are subject to foreign exchange fluctuation risk.

To manage this risk, Advantest determines its foreign exchange fluctuation risk in each currency every month and, in principle, hedges this risk by using forward exchange transactions.

Depending on foreign exchange market conditions, Advantest may also enter into forward exchange contracts on foreign currency receivables and payables for expected transactions it deems certain to occur.

Details of forward exchange contracts are presented below. The Foreign exchange forward contract as of March 31, 2020 was immaterial.

	Fiscal year ended March 31, 2021			
	Contract amount	Over one year	Carrying amount	
			Assets	Liabilities
Foreign exchange forward contract				
Selling				
USD	1,097	—	—	11

2) Foreign Exchange Sensitivity Analysis

The table below shows the impact on income before income taxes of a 1% increase in value of the functional currency included U.S. Dollar and the Euro, due to its holdings of financial instruments at the end of each fiscal year, assumed no changes in currencies other than those used.

The impact from the translation of functional currency-denominated financial instruments, assets and liabilities of foreign operations into presentation currency is not included.

Millions of Yen

	Currency	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Impact on income before income taxes	U.S. Dollar	(458)	(262)
	Euro	(34)	(9)

(6) Carrying Amounts and Fair Value of Financial Instruments

Financial instruments are settled mainly on a short-term basis, and their fair values approximate their carrying amounts.

(7) Fair Value Hierarchy of Financial Instruments

Financial instruments measured at fair value on a recurring basis after the initial recognition are classified into three levels of the fair value hierarchy based on the measurement inputs' observability and materiality as follows:

Level 1: Fair value measured at quoted prices for identical assets or liabilities in active markets
Level 2: Fair value measured by direct or indirect observable inputs other than Level 1
Level 3: Fair value measured by significant unobservable inputs

When several inputs are used for a fair value measurement, the level is determined based on the input with the lowest level in the fair value measurement as a whole.

The transfers between levels in the fair value hierarchy are deemed at the beginning of each quarter period.

There were no transfers of financial instruments between Levels during the fiscal years ended March 31, 2020 and 2021.

The financial assets and financial liabilities measured at fair value on a recurring basis were classified by hierarchy as follows:

As of March 31, 2020

Millions of Yen

	Level 1	Level 2	Level 3	Total
Financial assets that are measured at fair value through profit or loss				
Debt instruments	—	—	772	772
Financial assets that are measured at fair value through other comprehensive income(Note)				
Equity instruments	—	—	703	703
Total financial assets	—	—	1,475	1,475
Financial liabilities that are measured at fair value through profit or loss				
Contingent consideration	—	—	1,487	1,487
Total financial liabilities	—	—	1,487	1,487

As of March 31, 2021

Millions of Yen

	Level 1	Level 2	Level 3	Total
Financial assets that are measured at fair value through profit or loss				
Debt instruments	—	—	371	371
Financial assets that are measured at fair value through other comprehensive income(Note)				
Equity instruments	7,627	—	752	8,379
Total financial assets	7,627	—	1,123	8,750
Financial liabilities that are measured at fair value through profit or loss				
Derivative financial liabilities	—	11	—	11
Contingent consideration	—	—	2,642	2,642
Total financial liabilities	—	11	2,642	2,653

(Note) The Company holds equity investments to accomplish expansion of revenue base by maintaining and enforcing relationships with investees. These equity investments are designated as financial assets measured at fair value through other comprehensive income (“FVTOCI”).

The breakdown of equity investments designated as financial assets measured at FVTOCI was as follows. The fair value of each equity investments designated as financial assets measured at FVTOCI as of March 31, 2020 was immaterial.

Millions of Yen

	Fiscal year ended March 31, 2021
PDF Solutions, Inc.	6,510
Nepes Ark Corporation	1,117
Other	752
Total	8,379

The movement of financial assets categorized within Level 3 of the fair value hierarchy was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Balance at beginning of year	1,287	1,475
Gains or losses		
Profit or loss (Note 1)	42	747
Other comprehensive income(Note 2)	(229)	23
Purchase	548	—
Sales	(111)	—
Conversion	—	(1,209)
Other	(62)	87
Balance at end of year	1,475	1,123

(Note) 1. Gains or losses recognized in profit or loss are included in financial income of the consolidated statement of profit or loss.
2. Gains or losses recognized in other comprehensive income are presented in net change in fair value measurements of equity instruments at FVTOCI of the consolidated statement of comprehensive income.

The movement of financial liabilities categorized within Level 3 of the fair value hierarchy was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Balance at beginning of year	—	1,487
Business Combinations	483	—
Changes in fair value(Note)	1,024	1,059
Other	(20)	96
Balance at end of year	1,487	2,642

(Note) Changes in fair value are included in financial expenses of the consolidated statement of profit or loss.

(8) Derivatives and Hedge Accounting

1) Derivatives Subject to Hedge Accounting

There were no derivatives designated as hedging instruments at March 31, 2020 and 2021.

2) Derivatives Not Subject to Hedge Accounting

Details of derivatives are presented below. The Foreign exchange forward contract as of March 31, 2020 was immaterial.

	Fiscal year ended March 31, 2021		
	Contract amount	Over one year	Fair value
Foreign exchange forward contract	1,097	—	(11)

30. Related Party Disclosures

Management personnel compensation was as follows:

Millions of Yen

	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Fixed-compensation	244	288
Performance-based bonus	121	159
Share-based compensation expense	103	229
Other	—	2
Total	468	678

31. Business Combinations

Fiscal year ended March 31, 2020
(Business combination through acquisition)

(1) Overview of Acquired Business

Name of Company: Essai, Inc.
Description of acquired company: design, manufacture and sales of semiconductor final-test, system-level test sockets and thermal control units
Voting rights ratio after acquisition of shares: 100%

(2) Overview of Business Combination

Advantest America, Inc., the Company's U.S. subsidiary, acquired all outstanding ordinary shares of U.S. company Essai, Inc. ("Essai") on January 29, 2020, and Essai became a wholly owned subsidiary of Advantest America, Inc.

Essai is the leading supplier of semiconductor final-test, system-level test sockets and thermal control units. Essai possesses excellent design capabilities and highly automated manufacturing capabilities that enable it to rapidly deliver products to customers, and its solutions are highly regarded in the industry. In combination with Advantest's final-test equipment and system-level testers, these resources will provide enhanced end-to-end test solutions in the form of test cells including sockets-accuracy assurance, further adding value to Advantest's product portfolio.

(3) Acquisition Date

January 29, 2020

(4) Legal Form of Business Combination

Acquisition of shares

(5) Acquisition-related Expense

Acquisition-related expense of ¥487 million is included in Selling, general and administrative expenses in the consolidated statement of profit or loss for the fiscal year ended March 31, 2020.

(6) Fair Value of Assets Acquired, Liabilities Assumed and Consideration Paid as of the Acquisition Date

The fair value of the assets acquired, liabilities assumed and consideration paid as of the acquisition date were provisional as of March 31, 2020, but they were revised because the purchase price allocation was completed during the second quarter of the fiscal year ended March 31, 2021.

Millions of Yen

	Provisional fair value	Revision	Revised fair value
Assets acquired			
Cash and cash equivalents	6,027	—	6,027
Trade and other receivables	1,578	—	1,578
Other current assets	648	—	648
Property, plant and equipment, net	1,998	—	1,998
Right-of-use-assets	942	—	942
Intangible assets, net	1,806	19,008	20,814
Assets total	12,999	19,008	32,007
Liabilities assumed			
Trade and other payables	1,354	(95)	1,259
Other current liabilities	233	—	233
Long-term debt	2,277	—	2,277
Lease liabilities	942	—	942
Deferred tax liabilities	663	4,201	4,864
Liabilities total	5,469	4,106	9,575
Goodwill	25,885	(14,741)	11,144
Total	33,415	161	33,576
Fair value of consideration paid			
Cash and cash equivalents	33,415	161	33,576

Goodwill generated from this business combination was attributable to the Services, Support and Others segment and was not deductible for tax purposes. Goodwill primarily represented a synergy effect with existing businesses and the excess earning power expected from the acquisition.

The details of “Intangible assets recognized by business combination” was disclosed in note 13.

(7) Acquisition of subsidiary

Millions of Yen

	Amount
Consideration paid	33,571
Cash and cash equivalents of the acquired subsidiary	(6,027)
Repayments of the long-term debt	2,277
Acquisition of subsidiary	29,821

(Note) The acquisition of subsidiary has fluctuated due to the adjustment of the consideration paid during the fiscal year ended March 31, 2021.

(8) Impact on the Business Performance

Disclosure of profit and loss information from the acquisition date and pro forma profit and loss information assuming the business combination was conducted at the beginning of the fiscal year ended March 31, 2020 (unaudited information), was omitted because of its immateriality for the consolidated statement of profit or loss.

Fiscal year ended March 31, 2021
Not applicable.

English Translation
Independent Auditor’s Report

June 24, 2021

The Board of Directors
Advantest Corporation

Ernst & Young ShinNihon LLC
Tokyo, Japan

Toshiyuki Matsumoto
Designated Engagement Partner
Certified Public Accountant

Minoru Ota
Designated Engagement Partner
Certified Public Accountant

Hiroyuki Nakada
Designated Engagement Partner
Certified Public Accountant

<The Audit of the Financial Statements>

Opinion

Pursuant to Article 193-2, paragraph 1 of the Financial Instruments and Exchange Act, we have audited the accompanying consolidated financial statements of Advantest Corporation and its subsidiaries (the Group), which comprise the consolidated statement of financial position as of March 31, 2021, and the consolidated statements of profit or loss, comprehensive income, changes in equity, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of March 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of the audit of the consolidated financial statements as a whole, and in forming the auditor's opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of Goodwill and Intangible Assets for Advantest Test Solutions, Inc. and Essai, Inc.	
Description of Key Audit Matter	Auditor's Response
The Group recorded goodwill of ¥6,738 million for Advantest Test Solutions, Inc. and goodwill of ¥11,311 million and intangible assets of ¥17,672 million for Essai, Inc. in the consolidated financial statements for the fiscal year ended March 31, 2021. The related amounts, the key assumptions used in the impairment test and the method used in the calculation are disclosed in Note 4 Significant Accounting Judgments, Estimates and Assumptions and Note 13 Goodwill and Intangible Assets of the Notes to the consolidated financial statements. The Group calculates the values in use to perform the impairment test. In calculating the values in use, the estimated future cash flows associated with the cash-generating units are discounted to present value using pre-tax discount rates which reflect current market assessments of the time value of money and any risks specific to the cash generating units. The estimated future cash flows are determined based on the three-year business plan approved by management and the growth rates after three years. The key assumptions in estimating the values in use include the sales forecasts to large-volume customers which serve as the basis of the three-year business plan, the discount rates and the growth rates after three year. Advantest Test Solutions, Inc. and Essai, Inc. businesses are belonging to the semiconductor industry which is subject to significant demand volatility. Additionally, the sales to the large-volume customers account for significant portion of the each company's net sales. The prediction of the market trends which both companies are belonging to and economic condition becomes more subjective. Accordingly, estimation of future cash flows, the discount rates and the growth rates for the impairment testing involves uncertainties and requires the	The audit procedures we performed to assess the valuation of goodwill and intangible assets include the following, among others: ・ We identified and assessed the Group's internal controls over the impairment testing. ・ We involved the valuation specialists of our network firm to assess the method used to calculate the values in use. ・ We evaluated the method used by the Group to identify cash generating units. ・ We compared the estimated future cash flows for three years with the business plan approved by management to evaluate consistency between two data. ・ We compared the Group's business plan for prior years with actual results to evaluate the effectiveness of management's estimation process. ・ Regarding the sales forecasts to large-volume customers which serve as the basis of the business plan, we inquired of management and the responsible official of each business unit, compared with the sales backlog and publicly available data, and performed the trend analysis based on the past performance. Additionally, we performed a sensitivity analysis of the business plan reflecting uncertainty in the sales forecasts to large-volume customers. ・ We compared the discount rates with the estimation made by the valuation specialists of our network firm. ・ Regarding the growth rates for the period after three years, we inquired of management, compared with publicly available data, and performed the trend analysis based on the past performance.

Valuation of Goodwill and Intangible Assets for Advantest Test Solutions, Inc. and Essai, Inc.	
Description of Key Audit Matter	Auditor’s Response
management’s high level of judgment on estimation. Therefore, we determined this matter to be a key audit matter.	

Valuation of Deferred Tax Assets Recognized in Japanese Tax Jurisdiction	
Description of Key Audit Matter	Auditor’s Response
The Group recorded deferred tax assets of ¥25,242 million, which includes deferred tax assets in Japanese tax jurisdiction, in the consolidated financial statements for the fiscal year ended March 31, 2021. The related amounts and the Group’s accounting policy of recognition and estimation of deferred tax assets are disclosed in the Note 4 Significant Accounting Judgments, Estimates and Assumptions and Note 16 Income Taxes of the Notes to the consolidated financial statements. The Group calculates deferred tax assets reasonably estimating timing, period and amount of taxable income that is likely to be earned in the future based on the business plan. The key assumption for estimates of taxable income is the sales forecast of each business unit as the basis for the business plan. The semiconductor test equipment industry is subject to significant demand volatility in the semiconductor industry. Therefore, the Group estimates the timing, period, and amount of taxable income taking into account deviation of the past forecast from the actual results as well as uncertainty due to future changes in economic conditions. In Japanese tax jurisdiction, the deductible temporary differences relating to the unrecognized deferred tax assets are material and recoverability of the deferred tax assets are significantly affected from the estimated future taxable income. Estimation of future taxable income involves uncertainties and requires management’s high level of judgement on assessing the recoverability of deferred tax assets. Therefore, we determined this matter to be a key audit matter.	The audit procedures we performed to assess the valuation of deferred tax assets in Japanese tax jurisdiction include the following, among others: ・ We identified and assessed the Group’s internal control over the valuation of deferred tax assets. ・ We examined scheduling of the reversal of deductible temporary difference. ・ We compared the Group’s business plan for prior years with actual results to evaluate the effectiveness of management’s estimation process. ・ We compared the budget and the actual results in the past years and evaluated business environment to assess timing, period and amount of future taxable income reflecting uncertainty estimated by management. ・ Regarding the sales forecast of each business unit which serves as the basis of the business plan, we inquired of management and compared with publicly available data. Additionally, we performed a sensitivity analysis of the business plan reflecting uncertainty in the sales forecast of each business unit.

Responsibilities of Management, the Audit and Supervisory Committee for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as required by IFRSs, matters related to going concern.

The Audit and Supervisory Committee are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with IFRSs.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit and Supervisory Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit and Supervisory Committee with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit and Supervisory Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

<The Audit of the Internal Control over Financial Reporting>

Opinion

Pursuant to Article 193-2, paragraph 2 of the Financial Instruments and Exchange Act, we also have audited the accompanying management's report on internal control over financial reporting of Advantest Corporation and its subsidiaries (the Group) as of March 31, 2021.

In our opinion, the accompanying management's report on internal control over financial reporting, which states that the internal control over financial reporting was effective as of March 31, 2021, present fairly, in all material respects, the results of the internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

Basis for Opinion

We conducted our audit of the internal control over financial reporting in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Internal Control over Financial Reporting section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management, the Audit and Supervisory Committee for the Management's Report on the Internal Control over Financial Reporting

Management is responsible for the design and operation of internal control over financial reporting and the preparation and fair presentation of the management's report on the internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

The Audit and Supervisory Committee are responsible for overseeing and examining the design and operation of internal control over financial reporting.

Internal control over financial reporting may not completely prevent or detect financial statement misstatements.

Auditor’s Responsibilities for the Audit of the Internal Control over Financial Reporting

Our objectives are to obtain reasonable assurance about whether the management’s report on internal control over financial reporting is free from material misstatement based on our audit of the internal control over financial reporting and to issue an auditor’s report that includes our opinion.

As part of an audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Perform audit procedures to obtain audit evidence about the results of the assessments of internal control over financial reporting in the management’s report on the internal control over financial reporting. The audit procedures for the audit of the internal control over financial reporting are selected and performed, depending on the auditor’s judgment, based on significance of effect on the reliability of financial reporting.
- Evaluate the overall presentation of the management’s report on the internal control over financial reporting, including the appropriateness of the scope, procedures and results of the assessments that management presents.
- Obtain sufficient appropriate audit evidence about the results of the assessments of internal control over financial reporting in the management’s report on the internal control over financial reporting. We are responsible for the direction, supervision and performance of the audit of the management’s report on the internal control over financial reporting. We remain solely responsible for our audit opinion.

We also provide the Audit and Supervisory Committee with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Notes to the Readers of Independent Auditor’s Report:
This is an English translation of the Independent Auditor’s Report as require by Financial Instruments and Exchange Act for the conveniences of the reader.

2. Management Policy, Business Environment, and Issues to be Addressed etc.

Future expectations included in this section are based on judgements of Advantest as of March 31, 2021**.**

(1) Advantest's Basic Management Policy

Advantest has established a corporate vision of “Enabling Leading-Edge Technologies,” and mission is to contribute to the development of society through the development of cutting-edge technologies. As Advantest anticipates that semiconductors will play an increasingly important role in solving social issues, they will pursue customer value through an evolving semiconductor value chain. In carrying out this mission, all executives and employees understand the “The Advantest Way,” aim to respect all stakeholders and realize a sustainable society. At the same time, Advantest strives to achieve sustainable development and enhance its corporate value over the mid/long-term.

(2) Management Strategy and Others

In FY2018, Advantest formulated a 10-year mid- to long-term management policy, its “Grand Design,” which defines the commitments and strategies needed for Advantest to continue to be a company that embodies its corporate mission of “Enabling Leading-Edge Technologies.” At the same time as the Grand Design, Advantest formulated its first three-year mid-term management plan (FY2018-FY2020) (MTP1) to achieve the goals of the Grand Design, and has since executed the strategies MTP1 called for.

MTP1 was successfully completed in FY2020 with results exceeding all management targets. Based on these achievements, Advantest has now updated its Grand Design and newly formulated its second mid-term management plan (FY2021-FY2023) (MTP2). Under MTP2, Advantest aims to make a further leap forward in order to secure its progress toward achieving the goals of the Grand Design.

1. Grand Design (10 years) FY2018 – FY2027

<Vision Statement>
Adding Customer Value in an Evolving Semiconductor Value Chain

<Strategy>
Advantest is expanding its business domains beyond the development and sales of semiconductor volume production test systems to also include adjacent markets such as semiconductor design / evaluation processes and product / system level test processes, which are performed before and after semiconductor volume production processes, with the aim of expanding and growing corporate value.

To achieve the above, Advantest will engage with five strategic issues: reinforce core businesses, invest strategically; seek operational excellence; explore value to reach a higher level; pioneer new business fields; and enhance ESG initiatives.

<Mid/Long-Term Management Goals>
¥400B in annual sales

Previously, Advantest set the final goal of the Grand Design at ¥300B - ¥400B in annual sales, but Advantest has now revised this target upward, as the lower limit of the target range was already reached in FY2020. In addition, Advantest originally planned to achieve this goal in FY2027, but will now aim for it to be achieved earlier, based on the progress of Advantest’s business performance and future business outlook.

2. Summary of First Mid-Term Management Plan (MTP1, FY2018-FY2020)

<Status of Targeted Management Metrics>

	FY2018-FY2020 average Conservative case	FY2018-FY2020 average Base scenario	FY2018-FY2020 (Results)
Sales	¥230.0B	¥250.0B	¥290.4B
Operating Margin	15%	17%	22%
Return on Equity (ROE)	15%	18%	29%
Earnings per share (EPS)	¥135	¥170	¥309

Amid the expansion of the semiconductor market and the semiconductor tester market spurred by the progress of the digital revolution, Advantest's market share expanded faster than expected (overall market share in 2017 was about 36%, while average overall market share from 2018 to 2020 was about 50%), and businesses acquired through M&A made rapid contributions to business performance. As a result, all metrics exceeded the targets set under the base scenario of MTP1.

3. Outline of Second Mid-Term Management Plan (MTP2, FY2021-FY2023)

<Targeted Management Metrics>

Under MTP2, Advantest will promote efforts to strengthen its business for further growth, expand growth investment as well as shareholder returns, and strive to increase corporate value. Given this framework, the management metrics that are emphasized in MTP2 are sales, operating margin, net income, return on equity attributable to owners of the parent (ROE), and earnings per share (EPS). Advantest will endeavor to grow all these numbers. In order to evaluate the progress of the plan from a mid/long-term perspective, Advantest will use three-year averages so as to minimize the impact of single-year performance fluctuations.

The numerical targets for MTP2 are as follows:

	FY2021-FY2023 average
Sales	¥350-380B
Operating Margin	23-25%
Net Income	¥62-70B
Return on Equity (ROE)	20% or more
Earnings per share (EPS)	¥320-370

※These predictions assume an exchange rate of 1 USD＝105 JPY

<Key Measures>

・Semiconductor and component test system business Segment
- Capture the expanding demand for test equipment for smartphone-related SoC semiconductors and HPC (high performance computing) devices by leveraging the strengths of the new V93000 EXA Scale
- Establish a leading position in test for millimeter-wave related devices, a sector that will enter full-scale growth from 2022 onwards
  Maintain a strong business foundation for DRAM and non-volatile memory device test

・Mechatronics business Segment
- Expand sales opportunities by providing test cell environments that deliver better test quality

・Services business Segment
- As demand for system level testing (SLT) increases, win more customers in mobile, HPC, memory /

storage, etc. In addition, expand recurring business for SLT consumables
- Promote the search for an innovative business model in the data analytics field, one of Advantest’s new business areas

<Cost / Profit Structure>

As part of Advantest’s quest to increase corporate value, Advantest will maintain its high level of R&D investment, which is the source of its growth. At the same time, Advantest will improve SG&A efficiency and profitability by seeking operational efficiency gains.

<Capital Policy, Capital Allocation, Shareholder Returns>

The Company’s capital policy under MTP2 will prioritize business investments for growth while flexibly utilizing liabilities (debt) from a balance sheet management perspective that considers both capital efficiency and cost of capital. Furthermore, the Company’s policy is to maintain financial soundness and establish an appropriate capital structure to strengthen the foundations of its business and create sustainable corporate value. As a measure of financial soundness, the Company seeks a shareholders' equity ratio of 50% or more, and for capital efficiency, ROE of 20% or more.

In terms of resources for growth investment and shareholder returns, the Company anticipates a cumulative operating cash flow of ¥220 billion yen or more during the MTP2 period, and expects to utilize the excess after periodic reviews of cash on hand levels. The Company’s growth investment target will be ¥100 billion for strategic investments such as M&A, and ¥40 billion for capital investments, to be spent cumulatively over the MTP2 period. Regarding shareholder returns, the Company will change its dividend policy from a semi-annual dividend payout ratio of 30% to a minimum semi-annual dividend of ¥50 per share and a minimum annual dividend of ¥100 yen per share. The Company has set the target to achieve a total annual return ratio of 50% or more, enhance shareholder returns through dividends and share repurchases, and improve capital efficiency.

<Enhancement of ESG initiatives>

Advantest will commit to helping to solve social issues and contributing to humanity's sustainable future through its business activities. In this context, with respect to corporate governance, which is the basis for its own sustainability, Advantest will strengthen earning power through the enhancement of management and execution systems as well as establishment and operation of succession plans. At the same time, Advantest will work on sustainability factors related to human capital, such as respect for human rights and human resource development and education, and strengthen its response to climate change.

(3) Business Environment and Important Measures for FY2021

Looking at Advantest's business environment in FY2021, in the SoC semiconductor test equipment business, we anticipate an increase in test demand for advanced SoC semiconductors for smartphones and HPC amidst ongoing active technology investments in leading-edge devices. In addition, test demand for analog semiconductors is expected to increase, reflecting needs for lower electronic device power consumption and the recovery of the automobile industry. Meanwhile, in memory semiconductors, in addition to strong underlying demand, investments in miniaturization, multilayer technology, and other areas are expected to progress in 2021. We anticipate that these will drive memory semiconductor test demand, contributing to steady performance in our memory semiconductor test equipment business.

The digital revolution centered around 5G communication will stimulate demand for highly performing and reliable semiconductors over the medium to long term. Advantest will expand our business opportunities and the semiconductor test equipment market will grow over the medium to long term with the expansion of semiconductors while expecting recurring short-term demand fluctuations.

Based on this medium-long term outlook, Advantest has updated our long-term management policy “Grand Design,” mapped out in 2018 as well as the “Second Mid-Term Management Plan (FY2021-FY2023).” In order to achieve this goal, Advantest will pursue the development of a foundation for growth, improvements of both profit and loss for the period, and the efficient use of capital.

< Important Measures for FY2021>

- Promote the development of high-value-added semiconductor test solutions and explore the test solution space at the system/module level amidst increasing needs for the higher-performance, higher-reliability semiconductors that are set to drive test demand over the medium to long term
- Build out our production and support system to meet the current high level of orders and further demand growth
- Strengthen the foundations of operational excellence at the global level through inculcation of The Advantest Way and further human resources development
- Enhance ESG initiatives

3. Risk Factors

(1) Risk Management Systems

The Meeting of the Board of Directors and the Executive Management Committee discuss a wide range of risks in the global economy and the business environment in general. In addition, the Internal Control Committee chaired by the representative director and attended by outside directors as observers identifies and analyzes material risks throughout the Advantest group and clarifies departments responsible for individual risks and the policies and procedures for responses. Moreover, the status of design and operation of internal control systems and significant results and material deficiencies detected in the course of evaluation of internal controls shall be reported to the Board of Directors.

The Company has established a Risk Management Group headed by the representative director to respond to emergency disasters, such as flooding and pandemic.

The Company retains and manages minutes of general meetings of shareholders and minutes of meetings of the Board of Directors and their reference materials, and important documents regarding the exercise of duties by directors pursuant to the internal rules. The Information Security Committee meets monthly and reviews and implements measures to protect personal information and prevent leakage of confidential information and maintains and enhances of security of IT systems.

In this business year, Advantest conducted a simulation drill for dealing with cyberattacks and alerted all employees whenever phishing emails were received. In addition, e-learning-based information security education was provided to officers and employees and all of the eligible persons participated in the program.

The chart shows the corporate governance system, including the risk management system, is posted on the Company’s website.URL: https://www.advantest.com/sustainability/governance/governance.html

Risks Related to Advantest's Business

The risks related to Advantest's business that may have a significant impact on investor decisions are as follows. However, these are not exhaustive of all risks related to Advantest.

Forward-looking statements in the text are based on the judgments of the Company as of the end of the fiscal year ended March 31, 2021.

a. Advantest's business and results of operations are subject to significant demand volatility in the semiconductor industry

Advantest's business depends largely upon capital expenditures of semiconductor industrial, design and manufacturing companies, fabless semiconductor companies, foundries and test houses. These companies, in turn, determine their capital expenditures and investment levels largely based on current and anticipated market demand for semiconductors and products incorporating semiconductors. Such demand is influenced significantly by overall condition of the global economy. Historically, a reduction rate of capital expenditures of semiconductor manufacturers during downturns in the semiconductor industry, including investments in semiconductor test systems, has typically been much greater than a reduction rate of worldwide semiconductor sales. The semiconductor industry 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, including those of Advantest. As the complexity of semiconductors has increased in recent years, the need to ensure reliability has increased, and the difficulty of improving test efficiency has also increased. Advantest expect that demand for testers will continue to increase in the future. However, there is a risk of fluctuations in demand for semiconductors and testers due to the impact on the global economy caused by major changes in the international political situation and the spread of serious infectious diseases.

The global semiconductor market in 2018 increased by 13.7% compared to 2017, by continued high growth from the previous year despite the reduced growth in the second half of the year. In 2019, the global semiconductor market decreased by 12.0% compared to 2018, due to the impact of slowdown in global economic growth caused by geopolitical risks such as trade friction between the United State and China. In 2020, the semiconductor market increased by 6.8% compared to 2019. While the global economy stagnated due to the impact of COVID-19 pandemic, several positive factors offset this, including an increase in demand for PCs and tablets as a result of an increase in hours spent at home.

Global sales of SoC semiconductors in 2018 increased by 7.3% compared to 2017, due to a strong demand from investments in further functional advancement of smartphones from 2017. In 2019, global sales of SoC semiconductors decreased by 3.6% compared to 2018, due to remaining demand for test equipment for smartphone at a high level throughout the period, despite a decline of end-product demand and capital investment under this economic uncertainty. In 2020, global sales of SoC semiconductors increased by 7.4% compared to 2019 due to strong demand continued against the backdrop of the expansion of remote work and the enhancement of smartphone performance, despite friction between the United States and China intensified.

In 2018, global sales of memory semiconductors increased by 27.4% compared to 2017, due to demand from continuous investment in data center from 2017. In 2019, global sales of memory semiconductors decreased by 32.6% compared to 2018, due to an oversupply of memory semiconductors. In, 2020, global sales of memory semiconductors increased by 31.7% compared to2019 due to significant growth in data servers and game consoles.

The significant volatility in demand for semiconductors is affected by various factors such as:

• the overall state of the global economy;

• trends in the semiconductor industry;

• levels of investment in communications infrastructure and trends of demand in communication devices such as smartphones and wearable devices;

• demand in personal data center, computer and server industries;

• consumer demand for digital consumer products such as TVs, game devices, VR (Virtual Reality) / AR (Augmented Reality) devices;

• trends in the industrial equipment market, including automotive, robotics and medical equipment;

In FY2018, Advantest expanded its market share by demonstrating its strength as a manufacturer with the most comprehensive product portfolio in the semiconductor test equipment industry and capturing demand for new products from a broad range of customers. As a result, Advantest's net sales in FY2018 increased by 36.3%, as compared to FY2017, to ¥282,456 million. Net income attributable to owners of the parent was ¥56,993 million due to a one-off profit of ¥3.5 billion including ¥2,530 million associated with the transfer of a portion of the defined benefit pension plan for the employees of Advantest Corporation and its subsidiaries in Japan to a defined contribution pension plan. In FY2019, major semiconductor manufacturers have actively made efforts to improve semiconductor performance, stimulating demand for semiconductor test equipment. In particular, demand in test equipment for 5G, 4G smartphone semiconductors manufactured with advanced processes remained at a high level throughout the period. However, the memory tester market shrank significantly due to an oversupply of memory semiconductors. As a result, Advantest's net sales in FY2019 decreased by 2.3%, as compared to FY2018, to ¥275,894 million. Net income attributable to owners of the parent was ¥53,532 million due to an increase in selling, general and administrative expenses. In 2020, semiconductor test equipment business, the mainstreaming of remote work and increased domestic consumption due to COVID-19 restrictions supported firm demand related to data centers and game consoles. In addition, in smartphone-related markets, Advantest compensated for this impact by striving to capture the demand for new test equipment that has arisen because of competition in handset performance. As a result, Advantest's net sales in FY2020 increased by 13.4%, as compared to FY2019, to ¥312,789 million. In terms of profit, although our sales composition ratio saw a decline in products with a high gross profit margin, a one-time profit of approximately ¥8.1 billion was recorded, consisting of gains on business transfers and gains due to the transfer to one defined benefit corporate pension plan at Advantest's German subsidiary. Net income attributable to owners of the parent was ¥69,787 million.

Advantest believes that its results are significantly affected by the significant volatility of demand in the semiconductor industry. If there is a significant downturn in the semiconductor industry, Advantest's financial condition and results of operations will be adversely affected including the write-down of inventories due to excess inventory.

To reduce this risk, Advantest is going to be flexible to meet fluctuations in demand by expanding its business into adjacent semiconductor value chain markets such as semiconductor design, evaluation processes and system level test processes. Additionally, Advantest is promoting the use of outsource manufacturing for productions while continuing to strengthen services for the development of a recurring types of business and new businesses.

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

Advantest's business is subject to risks associated with conducting business internationally because it manufactures and sells its products, and purchases parts and components from, around the world. In FY2020, 83.3% of Advantest's total net sales came from Asia (excluding Japan), a majority of which consisted of sales in Taiwan, the People's Republic of China ("China") and Korea, 9.6% from the Americas and 2.6% 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 distribution and support subsidiaries are located in the Americas, Europe, and Asian countries, including Taiwan, Singapore, Korea and China, and some of Advantest's suppliers and factories are also located overseas, such as Korea and Malaysia.

Accordingly, Advantest's future results could be harmed by a variety of factors, including:

・ risks with respect to a loss of demand for Advantest's products, inability to supply products and services, or a decline in supply capacity due to inability to procure parts due to import and export restrictions and distorted licensing systems in response to protectionist policies such as trade friction between the United States and China;

・ political and economic instability, including economic and political disruptions, disputes, natural calamities, epidemics or other risks related to countries where Advantest procures its components and parts or manufactures and sells its products;

・ risks with respect to disrupting the movement of people and the flow of goods and bringing the entire economy to a standstill caused by epidemics, including infections, spread throughout the world as the global economy develops;

・ risks with respect to procurement due to the closure or reduced operation of suppliers' production facilities in specific regions and the limited means of transportation caused by the pandemic;

・ risks with respect to social and political crises and issues resulting from deterioration in the political, economic relationships, struggle for supremacy, terrorism, war or other conflicts between countries;

・ potentially negative consequences from changes in tax laws or disagreement with National Tax Bureau;

・ risks with respect to international taxation, including transfer pricing regulations;

・ difficulty in staffing and managing widespread operations;

・ differing protection of intellectual property;

・ difficulties in collecting accounts receivable because of distance and different legal rules;

・ risks with respect to decline in the quality of procurement and manufacturing where Advantest's suppliers or manufacturing facilities are located in countries that do not have developed infrastructures in mechanical processing and assembly;

・ risks with respect to delays or stagnation in the manufacture and shipment of products by the shutdown of suppliers and production plants, the occurrence of major local disasters caused by global warming and climate change;

・ risks with respect to increases in cost, delays in delivery or expenses in repairing products where low quality and counterfeit products are mixed into the supply chain;

To reduce this risk, Advantest will work to build a system that is less susceptible to economic and political trends by collecting information on overseas risks in a timely manner, further strengthening customers and suppliers relationships, expanding procurement locations and multiple production sites to be more flexible.

c. Advantest has assumed the following risks associated with the spread of the COVID-19

(1) Interruptions to business / reduced efficiency due to possible infection of employees of the Advantest Group, customers, and/or suppliers
(2) Problems caused by long-term restrictions on movement and lockdowns around the world
   i) Declines in product supply capacity due to shortages of manufacturing personnel at the Advantest

Group / subcontractors

ii) Decreased ability to provide customer support due to restrictions on movement

iii) Declines in product supply capacity due to global supply chain disruptions causing difficulties in the procurement of materials and components

(3) Decreases in end-product demand and spillover effects to the electronics industry as a whole, and a slowdown in the semiconductor and semiconductor manufacturing equipment markets

(4) Potential significant mid-term changes in the structure of the semiconductor industry resulting from changes in customer supply chains

(5) Changes in Advantest's business environment due to changes in human behavior and society in the post-COVID-19

To reduce this risk, Advantest's Risk Management Group , which is under the direct control of the president, conducts activities including (1) a implementation of measures that places the highest priority on the safety and health of employees, through telecommuting and banning of business trips, (2) online support for customers, (3) global understanding of production, sales, inventory and logistics conditions, (4) Business Continuity Plan in place if Advantest has infected person, (5) interchange information of best practices and support material among group companies, and (6) cash management, in order to respond to the COVID-19.

d. If Advantest does not introduce new products in a timely manner and at competitive prices that meets customers technical requirements, existing products will become obsolete, which will affect its financial condition and results of operations

Advantest sells its products to several industries that are characterized by rapid technological changes, frequent introduction of new products and services, varying and unpredictable product lifecycles and evolving industry standards. Advantest anticipates that future demand for its products will be driven, in large part, by technological innovation in semiconductor technology, which creates new testing requirements that are not adequately addressed by currently installed semiconductor test systems. Customer needs in response to these technological innovations, and their needs for greater cost-effectiveness and efficiency to respond to the market environment, include:

• test solutions of SoC semiconductors that incorporate more advanced memory semiconductors, logic, analog and sensor circuits;

• test solutions of power semiconductors that control small and large motor drives;

• solutions for complex SOC devices incorporating heterogeneous chips in a single advanced package e.g. 3D integration through TSV (Through Silicon Via) technology;

• solutions of parametric test for measuring and verifying electrical and timing characteristics for the characterization and monitoring of leading-edge semiconductor wafers.

• mechatronics-related products which transport devices faster, more accurately and more stably;

• test solutions of testing technologies that employ self-test circuit designs incorporated into semiconductor chips;

• test solutions of testing technologies that employ test circuit designs for device under test (DUT);

• test solutions of system level testing that guarantees performance of the final products;

• test solutions of testing temperatures for dynamic and delicate control of test environment;

• prompt response and quick repair in the event of failure;

• total solutions that allow customers to reduce their testing costs; and

• solution by electron-beam metrology to enable reliable pattern critical dimension measurement or defect review on a leading-edge photomask.

Advantest also believes demand for its products, including semiconductor and component test systems, is affected by the level of demand for personal computers, high-speed wireless and wireline data services, digital consumer products, advanced driver assistance system (ADAS) and communication devices, such as smartphones, wearable devices and data center. It is likely that advances in technologies used in those products and services will require new testing systems. Without the timely introduction of semiconductor test systems which is capable of effectively testing and measuring equipment that use these new technologies, Advantest's products and services may become technologically obsolete over time.

A failure by Advantest to meet its customers' technical requirements at competitive prices or to deliver conforming equipment in a timely manner may result in its products being replaced by those of a competitor or an alternative technology solution. Furthermore, Advantest's inability to secure sufficient personnel appropriate for the business during a period of recovery or its inability to provide a product that meets requested performance criteria at an acceptable price when required by its customers would severely damage its reputation with such customers and may adversely affect future sales efforts with respect to such customers.

To reduce this risk, Advantest seeks to identify the next technological innovation, new products, and rapid creation of new markets by holding technology exchange events with leading customers and providing opportunities to exchange information on leading-edge solutions. In addition, Advantest conducts basic research on elemental technologies for the next generation, and production engineering from the initial stages of product development to prepare for mass production. In addition, through a business alliance with PDF Solutions, Advantest conduct research on new products that take into account potential demand by utilizing data analysis of semiconductor manufacturing processes to grasp customer needs in a timely manner.

e. Advantest may not ensure management stability and sustainability if a succession plan of CEO and other personnel is not developed or does not function

Advantest formulates a succession plan of CEOs and other personnel by the Board of Directors, which plays a central role in formulating plans, after the Nomination and Compensation Committee deliberating. However, if the succession plan is not developed or does not work, management stability and sustainability may not be ensured.

To reduce this risk, Advantest recognizes the importance of succession planning, the Nomination and Compensation Committee is deliberating (1) required human resource requirements, (2) selection of candidates, (3) development of candidates over time, (4) evaluation of candidates by Nomination and Compensation Committee members and (5) selection of candidates.

f. Advantest's dependence on a sole source or a limited number of suppliers for its components and parts may prevent it from delivering its products on a timely basis or its failure to meet the demand for its products upon a sudden expansion of the markets may adversely affect its future market share and financial results

Advantest relies on suppliers to perform some of the assembly requirements for its products. In addition, many of the components used in Advantest's semiconductor and component test systems and mechatronics systems are produced by suppliers based on Advantest's specifications. Advantest's reliance on these suppliers may give it less control over the manufacturing process and exposes it to significant risks, especially inadequate manufacturing capacity, late delivery, substandard quality, lack of labor availability and high costs. In addition, Advantest depends on a 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 a supplier becomes unable to provide components or parts in the volumes needed and at acceptable prices, or if a supplier withdraws from business thereby stopping production or sales of custom or general components and parts that Advantest uses or will use in the future, or a large scale natural disaster or electricity shortage occurs, Advantest would have to identify and procure acceptable replacements. Advantest may lose its capacity to supply test systems if it becomes unable to procure acceptable replacements. Suppliers have typically adjusted their production capacity through the reduction of production lines and personnel. Therefore, if the market for semiconductor and component test systems and mechatronics systems were to suddenly expand, Advantest would require significant increases in production capabilities including personnel, as well as materials, components and supplies from suppliers, in order to fully capitalize on such expansion. Furthermore, the markets for semiconductors and other specialized components had, in the past, experienced periods of inadequate supply to meet demand. Moreover, there may be a shortage of components if a large-scale natural disaster or electricity shortage occurs. The process of selecting suppliers and of identifying suitable replacement components and parts is lengthy and may result in Advantest being unable to deliver products meeting customer requirements in a timely manner. Advantest has, in the past, been unable to deliver its products according to production schedules primarily due to the inability of suppliers to supply components and parts based on Advantest's specifications and by other shortages in components and parts. Moreover, a deterioration in the financial position of Advantest's suppliers reflecting the decline in the economic environment or the failure of Advantest to adjust to large increases in demand for its products during the period of recovery in demand could result in Advantest losing one or more of its existing large-volume customers or losing the opportunity to establish a strong relationship with potential large-volume customers with which it currently does little or no business. Such failure may adversely affect Advantest's future market share and its financial results.

To reduce this risk, in accordance with for product design best practices, taking into account the latest technology, determined by Advantest internal working group. By doing so, Advantest is able to create and update a standard parts list of multiple potential suppliers, taking into account the parts lifecycle, while also looking to standardize parts and designs, and to build systems which are not overly reliant on specific suppliers. In addition, it is important to consider various risks when selecting suppliers for components and parts. Furthermore, when selecting these suppliers, Advantest takes various risks into consideration and search for the best partners, and continuously evaluate and review them.

g. Advantest faces fierce competition in its businesses, and if Advantest is not able to maintain or expand its market share, its business may suffer

Advantest faces stiff competition throughout the world. Advantest's primary competitors in the semiconductor and component test system market include, among others, Teradyne, Inc., Cohu, Inc., YIK Corp., UniTest Inc. and EXICON Ltd. In the mechatronics system related market, Advantest also competes with Cohu, Inc., TechWing, Inc., and Hon. Precision, Inc. in test handler devices, and with TSE Co., Ltd., ESA Electronics Pte Ltd., TFE Inc. and ISC. Ltd in device interfaces. Some of these competitors have greater financial and other resources than Advantest.

Advantest faces many challenges in its businesses, including increased pressure from customers to produce semiconductor and component test systems, mechatronics systems that reduce testing costs, and catering to customers that have developed internal test solutions. Due to the characteristics of recurring types of business(equivalent to the running cost of the customer), there are numerous demands for cost reductions in device interfaces. If a competitor acquires a vendor that supplies core technology components, or if the PCB design/manufacturing technology that is essential to achieving high performance is leaked to a competitor, Advantest would lose its product performance advantage and pricing control, hence making it difficult to maintain or secure business.

To compete effectively and maintain and expand its market share, Advantest must continue to enhance its business processes to lower the cost of its products or introduce enhancements that lower overall testing costs. Advantest also expects its competitors to continue to introduce new products with improvements in price and performance, as well as increasing their customer service and support offerings, and expects new market participants to launch low-price testers. Significant increases in competition may weaken Advantest's earnings.

To reduce this risk, Advantest strives to maintain product competitiveness by understanding its customer needs, analyzing the competitive landscape, and provide unique technologies as well as value-added solutions.

h. Advantest may not be able to meet the targets set in its strategies and mid/long-term management goals

The attainment of goals such as those in mid/long-term management goals are subject to various internal and external factors, including the general economic and market conditions in which Advantest and its customers operate, the level of competition, the level of corporate capital expenditure, the level of demand for Advantest's products and fluctuations in exchange rates. As a result, any strategies and mid/long-term management goals and targets (as amended from time to time) should not be treated as forecasts of future results. There can be no assurance that Advantest's strategies to accomplish mid/long-term management plans and implementation of such strategies will be successful, that the implementation of its strategies will have the intended effects, that the mid/long-term management goals or other targets (whether quantitative or qualitative, and as amended from time to time) will be met, or that such goals, targets and aims will not be changed in the future by Advantest's management.

To achieve these targets, Board of Directors and the Executive Management Committee and the Internal Control Committee conduct risk analysis to continuously verify scenarios of what changes will have an impact on performance.

i. Advantest has top tier customers that account for a significant part of the net sales and thus has risk of losing those customers or fluctuations in their investment. Additionally, Advantest may not be able to recover trade receivables if top tier customers experience a deterioration in their financial position

Advantest's success depends on its continued ability to develop and manage relationships with its major customers. A small number of such major customers currently account for a significant portion of its net sales. Sales to Advantest's five largest customers accounted for approximately 30% in FY2019 and approximately 34% in FY2020. The success and loss of one or more of these major customers, changes in their capital expenditures or failure of their main products could materially harm Advantest's business. Furthermore, if Advantest's major customers experience deterioration in their financial position and are unable to fulfill their payment obligations to Advantest in accordance with the applicable terms, Advantest's business, results of operations and financial position may be adversely affected.

To reduce this risk, Advantest seeks to gain broad customer base by entering new markets and developing new customers and emerging market, while paying attention to operating efficiency.

j. Advantest's product lines are facing price pressure

Price pressure on Advantest's businesses is adversely affecting Advantest's operating margins. Irrespective of the trend in the demand for semiconductors, there is ongoing price pressure on semiconductors, which puts continuous pressure on the market price for products in the Semiconductor and Component Test System Segment and Mechatronics System Segment. During periods when there is rapid decrease in semiconductor prices, semiconductor manufacturers, foundries, and test houses, which are Advantest's customers, seek to increase their production capacities while minimizing their capital expenditures. In addition, increased competition in the market for digital consumer products, personal computers, mobile devices such as smartphones and wearable devices, data servers and automotive semiconductors have driven down prices of these goods, subsequently creating price pressure on Advantest's product lines. If prices of semiconductors continue to decline, customers may postpone capital expenditures on new equipment by remodeling or adapting the usage of existing equipment. In recent years, the number of customers adopting multiple-vendor system has increased, and it making Advantest face further price pressure. If price pressure further increases in the future, Advantest's financial condition and results of operations may be adversely affected.

To reduce this risk, Advantest attempts to maintain product price at a level that satisfies their customers by providing proprietary technologies and solutions of high value solution. At the same time, Advantest works continuously to improve profitability by reducing production costs.

k. Fluctuations in exchange rates could reduce Advantest's profitability

The majority of Advantest's net sales are derived from products sold to customers located outside of Japan. Of Advantest's FY2020 net sales, 95.5% were from products sold to overseas customers. Approximately 65% of Advantest's net sales in FY2020 were derived from currencies other than the Japanese yen, predominantly the U.S. dollar. If the Japanese yen becomes strong relative to foreign currencies (mostly the U.S. dollar), it may adversely affect Advantest's sales because it cannot necessarily pass on product price.

With respect to the Euro, if the Japanese yen weakens, there may be a negative impact on Advantest's profitability since there are currently more costs incurred in Euro than net sales derived in Euro.

In addition, significant fluctuations in the exchange rate between the Japanese 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 Japanese yen, and reduce the Japanese yen equivalent amounts of its foreign sales for products that are based in U.S. dollars or other foreign currencies, thereby reducing its profitability overall. 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 Japanese yen and the foreign currencies in which Advantest's sales are denominated.

Furthermore, 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 prepare their financial statements against the Japanese yen. Foreign exchange rate fluctuations may have an effect on those amounts not denominated in yen which are translated into yen for Advantest's consolidated financial statements, and depending on the direction of the foreign exchange fluctuation, it may have an adverse effect on Advantest's reported financial position, results of operations and net assets.

To reduce this risk, in addition to rebalancing currency holdings, Advantest strives to reduce the impact of currency fluctuations through the use of foreign exchange contracts and other financial instruments, and balance sheet management to ensure that foreign currency denominated financial assets and liabilities are offset.

l. 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 semiconductor and component test systems products and mechatronics systems 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 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. 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.

To reduce this risk, Advantest attempts to improve return on investment by developing product roadmaps that meet customer needs through technology exchange meetings, improving development efficiency through the creation of product platforms, and strengthening marketing through proactive evaluation of investment returns with ROIC and innovative product development.

m. The market for Advantest's major products is highly concentrated, and Advantest may not be able to increase sales of its products because of limited opportunities

The market for test systems for memory semiconductors in the Semiconductor and Component Test System Segment is highly concentrated, with a small number of large semiconductor manufacturers, foundries and test houses accounting for a large portion of total sales in the semiconductor and component test system industry. Advantest believes that this market concentration could become even more severe in the future as larger semiconductor device manufacturers, foundries and test houses acquire semiconductor market participants, and as corporate restructuring, such as elimination and consolidation of businesses, progresses. Advantest's ability to increase sales will depend in large part upon its ability to obtain or increase orders from large-volume customers. Furthermore, in the event there is an over-supply of semiconductor and component test system products on the second-hand market reflecting, among others, restructuring within the industry, or delay to meet the specific needs of Advantest's customers, Advantest faces an additional risk of losing its sales opportunities.

To reduce this risk, Advantest develops products for a variety of applications to strengthen customer partnerships and avoid missed opportunities. On the other hand, Advantest aims to expand its business domain by launching new businesses and M&A.

n. Goodwill and intangible assets etc. resulting from Advantest business acquisitions or capital and business alliance could have a material adverse effect on Advantest's financial condition and results of operations due to significant impairment charge

If there is any indication of impairment for property, plant and equipment, goodwill and intangible assets, the assets are tested for impairment. Goodwill is tested for impairment both annually and when there is any indication of impairment. An impairment loss is recognized if the recoverable amount of an asset, cash-generating unit (CGU) or CGU group is less than its carrying amount. Especially, if goodwill and intangible assets resulting from acquisitions do not have the expected synergy effects, Advantest may be required to record a significant impairment charge, which could have a material adverse effect on Advantest's financial condition and results of operations.

Advantest also holds investment securities for the purpose of promoting capital and business alliance. A significant decline in stock prices or significant deterioration in the financial condition of the company issuing the shares could have a material adverse effect on Advantest's financial condition and results of operations.

To reduce this risk, when acquiring a business through M&A and other means, investments should be made taking into consideration the time it will take to recover the capital cost. Furthermore, after the acquisition, Advantest will be able to organically function in terms of strategy, sales network, management system, employee awareness and information systems. In order to achieve synergies, Advantest will execute Post Merger Integration (PMI) plan and aim to realize the effects as soon as possible.

o. If Advantest's main facilities for research and development, production or information technology systems for its businesses, or the facilities of its subcontractors and suppliers, were to experience catastrophic loss, its results of operations would be seriously harmed

Advantest's main facilities for research and development for its Semiconductor and Component Test Systems and Mechatronics System Segments production, as well as Advantest's service bases, are located in Gunma Prefecture, Saitama Prefecture and Miyagi Prefecture in Japan. In addition, the main system server and the network hub are maintained in system centers approved by the Information System Management System, or ISMS, and local servers are located in certain operations offices in Japan.

Japan is a region that is susceptible to frequent earthquakes. If Advantest's facilities, particularly its semiconductor and component test system manufacturing factories, were to experience a catastrophic loss from, but not limited to, earthquakes or floods, it would materially disrupt Advantest's operations, delay production, shipments and revenue, and may result in large expenses to repair or replace the facilities. Advantest has insurance to cover 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. Similar disruptions to Advantest's business may occur if the facilities of Advantest's subcontractors and suppliers or if the facilities of Advantest's information system network were to experience a catastrophic loss.

Advantest has prepared itself for crises such as large-scale natural disasters, and each department of Advantest has documented its own disaster-response procedures and manuals. Furthermore, in order to prevent any disruption of its core businesses, or in case of suspension, to re-start the suspended businesses, including the recovery of important facilities, in the shortest possible time, Advantest formulated and implemented a "Business Continuity Plan." However, if such Business Continuity Plan is not effective, Advantest's core businesses could be disrupted at a time of crisis, such as large-scale natural disasters, and could take a substantial amount of time to recover.

To reduce this risk, Advantest has a developed a business continuity plan to ensure that business operations are not interfered with decentralizing production facilities and suppliers. Additionally, Advantest stores corporate records and data in a cloud system.

p. Advantest may not be able to recover its capital expenditures

Advantest continues to make capital expenditures. Advantest may not be able to recover the capital expenditures for such projects within the assumed timeframe, or at all, if it cannot achieve the assumed volume of sales due to customers cutting back on capital expenditures or if intense competition with competitors results in a reduction in unit prices. In such event, the asset would be subject to impairment, which may have an adverse impact on Advantest's profitability.

To reduce this risk, Advantest decides capital expenditures after the review of return on investment based upon capital cost. Advantest also continues to monitor the expected growth rate which is an investment effect, and continue to consider the optimal future investment decision.

q. Advantest's financial position and business performance may be adversely affected by damage to its brand power or loss of trust

Advantest may experience damage to its brand power or less credibility due to the degradation of safety, reliability, or product performance as well as acts that may violate laws and regulations or social ethics. These would result in a suspension of trading, sanctions, or other social measures.

Advantest manufactures its products in accordance with internationally accepted quality control standards such as ISO 9001. However, Advantest cannot guarantee that there are no defects in its products. Advantest maintains product liability insurance but cannot guarantee that such insurance will sufficiently cover the ultimate amount of damages with respect to Advantest's liabilities. Therefore, shipping stoppage and delivery delay due to quality defects of parts or manufacturing defects of products, large scale accidents due to product defects or any discovery of defects in its products could harm Advantest's reputation for not adequately addressing defects, could cause Advantest to incur higher costs, could result in claims for damages.

To reduce this risk, Advantest undertakes design review at the initial design stage and cross-references with the quality assurance division to provide products with high reliability. Advantest also established the Compliance Committee to maintain its credibility and perform activities to raise awareness of legal compliance that have been carried out.

r. When chemicals used by Advantest may become subject to more stringent regulations or environmental laws and regulations are tightened, Advantest may be required to incur significant costs in adapting to new requirements

Advantest uses chemicals in the manufacturing of its products, 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 begin to regulate other chemicals used by Advantest. While Advantest is taking measures to eliminate toxic substances included in parts used to manufacture its products, Advantest uses solder, which contains lead for mounting electronic parts and components for its products except for some of them, in order to ensure the reliability of its products as a matter of priority. Further, as a method to cool some of its semiconductor and component test systems and mechatronics systems, Advantest uses fluorinated liquid which use is not currently regulated by laws. Advantest believes that it is complying with regulations with respect to the use of chemicals by promoting environmental policies for its products with the focus on ensuring the safety and the reliability of its products; however, Advantest must be prepared to adapt to regulatory requirements in all relevant countries as requirements change. Advantest may be required to incur significant cost in adapting to new requirements. Any failure by Advantest to comply with applicable government or industry regulations could result in restrictions on its ability to carry on with or expand sales of its products. Regarding global environmental issues, in the event that greenhouse gas emission regulations, energy efficiency regulations, European circular economics regulations, carbon taxes, and other environmental laws and regulations become stricter in the future, there is a possibility that a large amount of expenses will be incurred in response to these regulations.

To reduce this risk, Advantest seeks to find alternative technology as well as monitor environmental regulations for chemical materials and legal regulation.

s. Advantest is at risk of not being able to raise funds when necessary

As for the working capital requirements, Advantest shall appropriate the cash and deposits earned from its operating activities. In the event that it becomes necessary to raise funds due to an acquisition or a sudden downturn in economic conditions, it may issue bonds or borrow funds from financial institutions. In the event of financial market instability or a reduction in Advantest's credit rating due to a deterioration of creditworthiness, there is no guarantee that Advantest will be able to procure funds in a timely manner, which could affect the results of operations and financial position.

To reduce this risk, Advantest have built a strong financial position to withstand sharp demand fluctuations. Furthermore, Advantest maintains friendly relations with several financial institutions to enable the immediate borrowing of funds and the establishment of commitment lines when necessary.

t. Advantest may face risks related to intellectual property including the possibility that a third-party claim that their intellectual property has been infringed upon. This can potentially result in Advantest not being able to adequately protect their intellectual property.

Advantest may be unknowingly infringing on the intellectual property rights of third parties and may be held responsible for doing so. If Advantest were to lose an appeal, it may be forced to pay significant damages, pay license fees, modify its products or processes, stop making products or stop using processes. In order to reduce this risk, Advantest makes an effort to conduct research on intellectual property to not infringe on other companies' intellectual property throughout the R&D stage and prior to product shipment.

Additionally, Advantest relies on patents, utility model rights, design rights, trademarks and copyrights obtained in various countries to actively protect its proprietary rights. In general, it is difficult for Advantest to gain access to, and investigate, products believed to be infringing intellectual property rights. Nonetheless, Advantest believes it is important to protect its intellectual property rights from third party infringement and will continue to monitor breaching of its intellectual property. Furthermore, Advantest will also communicate compliance to its customers.

u. The labor market is very competitive, and Advantest's business could have a material adverse effect upon Advantest's business operations and business results if Advantest is unable to hire and retain diverse technical experts and important staff for operations

In order to develop business in the rapidly changing electronics industry, Advantest needs to secure a diverse range of human resources who are familiar with R&D, manufacturing, marketing, sales and maintenance services and other technical experts. In addition, Advantest believes it is important to continuously develop and maintain human resources with management capabilities such as business strategy and organizational management.

Therefore, in addition to hiring new graduates, Advantest employs and secures a wide range of experienced personnel on a global basis, continuously review personnel systems and conduct employee education, as well as strive to establish and develop employees.

However, the competition for continuously hiring and retaining the necessary personnel is fierce. If Advantest does not proceed as planned or becomes less attractive to employees, it would result in the outflow of human resources due to the group's system becoming unattractive caused by a delay of improvements in the working environment. Thus, Advantest's business could have a material adverse effect upon Advantest's business operations and business results.

To reduce this risk, in addition to recruiting based on long-term view and job rotation upon a global basis, Advantest tries to stabilize the workforce by improving the working environment and improving engagement.

v. If Advantest is unable to promptly proceed with Digital Transformation of Core systems and processes on business, Advantest's business results could have a material adverse effect

Digital Transformation is an initiative to increase the competitiveness of companies with data and digital technologies. There are high expectations for digital transformation in a wide range of fields, including the utilization using IoT and artificial intelligence to revolutionize manufacturing floor, the creation of new value through the sharing of data between production facilities and logistics, and the response to changes in the business environment brought about by the COVID-19.

However, as proceeding with Digital Transformation if Advantest is unable to make full use of date due to the aging, complexity, and black-boxing of existing IT systems, or to keep resources for IT investment that utilizes new digital technology due to funds and human resources are dedicated the maintenance of existing systems, it loses competitiveness, the maintenance cost of the old system becomes high, or system problems and data loss occur by the retirement of system maintenance operation person in charge or the aging of the population, Advantest's business results could have a material adverse effect.

To reduce this risk, Advantest reviews IT systems and considers applications continuity and alternatives to new market technologies. Advantest is also working to expand the Digital Workplace (Workplaces created by digital technologies) concept worldwide and connect it to opportunities for organizations to innovate.

w. Damage, interference or interruption to Advantest's information technology networks and systems could hinder business continuity and lead to substantial costs or harm Advantest's reputation

Advantest relies on various information technology networks and systems, some of which are managed by third parties, to process, transmit and store electronic information, including confidential data, personal information and to carry out and support a variety of business activities, including manufacturing, research and development, supply chain management, sales and accounting. Advantest has the Information Security Committee to create policies on information security measures. The IT section builds and operates the information and technology network and system based on the above-mentioned policies. However, attacks by hackers or computer viruses, wrongful use of the information security system, careless use, accidents or disasters could undermine the defenses established by Advantest and disrupt business continuity, which could not only risk leakage or tampering of information but could also result in a legal claim, litigation, damages liability or an obligation to pay fines. If this were to occur, Advantest's reputation could be harmed, Advantest could incur substantial costs, and it may have a material adverse effect upon Advantest's financial condition and results of operation.

To reduce this risk, Advantest constantly monitors cyber-attacks to enhance their detection and strives to improve employee awareness through regular information security education.

x. Delayed or inadequate countermeasures towards climate change may have significant medium to long term effects on Advantest's business activities.

Since the Paris Agreement, the topic of climate change has become a more prevalent global issue. The acceleration of global warming will cause extreme weather events (catastrophic disasters), which will not only affect civilization through changes in the natural world and adverse impacts on transportation. Furthermore, global warming will also affect the operations of the production and processing industries, as well as damage livestock, agricultural and marine product harvests. In the mid to long term, there are also concerns about crises that humanity has yet to experience, such as rising sea levels and emissions of various Greenhouse Gas (GHG) due to thawing permafrost. These issues cannot be solved solely by individual companies, and Advantest believes that it is essential to work together with these companies and all stakeholders involved in the value chain to promote necessary countermeasures.

Advantest believes that the timely and appropriate implementation of climate change countermeasures will lead to the maintenance and expansion of Advantest's business opportunities over the mid to long term. The main risks as a result of delays or inadequate climate change measures include the following.

- Risk of being excluded from customers' supply chains, leading to a decrease in sales
- Risk of penalties or reduced business opportunities due to violations of laws, regulations, or environmental rules
- Risk of business interruption due to damage to Advantest's employees and facilities or disruption of the supply chain in the event of a major disaster
- Risk of increased tax burden, such as carbon tax

To reduce this risk, Advantest expressed its support for the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) in April 2020 and joined RE100 in July 2020. Advantest are continuously promoting measures with long-term targets in accordance with international standards for countermeasures against climate change.

- Promote the implementation of renewable energy (70% or more by 2030)
- Reduce Scope 1+2 CO_2 emissions (60% reduction by 2030)
- Reduce Scope 3 CO_2 emissions (50% reduction by 2030)

4. Management's Discussion and Analysis
(1) Analysis of Results of Operations

1) Statement of Operations

	Fiscal year ended March 31, 2020 (Millions of Yen)	Fiscal year ended March 31, 2021 (Millions of Yen)	Change (Millions of Yen)	Change (%)
Net sales	275,894	312,789	36,895	13.4
Cost of sales	(119,397)	(144,498)	(25,101)	21.0
Selling, general and administrative expenses	(97,751)	(105,870)	(8,119)	8.3
Other income (expenses), net	(38)	8,305	8,343	―
Operating income	58,708	70,726	12,018	20.5
Operating income ratio	21.3%	22.6%	1.3%	―
Financial income (expenses), net	(134)	(1,108)	(974)	8.3 times
Income before income taxes	58,574	69,618	11,044	18.9
Income taxes	(5,042)	169	5,211	―
Net income	53,532	69,787	16,255	30.4
Net income attributable to: Owners of the parent	53,532	69,787	16,255	30.4

During the consolidated fiscal year of 2020, the global economy was severely impacted by the COVID-19 pandemic. Although efforts were made in each country to balance public health and economic activity in order to save the economy, a historic recession set in, and the pace of recovery remains slow.

In Advantest's core semiconductor test equipment business, the mainstreaming of remote work and increased domestic consumption due to COVID-19 restrictions supported firm demand related to data centers and game consoles throughout the year. Automotive and industrial-related test demand continued to stagnate from early spring under the influence of lockdowns intended to contain COVID-19, and other restrictions on movement, but market conditions improved from the second half of the fiscal year due to the recovery of final-product manufacturing. Meanwhile, in smartphone-related markets, the intensifying friction between the United States and China triggered a significant adjustment in test equipment demand, but Advantest compensated for this impact by striving to capture the demand for new test equipment that has arisen as a result of competition in handset performance. Advantest also endeavored to boost sales of integrated test solutions such as mechatronics business products and system level test business products, amid further advances in semiconductor performance and reliability assurance needs.

Average currency exchange rates in the current fiscal year were 1 USD to 106 JPY (109 JPY in the previous fiscal year) and 1 EUR to 123 JPY (121 JPY in the previous fiscal year).

Net sales

Although the tester market was severely impacted by the U.S.-China tensions in the first half of the fiscal year, demand for test equipment expanded in the second half of the year due to sustained demand related to standardization of working-from-home (WFH) and competition among 5G smartphone manufacturers.

As a result of above, net sales for FY2020 increased by ¥36,895 million or 13.4%, from the previous fiscal year to ¥312,789 million.

Cost of sales

In FY2020, cost of sales increased by ¥25,101 million, or 21.0%, compared to FY2019 to ¥144,498 million. Cost of sales to net sales ratio was 46.2%, an increase of 2.9 percentage points from FY2019 due to a lower proportion of profitable products in Advantest’s product mix.

Selling, general and administrative expenses

Selling, general and administrative expenses for FY2020 increased compared to the previous fiscal year, despite the reinforcement of personnel in line with the increase in sales, growth in expenses were controlled. SG&A increased by ¥8,119 million, or 8.3%, compared to FY2019, totaling to ¥105,870 million.

Other income (expenses), net

In FY2020, other income (expense), net increased by ¥8,343 million compared to FY2019 to a gain of ¥8,305 million. This is mainly due to the fact that in the previous fiscal year, Advantest incurred a loss from the sales of fixed assets. Furthermore, in the current fiscal year, Advantest recorded a one-time gain of approximately ¥8.1 billion, including a gain on the transfer of a business and on the transition of a subsidiary in Germany's pension plan to a unified defined-benefit plan.

Operating income

As a result of the above, in FY2020, Advantest's operating income increased by ¥12,018 million, or 20.5%, compared to FY2019, resulting in operating income of ¥70,726 million. Operating income to net sales ratio was 22.6%, an increase of 1.3 percentage points from FY2019.

Financial income (expenses), net

In FY2020, net financial income decreased by ¥974 million compared to FY2019 to a loss of ¥1,108 million. This was mainly due to the foreign exchange loss caused by the appreciation of the Euro against the U.S. dollar and the decrease in interest income from fund management caused by the decline in market interest rates.

Income before income taxes

As a result of the above, income before income taxes increased by ¥11,044 million, or 18.9%, compared to FY2019, resulting in income before income taxes of ¥69,618 million in FY2020.

Income taxes

In FY2020, Advantest's effective tax rate was -0.2%, while the effective income tax rate for FY2019 was 8.6%. For more details on income taxes of Advantest in FY2020 and FY2019, see note 16 under "Notes to Consolidated Financial Statements" in "1. Consolidated Financial Statements."

Net income attributable to owners of the parent

As a result of the above, in FY2020, Advantest's net income attributable to owners of the parent increased by ¥16,255 million, or 30.4%, compared to FY2019, resulting in an income of ¥69,787 million. Net income attributable to owners of the parent to net sales ratio was 22.3%, an increase of 2.9 percentage points from FY2019.

2) Result of Production, Orders received and Sales

a. Production results

Advantest manufacturing is principally based on customer orders, and since the production results are similar to sales results, production results are not listed.

b. Orders received and Backlog by Segment

The results of orders received for the fiscal year ended March 31, 2021 by segment are as follows.

	Orders received (Millions of Yen)	Change (%)	Backlog (Millions of Yen)	Change (%)
Semiconductor and Component Test System Segment	227,188	18.0	60,687	49.1
Mechatronics System Segment	42,092	16.1	14,800	16.4
Services, Support and Others Segment	62,503	5.8	33,335	(11.3)
Elimination	(1,172)	—	—	—
Total	330,611	14.9	108,822	19.6

(Note) Amounts are excluding consumption tax and others, including inter-segment internal transfer sales.

c. Sales results

The results of sales for the fiscal year ended March 31, 2021 by segment are as follows.

	Amount (Millions of Yen)	Change (%)
Semiconductor and Component Test System Segment	207,203	5.1
Mechatronics System Segment	40,005	10.2
Services, Support and Others Segment	66,753	57.0
Elimination	(1,172)	—
Total	312,789	13.4

(Note) 1. Amounts are excluding consumption tax and others, including inter-segment internal transfer sales.

2. There were no customers whose sales accounted for more than 10% of total sales in the previous or current fiscal year.

3) Operations by Segment

Semiconductor and Component Test System Segment

In FY2020, net sales of Advantest’s Semiconductor and Component Test System Segment was accounted for 66.2% of total net sales.

In this segment, the mainstreaming of remote work helped to support a strong demand environment for SoC semiconductor test equipment for HPC (High Performance Computing) devices. In addition, the transition to higher functionality for display driver ICs and image sensors used in new smartphones with improved performance has greatly increased test demand for these types of devices, and contributed to an increase in orders. The movement to secure inventories of automotive and other types of semiconductors, which gathered momentum toward the end of the fiscal year, also boosted orders for SoC semiconductor test equipment. On the other hand, due to the exacerbation of friction between the United States and China, Advantest experienced a significant demand adjustment related to the business of some smartphone-related SoC semiconductor customers over last summer, which somewhat depressed sales and profit in this segment. Sales of test equipment for memory semiconductors remained high amidst growing test demand for memory semiconductors for data servers and game consoles.

As a result, net sales of Advantest’s Semiconductor and Component Test System Segment for FY2020 increased by ¥10,049 million, or 5.1%, compared to FY2019 to ¥207,203 million, and segment income decreased by ¥3,538 million, or 5.4%, compared to FY2019 to ¥61,617 million.

Mechatronics System Segment

In FY2020, net sales of Advantest’s Mechatronics System Segment accounted for 12.8% of total net sales.

In this segment, sales of device and interface products that closely track demand for test equipment for memory semiconductors grew in step with memory test equipment sales. In addition, a one-time gain on the transfer of Advantest's probe card business of approximately ¥2.5 billion was recorded as part of this segment's profit.

As a result, net sales of Advantest’s Mechatronics System Segment for FY2020 increased by ¥3,712 million, or 10.2%, compared to FY2019 to ¥40,005 million, and segment income improved by ¥5,452 million compared to a loss of ¥497 million for FY2019 to ¥4,955 million.

Services, Support and Others Segment

In FY2020, net sales of Advantest’s Services, Support and Others Segment accounted for 21.3% of total net sales.

In this segment, demand for Advantest's services remained strong against the backdrop of the robust semiconductor market. In addition, Advantest's acquisition of Essai, Inc., in January 2020 boosted segment sales due to the effect of consolidation. Furthermore, market needs for semiconductors with better performance and reliability raised demand for various system level test equipment, including Essai's products, contributing to a significant increase in sales.

As a result, net sales of the Services, Support and Others Segment increased by ¥24,227 million, or 57.0%, compared to FY2019 to ¥66,753 million, and segment income increased by ¥7,453 million, or 3.5 times, compared to FY2019 to ¥10,419 million.

4) Sales by Geographic Markets

Advantest’s overseas sales as a percentage of total sales was 95.5% for FY2020 (94.6% in FY2019).

Japan

Net sales in Japan decreased by ¥768 million, or 5.2%, compared to FY2019 to ¥14,021 million in FY2020.

Asia (excluding Japan)

Net sales in Asia (excluding Japan) increased by ¥24,082 million, or 10.2%, compared to FY2019 to ¥260,602 million in FY2020. This was mainly due to strong sales of test systems for DRAM and flash memory semiconductors in both China and Korea.

Americas

Net sales in the Americas increased by ¥11,643 million, or 62.9%, compared to FY2019 to ¥30,164 million in FY2020 due to significant growth in system level test business.

Europe

Net sales in Europe increased by ¥1,938 million, or 32.0%, compared to FY2019 to ¥8,002 million in FY2020.

(2) Analysis of Financial Condition and Cash Flows

1) Liquidity and Capital Resources

In accordance with Advantest’s funding and treasury policy, which is overseen and controlled by its Accounting Department, Advantest funds its cash needs through cash from operating activities and cash and cash equivalents on hand, and is able to procure funds as necessary through issuance of debt and equity securities in domestic and foreign capital markets and through obtainment of bank loans.

If conditions in the semiconductor industry, and thus the semiconductor and component test system industry, experience a downturn in the mid-term, Advantest may need to fund future capital expenditures and other working capital needs through the incurrence of issuance of debt or dilutive issuances of equity securities.

2) Cash Flows

Advantest’s cash and cash equivalents balance increased by ¥21,461 million to ¥149,164 million as of March 31, 2021.

Cash flows from operating activities

Net cash provided by operating activities was ¥67,830 million, an increase of ¥1,355 million yen compared to FY2019. This amount was attributable to an increase of ¥11,048 million in trade and other payables, an increase of ¥ 9,365 million in trade and other receivables, income tax paid of ¥ 9,159 million and adjustments of non-cash items such as depreciation and amortization in addition to the income before income taxes of ¥ 69,618 million.

Cash flows from investing activities

In FY2020, expenditure was ¥16,831 million, a decrease of ¥21,988 million compared to the previous consolidated fiscal year. This amount was primarily attributable to purchase of property, plant and equipment of ¥ 12,415 million, purchase of equity instruments(Shares of PDF Solutions, Inc.) of ¥ 6,817 million and proceeds from transfer of business of ¥ 3,295 million.

Cash flows from financing activities

In FY2020, expenditure was ¥30,415 million yen, an increase of ¥12,499 million yen compared to the previous consolidated fiscal year. This amount was primarily attributable to dividends paid of ¥15,594 million and purchase of treasury shares amounting to ¥ 14,028 million.

3) Assets, Liabilities and Equity

Total assets as of March 31, 2021 amounted to ¥422,641 million, an increase of ¥66,864 million compared to March 31, 2020. This was primarily due to the increases of ¥21,461 million in cash and cash equivalents, ¥10,602 million in trade receivables and other receivables, ¥9,891 million in deferred tax assets, ¥7,344 million in other financial assets and ¥ 6,541 million in property, plant and equipment, respectively.

Liabilities increased by ¥17,947 million from the end of FY2019 to ¥142,272 million as of March 31, 2021. This was mainly due to the increases in trade and other payables of ¥ 11,898 million and other current liabilities of ¥3,999 million.

The amount of total equity or equity attributable to owners of the parent as of March 31, 2021 was ¥280,369 million, an increase of ¥48,917 million compared to March 31, 2020 primarily due to an increase of retained earnings.

Equity attributable to owners of the parent to assets ratio was 66.3% as of March 31, 2021, an increase of 1.2 percentage points from March 31, 2020.

(3) Factors materially affecting Advantest's business results and Financial Condition

Factors materially affecting Advantest's business results and financial condition refer to "3. Risk Factors."

(4) Significant Accounting Estimates and Assumptions used in such estimates

Advantest prepares the consolidated financial statements in accordance with the IFRS issued by the International Accounting Standard Board.

The preparation of the consolidated financial statements requires Advantest to make judgments, accounting estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. These estimates and assumptions are based on the best judgment of management in light of historical experience and various factors deemed to be reasonable according to the situation. The global epidemic of the COVID-19 is not expected to have a material impact on Advantest's estimates and assumptions. However, given their nature, actual results may differ from those estimates and assumptions.

Advantest's important accounting policies and estimates are described in "note 3 and note 4" under "Notes to Consolidated Financial Statements" in "1. Consolidated Financial Statements."

5. Material Contracts

No applicable.

6. Research and Development

In order to enable leading-edge technologies, Advantest undertakes research and development initiatives to develop products which play a central role in the area of measuring technologies to support electronics, information and communications, and semiconductor manufacturing. Advantest's research and development focuses on the development of new products and the improvement of existing products. In particular, in the Semiconductor and Component Test System Segment, a large and ongoing investment in research and development is necessary in order to maintain market competitiveness and to provide many types of products that meet the various needs of the customers. Advantest also conducts research of basic technologies. Advantest's expenditures for research and development were approximately ¥40.1 billion in FY 2019 and approximately ¥42.7 billion in FY 2020. The number of employees in its research and development division is approximately 30% of Advantest group workforce.

The contents and achievements for FY 2020 of Advantest's research and development activities include:

Basic Technology

- development of electro-optic devices, optical sources, and photonic integrated circuits for optical measurements and test systems;

- development of magnetic sensors and signal processing algorism technologies for ultra-high sensitivity magnetic measurements and their applications;

- component technologies of pin-electronics, test vector and timing generation and DC parametric testing for semiconductor and component test systems;

- development of wideband signal analysis methods and algorithms used for semiconductor and component test systems or millimeter wave measurement;

- development of compound semiconductor, including less-distortion, high-voltage large-current or high-speed high-frequency devices used for semiconductor and component test systems;

- development of near future interface test technologies for multi-level signaling, new protocol and optical port; and

- development of a novel calibration methodology for ultra-high speed signal integrity and tens of thousands channels.

Semiconductor and Component Test System Segment

- development of semiconductor and component test systems that enable testing of super high speed memory semiconductors at actual motion speed;

- development of semiconductor and component test systems that enhance the functionality of testing of DRAM semiconductors and flash memory semiconductors and require less floor space;

- development of high speed memory burn in system to enable reliability and functionality testing on high parallel memory devices;

- development of semiconductor and component test systems that have the capacity to simultaneously test multiple complex SoC semiconductors with large pin counts and require less floor space;

- development of semiconductor and component test systems with specialized applications such as image sensor devices with increasingly high pixels, display driver devices with increasingly complex pixels, etc.;

- development of semiconductor and component test systems for devices that operate at extremely high frequencies such as millimeter wave communication standards and for networks that carry extremely high density transmissions;

• development of high speed transmission technologies for high speed large pin counts and high speed transmission signal contact technologies;

• development of application software for interface between the semiconductor designing environment and semiconductor and component test systems, as well as development of software to analyze defective semiconductors; and

• development of systems that impress the physical stimulus on each sensor.

Mechatronics System Segment

• development of test handlers for memory semiconductors enabling measuring of multiple semiconductors with high throughput testing;

• development of test handlers for SoC semiconductors that respond to diversified device types and packages;

• development of real Active Thermal Control technology with high speed response and high reliability for high power devices;

• development of core technology; vision alignment for fine pitch and small package by high density device;

• development of the device interface (substrate/circuit technology) to measure high speed device;

• development of conveyance technology and the device interface which supports miniaturization and fine pitches of semiconductors; and

• development of advanced electron-beam metrology systems for leading-edge photomask to measure pattern critical dimension, and to review, analyze defects found on a sample;

• development of advanced electron-beam lithography system enabling high-resolution/accuracy patterning on a wide variety of substrate.

Services, Support and Others Segment

• development of system level testing technologies and methods to test semiconductor components and modules to ensure compliance of the device in its final integrated product environment;

• development of test sockets with large pin counts, high speed response and high reliability for high power devices, and development of thermal control units;

• development of technologies and systems with particle measurement methods or bio-sensor devices to detect various microorganisms, including biological products; and

• Development of technologies and systems that apply optics and magnetism to check and diagnose living organisms.

Advantest has research and development facilities in Japan, Europe, the U.S. and China.

Advantest promotes joint development efforts between its various research facilities to capitalize on the capabilities of its researchers worldwide. Advantest’s research and development team for semiconductor and component test systems in Japan works closely with Advantest research and development teams in Europe and the U.S. for the development of hardware and software.

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Corporate Governance is posted on the Company’s website.
URL: https://www.advantest.com/sustainability/governance/governance.html