Renesas

FINANCIAL REPORT 2020

Fiscal Year Ended December 31, 2020

RENESAS ELECTRONICS CORPORATION

Contents

The following section, Management's Discussion and Analysis of Operations, provides an overview of the consolidated financial statements of Renesas Electronics Corporation (hereafter "the Company") and its consolidated subsidiaries (hereafter "the Group"), as of and for the fiscal year ended December 31, 2020.

Introduction

Financial Position, Operating Results and Cash Flow Analysis

Forward-looking statements concerning financial position, operating results and cash flow are prepared using the Group's judgment as of December 31, 2020.

(1) Significant Accounting Policies and Estimates
The Group's consolidated financial statements are prepared in accordance with International Financial Reporting Standards (hereafter "IFRS") and in accordance with Article 93 of the "Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements". In preparing these consolidated financial statements, estimates and assumptions deemed necessary are made based on reasonable standards. Significant accounting policies, assumptions for the future and uncertainties involved in the estimates used in the consolidated financial statements are listed under "Note 3. Significant Accounting Policies, Note 4. Significant Accounting Estimates and Judgments" in the Financial Section.

(2) Financial Position

	December 31, 2019	**December 31, 2020**	Increase (Decrease)
	Billions of yen	Billions of yen	Billions of yen
Total assets	1,668.1	1,609.0	(59.1)
Total equity	624.4	619.7	(4.7)
Equity attributable to owners of parent	621.5	616.7	(4.7)
Equity ratio attributable to owners of parent (%)	37.3	38.3	1.0
Interest-bearing liabilities	785.9	693.7	(92.2)
Debt to Equity ratio	1.26	1.12	(0.14)

Total assets at December 31, 2020 were 1,609.0 billion yen, a 59.1 billion yen decrease from December 31, 2019. This was mainly due to decreases in property, plant and equipment and intangible assets due to depreciation, as well as a decrease in goodwill owing to fluctuations in the exchange rate. Total equity was 619.7 billion yen, a 4.7 billion yen decrease from December 31, 2019. This was mainly due to a decrease in other components of equity owing to a decrease in exchange differences on translation of foreign operations following fluctuations in exchange rates, offset by an increase in retained earnings.

Equity attributable to owners of parent decreased by 4.7 billion yen from December 31, 2019, and Equity ratio attributable to owners of parent was 38.3%. In addition, Interest-bearing liabilities decreased by 92.2 billion yen from December 31, 2019, mainly due to a decrease from debt repayment. Consequently, Debt to equity ratio was 1.12.

(3) Overview of Financial Results
The Group discloses consolidated business results in terms of both its internal measures which management relies upon in making decisions (hereinafter the "Non-GAAP" financial measures) and those under IFRS.

Non-GAAP operating profit is calculated based on operating profit under IFRS (hereinafter "IFRS operating profit") by excluding or adjusting it for non-recurring items and other adjustments following a certain set of rules. The Group believes providing non-GAAP forecasts will help to better understand the Group's constant business results. Non-recurring items include amortization of intangible assets recognized from acquisitions, other purchase price allocation (hereinafter "PPA") adjustments, costs related to acquisitions and stock-based compensation as well as other non-recurring expenses and income the Group believes to be appropriate for exclusion.

In addition, after acquisition of IDT in March 2019 and the transition to an organizational structure based on two business units, the financial figures disclosed have been reformed into two segments: "Automotive Business" and "Industrial/Infrastructure/IoT Business" from the third quarter ended September 30, 2019. Following these changes, the Group discontinued the disclosure of the "Non-GAAP Revenue from Semiconductors" segment. For details, please refer to "Note 6. Business Segments" in the Financial Section.

Furthermore, following the acquisition of IDT and the absorption-type merger of IDT with Renesas Electronics America Inc., since January 1, 2020, the Group has begun the integration of business processes and IT systems, etc. as part of the "One Renesas" promotion. With these processes as a driver, expense classifications have been revised in order to appropriately display the Group's financial status and business performance. Changes in classifications have been applied retroactively; therefore, the consolidated financial results of the year ended December 31, 2019 have been reclassified. For details, please refer to "Note 2. Basis for Preparation, (4) Changes in accounting policy (Changes of the classification of expenses)." in the Financial Section.

(Note): For disclosure of Non-GAAP financial measures, the Group refers to the rules specified by the U.S. Securities and Exchange Commission but does not fully comply with such rules.

A) Overview of the current financial operation (Non-GAAP basis)

Summary of Consolidated Financial Results for the Fiscal Year ended December 31, 2020 (Non-GAAP basis)

		Year ended December 31, 2019 (Jan 1 – Dec 31, 2019)	**Year ended December 31, 2020** (Jan 1 – Dec 31, 2020)	Increase (Decrease)	
		Billions of yen	Billions of yen	Billions of yen	% Change
Non-GAAP Revenue		718.2	715.7	(2.6)	(0.4%)
	Automotive	371.1	341.0	(30.1)	(8.1%)
	Industrial/Infrastructure/IoT	329.7	363.6	33.9	10.3%
Non-GAAP Operating Profit Non-GAAP Operating Margin		92.5 12.9%	137.5 19.2%	45.1 6.3pts	48.7% ---
	Automotive	31.0 8.3%	48.4 14.2%	17.4 5.8pts	56.1% ---
	Industrial/Infrastructure/IoT	59.1 17.9%	89.7 24.7%	30.6 6.8pts	51.9% ---
		Yen	Yen		
Exchange rate (USD) Exchange rate (EUR)		109 123	107 121	- -	- -

Note 1: For details on the above, please refer to “Note 6. Business Segments” in the Financial Section.
Note 2: Exchange rates are the average of each month's rates used for the conversion of revenues and expenses.

<Non-GAAP Revenue>
Consolidated non-GAAP revenue for the year ended December 31, 2020 was 715.7 billion yen, a 0.4% decrease year on year. This was due to a reduction in vehicle production as a result of the COVID-19 pandemic, resulting in a decrease in revenue in the Automotive business, offset by an increase in revenue in the Industrial/Infrastructure/IoT business. This results from the steady performance of Infrastructure and IoT revenues in addition to the recording of 12 months’ worth of IDT’s revenue as Renesas’ consolidated revenue in comparison to the recording of 9 months’ worth of IDT’s revenue at the year ended December 31, 2019.

<Non-GAAP Gross Profit (Margin)>
Non-GAAP gross profits for the year ended December 31, 2020 was 338.7 billion yen, a 30.6 billion yen increase year on year. This was mainly due to the effects of sales increases in the profitable Industrial/Infrastructure/IoT business as well as reduction of fixed costs. As a result, non-GAAP gross margin for the year ended December 31, 2020 was 47.3%, an increase by 4.4 points year on year.

<Non-GAAP Operating Profit (Margin)>
Non-GAAP operating profit for the year ended December 31, 2020 was 137.5 billion yen, a 45.1 billion yen increase year on year. This was mainly due to an increase in gross profit as well as optimization of costs, mainly in selling, general and administrative expenses. As a result, non-GAAP operating margin for the year ended December 31, 2020 was 19.2%, an increase by 6.3 points year on year.

The non-GAAP revenue breakdown of the business segments for the year ended December 31, 2020 are as follows:

<u>Automotive Business</u>
The Automotive business includes the product categories “Automotive control,” comprising semiconductor devices for controlling automobile engines and bodies, and “Automotive information,” comprising of semiconductor devices used in sensing systems for detecting environments inside and outside the vehicle as well as automotive information devices such as IVI (in-vehicle infotainment) and instrument panels used to give various information to the driver of the vehicle. The Group mainly supplies microcontrollers (MCUs), system-on-chips (SoCs), analog semiconductor devices and power semiconductor devices in each of these categories.

Non-GAAP revenue of the Automotive business for the year ended December 31, 2020 was 341.0 billion yen, an 8.1% decrease year on year. This was mainly due to a decrease in sales in the “Automotive control” category owing to the reduction in vehicle production.

Non-GAAP operating profit of the Automotive business for the year ended December 31, 2020 was 48.4 billion yen, a 17.4 billion yen increase year on year. This was mainly due to an increase in gross margin owing to improvements to the product mix as well as a decrease in selling, general and administrative expenses offset by a decrease in revenue.

<u>Industrial/Infrastructure/IoT Business</u>
The Industrial/Infrastructure/IoT business includes the categories “Industrial,” “Infrastructure” and “IoT” which support the smart society. The Group mainly supplies MCUs and SoCs in each of these categories.

Non-GAAP revenue of the Industrial/Infrastructure/IoT business for the year ended December 31, 2020 was 363.6 billion yen, a 10.3% increase year on year. This was mainly due to revenue increase effects following the completion of the IDT acquisition in March 2019 and increased revenue in the “Infrastructure” category, mainly in data centers, and the “IoT” category, in OA devices for personal computers (“PCs”) which have seen increased demands owing to remote work and remote learning.

Non-GAAP operating profit of the Industrial/Infrastructure/IoT business for the year ended December 31, 2020 was 89.7 billion yen, a 30.6 billion yen increase year on year, due to a sales increase effect as well as an increase in profits owing to increases in gross margin.

The Group announced the “Mid-Term Growth Strategy” and “Financial Model” on February 17, 2020. The Group set as a long-term target of achieving sales growth exceeding that of the market through concentrated investment of management resources in markets on which the Group is focusing its attention. The Group also set non-GAAP financial targets of achieving a 50% gross margin and a 20% or more operating margin by optimizing production efficiency, improving the product mix and realizing synergies from the integration of IDT.

The targets in the " Mid-Term Growth Strategy " and "Financial Model" are the Group's long-term management objectives as of the date of filing and we cannot guarantee that they will be achieved. Results may be affected by a number of risk factors and other changes in the external environment, including the matters described under "Risk Factors" in the Management’s Discussion and Analysis of Operations.

B) Reconciliation of Non-GAAP operating profit to IFRS operating profit

(Billion yen)

	Year ended December 31, 2019 (Jan 1 – Dec 31, 2019)	**Year ended December 31, 2020** (Jan 1 – Dec 31, 2020)
Non-GAAP gross profit Non-GAAP gross margin	308.1 42.9%	338.7 47.3%
Amortization of purchased intangible assets and depreciation of property, plant and equipment	(1.7)	(1.5)
Stock-based compensation	(0.9)	(1.2)
Market value of inventories	(11.3)	---
Other non-recurring expenses and adjustments	0.6	(0.3)
IFRS gross profit IFRS gross margin	294.8 41.0%	335.7 46.9%
Non-GAAP operating profit Non-GAAP operating margin	92.5 12.9%	137.5 19.2%
Amortization of purchased intangible assets and depreciation of property, plant and equipment	(47.6)	(55.5)
Stock-based compensation	(12.0)	(14.6)
Market value of inventories	(11.3)	---
Other non-recurring expenses and adjustments	(15.2)	(2.4)
IFRS operating profit IFRS operating margin	6.3 0.9%	65.1 9.1%

(Note) “Other non-recurring expenses and adjustments” includes the non-recurring items related to acquisitions and other adjustments as well as non-recurring profits or losses.

C) Overview of the current financial operation (IFRS)

Summary of Consolidated Financial Results for the Year ended December 31, 2020 (GAAP, IFRS basis)

	Year ended December 31, 2019 (Jan 1 – Dec 31, 2019)	**Year ended December 31, 2020** (Jan 1 – Dec 31, 2020)	Increase (Decrease)	
	Billion yen	Billion yen	Billion yen	% Change
Revenue	718.2	715.7	(2.6)	(0.4%)
Gross Profit Gross Margin	294.8 41.0%	335.7 46.9%	40.9 5.9pts	13.9% ---
Operating Profit Operating Margin	6.3 0.9%	65.1 9.1%	58.9 8.2pts	940.1% ---

D) Overview of production, orders and sales

The Group manufactures and sells a wide variety of products and even if the products are of the same type, their performance, structure, and format are not necessarily uniform. In addition, there are many products that do not take the form of built-to-order production. Accordingly, the Group does not disclose the scale of production or the scale of orders received for each product category in terms of value or quantity.

Therefore, the status of production, orders received, and sales is shown in relation to the Non-GAAP revenue segment in "Management's Discussion and Analysis."

Sales to major customers and the ratio to total sales are as follows.

	Business Segments	Year ended December 31, 2019 (Jan 1 – Dec 31, 2019)		Year ended December 31, 2020 (Jan 1 – Dec 31, 2020)	
		Millions of yen	%	Millions of yen	%
Ryosan Company, Limited	Automotive and Industrial/Infrastructure/IoT Business	75,146	10.5	73,599	10.3

(Note): Tax is not included in the amounts written above.

(4) Cash Flows

	Year ended December 31, 2019 (Jan 1 – Dec 31, 2019)	Year ended December 31, 2020 (Jan 1 – Dec 31, 2020)
	Billions of yen	Billions of yen
Net cash provided by (used in) operating activities	202.0	223.9
Net cash provided by (used in) investing activities	(742.2)	(40.2)
Free cash flows	(540.2)	183.7
Net cash provided by (used in) financing activities	500.5	(104.5)
Cash and cash equivalents at the beginning of period	188.8	146.5
Cash and cash equivalents at the end of period	146.5	219.8

(Net cash provided by (used in) operating activities)
Net cash provided by operating activities for the year ended December 31, 2020 was 223.9 billion yen. This was mainly due to a recording of 65.2 billion yen in profit before tax as well as adjustments in non-cash items such as depreciation.

(Net cash provided by (used in) investing activities)
Net cash used in investing activities for the year ended December 31, 2020 was 40.2 billion yen. This was mainly due to the purchase of property, plant and equipment and intangible assets.

The foregoing resulted in positive free cash flows of 183.7 billion yen for the year ended December 31, 2020.

(Net cash provided by (used in) financing activities)
Net cash used in financing activities for the year ended December 31, 2020 was 104.5 billion yen. This was mainly due to repayments of borrowings to main financing banks.

(5) Liquidity and Capital Resources

The Group's basic financial policy is to secure adequate liquidity and capital resources for its operations and to maintain a strong balance sheet. On January 15, 2019, the Company entered into a syndicated loan agreement for a total of 897.0 billion yen with its primary financial institutions, MUFG Bank, Ltd., Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited, and others, in order to procure capital necessary for the acquisition of IDT and to renew an existing loan for the purpose of securing long-term working capital. The Company drew down 698.0 billion yen as a term-loan under the aforementioned agreement in March 2019. In addition, the Company repaid an existing term-loan in June 2019 and executed a 149.0-billion-yen term-loan agreement. On July 13, 2020, the Company entered into a commitment line agreement of 75.0 billion yen with its main banks. The objectives of the agreement are to secure flexible means of procuring financing in order to meet funding requirements for future business developments and to secure working capital, as well as to improve the stability of the Company's financial base. This agreement has been terminated on March 2, 2021.

As of December 31, 2020, the total amount of borrowings was 679.7 billion yen. As of December 31, 2020, the Group had 219.8 billion yen in cash and cash equivalents.

(6) Off-balance Sheet Arrangements

The Group conducts liquidation of accounts receivable on a regular basis. As of December 31, 2020, the balance of liquidated accounts receivable was 13.8 billion yen.

Risk Factors

The Group's operations and financial results are subject to various risks and uncertainties, including those described below, that could significantly affect investors' judgments. In addition, the following statements include matters which might not necessarily fall under such significant risks but are deemed important for investors' judgment from a standpoint of affirmative disclosure.

Descriptions about the future in the following are based on what the Group recognizes from the information available as of March 31, 2021.

1）Market Fluctuations

Semiconductor market fluctuations, which are caused by factors such as economic cycles in each region and shifts in demand of end customers, affect the Group. Although the Group carefully monitors changes in market conditions, it is difficult to completely avoid the impact of market fluctuations due to economic cycles in countries around the world and changes in the demand for end products. Market downturns, therefore, could lead to decline in product demand and increase in production and inventory amounts, as well as lower sales prices. Consequently, market downturns could reduce the Group's sales, as well as lower fab utilization rates, which may in turn result in lower gross margins, ultimately leading to deterioration in profits.

2）Fluctuations in foreign exchange and interest rates

The Group engages in business activities in all parts of the world and in a wide range of currencies. The Group continues to engage in hedging transactions and other arrangements to minimize exchange rate risks, but it is possible for our consolidated business results and financial condition, including our sales amount in foreign currencies, our materials costs in foreign currencies, our production costs at overseas manufacturing sites, and other items, to be influenced if exchange rates change significantly. Also, the Group's assets, liabilities, income, and costs can change greatly by presenting our assets and debts that are denominated in foreign currencies by converting the amounts in Japanese yen, and these can also change when financial statements in foreign currencies at our overseas subsidiaries are converted to and presented in Japanese yen.

Furthermore, since costs and the values of assets and debts associated with the Group's business operation are influenced by fluctuations in interest rates, it is also possible for the Group's businesses, performance, and financial condition to be adversely influenced by these fluctuations.

3）Natural Disasters

Natural disasters such as earthquakes, tsunamis, typhoons, and floods, accidents such as fires, power outages, and system failures, acts of terror, infection and other unpredictable factors could adversely affect the Group's business operation. In particular, as the Group owns key facilities and equipment in areas where earthquakes occur at a frequency higher than the global average, the effects of earthquakes and other events could damage the Group's facilities and equipment and force a halt to manufacturing and other operations, and such events could consequently cause severe damage to the Group's business. The similar situations may also occur due to natural disasters other than earthquakes, accidents such as fires, power outages, and system failures, terrorism, and infection etc. For example, in March 2021, a fire occurred at some processes of the semiconductor manufacturing plant (N3 building (300mm line)) of our subsidiary, causing the production and shipment of products at the plant to cease. It is difficult to make reasonable estimates for the amount of damages caused to the Group as a result of the above-mentioned plant fire as of the release date of this Financial Report 2020; however, in the future, the Group's business, results of operations and financial condition could be materially adversely affected by, among other things, the burden of costs to restore damaged plant facilities and equipment, a decrease in sales and operating income due to a decrease in plant utilization or stop, and a deterioration in gross margins.

In preparation for these risks, the Group sets and manages the BCP (Business Continuity Plan), which defines preventive plans and contingency plans etc., and also purchase various insurances; however, such plans and insurances may not fully hedge the risks or cover the losses and damages from events that we could not anticipate. Also, the current spread of COVID-19 infections worldwide and the continuing unstable social, economic, fiscal, and working environments have affected the Group's business performance and business activities. The Group puts top priority to ensure the health and safety of employees, customers, and other related parties, and strives to develop a system that allows the Group to continue its business even in the various difficulties caused by the spread of this infection. However, the expansion of the COVID-19 infections is not of the nature that the Group can directly control, so such development of such a system does not guarantee the Group's business continuity. In addition, since there is no prospect of a convergence of the COVID-19 infections, and the timing and future impact of its convergence remain uncertain at this stage, it is not possible to predict with certainty the final impact of COVID-19 infections on the Group, including whether or not there are any other impacts. If the situation surrounding COVID-19 becomes more serious or prolonged in the future, the Group's business, results of operations and financial condition may be significantly adversely affected.

4）Competition

The semiconductor industry is extremely competitive, and the Group is exposed to fierce competition from competitors around the world in areas such as product performance, structure, pricing and quality. In particular, certain of our competitors have pursued acquisitions, consolidations, and business alliances, etc. in recent years and there is a possibility that such actions will be taken in the future as well. As a result, the competitive environment surrounding the Group may further intensify. To maintain and improve competitiveness, the Group takes various measures including development of leading-edge technologies, standardizing design, cost reduction, and consideration of strategic alliances with third parties or possibility of further acquisitions. In the event that the Group cannot maintain its competitiveness, the Group's market share may decline, which may negatively impact the Group's financial results.

In addition, fierce market competition has subjected the products of the Group to sharp downward pressure on prices, for which measures to improve profitability, such as price negotiations and efforts at cost price reduction, have been unable to fully compensate. This raises the possibility of a worsening of the Group's gross margin. Furthermore, in cases where customers for the Group's products for which the gross margin is low have difficulty switching to other products or require a certain amount of time to secure replacements, it may be difficult for the Group to halt or reduce production in a timely manner. This may result in a reduction in the profitability of the Group.

5）Implementation of Management Strategies

The Group is implementing a variety of business strategies and structural measures, including the development of "The Mid-Term Growth Strategy" and reforming the organizational structure of the Group, to strengthen the foundations of its profitability. Implementing these business strategies and structural measures requires a certain level of cost and due to changes in economic conditions and the business environment, factors for which the future is uncertain, as well as additional unforeseeable factors, it is possible that some of those reforms may become difficult to carry out and others may not achieve the originally planned results. Furthermore, additional costs, which are higher than originally expected, may arise. Thus, these issues may adversely influence the Group's performance and financial condition.

6）Business Activities Worldwide

The Group conducts business worldwide, which can be adversely affected by factors such as barriers to long-term relationships with potential customers and local enterprises; restrictions on investment and imports/exports; tariffs; fair trade regulations; political, social, and economic risks; outbreaks of illness or disease; exchange rate fluctuations; rising wage levels; and transportation delays. As a result, the Group may fail to achieve its initial targets regarding business in overseas markets, which could have a negative impact on the business growth and performance of the Group.

7）Strategic Alliance and Corporate Acquisition

For business expansion and strengthening of competitiveness, the Group may engage in strategic alliances, including joint investments, and corporate acquisitions. For example, in February 2017, the Group acquired Intersil Corporation, and in March 2019, the US based semiconductor company IDT. With regard to such alliances and acquisitions, the Group examines the likely return on investment and profitability from a variety of perspectives. However, in cases where there is a mismatch with the prospective alliance partner or acquisition target in areas of management strategy such as capital procurement, technology management, and product development, or there are financial or other problems affecting the business of the prospective collaboration partner or acquisition target, in addition to the time and expense required for integration of aspects such as business execution, technology, products, personnel, systems and response to antitrust laws and other regulations of the relevant authorities, there is a possibility that the alliance relationship or capital ties will not be sustainable, or in the case of acquisitions for which the anticipated return on investment or profitability cannot be realized. Furthermore, there is a possibility that the anticipated synergies or other advantages cannot be realized due to an inability to retain or secure the main customers or key personnel of the prospective alliance partner or acquisition target. Thus, there is no certainty that an alliance or acquisition will achieve the goals initially anticipated. For example, in February 2021, the Company entered into an agreement with Dialog Semiconductor Plc ("Dialog"), a British semiconductor company, to initiate proceedings under which the Company will acquire all of its outstanding and planned common stocks and make it a wholly owned subsidiary. Subject to the approval of Dialog's shareholders, approval by a British court, and approval by regulatory authorities etc., it is uncertain whether these conditions will be met, and if all or part of these conditions are not met, the acquisition may not be executed.

8）Financing

While the Group has been procuring business funds by methods such as borrowing from financial institutions and other sources, in the future it may become necessary to procure additional financing to implement business and investment plans, expand manufacturing capabilities, acquire technologies and services, and repay debts. It is possible that the Group may face limitations on its ability to raise funds due to a variety of reasons, including the fact that the Group may not be able to acquire required financing in a timely manner or may face increasing financing costs due to the worsening business environment in the semiconductor industry, worsening conditions in the financial and stock markets, and changes in the lending policies of lenders. In addition, some of the borrowing contracts executed between the Group and some financial institutions stipulate articles of financial covenants. If the Group breaches these articles due to worsened financial base of the Group or other factor, the Group may lose the benefit of term on the contract, and it may adversely influence the Group's business performance and financial conditions. In addition, the Company may also finance acquisitions when conducting acquisitions from financial institutions. For example, for the purpose of raising funds for the acquisition of Dialog, which we announced in February 2021, the Company has concluded a loan agreement (maximum total loan amount: 735.4 billion yen) with financial institutions. The Company plans to switch such a loan to various long-term funds, including finance involving the issuance of new shares (equity finance). In February 2021, the Company has registered to issue new shares (up to 270 billion yen), but there is no guarantee that such new share issuance will be funded at the time and conditions desired by the Company. In addition, regardless of whether or not the Company raises funds through the issuance of new shares, the Company will bear a large amount of interest-bearing liabilities by financing for company acquisitions, including the acquisition of Dialog. If the initially expected cash flow generation or switching to long-term funds is not realized, the Group's financial condition will deteriorate, credit ratings may be lowered, which may also increase funding costs or constrain the Group's financing.

9）Notes on Additional Financing

After implementation of the allocation of new shares to a third party based on a decision at the Meeting of the Board of Directors held on December 10, 2012, we received an offer from the former Innovation Network Corporation of Japan (business name changed to Japan Investment Corporation as of September 25, 2018) that they are willing to provide additional investments or loans with an upper limit of 50 billion yen. However, former Innovation Network Corporation of Japan underwent restructuring, forming a separate subsidiary entity as of September 21, 2018, leading to the new subsidiary, INCJ, Ltd., to take over the contract initially undertaken with the former Innovation Network Corporation of Japan. Currently, no specific details regarding the timing of or conditions associated with these additional investments or loans have been determined, and there is no guarantee that these additional investments or loans will actually be implemented. If investments occur based on this offer, further dilution of existing stock will occur, and this may adversely impact existing shareholders. In addition, if loans are made under this offer, the Group's outstanding interest-bearing liabilities will increase, and this may impose restrictions on some of our business activities. Furthermore, if fluctuations in interest rates occur in the future, the Group's businesses, performance, and financial condition may be adversely affected.

10）Relationship with Largest Shareholder, INCJ

As a result of the allocation of common stock to the former Innovation Network Corporation of Japan and others by way of third-party allotment on September 30, 2013, the former Innovation Network Corporation of Japan now holds a majority share of voting rights held in association with Renesas Electronics' share. From June 2017 onward, the former Innovation Network Corporation of Japan gradually divested itself of its holdings of common stock in the Company, and as of September 21, 2018, formed a separate subsidiary entity. As a result of this restructuring, all shares owned by the former Innovation Network Corporation of Japan were passed on to the new subsidiary, INCJ, Ltd., which is presently the largest shareholder in the Company. Thus, the business operations of the Group are potentially subject to a substantial influence through the exercise by INCJ of its voting rights at General Meetings of Shareholders. In addition, should INCJ at some future date sell all or part of Renesas Electronics' share which is currently held for investment purpose, this could potentially have a substantial effect on the market value of Renesas Electronics' share, depending on factors such as the market climate at the time of the sale.

11）Rapid Technological Evolutions and Other Issues

The semiconductor market in which the Group does business is characterized by rapid technological changes and rapid evolution of technological standards. Therefore, if the Group is not able to carry out appropriate research and development, the Group's businesses, performance, and financial condition may all be adversely affected by product obsolescence and the existence of competing products in the marketplace.

12）Product Production

A. Production Process Risk

Semiconductor products require extremely complex production processes. In an effort to increase yields (defined as the ratio of non-defective products from the materials used), the Group takes steps to properly control production processes and seeks ongoing improvements. However, the emergence of defects in these production processes could lead to lower yields. These defects, in turn, could trigger shipment delays, reductions in shipment volume, or, at worst, the halting of shipments.

B. Procurement of Raw Materials, Components, and Production Facilities

The timely procurement of necessary raw materials, components and production facilities is critical to semiconductor production. To avoid supply problems related to these essential raw materials, components and production facilities, the Group works diligently to develop close relationships with multiple suppliers. Some necessary materials, however, are available only from specific suppliers. Consequently, insufficient supply capacity amid tight demand for these materials as well as events including natural disasters, accidents, worsening of business conditions, and withdrawal from the business by suppliers could preclude their timely procurement, or may result in sharply higher prices for these essential materials upon procurement. Furthermore, defects in procured raw materials or components could adversely influence the Group's manufacturing operations and additional costs may be incurred by the Group.

C. Risks Associated with Outsourced Production

The Group outsources the manufacturing of certain semiconductor products to external foundries (contract manufacturers) and other entities. In doing so, the Group selects its trusted outsourcers, rigorously screened in advance based on their technological capabilities, supply capacity, and other relevant traits; however, there is some possibility of delivery delays, product defects and other production-side risks stemming from outsourcers. In particular, inadequate production capacity among outsourcers or operation shutdown of the outsourcers as a result of a natural disaster, could result in the Group being unable to supply enough products.

D. Maintenance of Production Capacity at an Appropriate Level

The semiconductor market is sensitive to fluctuations in the business climate, and it is difficult to predict future product demand accurately. Thus, it is not always possible for the Group to maintain production capacity at an appropriate level that matches product demand. In addition, even if the Group engages in capital investment to boost production capacity, there is generally a certain amount of time required before the actual increase in production capacity takes place.

Therefore, if demand for specific products substantially exceeds the Group's production capacity at a certain point and the state of excess demand continues over time, there is a possibility that the Group will be unable to supply customers with the products they desire, that opportunities to sell the products in question will be lost, that the Group will lose market share as customers switch to competing products, and that the relationship of the Group and its customers will suffer.

On the other hand, if in response to a rise in demand for specific products the Group undertakes capital investment with the aim of increasing production capacity, there is no guarantee that demand for the products in question will remain strong once production capacity actually increases and afterward. There is a possibility that actual product demand may turn out to be less than anticipated, in which case it may not be possible to recover the capital investment with the anticipated earnings.

13）Product Quality
Although the Group makes an effort to improve the quality of semiconductor products, they may contain defects, anomalies or malfunctions that are undetectable at the time of shipment due to increased sophistication of technologies, the diversity of ways in which the Group's products are used by customers and defects in procured raw materials or components. These defects, anomalies or malfunctions could be discovered after the Group products were shipped to customers, resulting in the return or exchange of the Group's products, claims for compensatory damages, or discontinuation of the use of the Group's products, which could negatively impact the profits and operating results of the Group. To prepare for such events, the Group has insurance such as product liability insurance and recall insurance, but it is not guaranteed that the full costs of reimbursements would be covered by these.

14）Product Sales
A. Reliance on Key Customers
The Group relies on certain key customers for a significant portion of its product sales to customers. The decision by these key customers to cease adoption of the Group's products, or to dramatically reduce order volumes, could negatively impact the Group's operating results.

B. Changes in production plans by customers of custom products
The Group receives orders from customers for the development of specific semiconductor products in some cases. There is the possibility that, after the Group received the orders, the customers decide to postpone or cancel the launch of the end products in which the ordered product is scheduled to be embedded. There is also the possibility that the customers cancel its order if the functions and quality of the product do not meet the customer requirements. Further, the weak sales of end products in which products developed by the Group are embedded may cause customers to reduce their orders, or to postpone delivery dates. Such changes in production plans, order reductions, postponements and other actions from the customers concerning custom products may cause declines in the Group sales and profitability.

C. Reliance on Authorized Sales Agents
In Japan and Asia, the Group sells the majority of its products via independent authorized sales agents and relies on certain major authorized sales agents for a significant portion of these sales. The inability of the Group to provide these authorized sales agents with competitive sales incentives or margins, or to secure sales volumes that the authorized sales agents consider appropriate, could result in a decision by such agents to review their sales network of the Group's products, including the reduction of the network, etc., which could cause a downturn in the Group sales.

15）Securing Human Resources
The Group works hard to secure superior human resources for management, technology development, sales, and other areas when deploying business operations. However, since such superbly talented people are of limited number, there is fierce competition in the hiring of human resources. Under the current conditions, it may not be possible for the Group to secure the talented human resources it requires.

16）Defined Benefit Obligations
Net defined benefit liability and net defined benefit asset are calculated based on actuarial assumptions, such as discount rates or returns on assets. However, the Group performance and financial condition may be adversely affected either if discrepancies between actuarial assumptions and business performance arise due to changing interest rates or a fall in the stock market and defined benefit obligations increase or our plan assets decrease and there is an increase in the pension funding deficit in the retirement benefit obligations system.

17）Capital Expenditures and Fixed Cost Ratio
The semiconductor business in which the Group is engaged requires substantial capital investment. The Group undertakes capital investment in an ongoing manner, and this requires it to bear the associated amortization costs. In addition, if there is a drop in demand due to changes in the market climate and the anticipated scale of sales cannot be achieved, or if excess supply causes product prices to fall, there is a possibility that a portion or the entirety of the capital investment will not be recoverable or will take longer than anticipated to be recovered. This could have an adverse effect on the business performance and the financial condition of the Group.

Furthermore, the majority of the expenses of the Group are accounted for by fixed costs such as production costs associated with factory maintenance and R&D expenses, in addition to the abovementioned amortization costs accompanying capital investment. Even if there is a decline in sales due to a reduction in orders from the Group's main customers or a drop in product demand, or if the factory operating rate decreases, it may be difficult to reduce fixed costs to compensate. As a result, a relatively small-scale drop in sales can have an adverse effect on the profitability of the Group.

18）Impairment Loss on Long-term Assets
The Group owns substantial long-term assets, consisting of both property, plant and equipment such as plant facilities and intangible assets such as goodwill obtained through the acquisition of the former Intersil Corporation and IDT. When there are indications of impairment, the Group examines the possibility of recovering the book value of assets based on the future cash flow to be generated from the assets. It may be necessary to recognize impairment of such assets if insufficient cash flow is generated.

19）Information Systems
Information systems are of growing importance in the Group's business activities. Although the Group makes an effort to manage stable operation of information systems, there is a likelihood that customer confidence and social trust would deteriorate, resulting in a negative effect on the Group's performance if there is a significant problem with the Group's information systems caused by factors such as natural disasters, accidents, computer viruses and unauthorized accesses.

20）Information Management

The Group has in its possession a great deal of confidential information and personal information relating to its business activities. While such confidential information is managed according to law and internal regulations specifically designed for that purpose, there is always the risk that information may leak due to unforeseen circumstances. Should such an event occur, there is a likelihood that leaks of confidential information may result in damages to our competitive position and customer confidence and social trust would deteriorate, resulting in a negative effect on the Group's performance.

21）Legal Restrictions

The Group is subject to a variety of legal restrictions in the various countries and regions. These include requirements for approval for businesses and investments, antitrust laws and regulations, export restrictions, customs duties and tariffs, accounting standards and taxation, and environment laws. Moving forward, it is possible that the Group's businesses, performance, and financial condition may be adversely affected by increased costs and restrictions on business activities associated with the strengthening of local laws.

The Group makes use of an internal regulation system to ensure legal compliance and appropriate financial reporting. However, since by its nature an internal regulation system is inherently limited, there is no guarantee that it will accomplish its goals completely. Consequently, the possibility is not nonexistent that legal violations, etc., may occur moving forward. Should a violation of the law or other regulations occur, the Group could be subject to administrative penalties such as fines, legal penalties, or claims for compensatory damages, or there could be a negative impact on the social standing of the Group. This could have an adverse effect on the businesses, business performance, and financial condition of the Group.

22）Environmental Factors

The Group strives to decrease its environmental impact with respect to diversified and complex environmental issues such as global warming, air pollution, industrial waste, tightening of hazardous substance regulation, and soil pollution. There is the possibility that, regardless of whether there is negligence in its pursuit of business activities, the Group could bear legal or social responsibility for environmental problems. Should such an event occur, the burden of expenses for resolution could potentially be high, and the Group could suffer erosion in social trust.

23）Intellectual Property

While the Group seeks to protect its intellectual property, it may not be adequately protected in certain countries and areas. In addition, there are cases that the Group's products are developed, manufactured and sold by using licenses received from third parties. In such cases, there is the possibility that the Group could not receive necessary licenses from third parties, or the Group could only receive licenses under terms and conditions that are less favorable than before.

With regard to the intellectual property rights related to the Group's products, it is possible that a third party might file a lawsuit against the Group or its customers claiming patent infringement, or the like, and that as a result the manufacture and sale of the affected products might not be possible in certain countries or regions. It is also possible that the Group could be liable for damages to a third party or to a customer of the Group.

24) Legal Issues

Details are listed under "Note 36. Commitments and Contingencies, (4) Others" in the Financial Section.

FINANCIAL SECTION

1. Basis of Preparation of the Consolidated Financial Statements
   (1) The consolidated financial statements of Renesas Electronics Corporation (hereafter “the Company”) and its consolidated subsidiaries (hereafter “the Group”) have been prepared in accordance with International Financial Reporting Standards (hereafter “IFRS”) pursuant to the provisions of Article 93 of the “Ordinance on Terminology, Forms and Preparation Methods of Consolidated Financial Statements” (Ministry of Finance Ordinance No. 28, 1976, hereafter “Ordinance on Consolidated Financial Statements”).

   (2) The non-consolidated financial statements of the Company were prepared in accordance with the Ministry of Finance Ordinance No. 59, 1963, “Ordinance on Terminology, Forms and Preparation Methods of Consolidated Financial Statements, etc.” (hereafter “Ordinance on Financial Statements”).
   As a company submitting financial statements prepared in accordance with special provisions of the Ordinance of Financial Statements, the Company prepares its financial statements in accordance with Article 127 of the Ordinance of Financial Statements.

   (3) In the consolidated financial statements and the non-consolidated financial statements, figures are presented by rounding them to the nearest million yen.

2. Audit Certification
   The consolidated financial statements for the fiscal year ended December 31, 2020 (from January 1, 2020 to December 31, 2020) and the non-consolidated financial statements for the fiscal year ended December 31, 2020 (from January 1, 2020 to December 31, 2020) were audited by PricewaterhouseCoopers Aarata LLC in accordance with Article 193-2, Section 1, of the Financial Instruments and Exchange Act.

3. Special Measures for Preparing Fairly Stated Financial Statements
   These measures involve attaining a thorough understanding of accounting standards and developing a system for addressing changes made to these standards. To this end, the Company has registered with the Financial Accounting Standards Foundation, and participates in seminars.

4. Development of a System to Appropriately Prepare Consolidated Financial Statements Based on IFRS
   To appropriately prepare its consolidated financial statements in accordance with IFRS, the Company obtains press releases and accounting standards issued by the International Accounting Standards Board as required to understand the latest standards and analyze the impact. The Company has also prepared the Group accounting policies or “Global Rule Book” in accordance with IFRS and formulates accounting treatments based on the Group accounting policies. In addition, the Company makes efforts to accumulate in-house expertise by participating in seminars, etc. hosted by the Financial Accounting Standards Foundation and audit corporations, etc.

1. Consolidated Financial Statements

(1) Consolidated Financial Statements

(i) Consolidated Statement of Financial Position

(In millions of yen)

	Notes	As of December 31, 2019	As of December 31, 2020
Assets			
Current assets			
Cash and cash equivalents	8	146,468	219,786
Trade and other receivables	9, 33	84,459	82,318
Inventories	10	90,785	89,761
Other current financial assets	16, 33	468	605
Income taxes receivable		4,438	2,190
Other current assets	11	7,344	8,162
Total current assets		333,962	402,822
Non-current assets			
Property, plant and equipment	12, 14, 15	232,579	187,354
Goodwill	7, 13, 15	625,030	590,459
Intangible assets	13, 15	414,582	364,764
Other non-current financial assets	16, 33	9,995	18,101
Deferred tax assets	17	46,050	40,600
Other non-current assets	11	5,950	4,885
Total non-current assets		1,334,186	1,206,163
Total assets		1,668,148	1,608,985

(In millions of yen)

	Notes	As of December 31, 2019	As of December 31, 2020
Liabilities and equity			
Liabilities			
Current liabilities			
Trade and other payables	18, 33	100,187	114,235
Bonds and borrowings	19, 33	93,182	93,181
Other current financial liabilities	20, 33	4,362	4,036
Income taxes payable		7,861	10,337
Provisions	21	7,521	6,383
Other current liabilities	11	55,528	58,873
Total current liabilities		268,641	287,045
Non-current liabilities			
Trade and other payables	18, 33	845	25,177
Bonds and borrowings	19, 33	678,577	586,563
Other non-current financial liabilities	20, 33	10,093	10,241
Income taxes payable		4,499	4,084
Retirement benefit liability	22	29,572	30,012
Provisions	21	3,860	3,033
Deferred tax liabilities	17	43,257	38,680
Other non-current liabilities	11	4,400	4,489
Total non-current liabilities		775,103	702,279
Total liabilities		1,043,744	989,324
Equity			
Share capital	23	22,213	28,971
Capital surplus	23	201,588	208,253
Retained earnings	23	403,857	449,975
Treasury shares	23	(11)	(11)
Other components of equity		(6,192)	(70,487)
Total equity attributable to owners of parent		621,455	616,701
Non-controlling interests		2,949	2,960
Total equity		624,404	619,661
Total liabilities and equity		1,668,148	1,608,985

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

Consolidated Statement of Profit or Loss

(In millions of yen)

	Notes	The year ended December 31, 2019	The year ended December 31, 2020
Continuing operations			
Revenue	6, 24	718,243	715,673
Cost of sales	37	(423,451)	(379,984)
Gross profit		294,792	335,689
Selling, general and administrative expenses	25, 37	(273,454)	(266,268)
Other income	26	2,302	4,036
Other expenses	27	(17,377)	(8,315)
Operating profit		6,263	65,142
Finance income	28	2,186	7,623
Finance costs	28	(8,774)	(7,549)
Profit (loss) before tax		(325)	65,216
Income tax expense	17	(5,903)	(19,490)
Profit (loss) from continuing operations		(6,228)	45,726
Discontinued operations			
Profit after tax from discontinued operations		—	—
Profit (loss)		(6,228)	45,726
Profit (loss) attributable to			
Owners of parent		(6,317)	45,626
Non-controlling interests		89	100
Profit (loss)		(6,228)	45,726
Earnings (loss) per share	30		
Basic earnings (loss) per share (yen)			
Continuing operations		(3.73)	26.54
Discontinued operations		—	—
Total basic earnings (loss) per share		(3.73)	26.54
Diluted earnings (loss) per share (yen)			
Continuing operations		(3.73)	25.97
Discontinued operations		—	—
Total diluted earnings (loss) per share		(3.73)	25.97

Consolidated Statement of Comprehensive Income

(In millions of yen)

	Notes	The year ended December 31, 2019	The year ended December 31, 2020
Profit (loss)		(6,228)	45,726
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit plans		(3,203)	(334)
Equity instruments measured at fair value through other comprehensive income		(177)	(330)
Total of items that will not be reclassified to profit or loss		(3,380)	(664)
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations		(18,033)	(64,290)
Cash flow hedges		5,614	—
Total of items that may be reclassified subsequently to profit or loss		(12,419)	(64,290)
Total other comprehensive income	29	(15,799)	(64,954)
Total comprehensive income		(22,027)	(19,228)
Comprehensive income attributable to			
Owners of parent		(22,108)	(19,239)
Non-controlling interests		81	11
Total comprehensive income		(22,027)	(19,228)

(iii) Consolidated Statement of Changes in Equity
The year ended December 31, 2019

(In millions of yen)

	Notes	Equity attributable to owners of parent						
						Other components of equity		
		Share capital	Capital surplus	Retained earnings	Treasury shares	Share acquisition rights	Remeasurements of defined benefit plans	Equity instruments measured at fair value through other comprehensive income
Balance as of January 1, 2019		10,699	190,074	410,652	(11)	5,165	—	(1,072)
Effects of changes in accounting policies		—	—	1,192	—	—	—	—
Balance as of January 1, 2019 after changes in accounting policies		10,699	190,074	411,844	(11)	5,165	—	(1,072)
Profit (loss)		—	—	(6,317)	—	—	—	—
Other comprehensive income		—	—	—	—	—	(3,203)	(177)
Total comprehensive income		—	—	(6,317)	—	—	(3,203)	(177)
Issuance of new shares	23	11,514	12,097	—	—	—	—	—
Share-based payment transactions	32	—	—	—	—	11,956	—	—
Transfer to retained earnings		—	(583)	(1,670)	—	(1,068)	3,203	118
Reclassification to non-financial assets		—	—	—	—	—	—	—
Total transactions with owners		11,514	11,514	(1,670)	—	10,888	3,203	118
Balance as of December 31, 2019		22,213	201,588	403,857	(11)	16,053	—	(1,131)

	Notes	Equity attributable to owners of parent				Non-controlling interests	Total equity
		Other components of equity					
		Exchange differences on translation of foreign operations	Cash flow hedges	Total	Total equity attributable to owners of parent		
Balance as of January 1, 2019		(3,089)	(14,318)	(13,314)	598,100	2,868	600,968
Effects of changes in accounting policies		—	—	—	1,192	—	1,192
Balance as of January 1, 2019 after changes in accounting policies		(3,089)	(14,318)	(13,314)	599,292	2,868	602,160
Profit (loss)		—	—	—	(6,317)	89	(6,228)
Other comprehensive income		(18,025)	5,614	(15,791)	(15,791)	(8)	(15,799)
Total comprehensive income		(18,025)	5,614	(15,791)	(22,108)	81	(22,027)
Issuance of new shares	23	—	—	—	23,611	—	23,611
Share-based payment transactions	32	—	—	11,956	11,956	—	11,956
Transfer to retained earnings		—	—	2,253	—	—	—
Reclassification to non-financial assets		—	8,704	8,704	8,704	—	8,704
Total transactions with owners		—	8,704	22,913	44,271	—	44,271
Balance as of December 31, 2019		(21,114)	—	(6,192)	621,455	2,949	624,404

The year ended December 31, 2020

(In millions of yen)

	Notes	Equity attributable to owners of parent						
						Other components of equity		
		Share capital	Capital surplus	Retained earnings	Treasury shares	Share acquisition rights	Remeasurements of defined benefit plans	Equity instruments measured at fair value through other comprehensive income
Balance as of January 1, 2020		22,213	201,588	403,857	(11)	16,053	—	(1,131)
Profit		—	—	45,626	—	—	—	—
Other comprehensive income		—	—	—	—	—	(334)	(330)
Total comprehensive income		—	—	45,626	—	—	(334)	(330)
Issuance of new shares	23	6,758	6,665	—	—	—	—	—
Share-based payment transactions	32	—	—	—	—	1,062	—	—
Transfer to retained earnings		—	—	492	—	(1,156)	334	330
Total transactions with owners		6,758	6,665	492	—	(94)	334	330
Balance as of December 31, 2020		28,971	208,253	449,975	(11)	15,959	—	(1,131)

	Notes	Equity attributable to owners of parent				Non-controlling interests	Total equity
		Other components of equity					
		Exchange differences on translation of foreign operations	Cash flow hedges	Total	Total equity attributable to owners of parent		
Balance as of January 1, 2020		(21,114)	—	(6,192)	621,455	2,949	624,404
Profit		—	—	—	45,626	100	45,726
Other comprehensive income		(64,201)	—	(64,865)	(64,865)	(89)	(64,954)
Total comprehensive income		(64,201)	—	(64,865)	(19,239)	11	(19,228)
Issuance of new shares	23	—	—	—	13,423	—	13,423
Share-based payment transactions	32	—	—	1,062	1,062	—	1,062
Transfer to retained earnings		—	—	(492)	—	—	—
Total transactions with owners		—	—	570	14,485	—	14,485
Balance as of December 31, 2020		(85,315)	—	(70,487)	616,701	2,960	619,661

(iv) Consolidated Statement of Cash Flows

(In millions of yen)

	Notes	The year ended December 31, 2019	The year ended December 31, 2020
Cash flows from operating activities			
Profit (loss) before tax		(325)	65,216
Depreciation and amortization		148,026	141,527
Impairment losses		2,256	2,070
Finance income and finance costs		5,927	6,994
Share-based payment expenses		11,896	14,564
Loss (gain) on sales of property, plant and equipment, and intangible assets		(515)	(717)
Decrease (increase) in inventories		44,549	79
Decrease (increase) in trade and other receivables		9,882	1,228
Increase (decrease) in trade and other payables		(36)	10,192
Increase (decrease) in retirement benefit liability		(3,044)	194
Increase (decrease) in provisions		411	(1,713)
Increase (decrease) in other current liabilities		(11,609)	3,675
Other		(962)	(10,035)
Subtotal		206,456	233,274
Interest received		1,326	307
Dividends received		238	240
Income taxes paid		(6,060)	(9,932)
Net cash flows from operating activities		201,960	223,889
Cash flows from investing activities			
Purchase of property, plant and equipment		(38,284)	(22,261)
Proceeds from sales of property, plant and equipment		755	960
Purchase of intangible assets		(18,084)	(15,925)
Purchase of other financial assets		(545)	(568)
Proceeds from sales of other financial assets		1,431	430
Purchase of shares of subsidiaries	7	(685,831)	—
Other		(1,604)	(2,799)
Net cash flows from investing activities		(742,162)	(40,163)
Cash flows from financing activities			
Net increase (decrease) in short-term borrowings	31	(45,000)	—
Proceeds from long-term borrowings	31	847,000	—
Repayments of long-term borrowings	31	(217,645)	(93,295)
Repayments of lease liabilities	31	(5,726)	(4,840)
Interest paid		(12,796)	(6,264)
Payments for retirement by purchase of bonds	31	(65,409)	—
Other		42	(71)
Net cash flows from financing activities		500,466	(104,470)
Effect of exchange rate changes on cash and cash equivalents		(2,616)	(5,938)
Net increase (decrease) in cash and cash equivalents		(42,352)	73,318
Cash and cash equivalents at beginning of the period	8	188,820	146,468
Cash and cash equivalents at end of the period	8	146,468	219,786

Notes to Consolidated Financial Statements

1. Reporting Entity

Renesas Electronics Corporation (hereafter “the Company”) is a public company established under the Companies Act of Japan and domiciled in Japan. The accompanying consolidated financial statements of the Company and its consolidated subsidiaries (hereafter “the Group”) are composed of the Company, its subsidiaries and interests of the Group in its associates, with December 31, 2020 as the closing date. The Group engages in research, design, development, manufacturing, sales and services related to various kinds of semiconductors as a manufacturer specializing in semiconductors. For details of the Group’s major business, please refer to “Note 6. Business Segments.”

The consolidated financial statements for the year ended December 31, 2020 were approved on March 31, 2021 by Hidetoshi Shibata, President and CEO, and Shuhei Shinkai, Executive Vice President, Member of the Board and CFO.

2. Basis for Preparation

(1) Compliance with IFRS

Because the Group meets the requirements for “Specified Companies Complying with Designated International Accounting Standards” stated in Article 1-2 of Ordinance on Consolidated Financial Statements, the Group has adopted the provisions of Article 93 of the Ordinance. The consolidated financial statements of the Group have been prepared in accordance with IFRS.

(2) Basis of measurement

The consolidated financial statements of the Group have been prepared based on the accounting policies separately described in “Note 3. Significant Accounting Policies.” Assets and liabilities are measured at a historical cost basis unless otherwise stated.

(3) Functional currency and presentation currency

The consolidated financial statements are presented in Japanese yen (rounded to the nearest million yen), which is the functional currency of the Company.

(4) Changes in accounting policy (Changes of the classification of expenses)

Following the acquisition of Integrated Device Technology, Inc. (hereafter “IDT”) and the absorption type merger of Renesas Electronics America Inc. by IDT, the Company began to integrate its business processes and Information Technology (hereafter “IT”) systems from January 1, 2020 for the launch of “One Renesas” operations. In conjunction with the integration, the Company has also decided to reclassify the expenses in order to better present the financial position and results of operations of the Group.

Royalty expenses paid as technology licensing fees were recorded in selling, general and administrative expenses in the past. However, because the percentage of royalty expenses linked to sales revenue has been increasing in recent years, the Company has decided to divide the royalty expenses into those linked to sales revenue and those not linked to sales revenue, and from the first quarter of the current fiscal year, the portion linked to sales revenue has been classified into cost of sales and inventories as manufacturing costs. In addition, the costs incurred by the department at the head office, which oversees IT infrastructure and company-wide system operations, were previously recorded in selling, general and administrative expenses. However, from the first quarter of the current fiscal year, the Company has changed its method of accounting for the IT costs to be recorded in cost of sales and inventories as manufacturing costs as well as research and development expenses (selling, general and administrative expenses) to reflect the nature of the expenses, as it is more appropriate to allocate those costs to the beneficiaries who actually use the infrastructure and systems.

The change in accounting policy has been applied retrospectively to the consolidated financial statements for the year ended December 31, 2019. As a result of this change, compared with the accounting policy prior to retrospective application, cost of sales for the year ended December 31, 2019 increased by 8,136 million yen, selling, general and administrative expenses decreased by 7,554 million yen and operating profit and profit before tax decreased by 582 million yen, respectively.

Reflecting the cumulative effect on equity at the beginning of the year ended December 31, 2019, the beginning balance of retained earnings in the consolidated statement of changes in equity after retroactive application increased by 1,192 million yen. This accounting change has no material impact on earnings per share.

3. Significant Accounting Policies

The significant accounting policies of the Group are as follows and are applied to all the periods presented in the consolidated financial statements.

(1) Basis of consolidation

A. Subsidiaries

Subsidiaries are entities controlled by the Group. Control refers to a case in which the Group has power over an entity, is exposed to variable returns from involvement with the entity and has the ability to affect those returns through its power over the entity.

The financial statements of subsidiaries are included in the consolidated financial statements from the date when control is obtained until the date when control is lost. In the event that the Group disposes of some of its ownership interest in a subsidiary that does not result in a loss of control, the change in ownership interest of the Group is accounted for as an equity transaction, and the difference between the adjustment of non-controlling interests and the fair value of the consideration is directly recognized in equity as equity attributable to owners of parent.

If the closing dates of a subsidiary and that of the consolidated financial statements are different, financial statements prepared with a provisional closing date, which is same as that of consolidated financial statements, are used.

B. Associates

Associates are entities over which the Group has a significant influence over the decisions on financial and operating policies but does not have control. Investments in associates are accounted for using the equity method.

Investments in associates are initially recognized at cost. Ownership interests of the Group in profit or loss and other comprehensive income of the associate from the date when the Group obtains significant influence until the date when the Group loses significant influence are recognized as changes in the amount of investments in associates.

C. Transactions eliminated on consolidation

Inter-company balances of receivables and payables, transactions and unrealized gains or losses resulting from inter-company transactions are eliminated on consolidation.

(2) Business combinations

Business combinations are accounted for using the acquisition method. Consideration transferred in a business combination is measured as the sum of the acquisition-date fair value of the assets transferred, liabilities assumed, and equity instruments issued by the Company in exchange for control over the acquiree.

Any excess of the consideration for acquisition, the non-controlling interests in the acquiree and the fair value of assets of the acquiree that the acquirer previously held over the net amount of identifiable assets and liabilities as of the date of acquisition is recognized as goodwill. Conversely, if the consideration for acquisition is lower than the net amount of identifiable assets and liabilities as of the date of acquisition, it is immediately recognized in profit or loss. Acquisition-related costs are recognized in profit or loss. The additional acquisition of non-controlling interests after obtaining control is accounted for as an equity transaction, and no corresponding goodwill is recognized.

If the initial accounting treatment of a business combination is not completed by the end of the fiscal year when the business combination took place, provisional amounts for the items for which accounting is incomplete are reported, and such provisional amounts that were recognized as of the date of acquisition are adjusted retrospectively during the measurement period within one year from the date of acquisition.

(3) Foreign currency translation

A. Functional currency and presentation currency

The financial statements of the Group entities are prepared in their respective functional currency. The consolidated financial statements of the Group are presented in Japanese yen, which is the functional currency of the Company.

B. Foreign currency transactions

Foreign currency transactions are translated into the functional currency at the spot exchange rate or a rate approximate to the spot exchange rate on the date of the transaction. Monetary items denominated in a foreign currency at the end of the reporting period are translated into the functional currency using the closing rate, while non-monetary items denominated in a foreign currency that are measured at historical cost are translated using the exchange rate in effect on the date of the initial transaction, and those that are measured at fair value are translated using the exchange rate in effect on the date when the fair value was calculated.

Exchange differences from translation or settlement are recognized in profit or loss during the period when they arise. However, exchange differences arising from equity instruments and cash flow hedges measured through other comprehensive income are recognized in other comprehensive income.

C. Foreign operations

In preparing the consolidated financial statements, the assets and liabilities of a foreign operation are translated into Japanese yen at the exchange rate as of the closing date of the consolidated financial statements, and profit or loss and cash flows of the foreign operation are translated into Japanese yen at the exchange rate on the date of the transaction or the average exchange rate for the period that is approximate to the exchange rate on the date of the transaction. Exchange differences are recognized in other comprehensive income, and the cumulative amount thereof is recognized in other components of equity.

On disposal of the entire ownership interest in a foreign operation or part of the interest that results in a loss of control or significant influence, the exchange differences of the foreign operation that were recognized in other comprehensive income and accumulated in equity are reclassified from equity to profit or loss when the related gains or losses on disposal are recognized.

(4) Financial instruments

A. Financial assets other than derivatives

(a) Initial recognition and measurement

Trade and other receivables are initially recognized at their transaction price on that date, and all other financial assets are initially recognized on the date of the transaction when the Company becomes the contracting party to the financial assets.

At the time of initial recognition, financial assets are classified as financial assets measured at amortized cost or financial assets measured at fair value.

(i) Financial assets measured at amortized cost

Financial assets are classified as financial assets measured at amortized cost if both of the following conditions are met or otherwise classified as financial assets measured at fair value.

- Assets are held within a business model that aims to hold assets to collect contractual cash flows.
- The contract terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(ii) Financial assets measured at fair value through other comprehensive income

- Debt instruments measured at fair value through other comprehensive income

  If both of the following conditions are met, financial assets are classified as debt instruments measured at fair value through other comprehensive income.

  - Assets are held within a business model whose objective is achieved by both the collection and sale of contractual cash flows.
  - The contract terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

- Equity instruments measured at fair value through other comprehensive income

  Of financial assets measured at amortized cost, or financial assets other than debt instruments measured at fair value through other comprehensive income, when an irrevocable election at the time of initial recognition is made, subsequent changes in fair value are recognized in other comprehensive income and such equity instruments are classified as financial assets measured at fair value through other comprehensive income.

(iii) Financial assets measured at fair value through profit or loss

Financial assets that do not meet the criteria for either (i) or (ii) above are classified into financial assets measured at fair value through profit or loss.

Financial assets are recognized initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial assets. Transaction costs for financial assets measured at fair value through profit or loss are recognized in profit or loss.

(b) Subsequent measurement

After the initial recognition, financial assets are measured as follows according to their classification.

(i) Financial assets measured at amortized cost

Financial assets measured at amortized cost are measured at amortized cost using the effective interest method.

(ii) Financial assets measured at fair value through other comprehensive income

・Debt instruments measured at fair value through other comprehensive income

The amount of changes in the fair value of debt instruments measured at fair value through other comprehensive income is recognized in other comprehensive income, except for impairment gains or losses and foreign exchange gain or loss, until the financial assets are derecognized. If the financial assets are derecognized, gains or losses accumulated in other comprehensive income are reclassified to profit or loss.

・Equity instruments measured at fair value through other comprehensive income

The amount of changes in the fair value of equity instruments measured at fair value through other comprehensive income is recognized in other comprehensive income. If the financial assets are derecognized, or if the fair value has declined significantly, gains or losses accumulated in other comprehensive income are directly reclassified to retained earnings. Dividend income from the financial assets is recognized as finance income in profit or loss.

(iii) Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss are measured at fair value after the initial recognition, and changes in fair value are recognized in profit or loss.

(c) Impairment of financial assets

For impairment of financial assets measured at amortized cost, the Group recognizes an allowance for expected credit losses of financial assets. On each reporting date, the Group assesses whether the credit losses of the financial instruments have increased significantly subsequent to the initial recognition.

If the credit losses of financial instruments have not increased significantly after the initial recognition, the loss allowance of the financial instruments is measured at the amount of 12-month expected credit losses, and if the credit losses of the financial instruments have increased significantly after the initial recognition, the loss allowance of the financial instruments is measured at the amount of lifetime expected credit losses.

However, for trade receivables, etc., the loss allowance is always measured at the amount of lifetime expected credit losses.

Expected credit losses of the financial instruments are estimated in a way that reflects:

- An unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes

- The time value of money
- Reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions

Changes in the amount of the measurement are recognized in profit or loss.

(d) Derecognition

The Group derecognizes financial assets if the contractual rights to the cash flows from the financial assets expire, or if substantially all risks and rewards associated with ownership of the financial assets are transferred as a result of assigning the contractual right to receive cash flows from the financial assets.

B. Financial liabilities other than derivatives

(a) Initial recognition and measurement

At the time of initial recognition, financial liabilities are classified as financial liabilities measured at amortized cost or financial liabilities measured at fair value through profit or loss. Although all financial liabilities are initially measured at fair value, financial liabilities measured at amortized cost are measured at an amount obtained by deducting directly attributable transaction costs.

(b) Subsequent measurement

(i) Financial liabilities measured at amortized cost

Financial liabilities measured at amortized cost are measured at amortized cost using the effective interest method.

(ii) Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss are measured at fair value after the initial recognition, and the changes are recognized in profit or loss.

(c) Derecognition

The Group derecognizes financial liabilities when they are extinguished, for example when then obligations specified in the contract are discharged, cancelled or expired.

C. Derivatives and hedge accounting

The Group holds derivative financial instruments for the purpose of hedging the risk of exchange rate fluctuations, etc. The Group has a policy of not conducting speculative derivative transactions.

Derivatives are initially recognized at fair value, and related transaction costs are recognized in profit or loss when they are incurred. After the initial recognition, derivatives are remeasured at fair value, and changes in the fair value are accounted for as described below, depending on whether the derivative financial instruments that are designated as hedging instruments meet the requirements for hedge accounting. The Group designates the derivatives that meet the requirements for hedge accounting as hedging instruments and applies hedge accounting. In addition, at the inception of a hedge, the Group formally documents the risk management objective, the relationship between hedging instruments and the hedged items, along with strategies when executing hedging transactions, and the method of assessing hedge effectiveness.

(i) Cash flow hedges

Of gains or losses from hedging instruments, the effective portion of the hedge is recognized in other comprehensive income, and the ineffective portion is recognized in profit or loss.

The amount of hedging instruments that is recorded in other comprehensive income is reclassified to profit or loss at the time when the underlying hedged transactions affect profit or loss. If the hedged items give rise to the recognition of non-financial assets or non-financial liabilities, the amount that is recognized in other comprehensive income is reclassified as an adjustment to the initial carrying amount of non-financial assets or non-financial liabilities.

For cash flow hedges other than the above, the amount is reclassified from other comprehensive income to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss. However, if the accumulated amount is a loss and if all or part of the loss is not expected to be recovered in the future, the amount that is not expected to be recovered is immediately reclassified to profit or loss.

When hedge accounting is terminated, this accumulated amount remains in other comprehensive income until the expected future cash flows occur, and if the forecast transaction is no longer expected to occur, this amount is immediately reclassified to profit or loss.

(ii) Derivatives that do not meet requirements for hedge accounting

Changes in fair value are recognized in profit or loss.

(5) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, deposits that can be withdrawn at any time and short-term investments with a maturity of 3 months or less when purchased that can be easily converted to cash and are subject to an insignificant risk of changes in value.

(6) Inventories

The acquisition cost of inventories comprises all costs of purchase, costs of conversion and all other costs incurred in bringing the inventories to their present location and condition.

After the initial recognition, inventories are measured at the lower of cost and net realizable value, but if cost exceeds net realizable value, the inventories are written down to net realizable value. The net realizable value is calculated by deducting the estimated costs of completion and the estimated costs necessary to make the sale from the estimated selling price in the ordinary course of business.

The cost is also calculated using the following methods:
Merchandise and finished goods
Custom-made products: Specific identification method
Mass products: Average method
Work in progress
Custom-made products: Specific identification method
Mass products: Average method
Raw materials and supplies: Mainly average method

(7) Property, plant and equipment (other than leased assets)

The acquisition cost of property, plant and equipment includes costs directly related to the acquisition of assets, dismantling, disposal and restoration costs and borrowing costs that meet the requirements for capitalization.

The cost model is used in the measurement of property, plant and equipment, and they are presented at the carrying value obtained by deducting accumulated depreciation and accumulated impairment losses from the acquisition cost.

Except for land and construction in progress, the acquisition cost of each asset after deducting the residual value is depreciated over the estimated useful life using the straight-line method.

The estimated useful life, the residual value and the depreciation method are reviewed at the end of each fiscal year, and any changes are applied to the period when the estimated are changed and future periods prospectively as a change in the accounting estimate. The impact of the change of these estimates is recognized in the period when the estimates are changed and future periods.

The estimated useful lives of major assets are as follows.

Buildings and structures	10 to 45 years
Machinery, equipment and vehicles	2 to 8 years
Tools, furniture and fixtures	2 to 10 years

(8) Goodwill and intangible assets

A. Goodwill

The measurement of goodwill at the time of initial recognition is as stated in “(2) Business combinations.” After initial recognition, goodwill is not amortized and is measured at cost less any accumulated impairment losses.

Goodwill is allocated to each of the acquirer’s cash-generating units that are expected to benefit from the synergies of the business combination, and an impairment test is performed for the cash-generating units to which goodwill was allocated at a certain time each fiscal year and whenever there is an indication of impairment. Impairment losses on goodwill are recognized in profit or loss and are not reversed in a subsequent period.

B. Intangible assets

The cost model is used for intangible assets, and they are presented at cost less any accumulated amortization and accumulated impairment losses.

(a) Intangible assets acquired separately

Intangible assets acquired separately are measured at cost at the time of initial recognition.

(b) Intangible assets acquired in a business combination

For intangible assets acquired in a business combination, their acquisition cost is measured at fair value as of the date of acquisition. Intangible assets acquired in a business combination are comprised primarily of developed technology, customer relationships, and in-process research and development.

(Developed technology)

Intangible assets that represent future excess earnings power expected to arise from the technology and that have been already developed as of the date of acquisition with the acquiree are recognized as Developed technology.

(Customer relationships)

Intangible assets related to future excess earnings power expected to arise from the existing customers as of the date of acquisition with the acquiree are recognized as Customer relationships.

(In-process research and development)

Intangible assets in an intermediate stage of identifiable research and development assets meeting the asset requirements are recognized as in-process research and development.

The details for intangible assets acquired in a business combination, see “Note 13. Goodwill and Intangible Assets.”

(c) Internally-generated intangible assets (Capitalized development cost)

For internally-generated intangible assets, the expenditure is recorded as an expense, except for development costs that meet the following requirements for capitalization:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale;
- The intention of an entity to complete the intangible asset and use or sell it;
- The ability to use or sell the intangible asset;
- A method for the intangible asset to generate probable future economic benefits,
- The availability of adequate technical, financial and other resources necessary for completing the development of the intangible asset and using or selling it; and
- The ability to measure the expenditure attributable to the intangible asset during its development reliably

These internally generated intangible assets are amortized using the straight-line method from the time when they are provided for use in business operations based on estimated useful life (5 years) for which they are expected to provide net cash inflows. Expenditure on research and development that does not meet the requirements for capitalization above is recognized in profit or loss at the time of occurrence.

Intangible assets with finite useful lives are amortized over their respective estimated useful life using the straight-line method, and an impairment test is performed if any indications of impairment exist. For intangible assets with finite useful lives, their useful lives and amortization method are reviewed at the end of each fiscal year. A change in the useful life or the amortization method is applied prospectively as a change in accounting estimate.

Commercial software products are mainly amortized using a method based on the expected sales volume over the expected sales period (3 years or less), and software for internal use is mainly amortized using the straight-line method based on the expected available period (5 years) for internal use. Technical assets are amortized using the straight-line method based on the available period (12 years or less) in business activities.

Intangible assets with indefinite useful life and intangible assets that are not yet available for use are not amortized, and an impairment test is performed at a certain time each fiscal year or whenever any indication of impairment exists.

(9) Leases

A. Overall

(a) Identification of a lease

At inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group reviews the following to assess whether a contract conveys the right to control the use of an identified asset.

(i)The use of the identified asset in a contract is directed.

(ii)The lessee has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use.

(iii)The lessee has the right to direct the use of an asset. Also, in case that the determination of how and for what purpose the asset is used are predetermined, if applicable to any of the following, it is determined that the lessee has the right to direct the use of an asset.

・The lessee has the right to operate the asset.

・The lessee designed the asset in a way that predetermines how and for what purpose the asset will be used.

(b) Lease term

The lease term is defined as the non-cancellable period for which a lessee has the right to use an underlying asset, together with both:

・periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that option; and

・periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that option.

B. Leases as Lessee

(a) Separable components of a contract

The Group allocates the consideration in contract for a building lease to lease and non-lease components on the basis of the relative stand-alone price of each lease component. In addition, the Group elects not to separate non-lease components from lease components, and instead accounts for each lease component and any associated non-lease components as a single lease component for the lease other than a building lease.

(b) Right-of-use assets

The Group recognizes the right-of-use assets and the lease liabilities at the date of initial application. The right-of-use assets are measured initially at cost. This cost is calculated by deducting any lease incentives received from the sum of the amounts of the initial measurement of the lease liabilities, any lease payments made at or before the commencement date, any initial direct costs and an estimate of costs to be incurred in dismantling and removing the underlying assets, restoring the underlying asset or restoring the site on which it is located. After the commencement date, the right-of-use asset is measured using a cost model by deducting any accumulated depreciation and any accumulated impairment losses from the cost.

The right-of-use assets are depreciated using the straight-line method over the period which is the earlier of the useful life of the underlying asset or the lease term. If it is reasonably certain that the Group will exercise a purchase option, depreciation is based on the useful life of the underlying asset.

(c) Lease liabilities

Lease liabilities are measured initially at the present value of unpaid lease payments discounted using the interest rate implicit in the lease. If the interest rate implicit in the lease cannot be readily determined, the Group’s incremental borrowing rate is used. The Group typically uses our incremental borrowing rate as the discount rate.

The lease payments in the measurement of lease liabilities includes the fixed payments, the amount of payments for the lease in any optional period if it is considered to be reasonable certain to exercise an extension option, and the payments of penalties for terminating the lease if the lease term reflects the lessee exercising an option to terminate the lease.

If there is a change in future lease payments resulting from a change in an index or rate, there is a change in the amounts expected to be payable under a residual value guarantee, or there is a change in determining whether purchase, extension and termination option is reasonably certain to exercise, lease liabilities are remeasured.

When lease liabilities are remeasured, the carrying amount of the right-of-use assets is adjusted or the remaining remeasurement is recognized in profit or loss if the carrying amount of the right-of-use assets is reduced to zero.

(d) Short-term leases within 12 months and leases of low-value assets

The Group elects not to recognize right-of-use assets and lease liabilities for short-term leases within 12 months and leases of low-value assets including IT equipment and recognizes these lease payments as expenses over the lease term using the straight-line method.

(10) Impairment of non-financial assets

The Group determines whether there is any indication that an asset (except for inventories, deferred tax assets and retirement benefit assets) may be impaired each fiscal year, and if such indication exists, an impairment test is performed. However, for goodwill or intangible assets with indefinite useful life or that are not yet available for use, an impairment test is performed at a certain time each fiscal year and when indicators of impairment are identified. or when any signs of impairment are identified.

In the impairment test, a recoverable amount is estimated, and the carrying amount and the recoverable amount are compared. The recoverable amount of assets or cash-generating units is calculated at the higher of the value in use and the fair value less costs of disposal. The value in use is calculated by discounting the estimated future cash flows to the present value, using the pre-tax discount rate that reflects the time value of money and risks specific to the asset.

If the recoverable amount of assets or cash-generating units is lower than the carrying amount as a result of the impairment test, an impairment loss is recognized. When the impairment loss of a cash-generating unit including goodwill is recognized, an allocation is made first to reduce the carrying amount of goodwill that is allocated to the cash-generating unit, and then an allocation is made to proportionally reduce the carrying amount of other assets in the cash-generating unit.

The impairment loss is reversed if there is any indication that the impairment loss recognized in a prior period may no longer exist or may have decreased and if the estimated recoverable amount exceeds the carrying amount. The upper limit of the reversal shall not exceed the carrying amount that would have been determined had no impairment loss been recognized in prior years, net of depreciation or amortization. The impairment loss on goodwill is not reversed.

(11) Provisions

The Group recognizes a provision if the Group has assumed a legal or constructive obligation as a result of a past event, if it is probable that an outflow of economic benefits will be required to settle the obligation and if a reliable estimate can be made of the amount of the obligation.

If the time value of the money of the provision is significant, the estimated future cash flows are discounted to the present value using a pre-tax discount rate that reflects the time value of the money and risks specific to the liability. The unwinding of the discount amount due to the passage of time are recognized as a finance cost.

(12) Levies

For levies that are an outflow of resources embodying economic benefits required by the government to the Group in accordance with laws and regulations, an expected payment is recognized as a liability when the obligation event that triggers the payment of levies prescribed by laws and regulations occurs.

(13) Employee benefits

A. Short-term employee benefits

A short-term employee benefit is an employee benefit that will be settled within 12 months from the end of the fiscal year in which the employee renders the related service, and the Group recognizes an amount expected to be paid in exchange for the services rendered during a certain accounting period. Short-term employee benefits in the Group include bonuses and benefits related to paid leave.

The expected costs of employee benefits related to accumulating paid leave are recognized when an employee renders the service that will increase the entitlement to future paid leave. In addition, the Group measures the expected cost of accumulating paid leave as an additional amount that the Group is expected to pay as a result of the unused entitlement that has accumulated as of the end of the fiscal year.

Bonuses are recognized as a liability if the Group has a legal or constructive obligation to pay as a result of the provision of service by the employee in the past and if the obligation can be estimated reliably.

B. Post-employment benefits

For post-employment benefit plans, the Group has adopted defined benefit plans and defined contribution plans.

(a) Defined contribution plans

Contributions to defined contribution plans are recognized as an expense when they are incurred unless they are included in inventories or property, plant and equipment. If contributions already paid exceed contributions due for services provided before the end of the fiscal year, the Group recognizes the excess as an asset to the extent to which the prepayment becomes the reduction of future payments or a future refund.

(b) Defined benefit plans

The net amount of assets or liabilities of the defined benefit plan is the amount obtained by deducting the fair value of the plan assets (including the upper limit of the assets and adjustments to minimum funding requirements, if necessary) from the present value of defined benefit obligations, and it is recognized in the consolidated financial statements as an asset or a liability. The defined benefit obligations are calculated using the projected unit credit method, and the present value of defined benefit obligations is calculated by applying a discount rate to the expected payment amount in the future. The discount rate is calculated based on market yields at the end of the reporting period on high quality corporate bonds corresponding to the discount period which is determined based on the period until the future expected benefit payment date in each reporting period.

Service costs and net interest expense for the net amount of assets or liabilities related to the defined benefit plans are recognized in profit or loss.

Actuarial gains or losses and fluctuations in the return on the plan assets excluding the portion included in the net interest expense and change in the impact of the asset ceiling are recognized in other comprehensive income as “Remeasurements of defined benefit plans” in the corresponding period and are immediately transferred from other components of equity to retained earnings. Past service costs are recognized in profit or loss when the plan is revised or curtailed, or when related restructuring costs or termination benefits are recognized, whichever is earlier.

C. Other long-term employee benefits

As long-term employee benefit plans other than post-employment benefits, the Group has a special leave and a reward plan based on the number of service years. The obligations regarding other long-term employee benefits are measured at the amount obtained by discounting the estimated amount of future benefits that the employees have earned as consideration for services rendered in the previous and current fiscal years to the present value.

(14) Government grants

Government grants are recognized at fair value when there is reasonable assurance that the Group complies with the required conditions and that the grants will be received. Grants related to revenue are recognized in profit or loss. Grants recognized as profit or loss are deducted from the corresponding expenses when they are directly based on the incurred expenses. Grants received based on other conditions are shown in other income.

(15) Treasury shares

When treasury shares are acquired, the amount of the consideration paid, including directly attributable transaction costs, is recognized at cost and deducted from equity. If treasury shares are sold, the consideration received is recognized as an increase in equity, and the difference between the carrying amount and the consideration received is recognized in the capital surplus account.

(16) Share-based payments

The Group has adopted an equity-settled share-based payment plan as an incentive plan for directors (excluding outside directors), senior vice presidents and employees.

Share-based payments (hereafter “stock options”) are estimated at fair value on the grant date and recognized as an expense over the vesting period, taking into account the number of stock options that are expected to eventually vest, and the same amount is recognized as an increase in equity. The fair value of granted options is calculated by taking the terms and conditions of the options into account. If it is determined that the number of stock options that will be vested will differ from the prior estimate due to subsequent information, the estimate of the number of stock options that will be vested is revised as necessary.

(17) Revenue recognition

The Group recognizes revenue based on the following five-step model.

Step 1: Identify the contract with a customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to the performance obligations in the contract
Step 5: Recognize revenue when the entity satisfies a performance obligation

The Group engages in research, design, development, manufacturing, sales and services related to various kinds of semiconductors as a manufacturer specializing in semiconductors. Revenue is recognized mainly when the goods are delivered as the ownership of these goods has been transferred to the customer and the performance obligations are satisfied at the time of delivery.

Also, revenue is measured at the fair value of the consideration received after deducting discounts, rebates and returns.

(18) Finance income and Finance costs

Finance income consists of dividend income, interest income, foreign exchange gain, gains on sales of financial assets, gains on hedging financial instruments that are recognized in profit or loss, and the transfer of amounts previously recognized in other comprehensive income. Interest income is recognized at the time of occurrence using the effective interest method. Dividend income is usually recognized on the date when the Group’s right to receive payment is established.

Finance costs consist of interest expenses for corporate bonds, borrowings and interest expenses for lease liabilities, foreign exchange loss, losses on sales of financial assets, losses from hedging financial instruments that are recognized in profit or loss, and the transfer of amounts previously recognized in other comprehensive income. Acquisitions or construction of qualifying assets, or borrowing costs not directly attributable to the production, are recognized at the time of occurrence using the effective interest method. Lease payments are allocated to finance costs and the repayment portion of the liability balance, and finance costs are allocated over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

(19) Income taxes

Current taxes and deferred taxes are presented as income tax expense in the consolidated statement of profit or loss, except for those related to business combinations and items that are recognized in other comprehensive income or that are directly recognized in equity.

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

A. Current taxes

Current taxes are measured at the amount paid to tax authorities or the amount expected to be refunded from tax authorities. The tax rates and the tax law used for the calculation of the tax amount are those established or substantively established by the closing date.

B. Deferred taxes

Deferred taxes are calculated based on temporary differences between the tax base amount and the carrying amount for accounting purposes of assets and liabilities at the end of the fiscal year. Deferred tax assets are recognized for deductible temporary differences, unused tax credits and unused tax losses are expected to arise to the extent to which it is probable that taxable profits will be available against which they can be utilized, and deferred tax liabilities are recognized for taxable temporary differences, in principle.

Neither a deferred tax asset nor a deferred tax liability is recognized for the following temporary differences:

- Temporary difference arising from the initial recognition of goodwill
- Temporary difference arising from the initial recognition of an asset and a liability arising from a transaction (excluding business combination transactions) that does not have an impact on accounting profits and taxable profits
- A case where the timing for eliminating a taxable temporary difference for an investment in a subsidiary or an associate and an interest in the arrangement of joint control can be controlled and where it is probable that the difference will not be eliminated in the foreseeable future
- A case where it is improbable that a deductible temporary difference for an investment in a subsidiary or an associate and an interest in the arrangement of joint control will be eliminated in the foreseeable future, or a case where it is improbable that a taxable profit that will be available for the temporary difference will be earned

Deferred tax assets and liabilities are measured at a tax rate (and based on tax law) that is expected to be applied in the period when assets are realized or liabilities are settled based on the statutory tax rate (and based on tax law) that is established or substantively established by the closing date.

Deferred tax assets and deferred tax liabilities are offset if the Group has the legally enforceable right to offset current tax assets and current tax liabilities, and if any of the following cases applies:

- Income tax expense is imposed on the same taxable entity by the same tax authority
- Although income tax expense is imposed on different taxable entities, these taxable entities intend to settle current tax assets and current tax liabilities on a net basis or intend to settle current tax liabilities at the same time as realizing current tax assets.

The carrying amount of deferred tax assets is reviewed at the end of each fiscal year. If it becomes improbable that taxable profits sufficient to realize part or all of the benefits of deferred tax assets will be earned, the carrying amount of deferred tax assets is reduced to that extent. In addition, the amount of the write-down is reversed to the extent to which it becomes probable that sufficient taxable profits will be earned.

The Group recognizes tax assets and liabilities at a reasonably estimated amount where there is an uncertain tax position.

(20) Earnings per share

Basic earnings per share are calculated by dividing profit (loss) attributable to owners (ordinary shareholders) of the parent by the weighted average number of ordinary shares outstanding, net of treasury shares, during each fiscal year.

Diluted basic earnings per share are calculated, adjusted for the effects of all dilutive potential ordinary shares.

(21) Non-current assets held for sale and discontinued operations

A. Non-current assets held for sale

For assets or asset groups that are not in continuing use and for which recovery through sale is expected, that are highly likely to be sold within one year, and that the execution of sales plan is confirmed by management and can be sold in their current condition, assets held for sale and liabilities directly related to assets held for sale are classified into disposal groups separately from other assets and liabilities and recorded in the consolidated statement of financial position.

Non-current assets classified as assets held for sale are measured at the lower of the carrying amount and the fair value after deducting the costs for sale. Assets classified as assets held for sale are not depreciated or amortized.

B. Discontinued operations

A component of an entity that has either been disposed of or is classified as held for sale is recognized as a discontinued operation if any of the following applies:

- A separate major line of business or geographical area of operations;
- Part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations; or
- A subsidiary acquired exclusively with a view to resale.

If an operation is classified as a discontinued operation, the consolidated statement of profit or loss and the consolidated statement of comprehensive income for a comparative period are restated on the assumption that the operation was discontinued on the commencement date of the comparative period.

4. Significant Accounting Estimates and Judgments

In preparing the consolidated financial statements, management of the Group makes judgments, accounting estimates and assumptions that could have an impact on the application of accounting policies and the reporting amounts of assets, liabilities, revenue and expenses. These estimates and assumptions are based on the best judgment of management, taking into account various factors that are deemed reasonable on the closing date in light of past experience and available information. However, figures based on these estimates and assumptions may differ from the actual results due to their nature.

Estimates and underlying assumptions are reviewed continuously. The impact of the review of these estimates is recognized in the period when the estimates are revised and future periods.

The Group reflects the impact of COVID-19 to estimates and assumptions (impairment test of goodwill and collectability of deferred tax assets, etc.), to a reasonable extent based on available information.

These estimates and assumptions may be affected depending on the future situations of the spread of COVID-19.

Estimates and assumptions that could have a significant impact to the consolidated financial statements are as follows.

(1) Impairment of non-financial assets

The Group performs an impairment test for non-financial assets (excluding inventories, deferred tax assets and retirement benefit asset) if there is any indication that the recoverable amount will be less than the carrying amount.

However, for goodwill or intangible assets with indefinite useful life or that are not yet available for use, an impairment test is performed at a certain time each fiscal year and when any signs of impairment exist.

The impairment test is performed by comparing the carrying amount and the recoverable amount of the assets, and if the recoverable amount falls below the carrying amount, an impairment loss is recorded. The recoverable amount is calculated mainly using the discounted cash flow model, where certain assumptions, including, but not limited to, the useful life of the asset, future cash flows, sales revenue, gross margin, discount rate, and long-term growth rate, are made. These assumptions are determined based on the best estimates and judgments of management but could be influenced by fluctuations in uncertain future economic conditions. If a revision becomes necessary, it could have a significant impact on the amounts that will be recognized in the consolidated financial statements of subsequent periods.

The calculation method of the recoverable amount is stated in “Note 15. Impairment of Non-financial Assets.”

(2) Post-employment benefits

The Group has a variety of post-employment benefit plans, including a defined benefit plan.

The present value of the defined benefit obligation of each plan and related service costs are calculated based on actuarial assumptions. For the actuarial assumptions, estimates and judgments on a range of variables such as the discount rate are required.

The actuarial assumptions are determined based on the best estimates and judgments of management but could be affected by fluctuations in uncertain future economic conditions. If a revision becomes necessary, it could have a significant impact on the amounts that will be recognized in the consolidated financial statements of subsequent periods.

These actuarial assumptions and related sensitivities are stated in “Note 22. Employee Benefits.”

(3) Provisions

The Group records multiple provisions in the consolidated statement of financial position, including the provision for product warranties and asset retirement obligations, among others.

These provisions are recorded based on the best estimate of expenditure required for the settlement of the obligations, considering risks and uncertainties related to the obligations on the closing date.

The amount of expenditure required for the settlement of the obligations is calculated by comprehensively considering results that could arise in the future, but it could be affected by the occurrence of unforeseeable events and changes in the situation. If the actual amount of expenditure differs from the estimate, it could have a significant impact on amounts recognized in the consolidated financial statements of subsequent periods.

The nature and amounts of provisions are stated in “Note 21. Provisions.”

(4) Recoverability of deferred tax assets

When deferred tax assets are recognized, the time and amount of taxable profits that will be earned in the future based on a business plan are estimated and calculated based on judgment of the possibility that taxable profits will arise. Because the timing and amount of taxable profits are affected by the future business performance of the Group, if the actual timing and amount differ from the estimate, it could have a significant impact on the amounts recognized in the consolidated financial statements of subsequent periods.

Details and amounts of deferred tax assets are stated in “Note 17. Income Tax.”

(5) Inventories

Inventories are measured at cost, but if the net realizable value at the end of the fiscal year falls below the acquisition cost, inventories are measured at the net realizable value, and the difference from the acquisition cost is recognized in the cost of sales, in principle. For slow moving inventory that is outside of the operating cycle process, the net realizable value is calculated reflecting the future demand and market trends. If the net realizable value declines significantly due to the greater-than-expected deterioration of the market environment, a loss could arise.

(6) Measurement method of the fair value of financial instruments

When the Group evaluates the fair value of certain financial instruments, the Group uses valuation techniques that use inputs that are not observable in the market. These unobservable inputs could be affected by fluctuations in uncertain future economic conditions, and if a revision becomes necessary, it could have a significant impact on the consolidated financial statements in subsequent periods.

The details and amounts of the fair value of financial instruments are stated in “Note 3. Significant Accounting Policies, (4) Financial instruments” and “Note 33. Financial Instruments.”

(7) Income taxes

The Group recognizes tax assets and liabilities at a reasonably estimated amount based on the interpretation of tax laws where there is an uncertain tax position. Deferred taxes of the Group include liabilities related to an uncertain tax position. Tax effects of assets and liabilities explained above are calculated using the expected value method. Estimates are based on the best estimate at the moment. However, differences from the estimates could have a significant impact on the consolidated financial statements in subsequent periods depending on the actual results. For details, please refer to “Note 17. Income Taxes.”

5. Standards and Interpretations Not Yet Adopted

Of the new standards and interpretations that were newly issued or revised as of the date of the approval of the consolidated financial statements, the major standards and interpretations that the Group has not yet adopted as of December 31, 2020 are as follows:

IFRS 17 “Insurance Contract”

IFRS 17 “Insurance Contract” was issued as replacement for IFRS4 “Insurance Contracts.” The Group will apply the standard from January 1, 2023. The Group has not yet calculated an impact on the consolidated financial statements by adoption of the standards.

6. Business Segments

(1) Overview of reportable segments

The Group's reportable segments are components of the Group for which separate financial information is available that is evaluated regularly by the Board of Directors to determine the allocation of management resources and assess performance.

The Group consists of "Automotive Business" and "Industrial/Infrastructure/IoT Business" and those are the Group's reportable segments. The Automotive business includes the product categories "Automotive control," comprising semiconductor devices for controlling automobile engines and bodies, and "Automotive information," comprising of semiconductor devices used in sensing systems for detecting environments inside and outside the vehicle as well as automotive information devices such as IVI (in-vehicle infotainment) and instrument panels used to give various information to the driver of the vehicle. The Group mainly supplies microcontrollers (MCUs), system-on-chips (SoCs), analog semiconductor devices and power semiconductor devices in each of these categories. The Industrial/Infrastructure/IoT Business includes the product categories "Industrial", "Infrastructure" and "IoT" which support the smart society. The Group mainly supplies MCUs and SoCs in each of these categories. Additionally, commissioned development and manufacturing from the Group's design and manufacturing subsidiaries are categorized as "Other."

(2) Information on reportable segments

The accounting treatment for reportable segments is same as described in "Note 3. Significant Accounting Policies." The internal indicators which are used by management when making decisions have been adjusted by non-recurring items specified by the Group and other adjustments following a certain set of rules from operating profit in accordance with IFRS. Segment profit or loss is calculated by deducting "Cost of Sale", "General, Selling and Administrative Expenses" and "Other Expenses" from "Revenue" and adding "Other Income." The Group's Executive Officers assess the performance after eliminating intragroup transactions, and therefore, there is no transfer between reportable segments.

Information on reportable segments is as follows.

The year ended December 31, 2019 (In millions of yen)

	Reportable Segments		Other	Adjustments (Note 1)	Total	Adjustments (Note 2)	Consolidation basis
	Automotive	Industrial/ Infrastructure/ IoT					
Revenue from external customers	371,145	329,705	17,393	—	718,243	—	718,243
Segment profit or loss	30,984	59,063	1,037	1,398	92,482	(86,219)	6,263
Finance income							2,186
Finance costs							(8,774)
Loss before tax							(325)
(Other adjustments) Depreciation and amortization	59,191	41,373	(160)	—	100,404	47,622	148,026

The year ended December 31, 2020 (In millions of yen)

	Reportable Segments		Other	Adjustments (Note 1)	Total	Adjustments (Note 2)	Consolidation basis
	Automotive	Industrial/ Infrastructure/ IoT					
Revenue from external customers	341,001	363,609	11,063	—	715,673	—	715,673
Segment profit or loss	48,356	89,702	1,177	(1,697)	137,538	(72,396)	65,142
Finance income							7,623
Finance costs							(7,549)
Profit before tax							65,216
(Other adjustments) Depreciation and amortization	46,174	39,299	236	—	85,709	55,818	141,527

(Note) 1. Reportable Segment's allocation of non-recurring items and other specified adjustments deducted or adjusted following a certain set of rules.

2. Non-recurring items and other specified adjustments deducted or adjusted following a certain set of rules.

(3) Information on products and services

Information on products and services is the same with information on reportable segments and therefore, omitted from this section.

(4) Information on regions and countries

The components of revenue and non-current assets from external customers by region and country are as follows.

a. Revenue from external customers

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Japan	261,663	241,186
China	150,486	168,548
Asia (Excluding China and Japan)	117,959	126,614
Europe	118,990	111,908
North America	66,228	65,048
Others	2,917	2,369
Total	718,243	715,673

(Note) Revenues are categorized into the country or region based on the location of the customers.

b. Non-current assets

Non-current assets include property, plant and equipment, goodwill and intangible assets.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Japan	811,354	771,228
Malaysia	326,738	262,719
Asia (Excluding Japan and Malaysia)	23,591	18,110
Europe	37,048	28,996
North America	73,460	61,524
Total	1,272,191	1,142,577

(5) Major customers

Revenue from a single external customer accounting for 10% or more of revenue is as follows.

(In millions of yen)

	Name of related reportable segments	The year ended December 31, 2019	The year ended December 31, 2020
Ryosan Company, Limited	Automotive, Industrial/ Infrastructure/IoT	75,146	73,599

7. Business Combinations

(1) Business combination by acquisition

(The year ended December 31, 2019)

A. Overview of business combination

The Company resolved at the Meeting of Board of Directors to reach an agreement with IDT, whereby IDT would become a wholly-owned subsidiary of the Company and concluded a merger agreement for the purpose of implementing the acquisition on September 11, 2018. In addition, on March 30, 2019, following the completion of the acquisition, IDT has become a wholly-owned subsidiary of the Company.

1) Name and overview of the acquiree

Name of the acquiree: Integrated Device Technology, Inc.

Business overview: Development, Manufacturing and Sale of mixed signal analog integrated circuit, etc.

2) Date of the acquisition

March 30, 2019 (Pacific Daylight Time: March 29, 2019)

3) Purpose of the Acquisition

The Group has been executing its growth strategy to thrive as a world-leading embedded solution provider in the rapidly changing global semiconductor market. As the pillars of its growth strategy, the Group is accelerating its focus on the automotive segment, where the Group has maintained a key global position over many years and further growth is anticipated in areas such as autonomous driving and EV/HEV; industrial and infrastructure segments, which are expected to advance with Industry 4.0 and 5G (fifth-generation) wireless communications, as well as the fast-growing IoT segment.

In order to achieve this growth strategy, the Group is working to expand its analog solution product portfolio and to strengthen its kit solution offerings that combine its world-leading microcontrollers (MCUs), system-on-chips (SoCs) and analog products. In this context, the Group already completed the acquisition of Intersil Corporation (hereafter "Intersil"), a U.S.-based analog semiconductor supplier, in February 2017.

With the Intersil acquisition, the Group enhanced its product portfolio of power management-related analog devices as well as its ability to deliver kit solutions to customers combining the Group's MCUs/SoCs and analog products from the former Intersil. At the same time, the Group expanded its sales and design-ins outside of Japan and strengthened global management capabilities by absorbing the former Intersil's experienced management team into the Group.

The Group has made the decision to acquire IDT, a U.S.-based analog semiconductor supplier, to contribute further towards the growth strategy. IDT is a global enterprise engaged in the development, production, sale, and provision of services related to analog semiconductor products such as mixed-signal semiconductor solutions particularly for markets related to the data economy such as data center and communication infrastructure that require big-data processing. IDT has annual sales of approximately US$843 million (approximately 92.7 billion yen at an exchange rate of 110 yen to the dollar, as of March 2018) and an operating profit margin of over 25% (Non-GAAP basis).

The main strategic benefits this transaction is expected to bring are: (i) Complementary products to expand the Group's solution offerings, and (ii) Expands business growth opportunities. Details are as follows:

(i) Complementary products to expand the Group's solution offerings

The acquisition will provide the Group with access to a vast array of robust analog mixed-signal capabilities in embedded systems, including RF, high performance timing, memory interface, real-time interconnect, optical interconnect, wireless power and smart sensors. The combination of these product lines with the Group's advanced MCUs and SoCs and power management ICs enables the Group to offer an integrated solution that supports the increasing demand of high data processing performance. The enriched solution offerings will bring optimal systems from external sensors through analog front end to processors and interfaces.

(ii) Expands business growth opportunities.

IDT's analog mixed-signal products for data sensing, storage and interconnect are key devices that support the growth of data economy. Acquisition of these products enables the Group to extend its reach to fast-growing data economy-related applications including data center and communication infrastructure and strengthens its presence in the industrial and automotive segments.

Welcoming IDT as part of the Group after the Intersil acquisition completed in 2017 is therefore seen as an effective measure to further enhance the Group's competitiveness in fields where the Group is focusing its efforts to strengthen the Company's position as a global leader.

4) Acquisition Method

For the purpose of the acquisition, the Group had established a wholly-owned subsidiary ("acquisition subsidiary") in Delaware, United States that then merged with IDT (in a reverse triangular merger). The surviving company following the merger is IDT. Cash was issued for IDT's shares as consideration for the merger, and the shares of the acquisition subsidiary owned by the Group was converted into outstanding shares in the surviving company, making the surviving company a wholly-owned subsidiary of the Group.

B. Consideration for the acquisition and its breakdown

(In millions of yen)

Consideration		Amount
Cash consideration for the acquisition		703,559
Stock options consideration for the acquisition		23,188
Total consideration for the acquisition	A	726,747

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Acquisition-related expenses for the business combination were 1,258 million yen, with 885 million yen recorded in "Selling, general and administrative expenses" for the fiscal year ended December 31, 2019.

C. Fair value of assets acquired, liabilities assumed and goodwill

(In millions of yen)

		Date of acquisition (March 30, 2019)
Current assets		
Cash and cash equivalents		26,326
Trade and other receivables (Note 1)		16,136
Inventories		18,808
Other		786
Total current assets		62,056
Non-current assets		
Property, plant and equipment		19,775
Intangible assets		320,276
Other		11,852
Total non-current assets		351,903
Total assets		413,959
Current liabilities		
Trade and other payables		5,121
Bonds and borrowings (Note 2)		65,262
Other		13,997
Total current liabilities		84,380
Non-current liabilities		
Income taxes payable		2,599
Deferred tax liabilities		33,853
Other		3,759
Total non-current liabilities		40,211
Total liabilities		124,591
Net assets	B	289,368
Basis adjustments	C	8,598
Goodwill (Note 3)	A-B+C	445,976

(Note) 1. The total contract amount is same as the fair value, and there are no receivables that are expected to be unrecoverable.
2. The content of bonds and borrowings is bonds. Refer to "Note 19. Bonds and Borrowings" for more details.
3. Goodwill reflects future excess earning power expected from future business development including IDT and synergies between the Company and IDT. No amount of goodwill is expected to be deductible for tax purposes.

D. Expenditure for the acquisition

(In millions of yen)

Item	Amount
Consideration for acquisition in cash	(703,559)
Cash and cash equivalents held by the acquiree at the time of obtaining control	26,326
Amount of cash paid for the acquisition of subsidiaries	(677,233)
Basis adjustments	(8,598)
Amount of cash paid for the acquisition of subsidiaries (net amount)	(685,831)

E. Impact on profit of the period on the assumption that the date of the acquisition of IDT was at the beginning of the fiscal year

Provisional pro forma information (unaudited information) on the assumption that the date of the acquisition of IDT was at the beginning of the fiscal year is as follows.

(In millions of yen)

	The year ended December 31, 2019
Revenue	745,184
Loss	(8,598)

The above information has not been audited. In addition, items such as the amortization of intangible assets on the assumption that the date of the acquisition of IDT was at the beginning of the fiscal year were added to the approximate amount of impact. The pro forma information is not necessarily indicative of events that may happen in the future.

8. Cash and Cash Equivalents

The components of cash and cash equivalents are as described below. The balance of “Cash and cash equivalents” in the consolidated statement of financial position and the balance of “Cash and cash equivalents” in the consolidated statement of cash flows as of December 31, 2019 and December 31, 2020 are the same.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Cash and deposits	135,870	190,513
Short-term investments	10,598	29,273
Total	146,468	219,786

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

9. Trade and Other Receivables

The components of trade and other receivables are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Notes and trade receivables	81,473	77,686
Other receivables	3,081	4,751
Loss allowance	(95)	(119)
Total	84,459	82,318

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

10. Inventories

The components of inventories are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Merchandise and finished goods	29,089	26,411
Work in progress	55,554	58,138
Raw materials and supplies	6,142	5,212
Total	90,785	89,761

(Note) For write-downs of inventories previously recognized as an expense as a result of declining profitability, using the reversal method (figures in parentheses represent reversals) 2,879 million yen and (2,116) million yen were included in cost of sales in the prior fiscal year and the current fiscal year, respectively.

11. Other Assets and Liabilities

The components of other current assets and other non-current assets are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Prepaid expenses	8,786	8,004
Consumption taxes receivable	2,088	1,708
Other	2,420	3,335
Total	13,294	13,047
Current assets	7,344	8,162
Non-current assets	5,950	4,885

The components of other current liabilities and other non-current liabilities are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Accrued expenses	40,527	46,138
Paid leave payables	10,336	9,391
Advances received	536	818
Other	8,529	7,015
Total	59,928	63,362
Current liabilities	55,528	58,873
Non-current liabilities	4,400	4,489

12. Property, Plant and Equipment

(1) Movement during the fiscal year

The changes in acquisition cost, accumulated depreciation and impairment losses, and the carrying amounts of property, plant and equipment are as follows.

A. Acquisition Cost

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Right-of-use assets	Land	Construction in progress	Total
Balances as of January 1, 2019	208,323	680,387	126,002	—	21,826	17,350	1,053,888
Adjustment due to adoption of IFRS16	(45)	(9,444)	(70)	22,240	—	—	12,681
Balances as of January 1, 2019 (After adjustment)	208,278	670,943	125,932	22,240	21,826	17,350	1,066,569
Acquisition	95	1,685	2,273	2,826	—	18,956	25,835
Acquisition due to business combination	7,504	7,156	1,290	1,161	2,023	290	19,424
Sales or disposal	(360)	(13,628)	(5,675)	(2,902)	(9)	(59)	(22,633)
Transfer from construction in progress	1,481	12,644	9,438	—	—	(23,564)	(1)
Exchange differences	(254)	(1,561)	(485)	59	3	(23)	(2,261)
Other	28	(208)	(328)	(616)	7	(72)	(1,189)
Balances as of December 31, 2019	216,772	677,031	132,445	22,768	23,850	12,878	1,085,744
Acquisition	190	1,732	2,265	5,593	—	16,366	26,146
Acquisition due to business combination	—	—	—	—	—	—	—
Sales or disposal	(703)	(5,756)	(8,258)	(7,619)	(205)	(92)	(22,633)
Transfer from construction in progress	748	10,990	4,963	—	—	(16,701)	—
Exchange differences	(1,014)	(3,539)	(4)	(114)	(156)	(61)	(4,888)
Other	(154)	(373)	(718)	188	4	(190)	(1,243)
Balances as of December 31, 2020	215,839	680,085	130,693	20,816	23,493	12,200	1,083,126

B. Accumulated depreciation and impairment losses

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Right-of-use assets	Land	Construction in progress	Total
Balances as of January 1, 2019	(148,889)	(554,756)	(96,244)	—	(1,439)	(57)	(801,385)
Adjustment due to adoption of IFRS16	21	6,477	69	(6,567)	—	—	—
Balances as of January 1, 2019 (After adjustment)	(148,868)	(548,279)	(96,175)	(6,567)	(1,439)	(57)	(801,385)
Depreciation	(5,412)	(46,237)	(17,713)	(5,581)	—	—	(74,943)
Impairment losses	(118)	(303)	(124)	—	(26)	—	(571)
Sales or disposal	260	13,352	5,563	2,884	—	—	22,059
Exchange differences	132	887	327	(6)	—	—	1,340
Other	10	(122)	203	244	—	—	335
Balances as of December 31, 2019	(153,996)	(580,702)	(107,919)	(9,026)	(1,465)	(57)	(853,165)
Depreciation	(5,224)	(41,683)	(13,368)	(4,974)	—	—	(65,249)
Impairment losses	(384)	(147)	(135)	(891)	—	(513)	(2,070)
Sales or disposal	623	5,674	8,173	6,693	114	—	21,277
Exchange differences	234	2,432	(95)	38	—	—	2,609
Other	26	233	640	(73)	—	—	826
Balances as of December 31, 2020	(158,721)	(614,193)	(112,704)	(8,233)	(1,351)	(570)	(895,772)

C. Carrying amount

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Right-of-use assets	Land	Construction in progress	Total
Balances as of January 1, 2019	59,410	122,664	29,757	15,673	20,387	17,293	265,184
Balances as of December 31, 2019	62,776	96,329	24,526	13,742	22,385	12,821	232,579
Balances as of December 31, 2020	57,118	65,892	17,989	12,583	22,142	11,630	187,354

(Note)
1. The amount of property, plant and equipment under construction is presented as construction in progress.
2. For property, plant and equipment on which a mortgage is placed as collateral for liabilities, see “Note 19. Bonds and Borrowings.”
3. For commitments to the acquisition of property, plant and equipment, see “Note 36. Commitments and Contingencies.”
4. Depreciation is included in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statement of profit or loss.
5. Impairment losses are included in “Other expenses” in the consolidated statement of profit or loss. For details on impairment losses, see “Note 15. Impairment of Non-financial Assets.”
6. There are no borrowing costs included in the cost of property, plant and equipment.
7. For details on right-of-use assets, see “Note 14. Leases.”

13. Goodwill and Intangible Assets

(1) Movement during the fiscal year

The changes in acquisition cost, accumulated amortization and impairment losses, and the carrying amounts of goodwill and intangible assets are as follows.

A. Acquisition cost

(In millions of yen)

	Goodwill	Intangible assets					
		Software	Capitalized development costs	Developed technology	Customer relationships	Other	Total
Balances as of January 1, 2019	187,230	73,378	8,056	142,320	24,753	89,757	338,264
Internally developed	—	1,632	1,616	—	—	—	3,248
Acquisitions	—	2,940	—	—	—	—	2,940
Acquisition due to business combination	445,976	2,290	—	217,540	79,025	21,421	320,276
Sales or disposal	—	(2,833)	(1,371)	—	—	(1,017)	(5,221)
Exchange differences	(8,176)	(48)	—	(4,401)	(1,203)	(347)	(5,999)
Other	—	631	—	(401)	—	572	802
Balances as of December 31, 2019	625,030	77,990	8,301	355,058	102,575	110,386	654,310
Internally developed	—	1,122	1,840	—	—	—	2,962
Acquisitions	—	2,566	—	—	—	39,245	41,811
Acquisition due to business combination	—	—	—	—	—	—	—
Reclassification	—	—	—	11,049	—	(11,049)	—
Sales or disposal	—	(485)	(1,714)	(1)	—	(27,587)	(29,787)
Exchange differences	(34,571)	(42)	—	(18,993)	(5,090)	(1,083)	(25,208)
Other	—	66	—	—	—	(307)	(241)
Balances as of December 31, 2020	590,459	81,217	8,427	347,113	97,485	109,605	643,847

B. Accumulated amortization and impairment losses

(In millions of yen)

	Goodwill	Intangible assets: Software	Capitalized development costs	Developed technology	Customer relationships	Other	Total
Balances as of January 1, 2019	—	(55,541)	(3,994)	(42,441)	(12,406)	(57,358)	(171,740)
Amortization	—	(6,534)	(1,730)	(39,971)	(5,278)	(18,523)	(72,036)
Impairment losses	—	—	—	—	—	(1,571)	(1,571)
Sales or disposal	—	2,771	1,371	401	—	428	4,971
Exchange differences	—	37	—	306	22	(111)	254
Other	—	199	—	—	(9)	204	394
Balances as of December 31, 2019	—	(59,068)	(4,353)	(81,705)	(17,671)	(76,931)	(239,728)
Amortization	—	(6,626)	(1,736)	(46,494)	(6,578)	(14,022)	(75,456)
Impairment losses	—	—	—	—	—	—	—
Sales or disposal	—	463	1,714	1	—	27,586	29,764
Exchange differences	—	12	—	5,141	626	242	6,021
Other	—	1	—	—	—	315	316
Balances as of December 31, 2020	—	(65,218)	(4,375)	(123,057)	(23,623)	(62,810)	(279,083)

C. Carrying amount

(In millions of yen)

	Goodwill	Intangible assets: Software	Capitalized development costs	Developed technology	Customer relationships	Other	Total
Balances as of January 1, 2019	187,230	17,837	4,062	99,879	12,347	32,399	166,524
Balances as of December 31, 2019	625,030	18,922	3,948	273,353	84,904	33,455	414,582
Balances as of December 31, 2020	590,459	15,999	4,052	224,056	73,862	46,795	364,764

(Note)
1. Of software in intangible assets, the carrying amount classified as internally generated assets was 856 million yen as of December 31, 2019 and 711 million yen as of December 31, 2020.
2. Construction in progress related to software is included in “Software” under intangible assets.
3. Intangible assets through installment purchase contracts (license fees) are included in “Other” under intangible assets.
4. There are no intangible assets with restrictions on ownership or intangible assets on which a mortgage is placed as collateral for liabilities.
5. For commitments related to the acquisition of intangible assets, see “Note 36. Commitments and Contingencies.”
6. Amortization of intangible assets is included in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statement of profit or loss.
7. Impairment losses are included in “Other expenses” in the consolidated statement of profit or loss. For details on impairment losses, see “Note 15. Impairment of Non-financial Assets.”

(2) Significant intangible assets

Major intangible assets are developed technology acquired in the business combination with former Intersil in February 2017 and former IDT in March 2019. The carrying amount of developed technology acquired in the business combination was 272,916 million yen as of December 31, 2019 and 223,677 million yen as of December 31, 2020, and the remaining amortization period as of December 31, 2020 is 3 to 10 years. The carrying amount of customer relationships was 84,905 million yen as of December 31, 2019 and 73,862 million yen as of December 31, 2020, and the remaining amortization period as of December 31, 2020 is 10 to 12 years.

(3) Intangible assets not yet available for use

The carrying amount of intangible assets not yet available for use is included in “Other” and was 16,982 million yen as of December 31, 2019 and 9,522 million yen as of December 31, 2020 and represents in-process research and development. In-process research and development is reclassified as "Developed technology" and starts to be amortized when the development has been completed and the related technology has been put in operational use. The amount of reclassification is 11,049 million yen for the year ended December 31, 2020.

14. Leases

(1) Leases as lessee

A. Lease expenses, income and cash flows

Lease expenses, income and cash flows are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Depreciation charge for right-of-use assets by class of underlying asset		
Land	93	93
Buildings	2,732	2,861
Machinery, equipment and vehicles	2,586	1,892
Tools, furniture and fixtures	170	128
Total	5,581	4,974
Interest expense on lease liabilities	251	226
Expense relating to short-term leases	2,645	2,548
Expense relating to leases of low-value assets (excluding short-term leases)	493	437
Expense relating to variable lease payments which are not reflected in the measurement of lease liabilities	—	—
Income from subleasing right-of-use assets	—	—
Total cash outflows for leases	9,086	8,071
Gain (loss) from sale and leaseback transactions	—	—

B. Right-of-use assets which are included in the carrying amount of property, plant and equipment

The carrying amount and the increase/decrease in carrying amount of right-of-use assets which are included in the carrying amount of property, plant and equipment are as follows.

(In millions of yen)

	Balance as of January 1, 2019	Balance as of December 31, 2019	Balance as of December 31, 2020
Land	346	268	175
Buildings	9,181	9,525	8,759
Machinery, equipment and vehicles	5,909	3,763	3,513
Tools, furniture and fixtures	237	186	136
Total	15,673	13,742	12,583

(Note) The increased amount of right-of-use assets for the fiscal year ended December 31, 2020 was 5,593 million yen.

C. Nature of the leasing activities

The Group leases land, building, machinery, equipment and vehicles.

The terms of lease contracts are negotiated individually and include a wide variety of the terms of contracts.

D. Options of extension and termination

The options of extension and termination are included in many lease contracts for buildings, machinery and equipment. The lease term for office buildings is mainly from 3 to 10 years and for machinery and equipment, its term is from 3 to 5 years. Some contracts include an option to extend the lease for a period of one year or the same lease years for the current lease contract after the termination date. In addition, some contracts include an option for early termination when the lessee notifies the lessor between six months to one year before the termination date.

These options will be utilized to maximize operational flexibility from the point of asset management used in the Group's businesses.

15. Impairment of Non-financial Assets

The Group recorded impairment losses for the assets below. Impairment losses are included in "Other expenses" in the consolidated statement of profit or loss.

The components of assets for which the impairment losses are recorded are as follows.

The year ended December 31, 2019

(In millions of yen)

	Reportable segments		Total
	Automotive	Industrial/ Infrastructure/IoT	
Property, plant and equipment	371	203	574
Intangible assets	846	751	1,597
Other	55	30	85
Total	1,272	984	2,256

The year ended December 31, 2020

(In millions of yen)

	Reportable segments		Total
	Automotive	Industrial/ Infrastructure/IoT	
Property, plant and equipment	1,275	795	2,070
Total	1,275	795	2,070

(Note) Impairment losses recognized as for right-of-use assets are included in the impairment losses of property, plant and equipment for the year ended December 31, 2020. The amount included in the impairment losses of property, plant and equipment is 891 million yen.

(1) Impairment losses

The Group assesses impairment at the grouping level of a smallest identifiable group that generates cash inflows that are largely independent, based on the categories used for business management. The Group assesses impairment by each individual asset for significant assets to be disposed of and idle assets.

For the year ended December 31, 2019

(Assets to be disposed of))

For the Automotive and Industrial/Infrastructure/IoT business, the Group has performed impairment tests as independent cash-generating units for the assets that have been decided to be disposed and writes down the carrying amount of assets to their recoverable amount. As a result, the Group has recorded impairment losses of 1,939 million yen.

The recoverable amount is measured at the fair value after deducting disposal costs. The fair value after deducting disposal costs is set at zero for assets difficult to sell or estimate the selling amount and the hierarchy level of the fair value is 3.

(Idle assets)

For the Automotive and Industrial/Infrastructure/IoT business, the Group has performed impairment tests as independent cash-generation units, written down the carrying amount of idle assets that are unlikely to be used to their recoverable amount, and recorded impairment losses of 317 million yen.

The recoverable amount is measured at the fair value after deducting disposal costs. The fair value after deducting disposal costs is set at zero because it is difficult to sell these assets, and the hierarchy level of the fair value is 3.

For the year ended December 31, 2020

(Assets to be disposed of)

For the Automotive and Industrial/Infrastructure/IoT business, the Group performs impairment tests as independent cash-generating units for the assets that have been decided to be disposed and writes down the carrying amount of assets to their recoverable amount. As a result, the Group has recorded impairment losses of 168 million yen.

The recoverable amount is measured at the fair value after deducting disposal costs. The fair value after deducting disposal costs is set at zero for assets difficult to sell or estimate the selling amount and the hierarchy level of the fair value is 3.

(Idle assets)

For the Automotive and Industrial/Infrastructure/IoT business, the Group performs impairment tests as independent cash-generation units, writes down the carrying amount of idle assets that are unlikely to be used to their recoverable amount, and recorded impairment losses of 1,902 million yen.

The recoverable amount is measured at the fair value after deducting disposal costs. The fair value after deducting disposal costs is set at zero because it is difficult to sell these assets, and the hierarchy level of the fair value is 3.

(2) Impairment test of goodwill and intangible assets not yet available for use

The Group performs impairment tests for cash-generating units to which goodwill and intangible assets not yet available for use are allocated at a certain time each fiscal year and whenever there is any indication of impairment.

Goodwill recorded in the consolidated statement of financial position was recognized when the Company merged with former Intersil for the fiscal year ended December 31, 2017 and former IDT for the fiscal year ended December 31, 2019 and it is allocated to the cash-generating units of the Group expected to provide future excess earning power arising from synergies of these business combinations.

In the impairment test, goodwill and intangible assets not yet available for use that were allocated to the cash-generating units of the Group are as follows.

(In millions of yen)

	Reportable segments	Cash-generating units	As of December 31, 2019	As of December 31, 2020
Goodwill	Automotive	Automotive	244,950	231,401
	Industrial/ Infrastructure/IoT	Industrial/ Infrastructure/IoT	380,080	359,058
In-process research and development	Automotive	Automotive	3,287	2,070
	Industrial/ Infrastructure/IoT	Industrial/ Infrastructure/IoT	13,695	7,452

The recoverable amount of the cash-generating units is measured at the value in use. The value in use is calculated by discounting the cash flows, which is estimated based on the five-year business plan that was approved by management and the estimated permanent growth rate for the period thereafter, to the present value using the pre-tax discount rate. Significant assumptions which have an impact to the calculation of the value in use include sales revenue and gross margin in the business plan, permanent growth rate, discount rate and others. These assumptions are determined in the consideration of past experiences and external information.

Additionally, the Group includes the estimated impact of COVID-19 to estimates and assumptions which are based on information available and management believes to be reasonable at the moment.

The discount rates are the weighted average capital cost before tax. The discount rates used for the calculation of the value in use are 11.7% in the Automotive Business in the current fiscal year (9.8% in the prior fiscal year) and 11.2% in the Industrial/Infrastructure/IoT Business in the current fiscal year (9.8% in the prior fiscal year).

For cash flows in a period beyond the projected period that is approved by management, the value in use is calculated with the growth rate as 2.0% both in the prior fiscal year and the current fiscal year. The approved growth rate used for the estimation for the period exceeding the approved business plan is determined based on the estimated inflation rate of the market to which the cash-generating units belong.

Because the recoverable amount of cash-generating units sufficiently exceeds the carrying amount in the current fiscal year, management believes that it is unlikely that the recoverable amount of the cash-generating units will be lower than the carrying amount even if the major assumptions (Inflation rate/ Discount rate before tax) used in the impairment test are changed in a reasonable range.

The following table shows the range of reasonably expected fluctuation of the major assumptions (Inflation rate/ Discount rate before tax) used in the impairment test.

Major assumptions	Cash-generating units	Prior fiscal year	Current fiscal year
Inflation rate	Automotive	1.5~2.5%	1.5~2.5%
	Industrial/ Infrastructure/IoT		
Discount rate before tax	Automotive	8.8~10.8%	10.7~12.7%
	Industrial/ Infrastructure/IoT		10.2~12.2%

For certain in-process research and development that were acquired in a business combination, since such assets are not yet available to use, the Group performs impairment test at a certain time each fiscal year and whenever there is any indication of impairment. The Group recognized no impairment losses during the current year and the prior year since the value in use of the cash generating units exceeded the carrying amount as a result of the impairment test.

16. Other Financial Assets

(1) Components of other financial assets

The components of other financial assets are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Stocks (Note 1)	3,926	4,740
Investment trust (Note 2)	3,967	4,160
Long-term accounts receivable - other (Note 3)	1,244	8,350
Other (Note 4)	1,326	1,456
Total	10,463	18,706
Current assets	468	605
Non-current assets	9,995	18,101

(Note) 1. Stocks are classified either as equity instruments measured at fair value through other comprehensive income or financial assets measured at fair value through profit or loss (see “Note 33. Financial Instruments”).
2. Investment trust is classified as Financial assets measured at fair value through profit or loss.
3. Financial assets measured at amortized cost are included in “Long-term accounts receivable – other.”
4. Term deposits with a deposit term of more than three months, security deposits and long-term accounts receivable are included in “Other.” These assets are classified as financial assets measured at amortized cost.

(2) Equity instruments measured at fair value through other comprehensive income

Name of major equity instruments and their fair value, etc. measured at fair value through other comprehensive income are as follows.

(In millions of yen)

Company name	As of December 31, 2019	As of December 31, 2020
LeddarTech Inc.	1,096	1,035

(3) Derecognized equity instruments measured at fair value through other comprehensive income

The fair value and cumulative losses (before tax) as of the date of derecognition of equity instruments measured at fair value through other comprehensive income that were derecognized during the period are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Fair value	606	429
Cumulative losses	(175)	(429)

(Note) If equity instruments measured at fair value through other comprehensive income are derecognized, cumulative losses (after tax) previously recognized in other comprehensive income are reclassified to retained earnings. The corresponding amount was 118 million yen in the prior fiscal year and 330 million yen in the current fiscal year.

17. Income Taxes

(1) Components of and changes in deferred tax assets and deferred tax liabilities

The components of and changes in deferred tax assets and deferred tax liabilities by major causes of their occurrence are as follows.

The year ended December 31, 2019

(In millions of yen)

	As of January 1, 2019	Recognized in profit or loss	Recognized in other comprehensive income	Business combination	As of December 31, 2019
Deferred tax assets					
Inventories	6,824	(1,000)	—	1	5,825
Property, plant and equipment and other	5,410	(79)	—	117	5,448
Research and development expense	1,644	(229)	—	—	1,415
Accrued expenses	10,792	(1,247)	—	1,339	10,884
Retirement benefit liability	6,358	(641)	788	—	6,505
Carryforward of unused tax losses	31,510	(5,813)	—	4,253	29,950
Carryforward of unused tax credits	2,877	1,428	—	793	5,098
Other	7,808	4,654	—	(273)	12,189
Subtotal	73,223	(2,927)	788	6,230	77,314
Deferred tax liabilities					
Intangible assets and other	(36,323)	4,890	—	(33,424)	(64,857)
Tax on undistributed earnings	(5,475)	(512)	—	—	(5,987)
Total income from specified foreign subsidiaries, etc.	(4,250)	3,338	—	—	(912)
Other	(1,780)	(583)	27	(429)	(2,765)
Subtotal	(47,828)	7,133	27	(33,853)	(74,521)
Net deferred tax assets (liabilities)	25,395	4,206	815	(27,623)	2,793

The year ended December 31, 2020

(In millions of yen)

	As of January 1, 2020	Recognized in profit or loss	Recognized in other comprehensive income	Business combination	As of December 31, 2020
Deferred tax assets					
Inventories	5,825	(494)	—	—	5,331
Property, plant and equipment and other	5,448	1,476	—	—	6,924
Research and development expense	1,415	(692)	—	—	723
Accrued expenses	10,884	619	—	—	11,503
Retirement benefit liability	6,505	(1,540)	162	—	5,127
Carryforward of unused tax losses	29,950	(14,359)	—	—	15,591
Carryforward of unused tax credits	5,098	4,004	—	—	9,102
Other	12,189	2,066	—	—	14,255
Subtotal	77,314	(8,920)	162	—	68,556
Deferred tax liabilities					
Intangible assets and other	(64,857)	9,910	—	—	(54,947)
Tax on undistributed earnings	(5,987)	(163)	—	—	(6,150)
Total income from specified foreign subsidiaries, etc.	(912)	(201)	—	—	(1,113)
Other	(2,765)	(1,760)	99	—	(4,426)
Subtotal	(74,521)	7,786	99	—	(66,636)
Net deferred tax assets (liabilities)	2,793	(1,134)	261	—	1,920

(Note) The Group considers the possibility that a portion of, or all of, the deductible temporary differences or carryforward of unused tax losses can be utilized against future taxable profits in the recognition of deferred tax assets.

Deferred tax liabilities related to intangible assets and other include those that are related to an uncertain tax position at an overseas subsidiary and calculated using the expected value method.

The Group reflects the impact of COVID-19 to estimates and assumptions to a reasonable extent based on available information. The Group reflects the impact in estimating collectability of deferred tax assets.

The differences between total amount recognized in profit or loss and total amount of the deferred tax expenses are due to changes in foreign exchange rate.

(2) Deductible temporary differences, etc. for which no deferred tax assets are recognized

The amounts of deductible temporary differences, carryforward of unused tax losses and carryforward of unused tax credits for which no deferred tax assets are recognized are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Deductible temporary differences	—	—
Carryforward of unused tax losses	342,697	210,142
Carryforward of unused tax credits	16,542	16,178
Total	359,239	226,320

(Note) Deductible temporary differences and carryforward of unused tax losses are measured on an income basis, and carryforward of unused tax credits is measured on a tax amount basis.

The expiration schedule of the carryforward of unused tax losses for which no deferred tax assets are recognized is as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
First year	142,499	197,441
Second year	182,023	7,531
Third year	7,780	—
Fourth year	—	—
Fifth year or thereafter	10,395	5,170
Total	342,697	210,142

The expiration schedule of the carryforward of unused tax credits for which no deferred tax assets are recognized is as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
First year	316	—
Second year	—	—
Third year	—	—
Fourth year	—	—
Fifth year or thereafter	16,226	16,178
Total	16,542	16,178

The Group adopts the consolidated taxation system in Japan. The above figures do not include the amount of the carryforward of unused tax losses for which no deferred tax asset is recognized for local taxes (residential tax and business tax) that are not subject to the consolidated taxation system in Japan. The amount of the carryforward of unused tax losses for local taxes (residential tax and business tax) was 12,249 million yen for residential tax and 398,074 million yen for business tax in the prior fiscal year (as of December 31, 2019) and 11,755 million yen for residential tax and 265,151 million yen for business tax in the current fiscal year (as of December 31, 2020).

(3) Components of income tax expense

The components of income tax expense are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Current tax expense		
Current tax expense	8,869	14,493
Tax expense from previous periods	1,471	1,835
Total current tax expense	10,340	16,328
Deferred tax expense		
Origination and reversal of temporary differences	(7,298)	3,385
Effects from tax regulation changes	(104)	(5)
Revaluation of deferred tax assets	2,551	294
Other	414	(512)
Total deferred tax expense	(4,437)	3,162
Total income tax expense	5,903	19,490

(Note)
1. Current tax expense includes the amount of previously unrecognized tax loss, tax credits or temporary differences of a prior period, and decreases by 2,732 million yen and 6,008 million yen in the prior fiscal year and the current fiscal year, respectively.
2. Current deferred tax expense in the prior fiscal year and the current fiscal year does not include the amount of previously unrecognized tax loss, tax credits or temporary differences of a prior period
3. Current deferred tax expense includes the amount of previously unrecognized tax loss, tax credits or temporary differences of a prior period and increases by 6,566 million yen and 4,900 million yen in the prior fiscal year and the current fiscal year, respectively.

(4) Reconciliation of the statutory effective tax rate and the average effective tax rate

The reconciliation of the statutory effective tax rate and the average effective tax rate is as follows.

(%)

	The year ended December 31, 2019	The year ended December 31, 2020
Statutory effective tax rate (Note)	31.5	31.5
Changes in unrecognized deferred tax assets	(438.2)	(1.4)
Permanent differences	433.8	1.2
Foreign tax rate differences	(2,504.5)	2.0
Tax credits	860.8	(6.5)
Tax on undistributed earnings	(157.6)	0.2
Other	(42.5)	2.9
Average effective tax rate	(1,816.7)	29.8

(Note) The applicable statutory effective tax rate is the sum of 23.1% for national taxes and 8.4% for local taxes for the prior fiscal year and 24.4% for national taxes and 7.1% for local taxes for the current fiscal year.

Major taxes imposed on the Company and its subsidiaries in Japan are income tax, residential tax and business tax. The applicable statutory effective tax rate in Japan is 31.5% in the prior fiscal year and current fiscal year. Income taxes for overseas subsidiaries are calculated based on local tax rates applicable in their jurisdictions.

18. Trade and Other Payables

The components of trade and other payables are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Trade payables	64,740	67,008
Other payables	16,974	47,433
Electronically recorded obligations	16,725	7,852
Refund liabilities	2,593	17,119
Total	101,032	139,412
Current liabilities	100,187	114,235
Non-current liabilities	845	25,177

(Note) Trade and other payables are classified as financial liabilities measured at amortized cost.

19. Bonds and Borrowings

(1) Bonds

During the year ended December 31, 2019, following the IDT acquisition, convertible bonds that IDT issued on November 1, 2015 (Total amount issued: 374 million USD (41,483 million yen), interest rate: 0.875%, redemption date: November 22, 2022) were recorded at the fair value of 588 million USD (65,262 million yen) and then repaid.

(2) The components of borrowings are as follows.

(In millions of yen)

	Maturity	Average interest rate	As of December 31, 2019	As of December 31, 2020
Syndicated loan A	From Mar.2019 to Mar.2024	0.83%	395,973	302,803
Syndicated loan B	From Mar.2019 to Mar.2024	0.83%	232,150	232,150
Syndicated loan C	From Jun.2019 to Jun.2024	0.83%	148,975	148,850
Total			777,098	683,803
Less: Arrangement fee			(5,351)	(4,070)
Less: Current portion of long-term borrowings			(93,170)	(93,170)
Long-term borrowings			678,577	586,563

(Note)
1. Borrowings are classified as financial liabilities measured at amortized cost.
2. For the balance of borrowings by maturity, see "Note 33. Financial Instruments."
3. For the average interest rate, the weighted average interest rate on the balance of borrowings at the end of the current fiscal year is stated.
4. Financial covenants are included in borrowings.
5. In order to refinance the existing borrowings to finance partial funds necessary for the acquisition and working capital as the medium-and-long term funds, the Company has entered into a syndicated loan agreement with the total amount of 897,000 million yen on January 15, 2019. During the year ended December 31, 2019, 698,000 million yen of term loan with availability period (Syndicated loan A and B, Implementation date: March 28, 2019, Repayment date: March 28, 2024, participating financial institutions: MUFG Bank, Ltd., Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited and other 5 financial institutions) has been executed. In addition, During the year ended December 31, 2019, borrowings of 149,000 million yen of term loan (Syndicated loan C, Implementation date: June 28, 2019, Repayment date: June 28, 2024, participating financial institutions: MUFG Bank, Ltd., Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited) have been conducted to refinance the existing term loan.

(3) Assets pledged as collateral and corresponding liabilities on the transition date and as of each fiscal year end are as follows.

A. Assets pledged as collateral

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Buildings and structures	38,329	35,480
Machinery, equipment and vehicles	50,872	33,708
Land	16,811	16,720
Total	106,012	85,908

(Note) Other than the above, stock of subsidiary (802,492 million yen for December 31, 2019 and 1,148,461 million yen for December 31, 2020) has been eliminated on consolidation is collateralized.

B. Liabilities corresponding to assets pledged as collateral

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Current portion of long-term borrowings	93,170	93,170
Long-term borrowings (excluding current portion)	678,577	586,563
Total	771,747	679,733

20. Other Financial Liabilities

The components of other financial liabilities are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Lease liabilities	14,155	13,977
Other	300	300
Total	14,455	14,277
Current liabilities	4,362	4,036
Non-current liabilities	10,093	10,241

21. Provisions

The components of provisions and their changes are as follows.

(In millions of yen)

	Asset retirement obligations	Provision for business restructuring	Provision for product warranties	Provision for loss on litigation	Total
Balances as of December 31, 2019	3,028	3,039	249	5,065	11,381
Current liabilities	59	2,898	249	4,315	7,521
Non-current liabilities	2,969	141	—	750	3,860
Increase during the period	46	3,627	158	627	4,458
Decrease during the period (utilization)	(150)	(2,900)	(98)	(2,697)	(5,845)
Decrease during the period (reversal)	—	(275)	(41)	—	(316)
Period interest expense in discount calculation	17	(38)	(17)	—	(38)
Other	(15)	(72)	(6)	(131)	(224)
Balances as of December 31, 2020	2,926	3,381	245	2,864	9,416
Current liabilities	21	3,253	245	2,864	6,383
Non-current liabilities	2,905	128	—	—	3,033

A. Asset retirement obligations

The expected amount related to performing obligations necessary to restore assets to their original state under the real estate lease agreements of offices and plants used by the Group and legal obligations to remove hazardous substances related to non-current assets is recorded as a provision. The amount of asset retirement obligations was computed using an estimated useful life of 5 to 47 years as well as a discount rate of 0.1% to 0.3%, although the timing of payments will be affected by future business plans, and other factors.

B. Provision for business restructuring

Provision for business restructuring is recorded for expected future losses in connection with business structure reform and consolidation. The timing of payments will be affected by future business plans, and other factors.

C. Provision for product warranties

The Group accrues product warranty liabilities for estimated future warranty costs using the individual estimates for the specific matters as well as the historical ratio of warranty costs to net sales.

D. Provision for loss on litigation

The Group records the estimated amount of reasonably calculated losses, considering individual risks, for losses on litigation which could be incurred in the future from lawsuits and disputed cases. (Refer to “Note 36. Commitments and Contingencies, (4) Others” considering the policy for extended disclosure for Contingencies)

22. Employee Benefits

The Group adopts post-employment benefit plans such as a defined benefit plan and a defined contribution plan, except for some overseas consolidated subsidiaries.

(1) Defined benefit plans

A. Characteristics of defined benefit plans and related risks

The characteristics of defined benefit plans and related risks are as follows.

(a) Characteristics of defined benefit plans

The defined benefit plans of the Company and its subsidiaries in the Group include (i) a severance indemnity plan and (ii) a defined benefit corporate pension plan. The Group may also provide extra retirement payments upon the retirement of employees.

(i) The severance indemnity plan is an unfunded plan to make a lump-sum payment only with an internal reserve without making an external reserve for the obligations of the retirement benefit plans. As the lump-sum payment is paid in an amount based on salaries and number of service years in accordance with the retirement allowance regulations including the rules of employment of each company.

(ii) The defined benefit corporate pension plan is a defined benefit pension and a funded plan established under the Defined Benefit Corporate Pension Act (enforced in April 2002). It is a fund-type corporate pension, and a lump-sum payment or an annuity is paid from the fund based on salaries and number of service years. In the defined benefit corporate pension plan, administrators of the corporate pension, such as the executive directors of the employer and the fund, abide by laws, regulations and asset management and investment contracts, etc., and their standards of practice such as the prohibition of acts involving conflicts of interest against the participants in the plan have been clearly defined.

In the defined benefit corporate pension plan, the amount of benefits is calculated based on the cumulative number of points granted to employees according to their job classification. The Company and its subsidiaries in Japan adopt a cash balance pension plan for the defined benefit corporate pension plan. Under the cash balance pension plan, each participant has an account in which a certain amount calculated by the revaluation rate that is determined based on the current base salary, the job classification and the market interest rate is accumulated.

(b) Risks to which an entity is exposed by the plan

The Group is exposed to actuarial risks such as price fluctuation risk by plan assets, interest rate risk and life expectancy rate risk by present value of obligations of the defined benefit plans.

B. Amounts recognized in the consolidated statement of financial position

The amounts recognized in the consolidated statement of financial position are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Present value of obligations of the funded defined benefit plans (with plan assets)	127,397	124,029
Fair value of plan assets	(144,613)	(145,862)
Funded status	(17,216)	(21,833)
Impact of asset ceiling	17,989	22,767
Present value of obligations of the unfunded defined benefit plans (without plan assets)	28,799	29,078
Net amount of liabilities (assets) pertaining to defined benefits recognized in the consolidated statement of financial position	29,572	30,012
Retirement benefit liability	29,572	30,012
Retirement benefit asset	—	—

C. Changes in the present value of defined benefit obligation

The changes in the present value of defined benefit obligation are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Present value of defined benefit obligation (beginning)	164,246	156,196
Service cost	2,835	2,572
Interest expenses	1,131	969
Benefits paid	(16,739)	(5,981)
Remeasurements of defined benefit plans		
(i) Actuarial differences arising from changes in demographic assumptions	2,408	82
(ii) Actuarial differences arising from changes in financial assumptions	2,617	204
(iii) Revisions to other results	(175)	(1,269)
Exchange differences	82	(132)
Other	(209)	466
Present value of defined benefit obligation (ending)	156,196	153,107

The weighted average duration of the defined benefit obligation in each fiscal year is as follows.

	The year ended December 31, 2019	The year ended December 31, 2020
Weighted average duration	12.4 years	12.7 years

D. Changes in the fair value of plan assets

Changes in the fair value of plan assets are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Fair value of plan assets (beginning)	142,218	144,613
Interest income	1,024	950
Remeasurement – Return on plan assets	7,900	3,319
Contributions by employer (Note 1)	5,830	2,258
Benefits paid	(12,570)	(4,710)
Exchange differences	408	(547)
Other	(197)	(21)
Fair value of plan assets (ending)	144,613	145,862

(Note)
1. Contributions to the defined benefit plans in the Group are made in consideration of factors such as the financial position of the Group, the funding situation of plan assets and actuarial factors based on laws and regulations. In the fiscal year ending December 31, 2021, 2,139 million yen is planned to be contributed to the defined benefit pension plans.
2. The purpose of the investment of plan assets of the Group is to secure necessary revenue in the long term within the acceptable range of risks in order to provide benefits to beneficiaries reliably in the future.
The target rate of return aims to exceed the assumed interest rate required for the financial position of the pension scheme on a stable basis for the long term.
The Group has set a “policy asset mix” to achieve the investment target and attempts to make an investment to maintain the asset mix based on the policy asset mix. The asset mix is reviewed as necessary and tailored to changes in the situation of the Group and the institution and the environment surrounding the Group.
3. Some consolidated subsidiaries participate in a multi-employer defined benefit pension plan.

E. Changes in the impact of the asset ceiling

The changes in the impact of the asset ceiling are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Impact of asset ceiling (beginning)	(10,724)	(17,989)
Interest income	(136)	(149)
Remeasurement – Changes in the impact of the asset ceiling	(6,933)	(4,725)
Exchange differences	(93)	169
Other	(103)	(73)
Impact of the asset ceiling (ending)	(17,989)	(22,767)

(Note) The Group sets the asset ceiling and calculates liabilities in some of its pension plans because economic benefits could not be enjoyed as a result of contributions that will not be reduced or returned in the future.

F. Components of fair value of plan assets by type

The components of the fair value of plan assets by type are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Equity instruments		
Domestic equity securities	15,617	18,391
Foreign equity securities	19,631	21,355
Debt instruments		
Domestic bonds	12,841	12,703
Foreign bonds	32,393	26,683
General accounts of life insurance company	26,013	34,280
Cash and cash equivalents	14,192	1,889
Other	23,926	30,561
Total	144,613	145,862

(Note) Most of plan assets are operated through commingled funds and classified as those with no public market price in active markets. These commingled funds are appropriately diversified into stocks and debts that generally listed in active market based on corporate pension fund code. “General accounts of life insurance company” are the accounts that the life insurance company jointly manages the funds with several contracts and includes a guaranteed interest rate and return of capital. The major components of "Other" represent alternative instruments that are invested using long/short positions and securitized products.

G. Major actuarial assumptions

Major actuarial assumptions (weighted average) are as follows.

	As of December 31, 2019	As of December 31, 2020
Discount rate	0.7%	0.7%

H. Sensitivity analysis

In the calculation of the defined benefit obligation in the sensitivity analysis, the same method as the calculation method for the defined benefit obligation recognized in the consolidated statement of financial position is used.

The sensitivity analysis is made based on changes in assumptions that can be reasonably presumed at the end of the reporting period. In addition, although the sensitivity analysis assumes that all actuarial assumptions other than those that are subject to the sensitivity analysis remain constant, changes in those other actuarial assumptions could have an impact in reality.

The impact of a 0.5% change in actuarial assumptions on the defined benefit obligation is as follows.

(In millions of yen)

		As of December 31, 2019	As of December 31, 2020
Discount rate	0.5% increase	(8,215)	(9,028)
	0.5% decrease	9,060	8,348

(2) Defined contribution plans

The Group has adopted defined contribution pension plans. The amount recognized as an expense in relation to the defined contribution plans, including employee pension premiums paid by the employer under the Employees' Pension Insurance Act, is as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Contributions	8,963	8,328

(Note) This amount is included in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statement of profit or loss.

(3) Employee benefit expenses

The components of the employee benefit expenses are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Personnel expenses	159,580	156,486
Retirement benefit expenses	12,041	11,068
Extra retirement payments etc.	11,800	1,873
Other	2,736	1,906
Total	186,157	171,333

(Note) This amount is included in “Cost of sales”, “Selling, general and administrative expenses” and “Other expenses” in the consolidated statement of profit or loss.

23. Equity and Other Equity Items

(1) Share capital and treasury shares

Ordinary shares

	Total number of authorized shares (shares)	Total number of issued shares (shares)	Treasury shares (shares)
As of December 31, 2019	3,400,000,000	1,710,276,790	2,581
Changes (Note 2)	—	21,622,200	—
As of December 31, 2020	3,400,000,000	1,731,898,990	2,581

(Note) 1. All the shares issued by the Company are non-par value ordinary shares with no restrictions on rights.
2. Changes are due to the exercise of stock options. As to stock options, see “Note 32. Share-based Payments.”
3. Total number of issued shares has been already paid-up.

(2) Surplus

A. Capital surplus

The Companies Act of Japan stipulates that one half or more of the paid-in amount from the issue of shares shall be accounted for as share capital, and the remainder shall be accounted for as capital reserve included in capital surplus. Under the Companies Act, the amount of such capital reserve may be transferred to shared capital by the resolution of a shareholders meeting.

B. Retained earnings

The Companies Act of Japan stipulates that one tenth of the amount of the distributions of surplus shall be accumulated as capital reserve or legal reserve until the sum of the capital reserve and legal reserve reaches one fourth of the share capital. The accumulated retained earnings reserve may be appropriated to cover a loss. The Companies Act also states that the retained earnings reserve may be used by the resolution of a shareholders meeting.

24. Revenue

(1) Disaggregation of revenue

Disaggregation of revenue recognized from contracts with customers are stated in “Note 6. Business Segments, (2) Information on reportable segments and (4) Information on regions and countries.” Also, all of the revenue arises from contracts with customers.

The Group engages in research, design, development, manufacturing, sales and services related to various kinds of semiconductors as a manufacturer specializing in semiconductors, and the revenue is mainly due to sales of semiconductor products.

Regarding the sales of these products, the Group recognizes revenue when the customer obtains control over the product which is at the time of delivery of a product because legal title of the product, physical possession of the asset, the significant risks and rewards of ownership are transferred to the customer, and the customer has an obligation to pay for the products at the time of delivery of the product.

Revenue is measured at the amount of promised consideration in contracts with customers.

With regard to sales contract including variable consideration such as rebate and discounts, the transaction price is estimated and determined using the most-likely-amount method based largely on historical data, considering variable prices within a range that will not result in significant deviation between estimate and historical data.

Consideration under sales contracts is recovered mainly within one year from satisfaction of a performance obligation and includes no significant financing components.

(2) Accounts arising from contracts

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Contract assets	—	—
Contract liabilities	1,688	297

(Note) 1. Contract liabilities relate to the payment received in advance of performance under the contract. The contract liabilities are reclassified to revenue when the Group satisfies a performance obligation based on the contract.

2. The amounts of revenues recognized during the prior fiscal year and the current fiscal year from the performance obligations satisfied in the past periods were immaterial.

3. Of the revenues recognized in the prior fiscal year, 269 million yen was included in the balance of contract liabilities as of January 1, 2019. In addition, of the revenues recognized in the current fiscal year, 244 million yen was included in the balance of contract liabilities as of January 1, 2020.

(3) Transaction price allocated to the remaining performance obligation

The Group uses the practical expedient of omitting the disclosure of information on the remaining performance obligations because it has no significant transactions with individual expected contractual terms exceeding one year. In addition, there are no significant amounts in consideration from contracts with customers that are not included in transaction prices.

(4) Assets recognized from the cost to obtain or fulfill contracts with customers

There are no assets recognized from the cost to obtain or fulfill contracts with customers.

25. Selling, General and Administrative Expenses

The components of selling, general and administrative expenses are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Research and development expenses (Note)	133,165	133,237
Depreciation and amortization	56,437	61,982
Personnel expenses	45,994	43,875
Retirement benefit expenses	3,215	2,436
Other	34,643	24,738
Total	273,454	266,268

(Note) As stated in “2. Basis for Preparation (4) Changes in accounting policy ”, research and development expenses for the year ended December 31, 2019 disclosed as comparative information have been revised.

26. Other Income

The components of other income are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Insurance claim income	34	2,388
Gain on sales of property, plant and equipment	653	762
Government grant income	423	384
Other	1,192	502
Total	2,302	4,036

27. Other Expenses

The components of other expenses are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Business restructuring expenses (Note 1)	12,041	4,137
Impairment losses (Note 2)	2,256	2,070
Other	3,080	2,108
Total	17,377	8,315

(Note) 1. The Group has reformed its businesses and structures of production to strengthen its financial basis, and those related expenses are shown as business restructuring expenses. The main items of business restructuring expenses for the year ended December 31, 2019 were additional retirement benefits of the early retirement incentive program. The main items of business restructuring expenses for the year ended December 31, 2020 were personnel expenses such as additional retirement benefits and equipment removal expenses of property, plant and equipment associated with consolidating the operating bases.

2. For details on impairment losses, see “Note 15. Impairment of Non-financial Assets.”

28. Finance Income and Finance Costs

The components of finance income and finance costs are as follows.

(1) Finance income

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Interest income		
Financial assets measured at amortized cost	1,325	307
Valuation gain of investment trust		
Financial assets measured at fair value through profit or loss	548	1,738
Dividend income		
Financial assets measured at fair value through profit or loss	238	240
Foreign exchange gain	—	5,295
Other	75	43
Total	2,186	7,623

(2) Finance costs

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Interest expenses		
Financial liabilities measured at amortized cost	7,484	7,541
Foreign exchange loss (Note)	1,269	—
Other	21	8
Total	8,774	7,549

(Note) Foreign exchange loss include losses on valuation of currency derivatives.

29. Other Comprehensive Income

Reclassification adjustments of other comprehensive income

Reclassification adjustments and tax effects of other comprehensive income by component are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Items that will not be reclassified to profit or loss:		
Remeasurements of defined benefit plans		
Amount incurred during the period	(3,991)	(496)
Tax effect	788	162
After tax effect	(3,203)	(334)
Equity financial assets measured at fair value through other comprehensive income		
Amount incurred during the period	(204)	(429)
Tax effect	27	99
After tax effect	(177)	(330)
Total of items that will not be reclassified to profit or loss	(3,380)	(664)
Items that may be reclassified subsequently to profit or loss:		
Exchange differences on translation of foreign operations		
Amount incurred during the period	(18,033)	(64,290)
Reclassification	—	—
Before tax effect	(18,033)	(64,290)
Tax effect	—	—
After tax effect	(18,033)	(64,290)
Cash flow hedges		
Amount incurred during the period	5,614	—
Before tax effect	5,614	—
Tax effect	—	—
After tax effect	5,614	—
Total of items that may be reclassified subsequently to profit or loss	(12,419)	(64,290)
Total other comprehensive income	(15,799)	(64,954)

30. Earnings Per Share

Basic earnings (loss) per share attributable to owners of parent and diluted earnings (loss) per share are as follows.

(1) Basic earnings (loss) per share

	The year ended December 31, 2019	The year ended December 31, 2020
Profit (loss) attributable to owners of parent used for the calculation of basic earnings per share (million yen)	(6,317)	45,626
Profit (loss) from continuing operations (million yen)	(6,317)	45,626
Profit from discontinued operations (million yen)	—	—
Weighted average number of ordinary shares during the year (thousands of shares)	1,694,151	1,719,345
Basic earnings (loss) per share (yen)	(3.73)	26.54
Continuing operations (yen)	(3.73)	26.54
Discontinued operations (yen)	—	—

(2) Diluted earnings (loss) per share

	The year ended December 31, 2019	The year ended December 31, 2020
Profit (loss) attributable to owners of parent used for the calculation of basic earnings per share (million yen)	(6,317)	45,626
Adjustments on earnings (million yen)	—	—
Profit (loss) used for the calculation of diluted earnings per share (million yen)	(6,317)	45,626
Profit (loss) from continuing operations (million yen)	(6,317)	45,626
Profit (loss) from discontinued operations (million yen)	—	—
Weighted average number of ordinary shares during the year before dilution (thousands of shares)	1,694,151	1,719,345
Increase in ordinary shares due to warrants (thousands of shares)	—	37,701
Weighted average number of ordinary shares during the year after dilution (thousands of shares)	1,694,151	1,757,045
Diluted earnings (loss) per share (yen)	(3.73)	25.97
Continuing operations (yen)	(3.73)	25.97
Discontinued operations (yen)	—	—

(Note) 1. The diluted loss per share for the fiscal year ended December 31, 2019 is the same amount as the basic loss per share due to the absence of residual equity with a dilutive effect.

2. For the fiscal year ended December 31, 2019, since the warrants the Company issues do not have a dilutive effect, these are not included in the calculation for diluted loss per share (yen).

31. Consolidated Statement of Cash Flows

(1) Changes in liabilities in financing activities

The components of liabilities in financing activities and their changes during the fiscal year are as follows.

(For the year ended December 31, 2019)

(In millions of yen)

	As of December 31, 2018	Adjustment due to adoption of IFRS16	As of January 1, 2019	Cash flows	Non-cash transactions			As of December 31, 2019
					Acquisitions	Increase due to business combination	Other (Note 2)	
Long-term borrowings (Note 1)	147,248	—	147,248	629,355	—	—	(4,856)	771,747
Short-term borrowings	45,000	—	45,000	(45,000)	—	—	—	—
Bonds	—	—	—	(65,409)	—	65,262	159	12
Lease liabilities	2,762	13,102	15,864	(5,726)	2,826	1,234	(43)	14,155
Total	195,010	13,102	208,112	513,220	2,826	66,496	(4,740)	785,914

(For the year ended December 31, 2020)

(In millions of yen)

	As of December 31, 2019	Cash flows	Non-cash transactions			As of December 31, 2020
			Acquisitions	Increase due to business combination	Other (Note 2)	
Long-term borrowings (Note 1)	771,747	(93,295)	—	—	1,281	679,733
Short-term borrowings	—	—	—	—	—	—
Bonds	12	—	—	—	(1)	11
Lease liabilities	14,155	(4,840)	5,593	—	(931)	13,977
Total	785,914	(98,135)	5,593	—	349	693,721

(Note) 1. Current portion of long-term borrowings are included in long-term borrowings.
2. Non-cash transactions for long-term borrowings includes the arrangement fees.

(2) Non-cash transactions

Significant non-cash transactions are as follows.

(In millions of yen)

Type	The year ended December 31, 2019	The year ended December 31, 2020
Purchase of intangible assets through installment purchase contracts	205	35,569

(3) Principal assets and liabilities of a company that became a consolidated subsidiary due to acquisition of stock

(For the year ended December 31, 2019)

For details of the breakdown of assets and liabilities for IDT and its subsidiaries at time of its consolidation resulting from the acquisition of stock as well as the relationship between the acquisition price of stock and expenditures (net) for its acquisition, see “Note 7. Business Combinations.”

32. Share-based Payments

(1) Overview of the share-based payment plan

The Company has adopted a share-based payment plan (hereafter “the stock option plan”) as an incentive plan for directors (excluding outside directors), senior vice presidents and employees.

Under the stock option plan, warrants have been granted to eligible persons in accordance with the resolution of the Board of Directors of the Company based on the arrangement approved at the shareholders meeting of the Company. The exercise period of the stock options is set by an allotment contract, and if they are not exercised during the exercise period, the stock options will lapse. In addition, if an eligible person has left the Company before the vesting date, the options will also lapse. However, this does not apply to certain cases addressed in the warrants allotment contract, such as resignation due to the expiration of the term of office.

The stock option plan of the Company is accounted for as equity-settled share-based payments.

(2) Share-based payment plan

The share-based payment plan in effect during the current fiscal year is as follows.

	Category and number of grantees	Type of stock and number of shares	Grant date	Vesting conditions	Vesting period	Exercise period
Fiscal year 2016 Stock options No.1 No.2 No.3	Directors of the Company 2 Corporate officers and executive officers of the Company 10	Common stock 288,500 shares	August 1, 2016	The rights will vest in stages as follows. One third will vest on August 2, 2017 One third will vest on August 2, 2018 The remaining will vest on August 2, 2019	From August 1, 2016 to August 2, 2019	From August 2, 2016 to August 1, 2026
Fiscal year 2017 Stock options No.1 – 1 No.2 – 1	Directors of the Company 2 Corporate officers and executive officers of the Company 11 Employees of the Company 342 Directors of subsidiaries 20 Employees of subsidiaries 890	Common stock 3,549,500 shares	April 3, 2017	The rights will vest in stages as follows One third will vest on April 4, 2018 One third will vest on April 4, 2019 The remaining will vest on April 4, 2020	From April 3, 2017 to April 4, 2020	From April 4, 2017 to April 3, 2027
Fiscal year 2017 Stock options No.1 – 2 No.2 – 2	Directors of the Company 2 Corporate officers and executive officers of the Company 11 Employees of the Company 78 Directors of subsidiaries 14 Employees of subsidiaries 59	Common stock 2,112,000 shares	April 3, 2017	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	From April 3, 2017 to April 3, 2020	From April 4, 2017 to April 3, 2027

Fiscal year 2017 Stock options No.3	Employees of subsidiaries 7	Common stock 30,900 shares	May 11, 2017	The rights will vest in stages as follows One third will vest on April 4, 2018 One third will vest on April 4, 2019 The remaining will vest on April 4, 2020	From May 11, 2017 to April 4, 2020	From May 12, 2017 to May 11, 2027
Fiscal year 2017 Stock options No.4	Employees of subsidiaries 13	Common stock 52,200 shares	July 12, 2017	The rights will vest in stages as follows One third will vest on April 4, 2018 One third will vest on April 4, 2019 The remaining will vest on April 4, 2020	From July 12, 2017 to April 4, 2020	From July 13, 2017 to July 12, 2027
Fiscal year 2017 Stock options No.5 No.6	Employees of subsidiaries 20	Common stock 98,000 shares	September 14, 2017	The rights will vest in stages as follows One third will vest on April 4, 2018 One third will vest on April 4, 2019 The remaining will vest on April 4, 2020	From September 14, 2017 to April 4, 2020	From September 15, 2017 to September 14, 2027
Fiscal year 2017 Stock options No.7	Employees of subsidiaries 16	Common stock 94,000 shares	October 12, 2017	The rights will vest in stages as follows One third will vest on April 4, 2018 One third will vest on April 4, 2019 The remaining will vest on April 4, 2020	From October 12, 2017 to April 4, 2020	From October 13, 2017 to October 12, 2027
Fiscal year 2017 Stock options No.8	Employees of subsidiaries 26	Common stock 117,300 shares	January 15, 2018	The rights will vest in stages as follows Certain amount will vest on April 4, 2018 Certain amount will vest on April 4, 2019 Certain amount will vest on April 4, 2020 The remaining will vest on April 4, 2021	From January 15, 2018 to April 4, 2021	From January 16, 2018 to January 15, 2028
Fiscal year 2018 Stock options No.1 – 1 No.2 – 1	Directors of the Company 3 Corporate officers and executive officers of the Company 10 Employees of the Company 472 Directors of subsidiaries 18 Employees of subsidiaries 743	Common stock 3,607,200 shares	April 2, 2018	The rights will vest in stages as follows One third will vest on April 3, 2019 One third will vest on April 3, 2020 The remaining will vest on April 3, 2021	From April 2, 2018 to April 3, 2021	From April 3, 2018 to April 2, 2028
Fiscal year 2018 Stock options No.1 – 2 No.2 – 2	Directors of the Company 3 Corporate officers and executive officers of the	Common stock 2,047,200 shares	April 2, 2018	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated	From April 2, 2018 to April 2, 2021	From April 3, 2018 to April 2, 2028

	Company 10 Employees of the Company 95 Directors of subsidiaries 13 Employees of subsidiaries 47			by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.		
Fiscal year 2018 Stock options No.3 No.4	Employees of the Company 257 Directors of subsidiaries 1 Employees of subsidiaries 181	Common stock 534,600 shares	July 31, 2018	The rights will vest in stages as follows One third will vest on April 3, 2019 One third will vest on April 3, 2020 The remaining will vest on April 3, 2021	From July 31, 2018 to April 3, 2021	From August 1, 2018 to July 31, 2028
Fiscal year 2018 Stock options No.5	Employees of subsidiaries 22	Common stock 182,700 shares	October 31, 2018	The rights will vest in stages as follows Certain amount will vest on April 3, 2019 Certain amount will vest on April 3, 2020 Certain amount will vest on April 3, 2021 The remaining will vest on April 3, 2022	From October 31, 2018 to April 3, 2022	From November 1, 2018 to October 31, 2028
Fiscal year 2019 Stock options No.1 No.2 No.3	Corporate officers and executive officers of the Company 1 Directors of subsidiaries 1 Corporate officers and executive officers of subsidiaries 3 Employees of subsidiaries 1,337	Common stock 57,043,500 shares	April 9, 2019	According to completion of the acquisitions with IDT, the existing stock options for IDT allocated to directors of IDT and its subsidiaries, corporate officers and executive officers of subsidiaries, and employees of subsidiaries are converted into the stock options for the Company and issued. The rights are based on the vesting periods for the stock option originally scheduled in IDT.	From April 9, 2019 to March 15, 2023	From April 9, 2019 to April 8, 2029
Fiscal year 2019 Stock options No.4 – 1 No.5 – 1	Corporate officers and executive officers of the Company 1 Employees of the Company 1 Employees of subsidiaries 32	Common stock 659,800 shares	May 31, 2019	The rights will vest in stages as follows One third will vest on April 1, 2020 One third will vest on April 1, 2021 The remaining will vest on April 1, 2022	From May 31, 2019 to April 1, 2022	From June 1, 2019 to May 31, 2029
Fiscal year 2019 Stock options	Corporate officers and executive officers of the	Common stock 364,300	May 31, 2019	The Company sets the upper limit number of shares expected to vest	From May 31, 2019 to April 2,	From June 1, 2019 to May 31,

No.4 – 2 No.5 – 2	Company 1 Employees of the Company 1	shares		by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	2022	2029
Fiscal year 2019 Stock options No.6 – 1 No.7 – 1	Employees of the Company 486 Directors of subsidiaries 15 Employees of subsidiaries 1,875	Common stock 16,222,700 shares	July 25, 2019	The rights will vest in stages as follows One third will vest on April 1, 2020 One third will vest on April 1, 2021 The remaining will vest on April 1, 2022	From July 25, 2019 to April 1, 2022	From July 26, 2019 to July 25, 2029
Fiscal year 2019 Stock options No.6 – 2 No.7 – 2	Employees of the Company 90 Directors of subsidiaries 10 Employees of subsidiaries 46	Common stock 3,203,800 shares	July 25, 2019	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	From July 25, 2019 to April 2, 2022	From July 26, 2019 to July 25, 2029
Fiscal year 2019 Stock options No.8 – 1 No.9 – 1	Directors of the Company 2 Corporate officers and executive officers of the Company 12 Employees of the Company 2	Common stock 985,900 shares	August 23, 2019	The rights will vest in stages as follows One third will vest on April 1, 2020 One third will vest on April 1, 2021 The remaining will vest on April 1, 2022	From August 23, 2019 to April 1, 2022	From August 24, 2019 to August 23, 2029
Fiscal year 2019 Stock options No.8 – 2 No.9 – 2	Directors of the Company 2 Corporate officers and executive officers of the Company 12	Common stock 1,963,800 shares	August 23, 2019	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	From August 23, 2019 to April 2, 2022	From August 24, 2019 to August 23, 2029

Fiscal year 2019 Stock options No.10	Employees of subsidiaries 441	Common stock 351,600 shares	September 20, 2019	The rights will vest in stages as follows One third will vest on April 1, 2020 One third will vest on April 1, 2021 The remaining will vest on April 1, 2022	From September 20, 2019 to April 1, 2022	From September 21, 2019 to September 20, 2029
Fiscal year 2019 Stock options No.11 – 1 No.12 – 1	Corporate officers and executive officers of the Company 1 Employees of the Company 122 Employees of subsidiaries 123	Common stock 887,700 shares	October 31, 2019	The rights will vest in stages as follows Certain amount will vest on April 1, 2020 Certain amount will vest on April 1, 2021 Certain amount will vest on April 1, 2022 The remaining will vest on April 1, 2023	From October 31, 2019 to April 1, 2023	From November 1, 2019 to October 31, 2029
Fiscal year 2019 Stock options No.11 – 2 No.12 – 2	Corporate officers and executive officers of the Company 1 Employees of subsidiaries 1	Common stock 73,800 shares	October 31, 2019	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	From October 31, 2019 to April 2, 2023	From November 1, 2019 to October 31, 2029
Fiscal year 2019 Stock options No.13	Employees of subsidiaries 15	Common stock 204,800 Shares	December 25, 2019	The rights will vest in stages as follows One third will vest on April 1, 2020 One third will vest on April 1, 2021 The remaining will vest on April 1, 2022	From December 25, 2019 to April 1, 2022	From December 26, 2019 to December 25, 2029
Fiscal year 2019 Stock options No.14	Employees of subsidiaries 23	Common stock 210,000 Shares	January 31, 2020	The rights will vest in stages as follows Certain amount will vest on April 1, 2020 Certain amount will vest on April 1, 2021 Certain amount will vest on April 1, 2022 The remaining will vest on April 1, 2023	From January 31, 2020 to April 1, 2023	From February 1, 2020 to January 31, 2030
Fiscal year 2020 Stock options No.1 – 1 No.2 – 1	Directors of the Company 4 Corporate officers and executive officers of the Company 10 Employees of the Company 467 Directors of	Common stock 17,068,000 Shares	June 30, 2020	The rights will vest in stages as follows One third will vest on July 1, 2021 One third will vest on July 1, 2022 The remaining will vest on July 1, 2023	From June 30, 2020 to July 1, 2023	From July 1, 2020 to June 30, 2030

	subsidiaries 14 Employees of subsidiaries 1,888					
Fiscal year 2020 Stock options No.1 – 2 No.2 – 2	Directors of the Company 1 Corporate officers and executive officers of the Company 10 Employees of the Company 88 Directors of subsidiaries 9 Employees of subsidiaries 41	Common stock 5,211,600 Shares	June 30, 2020	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	From June 30, 2020 to June 30, 2023	From July 1, 2020 to June 30, 2030
Fiscal year 2020 Stock options No.3 No.4	Directors of the Company 1 Corporate officers and executive officers of the Company 8 Employees of the Company 916 Directors of subsidiaries 6 Employees of subsidiaries 1,614	Common stock 4,725,300 Shares	August 31, 2020	The rights will vest in stages as follows One third will vest on August 31, 2020 One third will vest on September 1, 2020 The remaining will vest on October 1, 2020	From August 31, 2020 to October 31, 2020	From August 31, 2020 to August 30, 2030
Fiscal year 2020 Stock options No.5 No.6	Employees of the Company 219 Employees of subsidiaries 161	Common stock 665,800 Shares	August 31, 2020	The rights will vest in stages as follows One third will vest on September 1, 2021 One third will vest on September 1, 2022 The remaining will vest on September 1, 2023	From August 31, 2020 to September 1, 2023	From September 1, 2020 to August 31, 2030
Fiscal year 2020 Stock options No.7 – 1 No.8 – 1	Employees of the Company 3 Employees of subsidiaries 94	Common stock 910,100 Shares	November 30, 2020	The rights will vest in stages as follows Certain amount will vest on July 1, 2021 Certain amount will vest on July 1, 2022 Certain amount will vest on July 1, 2023 The remaining will vest on July 1, 2024	From November 30, 2020 to July 1, 2023	From December 1, 2020 to November 30, 2030
Fiscal year 2020 Stock options No.7 – 2	Employees of subsidiaries 10	Common stock 82,000 Shares	November 30, 2020	The rights will vest in stages as follows One third will vest on September 1, 2021	From November 30, 2020 to	From December 1, 2020 to November

No.8 – 2				One third will vest on September 1, 2022 The remaining will vest on September 1, 2023	September 1, 2023	30, 2030
Fiscal year 2020 Stock options No.7 – 3	Employees of the Company 1	Common stock 22,600 Shares	November 30, 2020	The Company sets the upper limit number of shares expected to vest by multiplying the number of allocated stock subscription rights with the rate calculated by comparing total shareholder return fluctuation rate of the Company and companies that are the components of PHLX Semiconductor Sector Index and Tokyo Stock Price Index.	From November 30, 2020 to June 30, 2023	From December 1, 2020 to November 30, 2030

(Note) 1. Vesting conditions include a requirement for award beneficiaries to provide services to the Company until the stock vesting date. However, this does not apply to certain cases such as mandatory retirement, resignation due to the expiration of the term of office or the other justifiable reasons.
2. Grantees cannot exercise options during the time from the day after the grant date until when the stock is vested. Also, the option will be forfeited if the target retires or resigns from the Company or subsidiary by the vesting date. However, if allowed under the Stock Acquisition Rights Allocation Agreement, those options may be exercised. For example, if awards are not forfeited upon retirement or resignation due to the expiration of terms of office under the Stock Acquisition Rights Allocation Agreement, the said person may exercise the said stock options starting on the day following said loss of eligibility until 13 months after.
3. If grantees forfeit their share acquisition rights, they may not exercise their stock options.

(3) Number and weighted average exercise price of stock options

Changes of the number and the weighted average exercise price of stock options granted in the prior fiscal year and the current fiscal year are as follows. The number of stock options is stated by converting them to the number of shares.

	The year ended December 31, 2019		The year ended December 31, 2020	
	Number of options (shares)	Weighted average exercise price (yen)	Number of options (shares)	Weighted average exercise price (yen)
Beginning balance of unexercised options	10,854,400	1	47,457,400	1
Granted	81,961,700	1	28,895,400	1
Exercised	41,891,400	1	21,622,200	1
Forfeited	3,357,800	1	4,586,700	1
Expired	109,500	1	191,300	1
Ending balance of unexercised options	47,457,400	1	49,952,600	1
Ending balance of exercisable options	2,486,800	1	5,320,000	1

(Note) 1. For the stock options exercised during the period, the weight average share price as of the exercise date was 597 yen for the fiscal year ended December 31, 2019 and 712 yen for the fiscal year ended December 31, 2020.
2. Remaining weighted average contractual life outstanding at the end of the prior fiscal year and the current fiscal year was 4 years, respectively.

(4) Fair value of stock options granted and estimation method of fair value

The valuation techniques used for the stock options granted for the fiscal year ended December 31, 2019 and the fiscal year ended December 31, 2020 are the Binomial model, and the major basic assumptions and estimation method are as follows.

Date of grant	Fair value per share at the grant date (yen)	Share price on date of grant (yen)	Exercise price (yen)	Expected volatility (Note 1)	Expected holding period (Note 2)	Expected dividend (Note 3)	Risk-free interest rate (Note 4)
April 2019	511	512	1	46.525%	5 years	No dividend	(0.202%)
May 2019	494	495	1	43.038%	5 years	No dividend	(0.203%)
	294 (Note 5)						
July 2019	638	639	1	43.200%	5 years	No dividend	(0.235%)
	381 (Note 5)						
August 2019	629	630	1	42.800%	5 years	No dividend	(0.323%)
	399 (Note 5)						
September 2019	660	661	1	42.469%	5 years	No dividend	(0.346%)
October 2019	739	740	1	42.188%	5 years	No dividend	(0.269%)
	469 (Note 5)						
December 2019	753	754	1	42.194%	5 years	No dividend	(0.116%)
January 2020	710	711	1	42.040%	5 years	No dividend	(0.182%)
June 2020	550	551	1	50.700%	5 years	No dividend	(0.100%)
	346 (Note 5)						
August 2020	666	667	1	51.210%	5 years	No dividend	(0.067%)
November 2020	927	928	1	50.393%	5 years	No dividend	(0.105%)
	583 (Note 5)						

(Note)
1. The expected volatility is calculated using the actual share prices during the expected holding period from the grant date.
2. The expected holding period is based on the number of years from the grant date to the last day of the principle exercise period.
3. The expected dividend is calculated based on the actual annual dividend for the year.
4. The risk-free interest rate is the yield on Japanese government bonds for the period that corresponds to the remaining life of the option.
5. For the stock options whose vesting condition is the stock price requirement, the actual rates of granted stocks are reflected on the fair value based on the results of comparing the fluctuation rate of the Company's stock with that of stock indexes over a certain period.

(5) Share-based payment expenses

Share-based payment expenses included in the consolidated statement of profit or loss totaled 827 million yen in "Cost of sales" and 10,927 million yen in "Selling, general and administrative expenses" in the previous fiscal year, and 1,234 million yen in "Cost of sales" and 13,323 million yen in "Selling, general and administrative expenses" in the current fiscal year.

33. Financial Instruments

(1) Capital management

The Group aims to achieve sustainable growth and maximize its corporate value. Investments of surplus funds are limited to short-term deposits and financial assets with a high level of safety. Regarding financing sources, the Group mainly uses borrowings from banks. The Group mainly uses derivative financial instruments to manage fluctuations in foreign currency exchange rates, and the Group's policies prohibit holding or issuing derivative financial instruments for speculative transactions. Items subject to management are net interest-bearing liabilities obtained by deducting cash and cash equivalents from interest-bearing liabilities and equity. Their balances and the major indicators that the Group uses for its capital management are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Interest-bearing liabilities	785,914	693,721
Less: Cash and cash equivalents	(146,468)	(219,786)
Net interest-bearing liabilities	639,446	473,935
Equity	621,455	616,701
Equity ratio (%)	37.3	38.3

Equity: Total equity attributable to owners of parent
Equity ratio: Equity/Total liabilities and equity

(2) Basic policies for financial risk management

The Group is exposed to financial risks (credit risk, liquidity risk and market risk) in the process of executing its business activities. Accordingly, the Group regularly monitors the financial risks based on internal management regulations and takes measures to avoid or reduce the risks as required.

The Group does not engage in derivative transactions for speculative purposes.

A. Credit risk

(a) Credit risk management

Notes and trade receivables are exposed to the credit risk of customers. Conforming to the internal rules for the management of receivables, the Group regularly monitors major customers' credit and manages the due dates of collection and the balance for each customer. Other receivables are exposed to the credit risk of customers, but most of them are settled in the short term. Short-term investments are financial assets invested on a short-time basis, and the Group transacts with highly creditworthy financial institutions. Trade receivables are regarded as non-performing if all or part of them cannot be collected or if collection is deemed extremely difficult. The Group does not have any exposure to the significant credit risk of certain customers, and there is no excessive concentration of credit risk that requires special management.

The largest exposure to credit risk at the end of the reporting period is the carrying amount of financial assets after impairment, but there is no historical experience of recognizing a significant credit loss in previous years.

Regarding debt guarantees, the balance of debt guarantees presented in "Note 36. Commitments and Contingencies" is the largest exposure of the Group to credit risk.

(b) Analysis of changes in loss allowance

The changes in the loss allowance are as follows.

(In millions of yen)

	The year ended December 31, 2019				The year ended December 31, 2020			
	Loss allowance for financial instruments other than trade receivables (12-month expected credit losses)	Loss allowance for trade receivables (lifetime expected credit losses)	Loss allowance for financial instruments whose credit risk has increased significantly (lifetime expected credit losses)	Loss allowance for financial instruments whose credit is impaired (lifetime expected credit losses)	Loss allowance for financial instruments other than trade receivables (12-month expected credit losses)	Loss allowance for trade receivables (lifetime expected credit losses)	Loss allowance for financial instruments whose credit risk has increased significantly (lifetime expected credit losses)	Loss allowance for financial instruments whose credit is impaired (lifetime expected credit losses)
Beginning balance	—	48	—	—	—	95	—	—
Increases	—	103	—	—	—	58	—	—
Decreases due to reversal	—	(55)	—	—	—	(31)	—	—
Other	—	(1)	—	—	—	(3)	—	—
Ending balance	—	95	—	—	—	119	—	—

(Note) Acquisition by business combination is included in “Increases.”

(c) Carrying amount of financial instruments for the loss allowance

The carrying amount (before the loss allowance) of financial instruments for the loss allowance on the transition date and as of each fiscal year end is as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Financial instruments other than trade receivables (12-month expected credit losses)	3,081	4,751
Trade receivables (lifetime expected credit losses)	81,473	77,686
Financial instruments whose credit risk has increased significantly (lifetime expected credit losses)	—	—
Financial instruments whose credit is impaired (lifetime expected credit losses)	—	—

(d) Analysis of credit risk

The aging analysis of trade receivables on the transition date and as of each fiscal year end is as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Before due date	76,198	75,210
Up to 30 days past due	4,579	1,916
Over 30 days past due and up to 90 days past due	696	240
Over 90 days past due	—	320
Total	81,473	77,686

For trade receivables, the Group’s major counterparties consist of specific distributors with high credit ratings and there is no material balance of loss allowance based on expected loss rate. For financial instruments other than trade receivables, there is no credit risk that is concentrated around credit ratings.

B. Liquidity risk

The Group is exposed to liquidity risk whereby the performance of payment obligations could become difficult. To limit its exposure to liquidity risk, however, the Group works to maintain fund management through the optimization of capital efficiency through the efficient management of working capital and the central management of funds by the Company. The Group also manages the liquidity risk by appropriately maintaining liquidity on hand through the timely preparation and updating of the financing plan and taking the external financial environment into account.

The balance of financial liabilities by due date is as follows.

As of December 31, 2019

(In millions of yen)

	Carrying amount	Contractual cash flows	Due within one year	Due after one year but within two years	Due after two years but within three years	Due after three years but within four years	Due after four years but within five years	Due after five years
Non-derivative financial liabilities								
Trade and other payables	101,032	101,032	100,187	584	261	—	—	—
Bonds and borrowings	771,759	797,931	99,265	98,474	97,712	96,941	405,539	—
Lease liabilities	14,155	15,840	4,486	2,620	2,083	1,816	1,484	3,351
Other	300	300	—	300	—	—	—	—
Total	887,246	915,103	203,938	101,978	100,056	98,757	407,023	3,351

As of December 31, 2020

(In millions of yen)

	Carrying amount	Contractual cash flows	Due within one year	Due after one year but within two years	Due after two years but within three years	Due after three years but within four years	Due after four years but within five years	Due after five years
Non-derivative financial liabilities								
Trade and other payables	139,412	139,412	114,235	11,695	10,979	2,503	—	—
Bonds and borrowings	679,744	698,762	98,560	97,777	96,994	405,431	—	—
Lease liabilities	13,977	14,487	3,927	3,388	2,278	1,738	1,365	1,791
Other	300	300	—	300	—	—	—	—
Total	833,433	852,961	216,722	113,160	110,251	409,672	1,365	1,791

C. Market risk

(a) Foreign currency exchange risk

(i) Foreign currency exchange risk management

Foreign currency receivables and obligations arising from the global business development of the Group are exposed to the risk of foreign exchange rate fluctuations. To reduce the risk of foreign exchange rate fluctuations, the Group uses forward exchange contracts, currency options and currency swaps.

(ii) Net foreign exchange risk exposure

The Group's exposure to the risk of foreign exchange rate fluctuations (net amount) is as follows. This excludes derivative transactions and the amount entered into to hedge foreign exchange rate fluctuation risk using foreign currency deposits.

(In millions of yen)

Currency	The year ended December 31, 2019	The year ended December 31, 2020
US dollar	37,452	27,602
Euro	13,976	21,600

(iii) Sensitivity analysis of foreign exchange rates

Based on the assumption that all other variables are constant for foreign currency financial instruments held by the Group in the previous fiscal year and the current fiscal year, the amount of the impact of the 1.0% appreciation of the yen against the US dollar and the euro on profit before tax in the consolidated statement of profit or loss is as follows.

(In millions of yen)

Currency	The year ended December 31, 2019	The year ended December 31, 2020
US dollar	(375)	(276)
Euro	(140)	(216)

(b) Interest rate risk

Although the Group raises funds through borrowings for the purpose of securing funds for long-term working capital and the promotion of growth strategies, the Group is exposed to the risk of interest rate fluctuations because some borrowings are made at floating interest rates. To reduce the risk of changes in the interest paid on borrowings, the Group uses interest rate swaps as required. Accordingly, the Group has decided that the impact of the risk of interest rate fluctuations on the Company is limited and insignificant and does not conduct a sensitivity analysis for interest rate risk.

(c) Stock price risk

The Group has adopted an incentive plan for its employees for the purpose of securing excellent human resources, particularly at subsidiaries. To operate the incentive plan, the Group holds shares and other financial instruments for the long term and is exposed to the risk of changes in their market prices. Please note that, following the introduction of a stock option plan, the incentive plan was abolished and there was no new issuance.

The Group does not conduct a sensitivity analysis for the risk of changes in share prices since the impact of changes in share prices are immaterial.

(3) Fair value of financial instruments

A. Calculation method of fair value

The calculation method of the fair value of financial instruments is as follows.

(a) Cash and cash equivalents, and trade and other receivables

The fair value of these instruments approximates their carrying amount due to short term maturities.

(b) Trade and other payables

For trade and other payables that will mature within a relatively short amount of time, the fair value approximates the carrying amount. The fair value of trade and other payables that will not mature in a short amount of time is calculated by the present value that is discounted by an interest rate assumed for the case where a similar borrowing is newly made and classified as Level 2.

(c) Securities

If the market price of a security is available in an active market, the securities are measured using this market price and classified as Level 1. If the market price is not available, the fair value is measured mainly by a method based on net assets (method of calculating by making adjustments to the market value as required based on the net assets of the entity that issues shares), etc. and classified as Level 3.

(d) Long-term borrowings

The fair value of long-term borrowings is calculated at the present value that is discounted using an interest rate assumed for the case where a similar borrowing is newly made and classified as Level 2.

(e) Derivative transactions

Currency options and currency swaps are calculated based on the price presented by the customers' financial institution and classified as Level 2.

(f) Bonds

The fair value of bonds acquired in a business combination is calculated by referring to a market price and classified as Level 2.

(g) Other financial assets and liabilities

Time deposits with maturities of more than three months, long-term accounts receivable, security deposits and guarantee deposits received that are measured at amortized cost are classified as Level 2. Because their fair value approximates their carrying amount, they are omitted from the following table.

B. Classification of financial instruments measured at fair value by levels

In the fair value hierarchy, financial instruments are classified from Level 1 to Level 3 as follows.

Level 1: Fair value measured using unadjusted quoted prices in the active markets

Level 2: Fair value other than quoted prices include within Level 1 that are observable, either directly or indirectly

Level 3: Fair value calculated by using a valuation technique including inputs that are not based on observable market data

Transfers between the levels in the fair value hierarchy are recognized on the assumption that the transfers occur at the end of each reporting period. There is no transfer between levels.

(a) Financial instruments measured at amortized cost

The carrying amount and the fair value of financial instruments measured at amortized cost are as follows. Financial instruments measured at fair value and financial instruments whose carrying amount closely approximates fair value are not included in the table below.

As of December 31, 2019

(In millions of yen)

	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
Financial liabilities					
Borrowings	771,747	—	776,736	—	776,736
Bonds	12	—	12	—	12
Other payables	16,974	—	16,934	—	16,934
Total	788,733	—	793,682	—	793,682

As of December 31, 2020

(In millions of yen)

	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
Financial liabilities					
Borrowings	679,733	—	680,962	—	680,962
Bonds	11	—	11	—	11
Other payables	47,433	—	46,736	—	46,736
Total	727,177	—	727,709	—	727,709

(b) Financial instruments measured at fair value

The components of financial assets and financial liabilities measured at fair value on a recurring basis that are classified as each level of the fair value hierarchy are as follows.

As of December 31, 2019

(In millions of yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss				
Investment trust	3,967	—	—	3,967
Unlisted securities	—	—	1,258	1,258
Equity instruments measured at fair value through other comprehensive income				
Unlisted securities	—	—	2,668	2,668
Total	3,967	—	3,926	7,893

As of December 31, 2020

(In millions of yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss				
Investment trust	4,160	—	—	4,160
Unlisted securities	—	—	2,498	2,498
Equity instruments measured at fair value through other comprehensive income				
Unlisted securities	—	—	2,242	2,242
Total	4,160	—	4,740	8,900

C. Changes in financial assets that are classified as Level 3 are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Beginning balance	1,245	3,926
Total gains or losses in the period	(21)	674
Profit or loss (Note 1)	119	1,103
Other comprehensive income (Note 2)	(140)	(429)
Purchases	—	140
Sales	(60)	—
Settlement	—	—
Acquisition due to business combination	2,816	—
Other	(54)	—
Ending balance	3,926	4,740

Changes in financial liabilities that are classified as Level 3 are as follows.

(In millions of yen)

	The year ended December 31, 2019	The year ended December 31, 2020
Beginning balance	—	—
Total gains or losses in the period	(67)	—
Profit or loss (Note 1)	(67)	—
Other comprehensive income	—	—
Purchases	—	—
Sales	—	—
Settlement	(222)	—
Acquisition due to business combination	294	—
Other	(5)	—
Ending balance	—	—

(Note) 1. Total gains or losses in the period are for financial assets and liabilities measured at fair value through profit or loss and included in finance income and finance costs in the consolidated statement of profit or loss.
2. Total gains or losses in the period are all for equity instruments measured at fair value through other comprehensive income at the end of the reporting period and presented in “Equity instruments measured at fair value through other comprehensive income” in the consolidated statement of comprehensive income.
3. Financial instruments that are classified as Level 3 consist of unlisted securities. The fair value of unlisted securities is measured by the responsible department in the Group according to the Group accounting policies, etc., using the immediately preceding available figure in each quarter. The measurement results of the fair value are reviewed and approved by an appropriate authorized person.
For the financial instruments classified as Level 3, the Group does not expect that there will be any significant change in the fair value amount even if the assumptions used are changed within a reasonable range.

(4) Derivative transactions and hedging activities

A. Overview of hedges

The Group uses forward exchange contracts, currency options and currency swaps for the purpose of hedging transactions against the risk of foreign exchange rate fluctuations in foreign currency cash flows. Hedge accounting is applied to those transactions that meet the requirements for hedge accounting. Even if the requirements for hedge accounting are not met, the Group uses derivative transactions if they are economically reasonable. Changes in the fair value of the derivative transactions are recognized in profit or loss. The Group has also set a policy of not engaging in derivative transactions for speculative purposes.

Cash flow hedges

Cash flow hedges are hedges to avoid the risk of changes in future cash flows, and changes in the fair value of derivative transactions that are designated as cash flow hedges are recognized in other comprehensive income. The amount that is recognized in accumulated other comprehensive income is reclassified to profit or loss at the time when the hedged transactions affect profit or loss. If the hedged items give rise to the recognition of non-financial assets or non-financial liabilities, the amount that is recognized in other comprehensive income is reclassified as an adjustment to the initial carrying amount of non-financial assets or non-financial liabilities. Derivatives that are designated as cash flow hedges include forward exchange contracts, currency options and currency swaps to hedge the risk of changes in cash flows due to changes in the foreign exchange rates for foreign currency transactions.

In the previous fiscal year and the current fiscal year, no amount was recognized in profit or loss for the hedge ineffectiveness portion and the portion that was excluded from the assessment of hedge effectiveness.

B. Information on items that are designated as hedging instruments

The impact of hedging instruments that are designated as hedges on the consolidated statement of financial position is as follows. Derivative assets and liabilities are included in “Other financial assets” and “Other financial liabilities,” respectively, in the consolidated statement of financial position.

As of December 31, 2019 and December 31, 2020

Not applicable.

C. Information on items designated as hedged items

The amount of the impact of hedged items that are designated as hedges on the consolidated statement of financial position is as follows.

As of December 31, 2019 and December 31, 2020

Not applicable.

D. Impact of the application of hedge accounting on the consolidated statement of profit and loss and the consolidated statement of comprehensive income

The impact of hedging instruments that are designated as cash flow hedges on the consolidated statement of profit and loss and the consolidated statement of comprehensive income is as follows.

(In millions of yen)

	Changes in the value of hedging instruments recognized in other comprehensive income (Note)	Ineffective portion recognized in profit or loss	Amount after basis adjustment to cash flow hedges (Note)
As of December 31, 2019			
Cash flow hedges			
Foreign currency exchange risk			
Currency options	—	—	—
Currency swaps	—	—	—
As of December 31, 2020			
Cash flow hedges			
Foreign currency exchange risk			
Currency options	—	—	—
Currency swaps	—	—	—

(Note) Amount before tax effect.

E. Fair value of derivatives to which hedge accounting is not applied

The fair value and contract amount, etc. of derivatives to which hedge accounting is not applied are as follows.

As of December 31, 2019 and December 31, 2020

Not applicable.

(5) Transfer of financial assets

Accelerating from restructuring to growth stage, the Group provides diversified financing to achieve these growth strategies and liquidates certain trade receivables by transferring receivables.

The expenses arising from transfer of trade receivables derecognized in their entirety were 54 million yen in the prior fiscal year and 40 million yen in the current fiscal year.

34. Transactions with Related Parties

(1) Transactions with related parties

Innovation Network Corporation of Japan, which was a principal shareholder of the Group, was established in July 2009 with the Japanese government as the principal shareholder, and the total amount of investments by the Japanese government accounts for 95% or more of the capital of Innovation Network Corporation of Japan. As a result, the Japanese government and the government-related entities have become related parties of the Group.

In addition, Innovation Network Corporation of Japan conducted a business divestiture in September 21, 2018 and newly created INCJ, Ltd.. INCJ, Ltd. succeeded to all of the Group's shares of Innovation Network Corporation of Japan and became a principal shareholder of the Group.

Between the Group and these related parties, there are neither significant transactions individually nor significant transactions on aggregate although not significant individually.

Furthermore, transactions with INCJ and other related parties are not applicable.

(2) Compensation to key management

Compensation paid to key management personnel is as follows.

(In millions of yen)

Category	The year ended December 31, 2019	The year ended December 31, 2020
Remuneration and bonuses	516	227
Share-based payments	91	292
Total	607	519

(Note) The exercise price and other key terms of share-based payment arrangements are as stated in "Note 32. Share-based Payments."

35. Major Subsidiaries

All subsidiaries are included in the scope of consolidation for our consolidated financial statements.

Major subsidiaries as of December 31, 2020 are as follows.

Company	Location	Descriptions of Principal Businesses	Percentage Ownership and Voting Interest (%) (Note 1)	
			The year ended December 31, 2019	The year ended December 31, 2020
Renesas Semiconductor Manufacturing Co., Ltd.	Hitachinaka, Ibaraki	Manufacturing and Engineering Service Companies	100.0	100.0
Renesas Electronics (China) Co., Ltd.	Beijing, China	Sales Companies	100.0	100.0
Renesas Electronics Hong Kong Limited	Hong Kong, China	Sales Companies	100.0	100.0
Renesas Electronics America Inc. (Note 3)	California, U.S.A.	Design, Applications, Manufacturing and Sales Companies	100.0	100.0
Renesas Electronics Europe Limited (England)	Buckinghamshire, UK	Design, Applications and Sales Companies	100.0	100.0
Renesas Electronics Europe GmbH (Germany)	Dusseldorf, Germany	Design, Applications and Sales Companies	100.0	100.0
Renesas Semiconductor (Beijing) Co., Ltd.	Beijing, China	Manufacturing and Engineering Service Companies	100.0	100.0
Renesas Semiconductor (Suzhou) Co., Ltd.	Suzhou, China	Manufacturing and Engineering Service Companies	100.0 (6.33) (Note 2)	100.0 (6.33) (Note 2)
Renesas International Operations Sdn. Bhd.	Selangor, Malaysia	Management of parts of consignment business of our Group companies	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)
Intersil Luxembourg S.a.r.l.	Luxembourg	Business Corporations and Others	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)
Renesas Electronics Canada Limited	Ontario, Canada	Engineering and Sales Companies	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)
Renesas Electronics (Penang) Sdn. Bhd.	Penang, Malaysia	Engineering, Manufacturing and Sales Companies	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)
Renesas Electronics Germany GmbH	Dresden, Germany	Engineering, Manufacturing and Sales Companies	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)
IDT Bermuda Ltd.	Bermuda	Business Corporations and Others	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)
GigPeak, Inc.	California, U.S.A.	Business Corporations and Others	100.0 (100.0) (Note 2)	100.0 (100.0) (Note 2)

(Note) 1. Percentage ownership and voting interest are rounded down to the second decimal point.
2. Numbers in parentheses represent indirect voting rights.
3. On January 1, 2020 former IDT merged with former Renesas Electronics America Inc. in an absorption type merger and changed the trade name to Renesas Electronics America Inc.

There are no subsidiaries with significant non-controlling interests.

36. Commitments and Contingencies

(1) Commitments for the acquisition of assets

The Group's commitments for the acquisition of assets are as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Property, plant and equipment	3,608	4,267
Intangible assets	533	358
Total	4,141	4,625

(2) Loan commitments

The Group has entered into a contract for setting commitment lines with its main banks for the purpose of securing long-term working capital, and the balance of unused loans is as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Total amount of commitment lines	50,000	125,000
Balance of used loans	—	—
Balance of unused loans	50,000	125,000

(Note) The Company has concluded the Commitment Line Agreement as described below on July 13, 2020 for the purpose of securing flexible means of procuring financing in order to meet funding requirements for future business developments and to secure working capital, as well as to improve the stability of the Company's financial base. This agreement has been terminated on March 2, 2021.

A. Counterparties of agreement	MUFG Bank, Ltd., Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited., Resona Bank, Ltd.
B. Maximum loan amount	75 billion yen
C. Date of agreement	July 13, 2020
D. Term of agreement	Two years
E. Collateral and guarantee	No collateral or guarantees

(3) Debt guarantees

The Group provides debt guarantees against bank loans, etc. of its employees as follows.

(In millions of yen)

	As of December 31, 2019	As of December 31, 2020
Guarantees of employees' obligations	45	36
Total	45	36

(Guarantees of employees' obligations)

The Group provides guarantees for the housing loans of employees as part of its welfare program. If an employee cannot repay a housing loan covered by a debt guarantee, the Group must assume the obligation. These debt guarantees are secured by the houses of the employees.

(4) Others

As the Group conducts business worldwide, it is possible that the Group may become a party to lawsuits, investigation by regulatory authorities and other legal proceedings in various countries.

Though it is difficult to predict the outcome of the legal proceedings to which the Group is presently a party or to which it may become a party in future, the resolution of such proceedings may require considerable time and expense. There is a possibility that the Group's business, performance, financial condition, cash flow, reputation and creditability to have significant adverse effects by the outcome.

The Group records provision for loss on litigation for several cases written below to the extent possible to make a reasonable estimation. Additionally, the Group records loss on litigation for cases other than below, to prepare for payments regarding lawsuits against other companies and compensation for damages. Following the policy under IAS 37 "Provisions, Contingent Liabilities and Contingent Assets" Article 92, the Group does not disclose detailed information of these cases since it is likely to lead the Group to an unfavorable position.

(Civil lawsuit related to the alleged patent infringement and trade secret violation)

The Group's subsidiary has been named as a defendant in a civil lawsuit in the United States related to the alleged patent infringement and trade secret violation. The Group's subsidiary has been named as a defendant in a lawsuit filed in November 2008 in the United States District Court for the Eastern District of Texas (hereafter "the Court of First Instance"). The Court of First Instance entered a final judgment in June 2016 against the Group in the amount of 77.3

million U.S. dollars; however, the Group’s subsidiary immediately filed a notice of appeal at the Court of Appeals for the Federal Circuit (hereafter “the Court of Second Instance”). In July 2018, the Court of Second Instance rejected the judgement of the Court of First Instance for payment of compensation and conducted the retrial order at the Court of First Instance.

(Civil lawsuits related to the alleged violations of the competition law)
The Group has been named in the United Kingdom as a defendant in civil lawsuits related to possible violations of competition law involving smartcard chips brought by purchasers of such products. One of the cases was brought in July 2019 in the Senior Courts of England and Wales and is currently on progress. The other case was brought in September 2020 in the same court.

(Indemnification claim related to environmental pollution)
The Group’s subsidiary in Taiwan has been subjected to requests for restitution for environmental pollution associated with a factory in Taiwan owned by the subsidiary’s predecessor company.

Since June 2004, the Group’s subsidiary has been notified that an other company reserved its right to seek indemnification from us for all costs associated with the remediation of the contamination related to environmental pollution found at a factory in Taiwan owned by the subsidiary’s predecessor company, and the costs associated with the lawsuit as well as the costs relating to those retained environmental liabilities in a toxic tort class action lawsuit filed by ex-employees worked at the factory. Though the Group’s subsidiary is not a defendant in the class action lawsuit, the claimant initiated arbitration proceedings against us related to all claims arising out of the contamination, including the remediation, the toxic tort claims, and attorneys’ fees in December 2017, but afterward, the arbitration was ordered stayed by the arbitrator on a unilateral request by the claimant.

37. Government Grants

Government grants related to employment or other actions taken by the Group are recognized in profit or loss and deducted from cost of sales of 681 million yen and selling, general and administrative expenses of 1,471 million yen, respectively for the year ended December 31, 2020. In addition, government grants related to research and development are recognized in profit or loss. For details, please refer to “Note 26. Other Income.”

38. Subsequent Events
Acquisition of Stock of Dialog Semiconductor Plc (hereafter “Dialog”).

On February 8, 2021, the Company has reached an agreement with Dialog in the UK, on the terms of a recommended all-cash acquisition by the Company of the entire issued and to be issued share capital of Dialog, thereby making Dialog a wholly-owned subsidiary of the Company (the “Acquisition”).

1) Purpose of the Acquisition
Dialog is an innovative provider of highly-integrated and power-efficient mixed-signal ICs for a broad array of customers within IoT, consumer electronics and high-growth segments of automotive and industrial end-markets. Centered around its low-power and mixed-signal expertise, Dialog brings a wide range of product offerings including battery and power management, power conversion, configurable mixed-signal (CMIC), LED drivers, custom mixed-signal ICs (ASICs) and automotive power management ICs (PMICs), wireless charging technology, and more. Dialog also offers broad and differentiated Bluetooth® Low Energy (BLE), WiFi and audio system-on-chips (SoCs) that deliver advanced connectivity for a wide range of applications; from smart home/building automation, wearables, to connected medical. All these systems complement and expand the Company’s leadership portfolio in delivering comprehensive solutions to improve performance and efficiency in high-computing electronic systems.

The Acquisition demonstrates the Company’s continued and unwavering commitment to further advance its solution offering. The complementary nature of the Companies’ technological assets and the scale of the combined portfolios will enable the Company to build more robust and comprehensive solutions to serve high-growth segments of the IoT and automotive markets.

2) Overview of the acquiree

(1) Name	Dialog Semiconductor Plc
(2) Address	100 Longwater Avenue, Reading, RG2 6GP, United Kingdom
(3) Business description	Development, manufacturing and sales of analog ICs such as mixed-signal devices
(4) Capital amount	14,253 thousand USD (As of September 2020)
(5) Date of foundation / incorporation	February 1998

3) Acquisition Method
The Company will implement a scheme of arrangement pursuant to UK law. The scheme of arrangement is a method of acquisition whereby, with the agreement of Dialog, the Acquisition will be executed by obtaining approvals from Dialog shareholders and the Court. Through this method, the Company will acquire 100% of the issued and to be issued share capital of Dialog.

The Acquisition needs to be approved by an affirmative vote of a majority of the shareholders in attendance at a meeting of shareholders convened by the Court and the number of the voting rights held by such shareholders who approve the Acquisition needs to represent 75% or more of the total number of voting rights. In addition, approval must be obtained from the Court following the necessary regulatory clearances from the relevant countries including United States, China and Germany.

Number of shares to be acquired, acquisition price, and share ownership before and after the Acquisition are as follows.

(1) Number of shares owned before the Acquisition	0 share (Ownership ratio: 0.0%)
(2) Number of shares to be acquired	72,387,613 shares (Note) (Ratio to the number of issued shares: 100.0%)
(3) Acquisition Value	Approximately EUR 4,886 million (approximately 615.7 billion yen, calculated at 126 yen per euro)
(4) Number of shares owned after the Acquisition	72,387,613 shares (Ratio to the number of issued shares: 100.0%)

Note: The number of shares is on a fully-diluted basis as of December 31, 2020

4) Schedule
With the aforementioned conditions, the Acquisition is expected to become effective by the end of the fiscal year ending December 31, 2021.

5) Execution of Loan Agreement in relation to the Acquisition
To procure the funds for the Acquisition, the Company entered into a loan agreement (Facilities Agreement) as described below on February 8, 2021.

(1) Borrowing limit	735.4 billion yen
(2) Execution date of agreement	February 8, 2021
(3) Period of loan execution	From the execution date of the Facilities Agreement until February 3, 2022
(4) Repayment date	February 7 , 2022
(5) Participating financial institutions	MUFG Bank, Ltd. and Mizuho Bank, Ltd.

6) Filing of Shelf Registration Statement for the Issuance of New Shares

To enable the Company to flexibly issue new shares to procure a portion of the funds for the Acquisition, the Company has filed the Shelf Registration Statement in Japan for the issuance of new shares as follows on February 8, 2021.

(1) Class of Securities to be offered	Shares of common stock of the Company
(2) Scheduled Issue Period	For one year from the scheduled effective date of the Shelf Registration (From February 24, 2021 to February 23, 2022)
(3) Scheduled Issue Amount	Up to 270 billion yen
(4) Offering Method	To be determined
(5) Use of Proceeds	To procure the funds for the Acquisition, or for repayment of the borrowing conducted to procure the fund for the Acquisition
(6) Underwriters	To be determined

Fire outbreak in a wholly-owned manufacturing subsidiary

On March 19, 2021, a fire outbreak at a manufacturing line in the N3 Building (300mm line) of Naka Factory (located in Hitachinaka, Ibaraki Prefecture) of Renesas Semiconductor Manufacturing Co., Ltd, a wholly-owned manufacturing subsidiary of the Company. The fire occurred from the plating equipment due to overcurrent. The cause of the overcurrent and the reason for the ignition is currently being investigated.

Due to this fire, certain property, plant and equipment such as machinery and equipment and inventories such as work in progress were damaged. At this moment, it is difficult to make reasonable estimates for the financial effects of the fire, including the loss on property, plant and equipment and inventories, restoration costs and effect on sales from the halted production, as well as insurance recovery for such damages.

(2) Other

Quarterly information, etc. for the year ended December 31, 2020

(Cumulative period)		First quarter	Second quarter	Third quarter	The year ended December 31, 2020
Revenue	(Million yen)	178,743	345,415	524,093	715,673
Profit before tax	(Million yen)	14,178	29,769	46,592	65,216
Profit attributable to owners of parent	(Million yen)	11,289	23,212	38,471	45,626
Basic earnings per share	(Yen)	6.60	13.55	22.42	26.54

(Accounting period)		First quarter	Second quarter	Third quarter	Fourth quarter
Basic earnings per share	(Yen)	6.60	6.95	8.86	4.14

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of Renesas Electronics Corporation

Opinion

We have audited the consolidated financial statements of Renesas Electronics Corporation (the Company) and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2020, and consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of 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 at December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards.

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.

Emphasis of Matter

1. We draw attention to Note 38 to the consolidated financial statements "Subsequent Events", Acquisition of Stock of Dialog Semiconductor Plc, which describes that on February 8, 2021, the Company has reached an agreement with Dialog Semiconductor Plc whereby the Company will acquire Dialog Semiconductor Plc. In addition, to procure the funds for the acquisition, the Company entered into a loan agreement and filed the shelf registration statement for the issuance of new shares.
2. We draw attention to Note 38 to the consolidated financial statements "Subsequent Events", Fire outbreak in a wholly-owned manufacturing subsidiary, which describes that on March 19, 2021, a fire broke out at a manufacturing line in the N3 Building (300mm line) of Naka Factory (located in Hitachinaka, Ibaraki Prefecture) of Renesas Semiconductor Manufacturing Co., Ltd, a wholly-owned manufacturing subsidiary of the Company. Due to this fire, certain property, plant and equipment such as machinery and equipment and inventories such as work in progress were damaged. At this moment, it is difficult to make reasonable estimates for the financial effects of the fire, including the loss on property, plant and equipment and inventories, restoration costs and effect on sales from the halted production, as well as insurance recovery for such damages.
   Our opinion is not modified in respect of these matters.

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Responsibilities of Management and The Corporate Auditors and Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, 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, disclosing, as applicable, matters related to going concern, and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Corporate Auditors and Board of Corporate Auditors 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. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. 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. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the purpose of the consolidated financial statement audit is not to express 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 whether the presentation and disclosures of the consolidated financial statements are in accordance with International Financial Reporting Standards, 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.
- 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 Corporate Auditors and Board of Corporate Auditors 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 Corporate Auditors and Board of Corporate Auditors with a statement that we have complied with relevant ethical requirements regarding independence, 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.

澤山宏行

Hiroyuki Sawayama

Designated Engagement Partner
Certified Public Accountant

石橋武昭

Takeaki Ishibashi

Designated Engagement Partner
Certified Public Accountant

近藤仁

Hitoshi Kondo
Designated Engagement Partner
Certified Public Accountant

PricewaterhouseCoopers Aarata LLC.

March 31, 2021