Renesas

FINANCIAL REPORT 2018

Fiscal Year Ended December 31, 2018

RENESAS ELECTRONICS CORPORATION

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Independent Auditor's Report

The following section, Management's Discussion and Analysis of Operations, provides an overview of the consolidated financial statements of Renesas Electronics Corporation ("Renesas Electronics"), and its consolidated subsidiaries (together, "the Group"), as of and for the fiscal year ended December 31, 2018.

Introduction

Financial Position, Operating Results and Cash Flow Analysis

Forward-looking statements concerning financial position, operating results and cash flow are the Group's judgment as of December 31, 2018.
*The Group has decided to adopt the International Financial Reporting Standard (IFRS) from the fiscal year ended December 31, 2018. Figures from the fiscal year ended December 31, 2017 has also been prepared in accordance with IFRS in order to compare the results.

(1) Significant Accounting Policies and Estimates

The Group's consolidated financial statements are prepared in accordance with IFRS in accordance to article 93 of the "Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements". In preparation of these consolidated financial statements, estimates and assumptions deemed necessary are made based on reasonable standards. Significant accounting policies and indicators for uncertainties relating to assumptions for the future and estimates used in the consolidated financial statements are listed under "3. Significant Accounting Policies, 4. Significant Accounting Estimates and Judgments" in the Financial Section.

(2) Financial Position

	December 31, 2017	**December 31, 2018**	Increase (Decrease)
	Billions of yen	Billions of yen	Billions of yen
Total assets	1,136.0	1,055.2	(80.8)
Total equity	578.6	601.0	22.4
Equity	575.7	598.1	22.4
Equity ratio (%)	50.7	56.7	6.0
Interest-bearing debt	231.1	195.0	(36.1)
Debt / Equity ratio	0.40	0.33	(0.07)

Total assets at December 31, 2018 were 1,055.2 billion yen, a 80.8 billion yen decrease from December 31, 2017.This was mainly due to a decrease in fixed assets and intangible assets owing to depreciation and amortization. Total equity was 601.0 billion yen, a 22.4 billion yen increase from December 31, 2017. This was mainly due to recording of profit for the year attributable to owners of the parent in the amount of 51.0 billion yen despite the decrease in other items of owner's equity.

Equity increased by 22.4 billion yen from December 31, 2017 and the equity ratio was 56.7%. Interest-bearing debt decreased by 36.1 billion yen from December 31, 2017. Consequently, the debt to equity ratio increased to 0.33.

(3) Overview of Financial Results

	Year ended December 31, 2017 (Jan 1 – Dec 31, 2017)	**Year ended December 31, 2018** (Jan 1 – Dec 31, 2018)	Increase (Decrease)	
	Billions of yen	Billions of yen	Billions of yen	% Change
Revenue	779.3	756.5	(22.8)	(2.9)
Revenue from semiconductors	766.5	740.3	(26.2)	(3.4)
Other revenue	12.7	16.2	3.4	26.9
Operating profit	101.9	68.2	(33.7)	(33.0)
Profit for the year	102.1	51.1	(51.0)	(50.0)
	Yen	Yen		
Exchange rate (USD)	112	110	-	-
Exchange rate (EUR)	127	131	-	-

(Revenue)

Consolidated revenue for the year ended December 31, 2018 were 756.5 billion yen, a 2.9% decrease year on year. Consolidated revenue decreased mainly due to weakening demand for focused applications including Automotive and Industrial from increasing uncertainties in the global economy, as well as the continuing efforts to reduce channel inventory which built up during the last fiscal year.

(Revenue from Semiconductors)
Revenue from semiconductors for the year ended December 31, 2018 were 740.3 billion yen, a 3.4% decrease year on year.
The revenue breakdown for “Automotive”, “Industrial” and “Broad-based”, and for “Other semiconductors” not belonging to these three categories, is as follows:

Automotive Business: 398.4 billion yen
The Automotive business includes the product categories “Automotive control,” comprising semiconductor devices for controlling automobile engines and bodies, and “Automotive information,” comprising semiconductor devices used in automotive information systems such as navigation systems. The Group mainly supplies microcontrollers (MCUs), system-on-chips (SoCs), analog semiconductor devices and power semiconductor devices in each of these categories.
Revenue of Automotive business for the year ended December 31, 2018 were 398.4 billion yen, a decrease of 3.6% year on year. This is due to decreases in sales in both the “Automotive control” and “Automotive information” categories.

Industrial Business: 187.2 billion yen
The Industrial business includes the product categories “Smart factory”, “Smart home” and “Smart infrastructure” which support the smart society. The Group mainly supplies MCUs and SoCs in each of these categories.
Revenue of Industrial business for the year ended December 31, 2018 were 187.2 billion yen, a decrease of 4.8% year on year. This was due to sales in the “Smart factory”, “Smart home” and “Smart infrastructure” categories decreased.

Broad-Based Business: 151.3 billion yen
The Broad-based business targets a wide variety of end-market solutions. In this business, the Group mainly supplies “General-purpose MCUs” and “General-purpose analog semiconductor devices".
Revenue of Broad-based business for the year ended December 31, 2018 were 151.3 billion yen, a decrease of 0.3% year on year. While the sales in the “General-purpose analog semiconductor devices” category increased, sales in the “General-purpose MCUs" category decreased.

Other Semiconductors: 3.4 billion yen
Revenue of Other semiconductors include production by commissioning and royalties.

(Other revenue)
Other revenue includes development and production by commissioning conducted at the Group’s design and manufacturing subsidiaries.
Other revenue for the year ended December 31, 2018 were 16.2 billion yen, a 26.9% increase year on year.

(Operating profit)
Operating profit for the year ended December 31, 2018 was 68.2 billion yen, a 33.7 billion yen decrease year on year. This was mainly due to decreases in revenue for the Automotive and Industrial businesses, as well as an increase in costs including a temporary increase in cost relating to payments caused by a revision in the production agreement with an outsourcing foundry.

(Profit for the year)
Profit for the year ended December 31, 2018 was 51.1 billion yen, a 51.0 billion yen decrease year on year. This was mainly due to a decrease in operating income, in addition to a temporary decrease in tax owing to a recording of deferred tax assets from the consolidation between the Group’s US subsidiaries causing an increase in tax costs in comparison to the year ended December 31, 2017.

The Group announced the “Mid-Term Growth Strategy” on November 2, 2016. The “Mid-Term Growth Strategy” aims to double the revenue growth rate of semiconductor business compared with our focusing semiconductor market’s growth rate which was expected as of the time the Group set the strategy. The Group also targets to achieve a 50 percent gross margin and a 20 percent or more operating margin, by increasing topline, manufacturing optimizations, better product mix and Intersil consolidation.
In addition, the Group plans to update and announce the “Mid-Term Growth Strategy” after completing the acquisition of Integrated Device Technology, Inc. (hereafter IDT).

(Note) The targets of the “Mid-Term Growth Strategy” are Non-GAAP basis. Non-GAAP figures are calculated by adjusting or removing non-recurring items and other adjustments from GAAP figures. This adjustment and exclusion include depreciation of intangible assets recognized from acquisitions, other PPA (purchase price allocation) adjustments and costs relating to acquisitions, stock-based compensation, as well as other non-recurring expenses and income the Group believes to be applicable. In addition, following the adoption of IFRS, amortization of goodwill has been removed from the definition above. The Group believes non-GAAP measures provide useful information in understanding and evaluating the Group’s constant business results, and therefore results are provided in non-GAAP base.

(4) Cash Flows

	Year ended December 31, 2017 (Jan 1 – Dec 31, 2017)	Year ended December 31, 2018 (Jan 1 – Dec 31, 2018)
	Billions of yen	Billions of yen
Net cash provided by (used in) operating activities	173.6	170.5
Net cash provided by (used in) investing activities	(453.9)	(80.9)
Free cash flows	(280.3)	89.6
Net cash provided by (used in) financing activities	75.1	(37.4)
Cash and cash equivalents at the beginning of period	354.3	139.5
Cash and cash equivalents at the end of period	139.5	188.8

(Net cash provided by (used in) operating activities)
Net cash provided by operating activities for the year ended December 31, 2018 was 170.5 billion yen. This was mainly due to a recording of income before income taxes in the amount of 67.7 billion yen and adjustment of non-cash items including depreciation and amortization, etc. within the income before income taxes, despite payments made for trade payables and other payable assets as well as corporate income tax.

(Net cash provided by (used in) investing activities)
Net cash used in investing activities for the year ended December 31, 2018 was 80.9 billion yen. This was mainly due to a recording of fixed assets expenditures.

The foregoing resulted in positive free cash flows of 89.6 billion yen for the year ended December 31, 2018.

(Net cash provided by (used in) financing activities)
Net cash used in financing activities for the year ended December 31, 2018 was 37.4 billion yen. This was mainly due to the execution of the term loan agreement with the main financing banks.

Consequently, cash and cash equivalents at the end the year ended December 31, 2018 were 188.8 billion yen, a 49.3 billion yen increase compared to the year ended December 31, 2017.

(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. To secure capital resources, the Company repaid the borrowings debt under the existing loan agreement with its main banks, Bank of Tokyo-Mitsubishi UFJ, Ltd., Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited, and Mitsubishi UFJ Trust and Banking Corporation. On September 28, 2016, the Company entered into a 150-billion-yen term-loan agreement and a 50-billion-yen commitment line agreement with its main banks to secure long-term working capital. The term-loan agreement was executed on September 30, 2016, while the Company executed a borrowing under the commitment line agreement in the first quarter of the fiscal year ended on December 31, 2017. Furthermore, the Company entered into a 50-billion-yen term-loan agreement with its main banks on October 5, 2017 to secure funds to push forward its growth strategy. This term-loan agreement was executed in the first quarter of the fiscal year ended on December 31, 2017.

As of December 31, 2018, the total amount of interest-bearing debt, including borrowings and lease obligations, was 195.0 billion yen. As of December 31, 2018, the Company had 188.8 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, 2018, the balance of liquidated accounts receivable was 16.8 billion yen.

In addition, the Group conducts operating leases as a means of avoiding risks associated with a decline in the value of obsolete production facilities, as well as to stabilize cash flows. As of December 31, 2018, the balance of lease obligations for unexpired non-cancelable operating lease transactions was 12.8 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 the current fiscal year.

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 worsened 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 showing our foreign currency denominated assets and debts converted to 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, typhoons, and floods, as well as accidents, acts of terror, infection and other factors beyond the control of the Group could adversely affect the Group's business operation. Especially, 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 Group sets and manages several preventive plans, Business Continuity Plan, which defines countermeasures such as contingency plans and at the same time the Group is subscribed to various insurances; however, these plans and insurances are not guaranteed to cover all the losses and damages incurred.

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 to have such moves 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 but 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 which the future is uncertain, and 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, etc.; for example, the Group completed the acquisition of Intersil Corporation. In addition, in September 2018, the Group has come to an agreement to acquire a US based semiconductor company, IDT, which will become a fully owned subsidiary of the Group. 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 that 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 guarantee that an alliance or acquisition will achieve the goals initially anticipated.

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 etc., the Group may lose the benefit of term on the contract, and it may adversely influence the Group's business performance and financial conditions.

9）Notes on Additional Financing
After implementing 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 debt 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, former Innovation Network Corporation of Japan has been gradually divesting itself of its holdings of common stock in the Company, but as of the issue date of this report it still controls more than one-third of voting rights held in association with Renesas stock. The former Innovation Network Corporation of Japan underwent restructuring, and as of September 21, 2018, formed a separate subsidiary entity. Through this, all shares owned by the former Innovation Network Corporation of Japan was passed on to the new subsidiary, INCJ, Ltd. 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 appearance of competing products.

12）Product Production
a. Production Process Risk
Semiconductor products require extremely complex production processes. In an effort to increase yields (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 problems in these production processes could lead to worsening yields. This problem, 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 occurred in 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 manufacture 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, the possibility of delivery delays, product defects and other production-side risks stemming from outsourcers cannot be ruled out completely. 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 the bulk 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 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 result in 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 the bulk 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 acquisition of human resources. Under the current conditions, it may not be possible for the Group to secure the talented human resources it requires.

16) Retirement Benefit Obligations

Net defined benefit liability and net defined benefit asset are calculated based on actuarial assumptions, such as discount rates and the long-term expected rates of 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 retirement 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 slump 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 Fixed Assets

The Group owns substantial fixed assets, consisting of both tangible fixed assets such as plant and equipment and intangible fixed assets such as goodwill obtained through the acquisition of the former Intersil Corporation. 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 fixed assets. It may be necessary to recognize impairment of such assets if insufficient cash flow is generated. Furthermore, although originally the Group followed the generally accepted accounting practice of Japan (Japanese GAAP), the Group has voluntarily adopted the International Financial Reporting Standards (IFRS), starting with the fiscal year ended December 31, 2018. Under IFRS, goodwill is not amortized, and a different method is used to determine impairment of fixed assets. As a result of the change in accounting standards, it may be necessary to recognize impairment of goodwill earlier than was the case under Japanese GAAP, and the impairment to be recognized may be larger.

19）Information Systems

Information systems are 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 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

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, and it is possible that the result will have significant adverse effects to the business, performance, financial condition, cash flow, reputation and creditability of the Group.

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

The Company'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 Company'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 us in the amount of 77.3 million U.S. dollars, However, the Company'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. The Group has revised provision for loss on litigation to 22 million U.S. dollars (2.403 million yen) from 79 million U.S. dollars in accordance with the above judgement of the Court of Second Instance for the year ended December 31, 2018. This estimate may be changed as the case progresses.

b. (Civil lawsuit related to the alleged violations of the competition law)
The Group has been named in Canada and the United Kingdom as a defendant in a civil lawsuit related to possible violations of competition law involving smartcard chips brought by purchasers of such products. The civil lawsuit in Canada was brought in July 2013 in Supreme Court of British Columbia and has not been settled yet. The civil lawsuit in the United Kingdom was brought in December 2014 in the Senior Courts of England and Wales and has not reached a settlement either.

The Group has recorded provision for loss on litigation in accordance with what can be reasonably estimated based on the information available at the present time, but this estimate may be changed as the case progresses.

c. (Indemnification claim related to environmental pollution)
The Group's subsidiary in Taiwan may be subject 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 another 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 who 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 by the arbitrator on a unilateral request by the claimant.

The Group's subsidiary has not recognized a provision for loss on litigation because it is not possible to reasonably estimate whether or not any provision for loss on litigation is required, the amount and timing of potential future losses.

d. (Others)
The Group has recognized provision for loss on litigation in preparation for payments due to lawsuits and claim for damages, etc. other than the above.

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, the Company prepares its financial statements in accordance with Article 127 of the Regulations for Financial Statements.

(3) As a result of amendments to the Ordinance on Consolidated Financial Statements, etc. (Cabinet Office Ordinance No. 73, December 11, 2009) permitting the preparation of consolidated financial statements in accordance with IFRS for listed companies in Japan, the Company has disclosed its consolidated financial statements in accordance with IFRS from the fiscal year ended December 31, 2018.

(4) 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, 2018 (from January 1, 2018 to December 31, 2018) and the non-consolidated financial statements for the fiscal year ended December 31, 2018 (from January 1, 2018 to December 31, 2018) were audited by Ernst & Young ShinNihon 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.

Consolidated Financial Statements

(1) Consolidated Financial Statements

(i) Consolidated Statement of Financial Position

(In millions of yen)

	Notes	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Assets				
Current assets				
Cash and cash equivalents	8	354,287	139,545	188,820
Trade and other receivables	9, 37	84,630	104,262	79,449
Inventories	10	95,027	123,700	115,440
Other current financial assets	18, 37	3,721	1,782	494
Income tax receivables		2,340	4,158	2,352
Other current assets	11	12,512	14,902	7,069
Subtotal		552,517	388,349	393,624
Assets held for sale	12	103	—	—
Total current assets		552,620	388,349	393,624
Non-current assets				
Property, plant and equipment	13, 15, 16	211,527	278,087	252,503
Goodwill	14, 16	—	190,603	187,230
Intangible assets	14, 16	49,461	202,402	166,524
Investments accounted for using the equity method	17	3,583	3,634	—
Other non-current financial assets	18, 37	4,307	6,651	5,973
Deferred tax assets	19	46,793	60,195	44,149
Other non-current assets	11	4,950	6,079	5,232
Total non-current assets		320,621	747,651	661,611
Total assets		873,241	1,136,000	1,055,235

(In millions of yen)

	Notes	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Liabilities and equity				
Liabilities				
Current liabilities				
Trade and other payables	20, 37	136,109	156,783	116,233
Borrowings	21, 37	—	47,875	45,000
Other current financial liabilities	22, 37	5,357	827	15,057
Income tax payables	19	1,171	13,423	2,983
Provisions	23	3,042	10,225	7,112
Other current liabilities	11	49,212	59,539	55,384
Total current liabilities		194,891	288,672	241,769
Non-current liabilities				
Trade and other payables	20, 37	6,968	16,966	4,403
Borrowings	21, 37	151,705	180,584	147,248
Other non-current financial liabilities	22, 37	2,908	2,099	2,323
Income tax payables	19	—	5,426	1,105
Retirement benefit liabilities	24	40,638	34,289	32,752
Provisions	23	3,000	2,997	3,745
Deferred tax liabilities	19	142	23,677	18,754
Other non-current liabilities	11	2,745	2,641	2,168
Total non-current liabilities		208,106	268,679	212,498
Total liabilities		402,997	557,351	454,267
Equity				
Issued capital	25	10,000	10,022	10,699
Share premium	25	189,375	189,397	190,074
Retained earnings	25	259,980	363,542	410,652
Treasury shares	25	(11)	(11)	(11)
Other components of equity		8,229	12,783	(13,314)
Total equity attributable to owners of the parent		467,573	575,733	598,100
Non-controlling interests		2,671	2,916	2,868
Total equity		470,244	578,649	600,968
Total liabilities and equity		873,241	1,136,000	1,055,235

(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, 2017	The year ended December 31, 2018
Continuing operations			
Revenue	6, 26	779,255	756,503
Cost of sales		(425,135)	(424,066)
Gross profit		354,120	332,437
Selling, general and administrative expenses	27	(258,145)	(251,021)
Other income	28	12,339	8,953
Other expenses	29	(6,458)	(22,173)
Operating profit		101,856	68,196
Finance income	30	711	1,609
Finance costs	30	(3,275)	(2,131)
Share of profit of investments accounted for using the equity method		216	49
Profit before tax from continuing operations		99,508	67,723
Income tax expense	19	(1,256)	(16,664)
Profit for the year from continuing operations		98,252	51,059
Discontinued operations			
Profit after tax for the year from discontinued operations	31	3,855	—
Profit for the year		102,107	51,059
Profit for the year attributable to			
Owners of the parent		102,025	50,989
Non-controlling interests		82	70
Profit for the year		102,107	51,059
Earnings per share	33		
Basic earnings per share (yen)			
Continuing operations		58.88	30.57
Discontinued operations		2.31	—
Total basic earnings per share		61.20	30.57
Diluted earnings per share (yen)			
Continuing operations		58.83	30.50
Discontinued operations		2.31	—
Total diluted earnings per share		61.14	30.50

Consolidated Statement of Comprehensive Income

(In millions of yen)

	Notes	The year ended December 31, 2017	The year ended December 31, 2018
Profit for the year		102,107	51,059
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit plans		1,272	(4,059)
Financial assets measured at fair value through other comprehensive income		278	(54)
Share of other comprehensive income of investments accounted for using the equity method		59	(26)
Total of items that will not be reclassified to profit or loss		1,609	(4,139)
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations		11,370	(14,401)
Changes in fair value of cash flow hedges		(6,265)	(14,318)
Total of items that may be reclassified subsequently to profit or loss		5,105	(28,719)
Total other comprehensive income	32	6,714	(32,858)
Total comprehensive income for the year		108,821	18,201
Comprehensive income for the year attributable to			
Owners of the parent		108,575	18,248
Non-controlling interests		246	(47)
Total comprehensive income for the year		108,821	18,201

(iii) Consolidated Statement of Changes in Equity
The year ended December 31, 2017

(In millions of yen)

		Equity attributable to owners of the parent												
						Other components of equity								
	Notes	Issued capital	Share premium	Retained earnings	Treasury shares	Warrants	Remeasurements of defined benefit plans	Financial assets measured at fair value through other comprehensive income	Exchange differences on transition of foreign operations	Changes in fair value of cash flow hedges	Total	Total equity attributable to owners of the parents	Non-controlling interests	Total equity
Balance as of January 1, 2017		10,000	189,375	259,980	(11)	23	—	(806)	—	9,012	8,229	467,573	2,671	470,244
Profit for the year		—	—	102,025	—	—	—	—	—	—	—	102,025	82	102,107
Other comprehensive income		—	—	—	—	—	1,268	341	11,206	(6,265)	6,550	6,550	164	6,714
Total comprehensive income for the year		—	—	102,025	—	—	1,268	341	11,206	(6,265)	6,550	108,575	246	108,821
Issue of new shares	25	22	22	—	—	—	—	—	—	—	—	44	—	44
Share-based payments	36	—	—	—	—	2,288	—	—	—	—	2,288	2,288	—	2,288
Transfer to retained earnings		—	—	1,537	—	—	(1,268)	(269)	—	—	(1,537)	—	—	—
Reclassification to non-financial assets		—	—	—	—	—	—	—	—	(2,747)	(2,747)	(2,747)	—	(2,747)
Other		—	—	—	—	—	—	—	—	—	—	—	(1)	(1)
Total amount of transactions with owners		22	22	1,537	—	2,288	(1.268)	(269)	—	(2,747)	(1,996)	(415)	(1)	(416)
Balance as of December 31, 2017		10,022	189,397	363,542	(11)	2,311	—	(734)	11,206	—	12,783	575,733	2,916	578,649

The year ended December 31, 2018

(In millions of yen)

		Equity attributable to owners of the parent												
							Other components of equity							
	Notes	Issued capital	Share premium	Retained earnings	Treasury shares	Warrants	Remea-surements of defined benefit plans	Financial assets measured at fair value through other compre-hensive income	Exchange differences on transition of foreign operations	Changes in fair value of cash flow hedges	Total	Total equity attributable to owners of the parents	Non-controlling interests	Total equity
Balance as of January 1, 2018		10,022	189,397	363,542	(11)	2,311	—	(734)	11,206	—	12,783	575,733	2,916	578,649
Profit for the year		—	—	50,989	—	—	—	—	—	—	—	50,989	70	51,059
Other comprehensive income		—	—	—	—	—	(4,048)	(80)	(14,295)	(14,318)	(32,741)	(32,741)	(117)	(32,858)
Total comprehensive income for the year		—	—	50,989	—	—	(4,048)	(80)	(14,295)	(14,318)	(32,741)	18,248	(47)	18,201
Issue of new shares	25	677	677	—	—	—	—	—	—	—	—	1,354	—	1,354
Share-based payments	36	—	—	—	—	2,854	—	—	—	—	2,854	2,854	—	2,854
Change of equity method range		—	—	—	—	—	—	(89)	—	—	(89)	(89)	—	(89)
Transfer to retained earnings		—	—	(3,879)	—	—	4,048	(169)	—	—	3,879	—	—	—
Reclassification to non-financial assets		—	—	—	—	—	—	—	—	—	—	—	—	—
Other		—	—	—	—	—	—	—	—	—	—	—	(1)	(1)
Total amount of transactions with owners		677	677	(3,879)	—	2,854	4,048	(258)	—	—	6,644	4,119	(1)	4,118
Balance as of December 31, 2018		10,699	190,074	410,652	(11)	5,165	—	(1,072)	(3,089)	(14,318)	(13,314)	598,100	2,868	600,968

(iv) Consolidated Statement of Cash Flows

(In millions of yen)

	Notes	The year ended December 31, 2017	The year ended December 31, 2018
Cash flows from operating activities			
Profit before tax from continuing operations		99,508	67,723
Profit before tax from discontinued operations	31	4,145	—
Depreciation and amortization		97,119	112,743
Impairment loss		1,218	1,526
Finance income and costs		1,581	649
Share of profit of investments accounted for using the equity method		(216)	(49)
Gain (loss) on sales of non-current assets		(485)	(1,025)
Changes in inventories		(9,916)	6,956
Changes in trade and other receivables		(9,468)	22,336
Changes in trade and other payables		(6,261)	(27,999)
Changes in retirement benefit liabilities		(7,703)	(1,265)
Changes in provisions		(894)	(2,055)
Other		9,786	6,238
Subtotal		178,414	185,778
Interest received		628	1,485
Dividends received		48	48
Interest paid		(1,950)	(1,806)
Income taxes paid		(3,491)	(15,003)
Net cash flows from operating activities		173,649	170,502
Cash flows from investing activities			
Purchase of property, plant and equipment		(120,675)	(64,513)
Proceeds from sales of property, plant and equipment		850	2,248
Purchase of intangible assets		(27,308)	(22,361)
Purchase of other financial assets		(276)	(766)
Proceeds from sales of other financial assets		971	3,175
Acquisition of subsidiaries	7	(311,428)	—
Proceeds from sales of investments accounted for using the equity method		—	1,378
Proceeds from transfer of business	34	4,940	—
Other		(979)	(33)
Net cash flows from investing activities		(453,905)	(80,872)
Cash flows from financing activities			
Net change in short-term borrowings	34	35,000	10,000
Proceeds from long-term borrowings	34	50,000	—
Repayments of long-term borrowings	34	(8,297)	(46,529)
Repayment of lease obligations	34	(1,617)	(916)
Net cash flows from financing activities		75,086	(37,445)
Effect of exchange rate changes on cash and cash equivalents		(9,572)	(2,910)
Increase (decrease) in cash and cash equivalents		(214,742)	49,275
Cash and cash equivalents at beginning of year	8	354,287	139,545
Cash and cash equivalents at end of year	8	139,545	188,820

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, 2018 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. The consolidated financial statements for the year ended December 31, 2018 were approved on March 28, 2019 by Bunsei Kure, President and CEO, and Hidetoshi Shibata, Executive Vice President, Member of the Board and CFO.

2. Basis for Preparation

(1) Compliance with IFRS and first-time adoption

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, as issued by the International Accounting Standards Board.

The Group has adopted IFRS for the first time in preparing its consolidated financial statements for the year ended December 31, 2018 and the date of transition to IFRS is January 1, 2017. The impacts of the transition to IFRS and the comparative year on financial position, financial performance and cash flows are described in “Note 42. First-time Adoption.”

Except for the provisions of IFRS that are not adopted early and exemptions under IFRS 1 “First-time Adoption of International Financial Reporting Standards” (hereafter “IFRS1”), the accounting policies of the Group comply with IFRS effective as of December 31, 2018. The exemptions adopted are stated in “Note 42. First-time Adoption.”

(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.

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.

The exemptions from the retrospective application of IFRS 1, which the Group has selected for the transition from Japanese generally accepted accounting principles (hereafter "JGAAP") to IFRS, are stated in "Note 42. First-time Adoption."

(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 are 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 the 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.

Since the closing date of an associate 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.

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, 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 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 whose functional currency is other than Japanese yen 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. 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

A financial asset is classified as a financial asset measured at amortized cost if both of the following conditions are met or a financial asset measured at fair value in other cases.

- Assets are held within a business model that aims to hold assets to collect contractual cash flows.
- The contract terms of the financial asset 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 asset 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 measured at amortized cost or financial assets other than those measured at fair value through other comprehensive income 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 asset. 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, interest calculated by using effective interest method and foreign exchange gains or losses, 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, etc., the Group has decided to recognize an allowance for expected credit losses of financial assets. On each reporting date, the Group assesses whether the credit losses of financial instruments have increased significantly subsequent to initial recognition.

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

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

Expected credit losses of 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 asset 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 the 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 objectives, 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 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 (other than leased 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 or groups of 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 loss on goodwill is recognized in profit or loss and is 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 including developed technology, client assets and research development under work-in-process, their acquisition cost is measured at fair value as of the date of acquisition.

・Developed technology

Technology of the acquiree of which the development has been completed and is expected to generate future economic benefits at the time of the business combination is classified as developed technology.

・Client assets

Assets from the existing clients of the aquiree which are expected to generate future economic benefits at the time of the business combination are classified as client assets.

・Research and development under work-in-process

Research and development during development phase of the acquiree which satisfies the conditions to be identified as an asset at the time of the business combination is classified as research and development under work-in-process.

(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
- An 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
- An 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 an estimated useful life (5 years) that is expected to provide net cash inflow. 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, and if there is a change, it is applied to the period when the estimates are changed and future periods prospectively as a change in the 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 lives 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

Leases are classified as finance leases if almost all the risks and rewards of ownership are transferred to the Group, or operating leases in other cases.

Whether an arrangement is (or contains) a lease is determined by the substance of the arrangement based on whether the performance of the arrangement depends on the use of a certain asset or group of assets or whether it conveys the right to use the asset, even if the arrangement does not take the legal form of a lease.

a. Finance leases

Leased assets and lease obligations are initially recognized at the lower of the fair value at the commencement of the lease and the present value of minimum lease payments.

After the initial recognition, they are depreciated using the straight-line method over the estimated useful life or the lease term, whichever is shorter, based on the accounting policy applied to the asset. The minimum 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.

b. Operating leases

In operating lease transactions, lease payments are recognized in profit or loss over the lease term using the straight-line method. In addition, variable lease payments are recognized in profit or loss during the period when they are incurred.

(10) Impairment of non-financial assets

The Company determines whether there is any indication that an asset (except for inventories, deferred tax assets and assets pertaining to retirement benefits) 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 lives or that are not yet available for use, an impairment test is performed at a certain time each fiscal year 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, cash-generating units or groups of 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, cash-generating units or groups of 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 Company 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 entities 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, an entity recognizes the excess as an asset to the extent to which the prepayment becomes the reduction of future payments or a 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 plan 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 by setting the discount period 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 obligations 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 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 plans to employees other than post-element benefits, the Group has a special leave and a reward plan based on a certain 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) 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 share premium account.

(15) 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, etc.

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.

(16) 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 (or as) the entity satisfied 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 when the goods are delivered as the ownership of these goods has been transferred to the customer and the performance obligations are identified at the time of delivery.

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

(17) Finance income and costs

Finance income consists of dividend income, interest income, foreign exchange gains, 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 expense for lease liabilities, foreign exchange losses, 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. Minimum lease payments under finance leases are allocated to finance costs and the unpaid 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.

(18) Income tax

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 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:

- Taxable 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 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 tax law) that is established or substantively established by the closing date.

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

- Income tax is imposed on the same taxable entity by the same tax authority
- Although income tax 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.

(19) 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.

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

a. Non-current assets held for sale

Of assets or a group of assets that are not in ongoing use and are expected to be recovered by sale, assets held for sale or liabilities directly related to assets held for sale are distinguished from other assets and liabilities as disposal groups and recorded in the consolidated financial statements if they are available for immediate sale in their present condition, if management is committed to a plan to sell them, and if their sales within a year are highly probable.

Non-current assets classified as assets held for sale are recognized at the lower of the carrying amount and the fair value after deducting the costs for sale, those assets after classification 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.

Relevant profit or loss and cash flows are presented in “Note 31. Discontinued Operations.”

4. Significant Accounting Estimates and Judgments

In preparing the consolidated financial statements, management of the Group is required to make 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.

Estimates and assumptions that could have a significant impact on the figures in 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 assets pertaining to retirement benefits) 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 lives or that are not yet available for use, an impairment test is performed at a certain time each fiscal year or 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 mainly calculated using the discounted cash flow model, and when it is calculated, certain assumptions, including the useful life of the asset, future cash flows, discount rate, and long-term growth rate, etc., are made. These assumptions are determined based on the best estimates and judgments of management, but could be influenced by the results of 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 16. 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, etc. 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 the management, but could be affected by the results of 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 24. Employment Benefits.”

(3) Provisions

The Group posts a range of provisions in the consolidated statement of financial position, including the provision for product warranties and the provision for business structure improvement, etc.

These provisions are recorded based on the best estimate of expenditure required for the settlement of the obligations, taking into account 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 taking into account 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 23. Provisions.”

(4) Recoverability of deferred tax assets

When deferred tax assets are recognized, the time and amount of taxable profits that could be earned in the future based on a business plan are estimated and calculated in the 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 19. 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, etc. 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 the result of 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 37. Financial Instruments.”

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, 2018 are as follows.

IFRS 16 “Leases”

The IASB issued IFRS 16 “Leases,” a new accounting standard for leases. IFRS 16 will replace IAS 17 “Leases,” which is the current standard, and the related application guidelines. IFRS 16 is effective from fiscal years beginning on or after January 1, 2019, and if IFRS 15 “Revenue from Contracts with Customers” is implemented before the initial application date of IFRS 16, the earlier application will be permitted.

In IFRS 16, a finance lease and an operating lease are not distinguished for leases of a lessee, and a single accounting model is introduced. The lessee will recognize a right-of-use asset that represents the right to use the underlying asset and a lease liability that represents an obligation to pay lease payments. However, if a lease is a short-term lease or a small-amount lease, it is possible not to apply the requirements of IFRS 16. In addition, as a lease-related expense, the depreciation expense of right-of-use assets and interest expense for lease liabilities will be recognized, instead of lease payments payable of fixed amounts. The accounting treatment for the lessor is little changed from the current standard. IFRS 16 will be implemented either by applying it retrospectively to all periods to be disclosed (full retrospective method) or by retrospectively recognizing the amount of the cumulative effect due to the application of this standard on the date of application (modified retrospective method). The Group plans to implement IFRS 16 from January 1, 2019 using the modified retrospective method.

The Group will recognize new assets and liabilities for operating leases as the lessee classified under IAS17, excluding some exceptions. In addition, because expenses that were recorded as lease payments in the past will be posted as the depreciation expense of right-of-use assets and interest expense for lease liabilities in IFRS 16, the nature of the expenses related to lease costs will change, however, the impact of this change will be immaterial. The impact of the application of IFRS 16 will be recognized as assets and liabilities on the consolidated financial statements as of January 1, 2019 expects to increase by around 13 billion yen.

IFRIC 23 “Uncertainty over Income Tax Treatments”

The IASB issued IFRIC 23 “Uncertainty over Income Tax Treatments,” a new accounting standard for an uncertain tax position. IFRIC 23 aims to clarify the treatment of the application of IAS 12 “Income taxes” if there is uncertainty over the tax treatment of income tax.

The Group will adopt this standard from January 1, 2019. In addition, at the time of preparation of consolidated financial statements for the current period, the impact of the application of IFRIC 23 on the consolidated financial statements is considered to be immaterial.

6. Business Segments

(1) Overview of reportable segments

The semiconductor business segment is the sole operating segment of the Group. Information by reportable segment is therefore omitted.

(2) Information on products and services

Revenue from external customers by product and service is as follows.

(In millions of yen)

	Revenue from external customers	
	The year ended December 31, 2017	The year ended December 31, 2018
Automotive Business (Note 1)	413,082	398,351
Industrial Business (Note 2)	196,614	187,229
Broad-Based Business (Note 3)	151,854	151,343
Other Semiconductors	4,960	3,408
Others	12,745	16,172
Total	779,255	756,503

(Note 1) The Automotive Business includes the product categories "Automotive control", comprising semiconductor devices for controlling automobile engines and bodies, and “Automotive information”, comprising semiconductor devices used in automotive information systems such as navigation systems. The Group mainly supplies microcontrollers (MCUs), system-on-chips (SoCs), analog semiconductor devices and power semiconductor devices in each of these categories.

(Note 2) The Industrial business includes the product categories “Smart factory”, “Smart home” and “Smart infrastructure” which support the smart society. The Group mainly supplies MCUs and SoCs in each of these categories.

(Note 3) The Broad-based business targets a wide variety of end-market solutions. In this business, the Group mainly supplies “General-purpose MCUs” and “General-purpose analog semiconductor devices”.

(3) Information on regions and countries

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

a. Revenue from external customers

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Japan	326,328	300,530
China	150,527	153,289
Asia (Excluding China)	112,274	106,984
Europe	109,393	125,062
North America	76,820	67,239
Others	3,913	3,399
Total	779,255	756,503

(Note) Revenue are based on the location of customers and are classified by country or region.

b. Non-current assets

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

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Japan	217,095	454,669	421,808
Malaysia	22,097	127,824	108,607
Asia (Excluding Malaysia)	20,212	36,111	29,297
Europe	756	872	694
North America	828	51,616	45,851
Total	260,988	671,092	606,257

(4) Major customers

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

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Ryosan Company, Limited	106,526	94,804

7. Business Combinations

(1) Business combination by acquisition

Prior fiscal year (From January 1, 2017 to December 31, 2017)

a. Overview of business combination

At a meeting of the Board of Directors held on September 13, 2016, the Company resolved to agree with Intersil Corporation, a semiconductor company in the United States, to make it a wholly owned subsidiary of the Company and entered into a merger agreement with Intersil Corporation on this acquisition on the same day. With the acquisition of Intersil Corporation being completed on February 24, 2017, the Company has made it a wholly owned subsidiary.

(a) Name and business description of the acquired company

Name of the acquired company	Intersil Corporation
Description of business	Development, manufacture and sale of power management and high precision analog ICs

(b) Date of acquisition

February 24, 2017

(c) Main reason for business combination

The Group has a certain potential for the stabilization of its financial base as a result of executing structural reforms in the past that aimed to achieve a business structure with the ability to generate profit stably and continuously in the volatile semiconductor market, and it is now working on new growth strategies to remain in competition on a global basis. To further accelerate the achievement of these growth strategies, the Company has recently acquired Intersil Corporation.

With the acquisition of Intersil Corporation, the Company can expect to (1) strengthen the lineup of power management-related analog products, which will be indispensable element devices in the strategically focused areas in the future, (2) strengthen the ability to propose solutions to provide customers with microcontrollers and microprocessors of the Company and high-precision analog products of Intersil Corporation as a kit, (3) strengthen the ability to expand sales in Japan and overseas and (4) strengthen its global management power as a result of the addition of the management team of Intersil Corporation, which has a wealth of business experience in multiple semiconductor companies in the United States, to the Group. The Company also believes that the addition of Intersil Corporation to the Group will become a strong initiative for the Company to remain the top global company in the areas of strategic focus into which it is directing its energy and aiming to increase sales and profits.

(d) Method of obtaining control of the acquired company

The Company has obtained control of the acquired company by merging a wholly-owned subsidiary (hereafter "the acquiring subsidiary"), which the Company established in Delaware, the United States, for this acquisition with Intersil Corporation. The surviving company after the merger is Intersil Corporation, and cash was delivered to the shareholders of Intersil Corporation as consideration for the merger, while the shares of the acquiring subsidiary held by the Company were converted to shares issued by the surviving company. As a result, Intersil Corporation, the surviving company, has become a wholly-owned subsidiary of the Company.

b. Consideration for the acquisition and its breakdown

(In millions of yen)

Consideration		Amount
Total cash consideration for the acquisition	A	349,355

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Acquisition-related expenses for the business combination were 1,021 million yen, with 497 million yen recorded in "Selling, general and administrative expenses" for the year ended December 31, 2017.

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

		(In millions of yen) Date of acquisition (February 24, 2017)
Current assets		
Cash and cash equivalents		33,966
Trade and other receivables (Note 1)		7,256
Inventories		18,212
Other		4,577
Total current assets		64,011
Non-current assets		
Property, plant and equipment (Note 2)		15,917
Intangible assets (Note 2)		147,367
Other		3,193
Total non-current assets		166,477
Total assets		230,488
Current liabilities		
Trade and other payables		5,231
Provisions (Note 3)		8,860
Other		25,042
Total current liabilities		39,133
Non-current liabilities		
Liabilities pertaining to retirement benefits		1,001
Deferred tax liabilities (Note 4)		28,230
Other		2,630
Total non-current liabilities		31,861
Total liabilities		70,994
Net assets	B	159,494
Basis adjustments	C	(3,961)
Goodwill (Note 5)	A-B+C	185,900

(Note 1) The total contract amount is same as the fair value, and there are no receivables that are expected to be unrecoverable.

(Note 2) For the breakdown, see “Note 13. Property, Plant and Equipment” and “Note 14. Goodwill and Intangible Assets.”

(Note 3) The major content of the provisions is that of civil suits based on allegations of patent infringement and the unauthorized use of trade secrets, etc. in the United States that were filed by other companies, and 78 million US dollars (8,829 million yen) has been recorded for the portion that can be reasonably estimated based on currently available information as a provision for loss on litigation. For the time of the payment of the provision, see “Note 23. Provisions.”

(Note 4) Deferred tax liabilities that were recognized as a result of the business combination are mainly for temporary differences related to intangible assets such as developed technology and customer-related assets.

(Note 5) Goodwill reflects future excess earning power expected from future business development including Intersil Corporation and synergies between the Company and Intersil Corporation. 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	(349,355)
Cash and cash equivalents held by the acquiree at the time of obtaining control	33,966
Amount of cash paid for the acquisition of subsidiaries	(315,389)
Basis adjustments	(3,961)
Amount of cash paid for the acquisition of subsidiaries (net amount)	(311,428)

e. Profit or loss information from the date of acquisition pertaining to business combination
Financial results from the date of acquisition of Intersil Corporation included in the consolidated statement of profit or loss for the prior fiscal year are as follows.

(In millions of yen)

	The year ended December 31, 2017
Revenue	60,968
Profit for the year	(12,189)

Net profit or loss for the year above includes amortization expenses of intangible assets recognized on the date of obtaining control and the impact of the fair market valuation of inventories, etc.

(Pro forma information)
Pro forma information (unaudited information) on the assumption that the date of the acquisition of Intersil Corporation was at the beginning of the prior fiscal year is as follows.

(In millions of yen)

	The year ended December 31, 2017
Revenue	788,327
Profit for the year	100,296

The pro forma information does not receive audit certification. It is also an approximate estimate of the impact of the acquisition by adding the amount of amortized intangible assets on the assumption that the intangible assets were recognized at the beginning of the prior fiscal year. The pro forma information does not necessarily reflect events that could occur 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 on the transition date, as of December 31, 2017 and December 31, 2018 are the same.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Cash and deposits	354,287	122,959	185,326
Short-term investments	—	16,586	3,494
Total	354,287	139,545	188,820

(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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Notes and trade receivables	80,180	99,155	76,356
Other receivables	4,521	5,187	3,141
Allowance for credit losses	(71)	(80)	(48)
Total	84,630	104,262	79,449

(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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Merchandise and finished goods	34,432	48,522	37,193
Work in progress	55,604	69,658	72,725
Raw materials and supplies	4,991	5,520	5,522
Total	95,027	123,700	115,440

(Note) For write-downs of inventories previously recognized as an expense as a result of declining profitability, 646 million yen and (1,013) million yen (figures in parentheses represent reversals) 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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Prepaid expenses	9,925	11,834	8,122
Consumption tax receivables	5,860	7,292	3,083
Other	1,677	1,855	1,096
Total	17,462	20,981	12,301
Current assets	12,512	14,902	7,069
Non-current assets	4,950	6,079	5,232

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

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Accrued expenses	33,329	39,899	39,788
Accrued paid leave	10,555	10,310	10,710
Advances received	2,311	3,612	1,377
Other	5,762	8,359	5,677
Total	51,957	62,180	57,552
Current liabilities	49,212	59,539	55,384
Non-current liabilities	2,745	2,641	2,168

12. Assets held for sale and liabilities directly related to assets held for sale

Assets held for sale and liabilities directly related to assets held for sale on the transition date consist of property, plant and equipment, etc. for the transfer of Tsuruoka Plant associated with the Company's plan that was implemented to build a stronger revenue structure of the Group. The sale of these assets was completed by the March 31, 2017. The fair value after disposal costs is measured at the expected sales amount and classified as Level 3 in the fair value hierarchy.

There are no assets held for sale and liabilities directly related to assets held for sale as of December 31, 2017 and as of December 31, 2018.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Assets held for sale			
Property, plant and equipment	103	—	—
Total	103	—	—

13. Property, Plant and Equipment

(1) Movement during the fiscal year

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

a. Cost

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balances as of date of transition to IFRS (January 1, 2017)	204,560	603,166	108,007	23,021	16,378	955,132
Acquisitions	58	2,724	4,247	—	101,925	108,954
Acquisition due to business combination	7,016	5,548	2,132	800	421	15,917
Sales or disposal	(2,229)	(23,135)	(9,781)	(425)	(101)	(35,671)
Transfer from construction in progress	2,591	76,003	18,918	—	(97,512)	—
Exchange differences	548	6,200	621	3	133	7,505
Other	47	558	(491)	(1)	670	783
Balances as of December 31, 2017	212,591	671,064	123,653	23,398	21,914	1,052,620
Acquisitions	85	136	3,119	—	48,719	52,059
Sales or disposal	(7,125)	(21,233)	(13,694)	(1,556)	(112)	(43,720)
Transfer from construction in progress	3,402	35,819	13,550	—	(52,771)	—
Exchange differences	(777)	(6,266)	(1,030)	(14)	(134)	(8,221)
Other	147	867	404	(2)	(266)	1,150
Balances as of December 31, 2018	208,323	680,387	126,002	21,826	17,350	1,053,888

b. Accumulated depreciation and impairment losses

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balances as of date of transition to IFRS (January 1, 2017)	(144,487)	(514,012)	(84,381)	(668)	(57)	(743,605)
Depreciation	(5,613)	(36,539)	(16,246)	—	—	(58,398)
Impairment losses	(767)	(228)	(768)	(1,091)	—	(2,854)
Sales or disposal	1,977	22,854	9,630	45	—	34,506
Exchange differences	(336)	(3,531)	(389)	—	—	(4,256)
Other	18	(381)	437	—	—	74
Balances as of December 31, 2017	(149,208)	(531,837)	(91,717)	(1,714)	(57)	(774,533)
Depreciation	(5,530)	(47,069)	(18,276)	—	—	(70,875)
Impairment losses	(955)	(719)	(35)	(726)	—	(2,435)
Sales or disposal	6,352	21,158	13,534	1,001	—	42,045
Exchange differences	404	3,691	646	—	—	4,741
Other	48	20	(396)	—	—	(328)
Balances as of December 31, 2018	(148,889)	(554,756)	(96,244)	(1,439)	(57)	(801,385)

c. Carrying amount

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balances as of date of transition to IFRS (January 1, 2017)	60,073	89,154	23,626	22,353	16,321	211,527
Balances as of December 31, 2017	63,383	139,227	31,936	21,684	21,857	278,087
Balances as of December 31, 2018	59,434	125,631	29,758	20,387	17,293	252,503

(Notes)

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 21. Borrowings.”
3. For commitments to the acquisition of property, plant and equipment, see “Note 40. 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 16. Impairment of Non-financial Assets.”
6. There are no borrowing costs included in the cost of property, plant and equipment.

(2) Leased assets under finance leases

The carrying amounts of leased assets under finance lease arrangements included in the carrying amounts of property, plant and equipment in (1) are as follows.

(In millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Total
Balances as of date of transition to IFRS (January 1, 2017)	6,309	3,320	28	9,657
Balances as of December 31, 2017	30	2,846	13	2,889
Balances as of December 31, 2018	24	2,967	1	2,992

(Note) For other information on finance leases, see “Note 15. Leases.”

14. Goodwill and Intangible Assets

(1) Movement during the fiscal year

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

a. Cost

(In millions of yen)

	Goodwill	Intangible assets					
		Software	Capitalized development costs	Developed technology	Customer relationships	Other	Total
Balances as of date of transition to IFRS (January 1, 2017)	—	64,636	8,393	19,295	10,545	103,295	206,164
Internally developed	—	1,990	2,011	—	—	—	4,001
Acquisitions	—	6,964	—	—	—	33,391	40,355
Acquisition due to business combination	185,900	102	—	124,942	14,408	7,915	147,367
Sales or disposal	—	(1,809)	(1,939)	(39)	—	(51,793)	(55,580)
Exchange differences	4,703	51	—	488	56	224	819
Other	—	6	—	—	—	(1,711)	(1,705)
Balances as of December 31, 2017	190,603	71,940	8,465	144,686	25,009	91,321	341,421
Internally developed	—	2,113	1,319	—	—	—	3,432
Acquisitions	—	2,864	—	—	—	1,980	4,844
Sales or disposal	—	(3,496)	(1,728)	(146)	—	(3,042)	(8,412)
Exchange differences	(3,373)	(105)	—	(2,220)	(256)	(502)	(3,083)
Other	—	62	—	—	—	—	62
Balances as of December 31, 2018	187,230	73,378	8,056	142,320	24,753	89,757	338,264

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 date of transition to IFRS (January 1, 2017)	—	(50,754)	(4,158)	(12,669)	(10,545)	(78,577)	(156,703)
Amortization	—	(4,226)	(1,798)	(13,895)	(852)	(16,986)	(37,757)
Impairment losses	—	(14)	—	—	—	(25)	(39)
Sales or disposal	—	1,742	1,939	39	—	51,684	55,404
Exchange differences	—	(37)	—	(123)	(9)	(117)	(286)
Other	—	—	—	—	—	362	362
Balances as of December 31, 2017	—	(53,289)	(4,017)	(26,648)	(11,406)	(43,659)	(139,019)
Amortization	—	(5,690)	(1,705)	(16,084)	(1,010)	(16,598)	(41,087)
Impairment losses	—	—	—	—	—	(331)	(331)
Sales or disposal	—	3,365	1,728	146	—	2,987	8,226
Exchange differences	—	78	—	145	10	242	475
Other	—	(5)	—	—	—	1	(4)
Balances as of December 31, 2018	—	(55,541)	(3,994)	(42,441)	(12,406)	(57,358)	(171,740)

c. Carrying amount

(In millions of yen)

	Goodwill	Intangible assets					
		Software	Capitalized development costs	Developed technology	Customer relationships	Other	Total
Balances as of date of transition to IFRS (January 1, 2017)	—	13,882	4,235	6,626	—	24,718	49.461
Balances as of December 31, 2017	190,603	18,651	4,448	118,038	13,603	47,662	202,402
Balances as of December 31, 2018	187,230	17,837	4,062	99,879	12,347	32,399	166,524

(Notes) 1. Of software in intangible assets, the carrying amount classified as internally generated assets was 1,216 million yen on the transition date, 695 million yen as of December 31, 2017 and 797 million yen as of December 31, 2018.
2. Construction in progress is included in "Software" under intangible assets.
3. Technical resources acquired through installment transactions 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 to the acquisition of intangible assets, see "Note 40. 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 16. Impairment of Non-financial Assets."

(2) Significant intangible assets

Major intangible assets are developed technology acquired in the business combination with Intersil in February 2017. The carrying amount of developed technology acquired in the business combination was 113,492 million yen as of December 31, 2017 and 97,413 million yen as of December 31, 2018, and the remaining amortization period as of December 31, 2018 is 4 to 11 years.

(3) Intangible assets not yet available to use

The carrying amount of intangible assets not yet available to use is included in "Other" and was 4,294 million yen as of December 31, 2017 and 2,720 million yen as of December 31, 2018, and such assets are research and development under work-in-process. In addition, for certain research and development under work-in-process, since the development has been completed and the assets have been put to operational use, amortization of these assets has been recognized as of December 31, 2018.

15. Leases

(1) Finance lease transactions

The Group leases buildings and structures, machinery, equipment and vehicles, and tools, furniture and fixtures under finance lease arrangements. Significant lease contracts include those that include a renewal option and a purchase option, but there are no restrictions (restrictions on dividends, additional borrowings and additional leases, etc.) imposed by a sub-lease contract, an escalation clause or a lease contract.

Future minimum lease payments and present value of minimum lease payments based on the finance lease contracts are as follows.

(In millions of yen)

	Minimum lease payments			Present value of minimum lease payments		
	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Within one year	5,431	858	765	5,357	827	739
Between one year and five years	2,086	1,400	1,328	2,020	1,359	1,277
Later than five years	598	446	764	588	440	746
Total lease payments payable	8,115	2,704	2,857	7,965	2,626	2,762
Less: amount representing interest charge	(150)	(78)	(95)			
Finance lease obligations (Present value of minimum lease payments)	7,965	2,626	2,762			

(Note) The balance of lease obligations is included in “Other financial liabilities” in the consolidated statement of financial position.
The weighted average interest rate and maturities of finance lease obligations were 1.3% and 2018 to 2027 in the prior fiscal year and 1.1% and 2019 to 2047 in the current fiscal year.

(2) Operating lease transactions

The Group leases some land, buildings, machinery and equipment with cancellable or non-cancellable operating leases. Some contracts include a renewal option, but there are no restrictions (restrictions on dividends, additional borrowings and additional leases, etc.) imposed by an escalation clause and a lease contract.

Future minimum lease payments based on the non-cancellable operating lease contracts are as follows.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Within one year	3,941	4,395	4,326
Between one year and five years	7,223	7,900	6,150
Later than five years	1,007	1,538	2,316
Total	12,171	13,833	12,792

Lease payments for operating leases (including cancellable operating leases) that were recognized as expenses are as follows.

(In millions of yen)

	As of December 31, 2017	As of December 31, 2018
Minimum lease payments	7,569	7,400

16. Impairment of Non-financial Assets

The Group recorded impairment losses for the assets below. Impairment loss is 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.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Property, plant and equipment	2,854	2,435
Intangible assets	39	331
Other	22	327
Total impairment loss	2,915	3,093

(1) Impairment losses

The Group makes a grouping with a company or a facility as the basic unit, and makes a grouping by each individual asset for significant idle assets and assets to be disposed of.

For the year ended December 31, 2017

(Assets to be disposed of)

The Group has implemented business and production structural reforms to build a stronger revenue structure and performs impairment tests as independent cash-generating units for the assets that have been decided to be transferred and assets to be disposed of that have become unlikely to be used associated with the policy of consolidating the production sites or eliminating and consolidating the operating bases, and writes down the carrying amount of assets such as the Kofu Plant whose market value has declined significantly to their recoverable amount. As a result, the Group has recorded impairment losses of 2,561 million yen. The components of assets by category are “Land” 1,058 million yen, “Buildings and structures” 638 million yen, “Tools, furniture and fixtures” 768 million yen and “Other” 97 million yen.

The recoverable amount is measured at the fair value after deducting disposal costs. The fair value after deducting disposal costs is measured at the expected sales amount, and the hierarchy level of the fair value is 3.

(Idle assets)

The Group has performed impairment tests as independent cash-generating units, written down the carrying amount of idle assets that are unlikely to be used to their recoverable amount, and recorded impairment losses of 354 million yen. The components of assets by category are “Buildings and structures” 129 million yen, “Machinery and equipment” 170 million yen and “Other” 55 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, 2018

(Assets to be disposed of)

The Group is implementing business and production structural reforms to build a stronger revenue structure and performs impairment tests as independent cash-generating units for the assets that have been decided to be transferred and assets to be disposed of that have become unlikely to be used associated with the policy of consolidating the production sites or eliminating and consolidating the operating bases, and writes down the carrying amount of assets such as the Kochi Plant whose market value has declined significantly to their recoverable amount. As a result, the Group has recorded impairment losses of 1,744 million yen. The components of assets by category are “Buildings and structures” 880 million yen, “Land” 585 million yen, “Long-term prepaid expenses” 278 million yen and “Other” 1 million yen.

The recoverable amount is measured at the fair value after deducting disposal costs. The fair value after deducting disposal costs is measured at the expected sales amount, and the hierarchy level of the fair value is 3.

(Idle assets)

The Group has performed impairment tests as independent cash-generating units, written down the carrying amount of idle assets that are unlikely to be used to their recoverable amount, and recorded impairment losses of 1,018 million yen. The components of assets by category are “Machinery and equipment” 719 million yen, “Land” 151 million yen and “Other” 148 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.

(Operational assets)

The Group has performed impairment tests as independent cash-generating units, written down the carrying amount of idle assets that are unlikely to be used to their recoverable amount, and recorded impairment losses of 331 million yen. The component of assets by category is “Intangible assets” 331 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 to use

a. Impairment test of goodwill

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

In addition, the amount of goodwill arising from the acquisition with Intersil is recognized in the statement of financial position for the year ended December 31, 2017 and allocated to the cash-generating units to which the future benefits through the synergies resulting from the business combination are expected to be generated.

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

(In millions of yen)

	Business segments	Group of cash-generating units	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Goodwill	Semiconductor business	Semiconductor business	—	190,603	187,230
Research and development under work-in-process	Semiconductor business	Semiconductor business	—	4,294	2,720

The recoverable amount of the cash-generating units or the group of cash-generating units is measured at the value in use. The value in use, in principle, is calculated by discounting the estimated amount of cash flows based on a business plan and a growth rate in the following 4 years are approved by the management, reflecting past experiences and external information, to the present value. The discount rates are the weighted average capital cost before tax. The discount rates used for the calculation of the value in use are 10.2% in the prior fiscal year and 11.5% in the current fiscal year.

In the estimation of cash flows, for cash flows in a period beyond the projected period that is approved by the management, the value in use is calculated with the growth rate as 3.0% in the prior fiscal year and 2.0% in 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 or the group of cash-generating units belong.

Because the recoverable amount of the group 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 or the group of cash-generating units will fall below the carrying amount even if the major assumptions used in the impairment test are changed in a reasonable range.

In addition, the major assumptions (Inflation rate/ Discount rate before tax) in a reasonable range used in the impairment test are as follows.

Major assumptions	The year ended December 31, 2017	The year ended December 31, 2018
Inflation rate	2.5~3.5%	1.5~2.5%
Discount rate before tax	9.2~11.2%	10.5~12.5%

b. Impairment test of intangible assets not yet available to use

For certain research and development under work-in-process 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 recognizes impairment losses in case the value in use of the cash-generating units fall below the carrying amount based on the result of the impairment test conducted during the fiscal year.

17. Investments accounted for using the equity method

(1) Major associates

The major associate of the Group to which the equity method is applied is as follows.

Because the closing date of the above entity accounted for using the equity method is different from that of the consolidated financial statements, its financial statements prepared with a provisional closing date, which is same as that of consolidated financial statements, are used.

Name	Country	Ownership interest (%)		
		Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
RENESAS EASTON Co., Ltd.	Japan	16.69	15.00	5.54

(Note) For the current fiscal year, following the partial transfer of the Group's shares, the Group has discontinued the application of equity method

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(In millions of yen)

	Date of transition to IFRS (January 1, 2017)		As of December 31, 2017		As of December 31, 2018
Carrying amount of investments accounted for using the equity method	3,583		3,634		—

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Profit for the year	216	49
Other comprehensive income	59	(26)
Total comprehensive income for the year	275	23

For the prior fiscal year and as of the date of transition to IFRS, while the percentage of voting rights held by the Company in RENESAS EASTON Co., Ltd. is less than 20%, the Company has significant influence over RENESAS EASTON Co., Ltd. through an exclusive dealer contract and therefore discloses it as an associate to which the equity method is applied.

18. Other Financial Assets

(1) Components of other financial assets

The components of other financial assets are as follows.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Derivative assets (Note 1)	3,439	—	—
Stocks (Note 2)	2,933	5,028	3,262
Long-term accounts receivable (Other) (Note 3)	423	1,873	1,776
Other (Note 4)	1,233	1,532	1,429
Total	8,028	8,433	6,467
Current assets	3,721	1,782	494
Non-current assets	4,307	6,651	5,973

(Notes) 1. Derivative assets are classified as financial assets measured at fair value through profit or loss, except for those to which hedge accounting is applied (see “Note 37. Financial Instruments”).
2. Stocks are classified as equity instruments measured at fair value through other comprehensive income.
3. “Long-term accounts receivable (Other)” are classified as financial assets measured at amortized cost.
4. Term deposits with a deposit term of more than three months and security deposits 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

The Group mainly designates stocks that are expected to be held over the long term, etc. that are for investment by an incentive plan for directors and some employees of subsidiaries as equity instruments measured at fair value through other comprehensive income.

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

(In millions of yen)

Company name	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Shanghai Walden Venture Capital Enterprise	—	1,363	1,155

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

The fair value and cumulative gains or 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, 2017	As of December 31, 2018
Fair value	971	3,176
Cumulative gains or losses	418	84

(Notes) 1. For the purpose of investment by the incentive plan for directors and some employees of subsidiaries, the Group disposed of part of the equity instruments measured at fair value through other comprehensive income by selling them, and derecognized them in the prior fiscal year and the current fiscal year.
2. If equity instruments measured at fair value through other comprehensive income are derecognized, cumulative gains or losses (after tax) previously recognized in other comprehensive income are reclassified to retained earnings. The corresponding gain (loss) was (269) million yen in the prior fiscal year and (169) million yen in the current fiscal year.
3. For dividend income received from equity instruments measured at fair value through other comprehensive income, see “Note 30. Finance Income and Finance Costs.”

19. 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. As for income tax expense related to discontinued operations, see “Note 31. Discontinued Operations.”

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	Recognized in profit or loss	Recognized in other comprehensive income	Business combination	Other	As of December 31, 2017
Deferred tax assets						
Inventories	5,816	1,761	—	808	—	8,385
Fixed assets	5,341	2,322	—	2	—	7,665
Research and development expense	656	1,442	—	—	—	2,098
Accrued expenses	7,698	1,786	—	232	—	9,716
Retirement benefits liabilities	8,829	(1,183)	(685)	123	—	7,084
Carryforward of unused tax losses	31,476	540	—	5,438	—	37,454
Carryforward of unused tax credits	—	2,482	—	1,355	—	3,837
Other	6,158	(1,055)	—	3,568	—	8,671
Subtotal	65,974	8,095	(685)	11,526	—	84,910
Deferred tax liabilities						
Fixed assets	(8,533)	10,326	—	(39,586)	—	(37,793)
Tax on undistributed earnings	(4,073)	(422)	—	—	—	(4,495)
Deferred gains and losses on hedges	(3,977)	—	664	—	3,313	—
Total income from specified foreign subsidiaries, etc.	—	(3,448)	—	—	—	(3,448)
Other	(2,740)	98	(10)	(4)	—	(2,656)
Subtotal	(19,323)	6,554	654	(39,590)	3,313	(48,392)
Net deferred tax assets (liabilities)	46,651	14,649	(31)	(28,064)	3,313	36,518

(In millions of yen)

	As of December 31, 2017	Recognized in profit or loss	Recognized in other comprehensive income	Business combination	Other	As of December 31, 2018
Deferred tax assets						
Inventories	8,385	(1,561)	—	—	—	6,824
Fixed assets	7,665	(2,255)	—	—	—	5,410
Research and development expense	2,098	(454)	—	—	—	1,644
Accrued expenses	9,716	1,076	—	—	—	10,792
Retirement benefits liabilities	7,084	(2,550)	1,824	—	—	6,358
Carryforward of unused tax losses	37,454	(5,944)	—	—	—	31,510
Carryforward of unused tax credits	3,837	(960)	—	—	—	2,877
Other	8,671	(863)	—	—	—	7,808
Subtotal	84,910	(13,511)	1,824	—	—	73,223
Deferred tax liabilities						
Fixed assets	(37,793)	1,470				(36,323)
Tax on undistributed earnings	(4,495)	(980)	—	—	—	(5,475)
Total income from specified foreign subsidiaries, etc.	(3,448)	(802)	—	—	—	(4,250)
Other	(2,656)	856	20	—	—	(1,780)
Subtotal	(48,392)	544	20	—	—	(47,828)
Net deferred tax assets (liabilities)	36,518	(12,967)	1,844	—	—	25,395

(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.
The difference between deferred tax expense and the total amount recognized in net assets was due to exchange fluctuation, etc.

(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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Deductible temporary differences	18,221	9,923	16,325
Carryforward of unused tax losses	745,761	570,876	396,006
Carryforward of unused tax credits	8,442	10,722	9,934
Total	772,424	591,521	422,265

(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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
First year	157,610	177,210	81,195
Second year	166,431	66,439	127,638
Third year	66,484	122,899	178,811
Fourth year	126,171	176,424	—
Fifth year or thereafter	229,065	27,904	8,362
Total	745,761	570,876	396,006

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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
First year	427	390	1,191
Second year	168	1,642	206
Third year	232	—	—
Fourth year	979	—	—
Fifth year or thereafter	6,636	8,690	8,537
Total	8,442	10,722	9,934

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 11,070 million yen for residential tax and 623,120 million yen for business tax in the prior fiscal year (as of December 31, 2017) and 13,361 million yen for residential tax and 457,982 million yen for business tax in the current fiscal year (as of December 31, 2018).

(3) Components of income tax

The components of income tax are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Current tax expense		
Current tax expense	16,137	8,776
Tax expense from previous periods	(93)	(5,199)
Total current tax expense	16,044	3,577
Deferred tax expense		
Origination and reversal of temporary differences	55,064	56,795
Effects from tax regulation changes	(6,374)	(36)
Revaluation of deferred tax assets	(60,836)	(45,415)
Other	(2,352)	1,743
Total deferred tax expense	(14,498)	13,087
Total income tax	1,546	16,664
Continued operations	1,256	16,664
Discontinued operations	290	—

(Notes) 1. Current tax expense includes the amount of previously unrecognized tax loss, tax credits or temporary differences of a prior period, and decreases by 28,970 million yen and 10,859 million yen in the prior fiscal year and the current fiscal year, respectively.

2. Current deferred tax expense includes the amount of previously unrecognized tax loss, tax credits or temporary differences of a prior period, and decreases by 10,661 million yen in the prior fiscal year.

3. Current deferred tax expense includes the amount of devaluation of deferred tax assets or current deferred tax expense arises from reversal of devaluation and increases by 4,336 million yen in the current fiscal year.

(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, 2017	The year ended December 31, 2018
Statutory effective tax rate (Note)	30.9	30.9
Changes in unrecognized deferred tax assets	(26.3)	(2.2)
Permanent differences	0.1	(2.2)
Foreign tax rate differences	1.4	(3.9)
Tax credits	(4.9)	(5.0)
Tax on undistributed earnings	0.4	1.5
Effects from tax regulation changes	1.5	2.3
Other	(1.6)	3.2
Average effective tax rate	1.5	24.6

(Note) The applicable statutory effective tax rate is the sum of 23.6% for national taxes and 7.3% for local taxes.

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 was 30.9% in the prior fiscal year and 30.9% in the current fiscal year. Income tax, etc. rates applicable to overseas subsidiaries are calculated based on local tax rates in their location.

On December 22, 2017, the Tax Cuts and Jobs Act (hereafter the “U.S. tax reform”) was enacted in the United States. Due to the U.S. tax reform, the corporate tax rate in the United States applicable to the Group’s United States businesses was lowered from 35% to 21% effective for tax years beginning January 1, 2018 and it imposed a one-time transition tax on the mandatory deemed repatriation of accumulated non-U.S. earnings of the Group’s U.S. subsidiary.

For the accounting of the U.S. tax reform, the Group recorded a provisional amount based on its best estimate in the fiscal year ended December 31, 2017. Due to the impact of the U.S. tax reform, an income tax expense increased by 1,596 million yen in the fiscal year ended December 31, 2017.

For the fiscal year ended December 31, 2018, the Group has finalized the acquisition and analysis of additional information related to the U.S. tax reform and the impact amount has been established, As a result, income tax expense decreased by 3,865 million yen and deferred tax expense increased by 2,357 million yen.

In addition, from the current period, the new Global Intangible Low-Taxed Income (GILTI) tax has been applied, which increased income tax expense by 1,525 million yen for the current period.

20. Trade and Other Payables

The components of trade and other payables are as follows.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Trade payables	74,750	78,496	59,579
Other payables	50,798	66,739	41,682
Electronically recorded obligations	17,529	24,311	16,323
Refund liabilities	—	4,203	3,052
Total	143,077	173,749	120,636
Current liabilities	136,109	156,783	116,233
Non-current liabilities	6,968	16,966	4,403

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

21. Borrowings

(1) The components of borrowings are as follows.

a. Short-term borrowings

(In millions of yen)

	Average interest rate	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Syndicated loan C	0.82%	—	35,000	45,000

b. Long-term borrowings

	Maturity	Average interest rate	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Syndicated loan A	From Feb.2017 to Feb.2022		—	42,500	—
Syndicated loan B	From Sep.2016 to Sep.2021	0.82%	149,678	148,896	147,742
Other	From Apr.2014 to Apr.2018		2,890	2,875	—
Total			152,568	194,271	147,742
Arrangement fee			(863)	(812)	(494)
Current liabilities			—	(12,875)	—
Non-current liabilities			151,705	180,584	147,248

(Notes) 1. Borrowings are classified as financial liabilities measured at amortized cost.
2. For the balance of borrowings by maturity, see "Note 37. 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. The Company repaid a loan as part of existing agreements and newly concluded a 150,000 million yen long-term loan (five-year loan term) and a 50,000 million yen commitment line agreement with its main financing banks to fund long-term operations on September 28, 2016, and the Company and its banks also implemented a long-term loan (Syndicated loan B) as part of this agreement on September 30, 2016. The Company also implemented a loan as part of the commitment line (Syndicated loan C) in the first quarter of 2017. Accordingly, certain assets were provided as collateral. In addition, the Company concluded a 50,000 million yen long-term loan agreement on October 5, 2016, with its main financing banks to accelerate the realization of the Group's growth strategy. The Company also implemented a long-term loan (Syndicated loan A) as part of this agreement in the first quarter of 2017, however, the Company conducted early repayment of the above long-term loan in the fourth quarter of 2018.

(2) 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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Buildings, and structures	46,128	43,309	40,587
Machinery, equipment and vehicles	54,151	73,008	68,323
Land	22,226	17,929	16,845
Total	122,505	134,246	125,755

b. Liabilities corresponding to assets pledged as collateral

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Short-term borrowings	—	35,000	45,000
Current portion of long-term borrowings	—	2,875	—
Lease obligations (current)	4,344	—	—
Long-term borrowings (excluding current portion)	151,705	148,084	147,248
Total	156,049	185,959	192,248

22. Other Financial Liabilities

The components of other financial liabilities are as follows.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Derivative liabilities (Note 1)	—	—	14,318
Lease obligations (Note 2)	7,965	2,626	2,762
Other	300	300	300
Total	8,265	2,926	17,380
Current liabilities	5,357	827	15,057
Non-current liabilities	2,908	2,099	2,323

(Notes) 1. Derivative liabilities are classified as financial liabilities measured at fair value through profit or loss, except for those for which hedge accounting is applicable (see “Note 37. Financial Instruments”).

2. Lease obligations are classified as financial liabilities measured at amortized cost. For information on lease obligations, see “Note 15. Leases.”

23. Provisions

The components of provisions and their changes are as follows.

(In millions of yen)

	Asset retirement obligations	Provision for business structure improvement	Provision for product warranties	Provision for loss on litigation	Other	Total
Balances as of date of transition to IFRS (January 1, 2017)	2,933	1,894	287	220	708	6,042
Current liabilities	22	1,805	287	220	708	3,042
Non-current liabilities	2,911	89	—	—	—	3,000
Increase during the period	63	963	101	516	9	1,652
Decrease during the period (utilization)	(152)	(1,431)	(282)	(453)	(715)	(3,033)
Decrease during the period (reversal)	(53)	(435)	—	(14)	—	(502)
Period interest expense in discount calculation	30	—	—	—	—	30
Increase due to business combination	—	3	66	8,791	—	8,860
Other	22	115	—	36	—	173
Balances as of December 31, 2017	2,843	1,109	172	9,096	2	13,222
Current liabilities	56	899	172	9,096	2	10,225
Non-current liabilities	2,787	210	—	—	—	2,997
Increase during the period	226	2,415	420	4,036	3	7,100
Decrease during the period (utilization)	(45)	(2,220)	(360)	(127)	(2)	(2,754)
Decrease during the period (reversal)	—	(22)	(25)	(6,437)	—	(6,484)
Period interest expense in discount calculation	16	—	—	—	—	16
Other	(40)	(44)	(1)	(158)	—	(243)
Balances as of December 31, 2018	3,000	1,238	206	6,410	3	10,857
Current liabilities	43	1,050	206	5,810	3	7,112
Non-current liabilities	2,957	188	—	600	—	3,745

a. Asset retirement obligations

The amount expected arising from 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 fixed assets is recorded as a provision. The amount of asset retirement obligations was computed using an estimated useful life of 3 to 47 years as well as a discount rate of 0.1% to 0.5%, although the timing of payments will be affected by future business plans, etc.

b. Provision for business structure improvement

Provision for business structure improvement is established in preparation for expected future losses in connection with business structure reform and consolidation, and estimated losses are recorded. The timing of payments will be affected by future business plans, etc.

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, examining individual risks, in preparation for losses on litigation, etc. that could arise in the future from lawsuits and disputed cases. (Refer to “Note 40. Commitments and Contingencies (4) Others” considering the policy for extended disclosure for Contingencies)

24. Employee Benefits

The Group has post-employment benefit plans including 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 premium severance pay 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, 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 is paid.

(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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Present value of obligations of the funded defined benefit plans (with plan assets)	138,105	134,764	132,173
Fair value of plan assets	(132,045)	(145,125)	(142,218)
Funded status	6,060	(10,361)	(10,045)
Impact of asset ceiling	2,349	11,553	10,724
Present value of obligations of the unfunded defined benefit plans (without plan assets)	32,229	33,097	32,073
Net amount of liabilities (assets) pertaining to defined benefits recognized in the consolidated statement of financial position	40,638	34,289	32,752
Liabilities pertaining to retirement benefits	40,638	34,289	32,752
Assets pertaining to retirement benefits	—	—	—

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, 2017	The year ended December 31, 2018
Present value of defined benefit obligation (beginning)	170,334	167,861
Service cost	2,933	3,009
Interest expense	1,127	1,124
Benefits paid	(5,670)	(6,674)
Remeasurements of defined benefit plans		
(i) Actuarial differences arising from changes in demographic assumptions	(173)	551
(ii) Actuarial differences arising from changes in financial assumptions	(3,412)	(908)
(iii) Revisions to other results	283	383
Impact of business combinations and disposals	1,001	—
Exchange differences	1,639	(1,766)
Other	(201)	666
Present value of defined benefit obligation (ending)	167,861	164,246

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

	The year ended December 31, 2017	The year ended December 31, 2018
Weighted average duration	12.6 years	12.4 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, 2017	The year ended December 31, 2018
Fair value of plan assets (beginning)	132,045	145,125
Interest income	947	1,009
Remeasurement – Return on plan assets	7,605	(6,528)
Contributions by employer (Note 1)	8,191	8,867
Benefits paid	(4,805)	(5,194)
Exchange differences	1,183	(1,582)
Other	(41)	521
Fair value of plan assets (ending)	145,125	142,218

(Notes) 1. Contributions to the defined benefit plans in the Group are made in consideration of factors such as the financial position of the company, the funding situation of plan assets and actuarial factors based on laws and regulations.
In the fiscal year ending December 31, 2019, 8,233 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, 2017	The year ended December 31, 2018
Impact of asset ceiling (beginning)	(2,349)	(11,553)
Interest income	(61)	(113)
Remeasurement – Return on plan assets		
Changes in the impact of the asset ceiling	(8,962)	691
Exchange differences	(181)	287
Other	—	(36)
Impact of the asset ceiling (ending)	(11,553)	(10,724)

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)

	Date of transition to IFRS (January 1, 2017)			As of December 31, 2017			As of December 31, 2018		
	Quoted prices in active market			Quoted prices in active market			Quoted prices in active market		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Equity instruments									
Domestic equity securities	15,233	—	15,233	17,829	—	17,829	14,808	—	14,808
Foreign equity securities	20,069	—	20,069	20,124	—	20,124	17,341	—	17,341
Debt instruments									
Domestic bonds	16,592	—	16,592	12,589	—	12,589	12,647	—	12,647
Foreign bonds	34,121	—	34,121	34,822	—	34,822	35,127	—	35,127
General accounts of life insurance company	—	20,398	20,398	—	20,689	20,689	—	25,659	25,659
Cash and cash equivalents	14,510	—	14,510	19,002	—	19,002	15,342	—	15,342
Other	3,772	7,350	11,122	9,538	10,532	20,070	10,400	10,894	21,294
Total	104,297	27,748	132,045	113,904	31,221	145,125	105,665	36,553	142,218

(Note) The major components of “Other” represent alternative instruments that are invested using long/short positions and securitized products, etc.

g. Major actuarial assumptions

Major actuarial assumptions (weighted average) are as follows.

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Discount rate	0.7%	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, 2017	As of December 31, 2018
Discount rate	0.5% increase	(10,144)	(9,765)
	0.5% decrease	8,776	8,676

(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, 2017	The year ended December 31, 2018
Contributions	10,921	10,390

(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 benefits expense

The components of the employee benefits expense are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Personnel expenses	149,312	153,765
Retirement benefit expenses	14,095	13,627
Expenses for extra retirement benefits	422	1,598
Other	1,774	2,049
Total	165,603	171,039

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

25. Equity and Other Equity Items

(1) Issued capital and treasury shares

Ordinary shares

	Total number of authorized shares (shares)	Total number of issued shares (shares)	Treasury shares (shares)
Date of transition to IFRS (January 1, 2017)	3,400,000,000	1,667,124,490	2,581
Changes (Note 2)	—	70,000	—
As of December 31, 2017	3,400,000,000	1,667,194,490	2,581
Changes (Note 2)	—	1,190,900	—
As of December 31, 2018	3,400,000,000	1,668,385,390	2,581

(Notes) 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 36. Share-based Payments”.
3. Total number of issued shares has been already paid-up.

(2) Reserves

a. Share premium

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 issued capital, and the remainder shall be accounted for as capital reserve included in share premium. Under the Companies Act, the amount of such capital reserve may be transferred to issued 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 issued 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.

26. Revenue

(1). Disaggregation of revenue

Disaggregation of revenue recognized from contracts with customers are stated in "Note 6. Business segments, (2) Information on products and services and (3) 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, i.e., 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, etc., the transaction price is estimated and determined using the most-likely-amount method based largely on historical data, considering variable prices to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

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

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Contract assets	—	—	—
Contract liability	—	1,432	788

(Notes) 1. The contract liability relates 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. Contract liabilities are classified as "Other current liabilities" in the statement of financial position.

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, there was no amount included in the balance of contract liabilities as of January 1, 2017. In addition, of the revenues recognized in the current fiscal year, 681 million yen was included in the balance of contract liabilities as of January 1, 2018.

(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.

27. 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, 2017	The year ended December 31, 2018
Research and development expenses	127,522	126,535
Personnel expenses	41,859	43,511
Depreciation	24,561	26,345
Retirement benefit expenses	3,386	3,209
Other	60,817	51,421
Total	258,145	251,021

28. Other Income

The components of other income are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Reversal of provision for contingent loss (Note 1)	7	6,385
Gain on sales of property, plant and equipment	604	1,070
Insurance income (Note 2)	10,535	542
Other	1,193	956
Total	12,339	8,953

(Notes) 1. A partial amount of provision on contingent loss has been reversed for the year ended December 31, 2018, mainly regarding the civil lawsuit in the United States related to the alleged patent infringement and trade secret violation etc. in which the Company's subsidiary has been named as a defendant, after reviewing the estimated amount following the revocation of compensation based on the judgement of the Court of First Instance in addition to reasons stated at the Appellate Court, which was conducted following the retrial order at the Court of First Instance.

2. Due to the receipt of the insurance related to the 2016 Kumamoto Earthquake etc. for the year ended December 31, 2017 and the year ended December 31, 2018.

29. Other Expenses

The components of other expenses are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Compensation expenses (Note 1)	—	7,652
Business structure improvement expenses (Note 2)	2,812	5,655
Provision for loss on litigation (Note 3)	480	3,956
Impairment losses	1,218	1,526
Loss on change of equity (Note 4)	—	1,273
Other	1,948	2,111
Total	6,458	22,173

(Notes) 1. Compensation expenses for the current fiscal year were temporary payments due to manufacturing contract revision between the Group and contract manufacturers

2. The Group has reformed businesses and structures of production to strengthen its financial basis, and those related expenses are shown as business structure improvement expenses. The main items of business structure improvement expenses of the prior fiscal year and the current fiscal year were impairment losses and equipment removal expenses of property, plant and equipment associated with consolidating the operating bases.

3. Provision was provided for compensation or litigation proceedings, etc.

4. Following the partial transfer of the Group's shares of RENESAS EASTON Co., Ltd. on August 1, 2018, the Group's portion of shares in RENESAS EASTON has declined and the Group has excluded RENESAS EASTON Co., Ltd. from the scope of application of the equity method. Loss from this transfer of shares as well as loss or profit arises from fair value revaluation of the remaining shares when the application of equity method is stopped are recognized for the current fiscal year.

30. Finance Income and Finance Costs

The components of finance income and costs are as follows.

(1) Finance income

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Interest income		
Financial assets measured at amortized cost	519	1,391
Dividends received		
Financial assets measured at fair value through other comprehensive income	105	91
Foreign exchange gains	—	127
Other	87	—
Total	711	1,609

The components of dividends received from equity instruments measured at fair value through other comprehensive Income are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Financial assets derecognized during the period	105	91
Financial assets held as of the closing date	—	—
Total	105	91

(2) Finance costs

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Interest expense		
Financial liabilities measured at amortized cost	2,205	2,131
Foreign exchange losses (Note)	1,070	—
Total	3,275	2,131

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

31. Discontinued Operations

(1) Overview of discontinued operations

On January 31, 2017, Renesas Semiconductor Package & Test Solutions Co., Ltd., a consolidated subsidiary of the Company, entered into a contract with Hitachi Maxell (Now, Maxell Holdings, Ltd.), Ltd. to transfer the commissioned development and manufacture of various industrial control boards, including those for semiconductor manufacturing equipment, and the development, manufacture and sales businesses of image recognition systems. For this reason, profit or loss corresponding to these businesses is classified as discontinued operations. The transfer has been completed on May 1, 2017.

(2) Profit or loss

Profit or loss from discontinued operations is as follows.

(In millions of yen)

Discontinued operations	The year ended December 31, 2017	The year ended December 31, 2018
Revenue	2,068	—
Expenses	(1,770)	—
Profit before tax from discontinued operations	298	—
Income tax expense	(21)	—
Profit after tax from discontinued operations	277	—
Gain on transfer of discontinued operations	3,847	—
Income tax expense due to gain on transfer of these businesses	(269)	—
Profit for the year	3,855	—

(3) Cash flows

Cash flows from discontinued operations are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
Cash flows from operating activities	909	—
Cash flows from investing activities (Note)	4,935	—
Cash flows from financing activities	(5)	—
Total	5,839	—

(Note) 4,940 million yen of consideration transferred these businesses is included in the prior fiscal year.

32. 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, 2017	The year ended December 31, 2018
Items that will not be reclassified to profit or loss:		
Remeasurements of defined benefit plans		
Amount incurred during the period	1,957	(5,883)
Tax effect	(685)	1,824
After tax effect	1,272	(4,059)
Financial assets measured at fair value through other comprehensive income		
Amount incurred during the period	288	(64)
Tax effect	(10)	10
After tax effect	278	(54)
Share of other comprehensive income of investments accounted for using the equity method		
Amount incurred during the period	59	(26)
Tax effect	—	—
After tax effect	59	(26)
Total of items that will not be reclassified to profit or loss	1,609	(4,139)
Items that may be reclassified subsequently to profit or loss:		
Exchange differences on translation of foreign operations		
Amount incurred during the period	11,370	(14,401)
Reclassification	—	—
Before tax effect	11,370	(14,401)
Tax effect	—	—
After tax effect	11,370	(14,401)
Cash flow hedges		
Amount incurred during the period	(9,029)	(14,318)
Before tax effect	(9,029)	(14,318)
Tax effect	2,764	—
After tax effect	(6,265)	(14,318)
Total of items that may be reclassified subsequently to profit or loss	5,105	(28,719)
Total other comprehensive income	6,714	(32,858)

33. Earnings Per Share

Basic earnings per share attributable to owners of the parent and diluted earnings per share are as follows.

(1) Basic earnings per share

	The year ended December 31, 2017	The year ended December 31, 2018
Profit for the year attributable to owners of the parent used for the calculation of basic earnings per share (million yen)	102,025	50,989
Profit from continuing operations (million yen)	98,170	50,989
Profit from discontinued operations (million yen)	3,855	—
Weighted average number of ordinary shares during the year (thousands of shares)	1,667,168	1,667,717
Basic earnings per share (yen)	61.20	30.57
Continuing operations (yen)	58.88	30.57
Discontinued operations (yen)	2.31	—

(2) Diluted earnings per share

	The year ended December 31, 2017	The year ended December 31, 2018
Profit for the year attributable to owners of the parent used for the calculation of basic earnings per share (million yen)	102,025	50,989
Adjustments on earnings (million yen)	—	—
Profit for the year used for the calculation of diluted earnings per share (million yen)	102,025	50,989
Profit from continuing operations (million yen)	98,170	50,989
Profit from discontinued operations (million yen)	3,855	—
Weighted average number of ordinary shares during the year before dilution (thousands of shares)	1,667,168	1,667,717
Increase in ordinary shares due to warrants (thousands of shares)	1,615	4,043
Weighted average number of ordinary shares during the year after dilution (thousands of shares)	1,668,783	1,671,759
Diluted earnings per share (yen)	61.14	30.50
Continuing operations (yen)	58.83	30.50
Discontinued operations (yen)	2.31	—

34. 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, 2017)

(In millions of yen)

	As of January 1, 2017	Cash flows	Non-cash transactions			As of December 31, 2017
			Acquisition	Exchange differences	Other (Note 2)	
Borrowings (non-current) (Note 1)	151,705	41,703	—	—	51	193,459
Borrowings (current)	—	35,000	—	—	—	35,000
Lease obligations	7,965	(1,617)	413	—	(4,135)	2,626
Total	159,670	75,086	413	—	(4,084)	231,085

(Notes) 1. Current portion of long-term borrowings are included in borrowings (non-current).
2. Mainly due to amortization of borrowing fees and decreases in finance leases by expiration of lease contract.

(For the year ended December 31, 2018)

(In millions of yen)

	As of January 1, 2018	Cash flows	Non-cash transactions			As of December 31, 2018
			Acquisition	Exchange differences	Other	
Borrowings (non-current) (Note 1)	193,459	(46,529)	—	—	318	147,248
Borrowings (current)	35,000	10,000	—	—	—	45,000
Lease obligations	2,626	(916)	1,052	—	—	2,762
Total	231,085	(37,445)	1,052	—	318	195,010

(Note) 1. Current portion of long-term borrowings are included in borrowings (non-current).

(2) Components of assets and liabilities of a company that became a subsidiary due to acquisition of stock

(As of December 31, 2017)

For information regarding Intersil, which became a subsidiary due to acquisition of stock, in addition to the components of assets and liabilities on the consolidation commencement date, the fair value or stock as well as the amount of consideration paid for the acquisition, see “Note 7. Business combination b. Consideration for the acquisition and its breakdown”.

(3) Main components of the assets and liabilities associated with transfer of businesses as the consideration for cash and cash equivalents

(As of December 31, 2017)

The components of the assets and liabilities associated with transfer of the commissioned development and manufacture of various industrial control boards, including those for semiconductor manufacturing equipment, and the development, manufacture and sales businesses of image recognition systems in Renesas Semiconductor Package & Test Solutions Co., Ltd., a consolidated subsidiary of the Company, and the proceeds from transfer of businesses are as follows.

(In millions of yen)

Current assets	596
Non-current assets	516
Current liabilities	(14)
Non-current liabilities	(5)
Gain on transfer of businesses	3,847
Consideration for transferred businesses	4,940
Proceeds from transfer of businesses	4,940

35. Non-cash Transactions

Significant non-cash transactions are as follows.

(In millions of yen)

Type	The year ended December 31, 2017	The year ended December 31, 2018
Intangible assets of installment purchase contracts	30,197	399

36. 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	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 4, 2020	From April 4, 2017 to April 3, 2027

	Employees of subsidiaries 59					
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 Company 10 Employees of the Company 95 Directors of subsidiaries 13 Employees of subsidiaries 47	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 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 2, 2018 to April 3, 2021	From April 3, 2018 to April 2, 2028
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

(Notes)

1. Working until when the stock is vested after the grant date is vesting conditions. However, this does not apply to certain cases such as mandatory retirement, resignation due to the term limits for officers or the other justifiable reasons.
2. Grantees cannot execute those options during the time from the day after the grant date until the option is vested. Also, the option will be forfeited if the grantee retires or resigns from the Company or subsidiary before the vesting date. However, if permitted under the Stock Acquisition Rights Allocation Agreement, those options may be exercised. For example, if retirement or resignation due to the term limits for officers permitted under Stock Acquisition Rights Allocation Agreement, the said person may execute the said stock options starting on the day following said loss of eligibility until 13 months after.
3. If grantees forfeit their stock 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, 2017		The year ended December 31, 2018	
	Number of options (shares)	Weighted average exercise price (yen)	Number of options (shares)	Weighted average exercise price (yen)
Beginning balance of unexercised options	274,600	1	6,037,300	1
Granted	5,936,600	1	6,489,000	1
Exercised	70,000	1	1,190,900	1
Forfeited	103,900	1	468,900	1
Expired	—	—	12,100	1
Ending balance of unexercised options	6,037,300	1	10,854,400	1
Ending balance of exercisable options	85,700	1	428,800	1

(Notes) 1. For the stock options exercised during the period, the weight average share price as of the exercise date was 1,190 yen for the fiscal year ended December 31, 2017 and 887 yen for the fiscal year ended December 31, 2018.

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, 2017 and the fiscal year ended December 31, 2018 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 2017	1,167 446 (Note 5)	1,168	1	55.000%	5 years	No dividend	(0.103%)
May 2017	1,121	1,122	1	53.149%	5 years	No dividend	(0.112%)
July 2017	999	1,000	1	49.042%	5 years	No dividend	(0.045%)
September 2017	1,239	1,240	1	48.836%	5 years	No dividend	(0.103%)
October 2017	1,235	1,236	1	48.179%	5 years	No dividend	(0.090%)
January 2018	1,320	1,321	1	48.191%	5 years	No dividend	(0.081%)
April 2018	1,092 425 (Note 5)	1,093	1	47.500%	5 years	No dividend	(0.106%)
July 2018	995	996	1	39.782%	5 years	No dividend	(0.100%)
October 2018	597	598	1	39.794%	5 years	No dividend	(0.087%)

(Notes) 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 248 million yen in “Cost of sales” and 2,083 million yen in “Selling, general and administrative expenses” in the previous fiscal year, and 461 million yen in “Cost of sales” and 3,830 million yen in “Selling, general and administrative expenses” in the current fiscal year.

37. 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 debt obtained by deducting cash and cash equivalents from interest-bearing debt and equity. Their balances and the major indicators that the Group uses for its capital management are as follows.

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Interest-bearing debt	159,670	231,085	195,010
Less: Cash and cash equivalents	(354,287)	(139,545)	(188,820)
Net interest-bearing debt	(194,617)	91,540	6,190
Equity	467,573	575,733	598,100
Equity ratio (%)	53.5	50.7	56.7

Equity: Total equity attributable to owners of the 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, etc. 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, etc. 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 track record of recognizing a significant credit loss in previous years.

Regarding debt guarantees, the balance of debt guarantees presented in "Note 40. Commitments and Contingencies" is the largest exposure of the Group to credit risk.

(b) Analysis of changes in allowance for credit losses

The changes in the allowance for credit losses are as follows.

(In millions of yen)

	The year ended December 31, 2017				The year ended December 31, 2018			
	Allowance for credit losses for financial instruments other than trade receivables (12-month expected credit losses)	Allowance for credit losses for trade receivables (lifetime expected credit losses)	Allowance for credit losses for financial instruments whose credit risk has increased significantly (lifetime expected credit losses)	Allowance for credit losses for financial instruments whose credit is impaired (lifetime expected credit losses)	Allowance for credit losses for financial instruments other than trade receivables (12-month expected credit losses)	Allowance for credit losses for trade receivables (lifetime expected credit losses)	Allowance for credit losses for financial instruments whose credit risk has increased significantly (lifetime expected credit losses)	Allowance for credit losses for financial instruments whose credit is impaired (lifetime expected credit losses)
Beginning balance	359	71	—	—	—	65	15	—
Increases	—	36	15	—	—	76	—	—
Decreases due to reversal	(341)	(42)	—	—	—	(89)	—	—
Other	(18)	—	—	—	—	(4)	(15)	—
Ending balance	—	65	15	—	—	48	—	—

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

(c) Carrying amount of financial instruments for the allowance for credit losses

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

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Financial instruments other than trade receivables (12-month expected credit losses)	4,880	5,187	3,141
Trade receivables (lifetime expected credit losses)	80,180	99,140	76,356
Financial instruments whose credit risk has increased significantly (lifetime expected credit losses)	—	15	—
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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Before due date	75,714	94,910	71,853
Up to 30 days past due	4,233	4,224	3,996
Over 30 days past due and up to 90 days past due	183	21	504
Over 90 days past due	50	—	3
Total	80,180	99,155	76,356

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 due to the efficient management of working capital and the concentrated 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.

Date of transition to IFRS (January 1, 2017)

(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	143,077	143,077	136,109	2,193	2,714	2,061	—	—
Borrowings	151,705	158,349	1,235	4,103	1,215	1,211	150,585	—
Other	8,265	8,415	5,453	1,158	665	346	194	599
Total	303,047	309,841	142,797	7,454	4,594	3,618	150,779	599

As of December 31, 2017

(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	173,749	173,749	156,783	12,652	4,304	10	—	—
Borrowings	228,459	234,910	49,692	11,458	11,374	159,881	2,505	—
Other	2,926	3,004	858	966	353	200	181	446
Total	405,134	411,663	207,333	25,076	16,031	160,091	2,686	446

As of December 31, 2018

(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	120,636	120,636	116,233	4,388	15	—	—	—
Borrowings	192,248	196,449	46,586	1,213	148,650	—	—	—
Other	3,062	3,157	765	753	304	287	284	764
Derivative liabilities	14,318	14,318	14,318	—	—	—	—	—
Total	330,264	334,560	177,902	6,354	148,969	287	284	764

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 as required.

(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, 2017	The year ended December 31, 2018
US dollar	31,527	114,725
Euro	7,682	15,842

(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, 2017	The year ended December 31, 2018
US dollar	(315)	(1,147)
Euro	(77)	(158)

(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. However, because these shares are designated as financial assets measured at fair value through other comprehensive income, there is no impact of changes in share prices on profit or loss, and the impact on other comprehensive income is also minor. Accordingly, the Group does not conduct a sensitivity analysis for the risk of changes in share prices.

(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 and lease obligations

The fair value of long-term borrowings and lease obligations 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

Forward exchange contracts are calculated based on forward exchange rates and classified as Level 2.

(f) 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.

Date of transition to IFRS (January 1, 2017)

(In millions of yen)

	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
Financial liabilities					
Borrowings	151,705	—	152,039	—	152,039
Other payables	50,798	—	50,698	—	50,698
Lease obligations	7,965	—	8,011	—	8,011
Total	210,468	—	210,748	—	210,748

As of December 31, 2017

(In millions of yen)

	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
Financial liabilities					
Borrowings	228,459	—	231,821	—	231,821
Other payables	66,739	—	66,640	—	66,640
Lease obligations	2,626	—	2,647	—	2,647
Total	297,824	—	301,108	—	301,108

As of December 31, 2018

(In millions of yen)

	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
Financial liabilities					
Borrowings	192,248	—	192,554	—	192,554
Other payables	41,682	—	41,626	—	41,626
Lease obligations	2,762	—	2,767	—	2,767
Total	236,692	—	236,947	—	236,947

(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.

Date of transition to IFRS (January 1, 2017)

(In millions of yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets at fair value through profit or loss				
Derivative assets	—	3,439	—	3,439
Financial assets measured at fair value through other comprehensive income				
Listed securities	2,816	—	—	2,816
Unlisted securities	—	—	117	117
Total	2,816	3,439	117	6,372

As of December 31, 2017

(In millions of yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through other comprehensive income				
Listed securities	3,565	—	—	3,565
Unlisted securities	—	—	1,463	1,463
Total	3,565	—	1,463	5,028

As of December 31, 2018

(In millions of yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through other comprehensive income				
Listed securities	2,017	—	—	2,017
Unlisted securities	—	—	1,245	1,245
Total	2,017	—	1,245	3,262
Financial liabilities				
Financial assets measured at fair value through profit or loss				
Derivative liabilities	—	14,318	—	14,318
Total	—	14,318	—	14,318

c. Changes in financial instruments that are classified as Level 3 are as follows.

(In millions of yen)

	The year ended December 31, 2017	The year ended December 31, 2018
	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through other comprehensive income
Beginning balance	117	1,463
Total gains or losses in the period (Note 2)	4	251
Purchases	—	—
Sales	(1)	(5)
Settlement	(18)	(464)
Acquisition due to business combination	1,363	—
Other	(2)	—
Ending balance	1,463	1,245

(Notes) 1. Transfers between levels are not applicable.

2. Total gains or losses in the period are all for financial assets measured at fair value through other comprehensive income at the end of the reporting period and presented in “Financial assets 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 Company 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 mainly, 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.

On the transition date and 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 the date of transition to IFRS (January 1, 2017)

(In millions of yen)

	Contract amount, etc.	Carrying amount of hedging instruments (fair value)		Changes in the fair value used as a base to recognize the ineffective portion of the hedge
		Assets	Liabilities	
Cash flow hedges				
Foreign currency exchange risk				
Forward exchange contracts	57,302	708	—	—
Currency options	10,439	1,064	—	—
Currency swaps	10,278	1,272	—	—
Foreign currency deposits	79,751	89,697	—	—

(Note) The average exchange rate is 114.74 yen per one US dollar applicable to forward exchange contracts and 103.57 yen per one US dollar applicable to foreign currency deposits.

As of December 31, 2017

Not applicable.

As of December 31, 2018

(In millions of yen)

	Contract amount, etc.	Carrying amount of hedging instruments (fair value)		Changes in the fair value used as a base to recognize the ineffective portion of the hedge
		Assets	Liabilities	
Cash flow hedges				
Foreign currency exchange risk				
Currency options	579,056	—	12,970	—
Currency swaps	112,161	—	1,348	—

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 the date of transition to IFRS (January 1, 2017)

(In millions of yen)

	Changes in the fair value used as a basis to recognize the ineffective portion of the hedge	Cash flow hedge reserve for ongoing hedges	Cash flow hedge reserve for the cancellation of hedge accounting
Cash flow hedges			
Foreign currency exchange risk			
Planned purchases	—	9,012	—

As of December 31, 2017

Not applicable.

As of December 31, 2018

(In millions of yen)

	Changes in the fair value used as a basis to recognize the ineffective portion of the hedge	Cash flow hedge reserve for ongoing hedges	Cash flow hedge reserve for the cancellation of hedge accounting
Cash flow hedges			
Foreign currency exchange risk			
Planned purchases	—	(14,318)	—

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, 2017			
Cash flow hedges			
Foreign currency exchange risk			
Forward exchange contracts	(4,317)	—	3,609
Currency options	(252)	—	(812)
Currency swaps	(305)	—	(967)
Foreign currency deposits	(4,155)	—	(5,791)
As of December 31, 2018			
Cash flow hedges			
Foreign currency exchange risk			
Currency options	(12,970)	—	—
Currency swaps	(1,348)	—	—

(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 the date of transition to IFRS (January 1, 2017)

(In millions of yen)

	Contract amount, etc.	Carrying amount (fair value)	
		Assets	Liabilities
Forward exchange contracts	47,871	395	—

As of December 31, 2017 and December 31, 2018

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 etc.

The expenses arising from transfer of trade receivables derecognized in their entirety were none in the prior fiscal year and 11 million yen in the current fiscal year.

38. Transactions with Related Parties

(1) Transactions with related parties

Former Innovation Network Corporation of Japan, which was a principal shareholder and had significant influence over 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 the former Innovation Network Corporation of Japan. As a result, the Japanese government and the government-related entities have become related parties of the Group.

The former Innovation Network Corporation of Japan underwent restructuring, and as of September 21, 2018, they formed a separate subsidiary entity. Through this, all shares owned by the former Innovation Network Corporation of Japan was passed on to the new subsidiary, INCJ, Ltd. and INCJ, Ltd. 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, 2017	The year ended December 31, 2018
Remuneration and bonuses	261	317
Share-based payments	52	78
Total	313	395

(Note) The exercise price, etc. of share-based payments is as stated in “Note 36. Share-based Payments.”

39. Major Subsidiaries

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

Major subsidiaries as of December 31, 2018 are as follows.

Company	Location	Descriptions of Principal Businesses	Percentage Ownership and Voting Interest
Renesas Semiconductor Manufacturing Co., Ltd.	Hitachinaka, Ibaraki	Manufacturing and Engineering Service Companies	100.0
Renesas Semiconductor Package & Test Solutions Co., Ltd.	Takasaki, Gunma	Manufacturing and Engineering Service Companies	100.0
Renesas Electronics (China) Co., Ltd.	Beijing, China	Sales Companies	100.0
Renesas Electronics Hong Kong Limited	Hong Kong, China	Sales Companies	100.0
Renesas Electronics America Inc.	California, U.S.A.	Design, Applications, Manufacturing and Sales Companies	100.0
Renesas Electronics Europe GmbH	Dusseldorf, Germany	Design, Applications and Sales Companies	100.0 (100.0) (Note 1)
Renesas Semiconductor (Beijing) Co., Ltd.	Beijing, China	Manufacturing and Engineering Service Companies	100.0
Renesas Semiconductor (Suzhou) Co., Ltd.	Suzhou, China	Manufacturing and Engineering Service Companies	100.0 (6.33) (Note 1)
Renesas Semiconductor KL Sdn. Bhd.	Selangor, Malaysia	Manufacturing and Engineering Service Companies	100.0
Renesas Semiconductor (Malaysia) Sdn. Bhd.	Penang, Malaysia	Manufacturing and Engineering Service Companies	90.0
Renesas Design Vietnam Co., Ltd.	Ho Chi Minh, Vietnam	Design and Application Technologies Companies	100.0
Renesas International Operations Sdn. Bhd.	Kuala Lumpur, Malaysia	Business Corporations and Others	100.0 (100.0) (Note 1)
Intersil Luxembourg S.a.r.l.	Esch-sur-Alzette Luxembourg	Business Corporations and Others	100.0 (100.0) (Note 1)

(Note) 1. Numbers in parentheses represent indirect voting rights.

There are no subsidiaries with significant non-controlling interests.

40. Commitments and Contingencies

(1) Commitments for the acquisition of assets

Commitments for the acquisition of assets are as follows.

(In millions of yen)

Name	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Property, plant and equipment	23,543	24,404	9,271
Intangible assets	1,960	520	789
Total	25,503	24,924	10,060

(2) Loan commitments

The Company has entered into a contract for setting a commitment line 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)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Total amount of commitment lines	50,000	50,000	50,000
Balance of used loans	—	35,000	45,000
Balance of unused loans	50,000	15,000	5,000

(3) Debt guarantees

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

(In millions of yen)

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017	As of December 31, 2018
Guarantees of employees' obligations	131	99	65
Guarantees of third parties' obligations	321	312	—
Total	452	411	65

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(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.

(Guarantees of third parties' obligations)

The Group provides guarantees for the obligations such as payment etc. of some third parties to suppliers.

(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, and it is possible that the Group may be required to pay compensation for damages, possibly resulting in significant adverse effects to the business, performance, financial condition, cash flow, reputation and creditability of the Group.

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

The Company'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 Company'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 us in the amount of 77.3 million U.S. dollars, however the Company'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. The Group has revised provision for loss on litigation to 22 million U.S. dollars (2.403 million yen) from 79 million U.S. dollars in accordance with the above judgement of the Court of Second Instance for the year ended December 31, 2018. This estimate may be changed as the case progresses.

(Civil lawsuit related to the alleged violations of the competition law)
The Group has been named in Canada and the United Kingdom as a defendant in a civil lawsuit related to possible violations of competition law involving smartcard chips brought by purchasers of such products.
The civil lawsuit in Canada was brought in July 2013 in Supreme Court of British Columbia and has not been settled yet. The civil lawsuit in the United Kingdom was brought in December 2014 in the Senior Courts of England and Wales and has not reached settlement either.

The Group has recorded provision for loss on litigation in accordance with what can be reasonably estimated based on the information available at the present time, but this estimate may be changed as the case progresses.

(Indemnification claim related to environmental pollution)
The Group's subsidiary in Taiwan may be subject 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 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.

The Group's subsidiary has not recognized a provision for loss on litigation because it is not possible to reasonably estimate whether or not any provision for loss on litigation is required, the amount and timing of potential future losses.

(Others)
The Group has recognized provision for loss on litigation in preparation for payments due to lawsuits and claim for damages, etc. other than the above.

41. Additional information

1. Regarding the Acquisition of Stock of Integrated Device Technology, Inc. (hereafter “IDT”).
The Company resolved at the Meeting of Board of Directors to reach an agreement with IDT, whereby IDT will become a wholly-owned subsidiary of the Company, and concluded a merger agreement for the purpose of implementing the acquisition on September 11, 2018.

1) 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 lineup 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, a U.S.-based analog semiconductor supplier, in February 2017.

With the Intersil acquisition, the Group enhanced its lineup 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 percent (non-GAAP basis). The main strategic benefits this transaction is expected to bring are: (1) Complementary products expand the Group’s solution offerings, and (2) Expands business growth opportunities. Details are as follows:

(1) Complementary products 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.

(2) 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.

2) Overview of the acquiree

(1) Name	Integrated Device Technology, Inc.
(2) Address	6024 Silver Creek Valley Road, San Jose, CA 95138 USA
(3) Type of business	Development, manufacturing and sale of analog integrated circuits including mixed-signal solutions
(4) Capital	2,752,914 thousand US$ (As of March 2018)
(5) Established	May 1980

3) Acquisition Method
For the purpose of the acquisition, the Group will establish a wholly-owned subsidiary ("acquisition subsidiary") in Delaware, United States that will then merge with IDT (in a reverse triangular merger). The surviving company following the merger will be IDT. Cash will be issued for IDT's shares as consideration for the merger, and the shares of the acquisition subsidiary owned by the Group will be converted into outstanding shares in the surviving company, making the surviving company a wholly-owned subsidiary of the Group.

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

(1) Shares owned before transfer	0 share (Ownership percentage: 0.0%)
(2) Number of shares to be acquired	135,840,094 shares (Note 1) (Percentage of outstanding shares: 100.0%)
(3) Acquisition price	Approximately US$6,700 million (approximately ¥733.0 billion at an exchange rate of 110 yen to the dollar)
(4) Shares owned after transfer	135,840,094 shares (Ownership percentage: 100.0%)

Note 1: Based on the number of shares on a fully-diluted basis as of September 11, 2018 (reflecting dilutions, etc., that occurred following the stock-related compensation from the said acquisition). Above figures have been rounded off to the closest whole number.

4) Schedule

(1) The company Board approval	September 11, 2018
(2) IDT Board approval	August 30, 2018 (Pacific Daylight Time)
(3) Conclusion of merger agreement	September 11, 2018
(4) IDT General Shareholders approval of the merger agreement	January 15, 2019 (Pacific Standard Time)
(5) Effective date of merger	March 30, 2019 (Pacific Daylight Time: March 29, 2019) expected the completion of the acquisition

Note: The conclusion of the transaction is subject to regulatory approvals and other customary closing conditions in the U.S and other countries.

2. Execution of Syndicated Loan Agreement (Financing of the above acquisition)
To finance a portion of the funds necessary for the acquisition of IDT, on October 11, 2018, the Company entered into a term loan agreement. Recently, the Company has terminated this term loan agreement and with the intention to refinance other existing term loan, and to finance funds necessary for the acquisition of IDT and working capital as the medium-and-long term funds, the Company has newly entered into a syndicated loan agreement on January 15, 2019 as below.

1) Total amount: 897.0 billion yen

2) Loan type:
(A) Term loan with availability period: 698.0 billion yen
(B) Term loan: 149.0 billion yen
(C) Commitment line loan: 50.0 billion yen

3) Execution date of agreement: January 15, 2019

4) Availability/Commitment period:
(A) Term loan with availability period: From the day four business days prior to the completion date of acquisition of IDT until December 11, 2019
(B) Term loan: －
(C) Commitment line: Five years from the date of drawdown of (B) Term loan

5) Repayment Date:
(A) Term loan with availability period: Date that is five years from the date of initial drawdown of this loan
(B) Term loan: Date that is five years from the date of drawdown of this loan
(C) Commitment line: Date designated by the Company that is within six months from each drawdown

6) Participating financial institutions: MUFG Bank, Ltd., Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited and other 5 financial institutions

Note: The initial drawdown of (A) Term loan with availability period and the drawdown of (B) Term loan are scheduled to occur in the first half of the fiscal year ending December 31, 2019.

42. Subsequent Events

1. Issuance of Stock Acquisition Rights as Stock Options
The Company resolved at the Meeting of Board of Directors held on March 25, 2019 certain subscription items for stock acquisition rights to be issued as stock options for a corporate officer of Renesas and directors (excluding outside directors), corporate officers and employees of IDT and its subsidiaries. The Company has also determined items regarding taking applications or persons who will receive these stock options.
The details are as below.

Fiscal year 2019 Stock options No.1

	No.1
Date of resolution *	March 25, 2019
Category and number of grantees *	Directors 1 Corporate officers 3 Employees of IDT 1 (all of them are scheduled to retire before the allotment date of the stock options)
Number of stock options *	111,049 (Note 1)
Type and number of shares *	Common stock 11,104,900 (Note 1)
Exercise price yen per share *	1
Exercise period *	April 9, 2019 (JST) only
Issuance price by the issuance of shares upon the exercise of stock options *	(Note 2)
Conditions for exercise *	(Note 3)
Transfer of stock acquisition rights *	Approval by resolution of the board of directors' meeting is required for acquisition of stock acquisition rights by transfer.
Issuance of stock acquisition rights on reorganization *	(Note 5)

* All information is described in accordance with the resolution, since the allotment date of the stock options has not come at the date when the financial statements were authorized for issue.

Note 1:
The type of shares to be acquired upon exercise of the stock options shall be shares of common stock of the Company, and the number of shares to be acquired upon exercise of one stock option (hereafter the "Number of Shares to be Granted") shall be 100 shares.
However, in the case of a stock split (including gratuitous allotment of shares of common stock of the Company; the same applies hereinafter) or stock consolidation of shares of common stock of the Company by the Company after the allotment date, the number of shares to be granted shall be adjusted using the following formula with respect to the stock options that have not been exercised at the time of such stock split or stock consolidation:

(Number of shares to be granted after adjustment) = (Number of shares to be granted before adjustment) × (Ratio of stock split or stock consolidation)

In addition to the above, if, after the allotment date, the Company carries out a merger or company split, or deems it necessary (to essentially the same extent) to adjust the number of shares to be granted in other situations, the Company may appropriately adjust the number of shares to be granted to a reasonable extent.
Any fraction less than one share resulting from such adjustment shall be rounded down to the nearest whole share.

Note 2:
(1) The issuance price per share by the issuance of shares upon the exercise of the stock options will be calculated by dividing the total amount of issuance price added the payable amount about exercise of the stock options by the total number of shares to be acquired upon exercise of stock options described in above.

(2) 1) The amount of capital stock to be increased by the issuance of shares upon the exercise of the stock options will be one-half of the maximum amount of increase of capital stock, etc. calculated in accordance with Article 17, Paragraph 1 of the Corporate Calculation Rules of Japan, and any amount less than one Japanese yen resulting from the calculation will be rounded up to the nearest Japanese yen.
2) The amount of capital surplus to be increased by the issuance of shares upon the exercise of the stock options will be the amount obtained by subtracting the amount of capital stock to be increased described in 1) above from the maximum amount of increase of capital stock, etc. described in 1) above.

Note 3:
(1) The stock option holder may not exercise their stock options during the period of one year from the immediate following day of the allotment date.

(2) The stock option holder shall be in the position of director, corporate officer, auditor, executive officer or employee of the Company or its subsidiaries (hereafter the "Exercise Qualification") at the time of exercise of the stock options.

Note 4:
If any of the following proposals is approved at a shareholders' meeting of the Company (or, if a resolution of a shareholders' meeting is not required, resolved at a board of directors' meeting of the Company), the Company may acquire all of the stock options at no cost on a date separately designated by the board of directors of the Company.
(i) proposal for approval of a merger agreement providing that the Company be dissolved;
(ii) proposal for approval of a company split agreement or company split plan providing that the Company be split;
(iii) proposal for approval of a share exchange agreement or share transfer plan providing that the Company become a wholly-owned subsidiary;
(iv) proposal for approval of the Company acquiring all of shares subject to class-wide call pursuant to Article 171, Paragraph 1 of the Companies Act of Japan;
(v) proposal for approval of amendments to the articles of incorporation specifying a provision that, as a condition pertaining to all of the shares issued by the Company, the acquisition of such shares through transfer requires the Company's approval;
(vi) proposal for approval of amendments to the articles of incorporation specifying a provision that, as a condition pertaining to the class of shares to be acquired upon exercise of the stock options, the acquisition of such class of shares through transfer requires the Company's approval, or a provision that the Company may acquire all of such class of shares by resolution of the shareholders' meeting;
(vii) proposal for approval of stock consolidation of class of shares to be acquired upon exercise of the stock options (only if the number obtained by multiplying the unit shares relating to such class of shares by the ratio of stock consolidation generates a fraction less than one share); and
(viii) proposal for approval of demand for cash-out by special controlling shareholders pursuant to the provisions of Article 179-3, Paragraph 1 of the Companies Act of Japan.

Note 5:
If the Company conducts a merger (limited to where the Company is to be dissolved as a result of the merger), absorption-type company split or incorporation-type company split (limited to where the Company is to be split as a result of the absorption-type company split or incorporation-type company split), or share exchange or share transfer (limited to where the Company becomes a wholly-owned subsidiary as a result of the share exchange or share transfer) (collectively, hereafter a "Reorganization"), in each case stock options of a stock company set out in (a) through (e) of Article 236, Paragraph 1, Item (8) of the Companies Act of Japan (collectively, hereafter the "Reorganized Company") will be delivered to the stock option holder holding the stock options that are outstanding immediately before the effective date of the Reorganization (which means, in the case of an absorption-type merger, the day on which the absorption-type merger becomes effective, in the case of an incorporation-type merger, the day on which the incorporation-type merger becomes effective, in the case of an absorption-type company split, the day on which the absorption-type company split becomes effective, in the case of an incorporation-type company split, the day on which the incorporation-type company split becomes effective, in the case of a share exchange, the day on which the share exchange becomes effective, and in the case of a share transfer, the day on which the wholly-owning parent company incorporated through share transfer is incorporated; the same applies hereafter) (hereafter the "Outstanding Stock Options") on the following conditions, in which case, the Outstanding Stock Options will be terminated; provided, however, that this shall apply only if the delivery of stock options by the Reorganized Company on the following conditions is stipulated in an absorption-type merger agreement, incorporation-type merger agreement, absorption-type company split agreement, incorporation-type company split plan, share exchange agreement, or share transfer plan.

(1) Number of stock options of the Reorganized Company for delivery:
The stock option holders will each receive delivery of stock options of the Reorganized Company in the same number as the number of the Outstanding Stock Options held thereby.

(2) Type of shares of the Reorganized Company for delivery upon exercise of the stock options:
Common stock of the Reorganized Company

(3) Number of shares of the Reorganized Company for delivery upon exercise of the stock options:
This will be determined in accordance with "Note 1" above after considering the terms and conditions of the Reorganization, etc.
(4) Amount of assets to be contributed upon exercise of the stock options:
The contribution to be made upon exercise of the stock options to be delivered will be made for cash, and the amount of the assets to be contributed shall be obtained by multiplying one Japanese yen, which is the amount per share of the Reorganized Company to be delivered upon exercise of the stock options, by the number of shares of the Reorganized Company underlying the stock options to be determined pursuant to (3) above.

(5) Exercise period of the stock options:
The exercise period of the stock options will be from the later of the commencement date of the period set out in "Exercise period" above in which the stock options are exercisable or the effective date of the Reorganization through the expiration date of the period set out in "Exercise period" above in which the stock options are exercisable.

(6) Matters relating to capital stock or capital surplus to be increased by the issuance of new shares upon exercise of the stock options:
In accordance with "Note 2" above.

(7) Restrictions on acquiring the stock options by means of transfer:
Acquiring stock options by means of a transfer requires approval of the board of directors of the Reorganized Company.

(8) Acquisition terms of stock options:
In accordance with “Note 4” above.

(9) Other conditions for exercise of the stock options:
This will be determined in accordance with “Note 3” above.

Fiscal year 2019 Stock options No.2 and No.3

	No.2	No.3
Date of resolution *	March 25, 2019	
Category and number of grantees *	Employees of IDT’s subsidiaries 16	Corporate officer of the Company 1 Directors of IDT 1 Employees of IDT 663 Employees of IDT’s subsidiaries 659
Number of stock options *	2,850 (Note 1)	511,419 (Note 1)
Type and number of shares *	Common stock 285,000 (Note 1)	Common stock 51,141,900 (Note 1)
Exercise price yen per share *	1	
Exercise period *	From April 9, 2019 to April 8, 2029 (JST)	
Issuance price by the issuance of shares upon the exercise of stock options *	(Note 2)	
Conditions for exercise *	(Note 3)	
Transfer of stock acquisition rights *	Approval by resolution of the board of directors’ meeting is required for acquisition of stock acquisition rights by transfer.	
Issuance of stock acquisition rights on reorganization *	(Note 5)	

* All information is described in accordance with the resolution, since the allotment date of the stock options has not come at the date when the financial statements were authorized for issue.

Note 1:
The type of shares to be acquired upon exercise of the stock options shall be shares of common stock of the Company, and the number of shares to be acquired upon exercise of one stock option (hereafter the “Number of Shares to be Granted”) shall be 100 shares.
However, in the case of a stock split (including gratuitous allotment of shares of common stock of the Company; the same applies hereinafter) or stock consolidation of shares of common stock of the Company by the Company after the allotment date, the number of shares to be granted shall be adjusted using the following formula with respect to the stock options that have not been exercised at the time of such stock split or stock consolidation:

(Number of shares to be granted after adjustment) = (Number of shares to be granted before adjustment) × (Ratio of stock split or stock consolidation)

In addition to the above, if, after the allotment date, the Company carries out a merger or company split, or deems it necessary (to essentially the same extent) to adjust the number of shares to be granted in other situations, the Company may appropriately adjust the number of shares to be granted to a reasonable extent.
Any fraction less than one share resulting from such adjustment shall be rounded down to the nearest whole share.

Note 2:
(1) The issuance price per share by the issuance of shares upon the exercise of the stock options will be calculated by dividing the total amount of issuance price added the payable amount about exercise of the stock options by the total number of shares to be acquired upon exercise of stock options described in above.

(2) 1) The amount of capital stock to be increased by the issuance of shares upon the exercise of the stock options will be one-half of the maximum amount of increase of capital stock, etc. calculated in accordance with Article 17, Paragraph 1 of the Corporate Calculation Rules of Japan, and any amount less than one Japanese yen resulting from the calculation will be rounded up to the nearest Japanese yen.
2) The amount of capital surplus to be increased by the issuance of shares upon the exercise of the stock options will be the amount obtained by subtracting the amount of capital stock to be increased described in 1) above from the maximum amount of increase of capital stock, etc. described in 1) above.

Note 3:

(1) The stock option holder shall be in the position of director, corporate officer, auditor, executive officer or employee of the Company or its subsidiaries (hereafter the “Exercise Qualification”) at the time of exercise of the stock options.

(2) Notwithstanding (1) above, if the stock option holder loses their Exercise Qualification (other than loss due to death), the stock option holder may exercise their stock options only within a period of 13 months after the immediate following day of the day of loss of the Exercise Qualification.

(3) Notwithstanding (1) above, if the stock option holder dies, the stock options may be succeeded to by one (and only one) of the heirs of the stock option holder (hereafter the "Rights Successor"). In this case, the Rights Successor may exercise the stock options in a lump sum and only before the day that is six months after the day immediately following the day on which the stock option holder dies (and only if during the period provided for in "Exercise period" above). If the Rights Successor dies, the heirs of the Rights Successor may not further succeed to the stock options.

(4) If the stock option holder waives the stock options, the stock option holder may not exercise such stock options.

(5) The stock options allotment agreement between the Company and the stock option holder may provide other conditions not stipulated above.

Note 4:
If any of the following proposals is approved at a shareholders' meeting of the Company (or, if a resolution of a shareholders' meeting is not required, resolved at a board of directors' meeting of the Company), the Company may acquire all of the stock options at no cost on a date separately designated by the board of directors of the Company.
(i) proposal for approval of a merger agreement providing that the Company be dissolved;
(ii) proposal for approval of a company split agreement or company split plan providing that the Company be split;
(iii) proposal for approval of a share exchange agreement or share transfer plan providing that the Company become a wholly-owned subsidiary;
(iv) proposal for approval of the Company acquiring all of shares subject to class-wide call pursuant to Article 171, Paragraph 1 of the Companies Act of Japan;
(v) proposal for approval of amendments to the articles of incorporation specifying a provision that, as a condition pertaining to all of the shares issued by the Company, the acquisition of such shares through transfer requires the Company's approval;
(vi) proposal for approval of amendments to the articles of incorporation specifying a provision that, as a condition pertaining to the class of shares to be acquired upon exercise of the stock options, the acquisition of such class of shares through transfer requires the Company's approval, or a provision that the Company may acquire all of such class of shares by resolution of the shareholders' meeting;
(vii) proposal for approval of stock consolidation of class of shares to be acquired upon exercise of the stock options (only if the number obtained by multiplying the unit shares relating to such class of shares by the ratio of stock consolidation generates a fraction less than one share); and
(viii) proposal for approval of demand for cash-out by special controlling shareholders pursuant to the provisions of Article 179-3, Paragraph 1 of the Companies Act of Japan.

Note 5:
If the Company conducts a merger (limited to where the Company is to be dissolved as a result of the merger), absorption-type company split or incorporation-type company split (limited to where the Company is to be split as a result of the absorption-type company split or incorporation-type company split), or share exchange or share transfer (limited to where the Company becomes a wholly-owned subsidiary as a result of the share exchange or share transfer) (collectively, hereafter a "Reorganization"), in each case stock options of a stock company set out in (a) through (e) of Article 236, Paragraph 1, Item (8) of the Companies Act of Japan (collectively, hereafter the "Reorganized Company") will be delivered to the stock option holder holding the stock options that are outstanding immediately before the effective date of the Reorganization (which means, in the case of an absorption-type merger, the day on which the absorption-type merger becomes effective, in the case of an incorporation-type merger, the day on which the incorporation-type merger becomes effective, in the case of an absorption-type company split, the day on which the absorption-type company split becomes effective, in the case of an incorporation-type company split, the day on which the incorporation-type company split becomes effective, in the case of a share exchange, the day on which the share exchange becomes effective, and in the case of a share transfer, the day on which the wholly-owning parent company incorporated through share transfer is incorporated; the same applies hereafter) (hereafter the "Outstanding Stock Options") on the following conditions, in which case, the Outstanding Stock Options will be terminated; provided, however, that this shall apply only if the delivery of stock options by the Reorganized Company on the following conditions is stipulated in an absorption-type merger agreement, incorporation-type merger agreement, absorption-type company split agreement, incorporation-type company split plan, share exchange agreement, or share transfer plan.

(1) Number of stock options of the Reorganized Company for delivery:
The stock option holders will each receive delivery of stock options of the Reorganized Company in the same number as the number of the Outstanding Stock Options held thereby.

(2) Type of shares of the Reorganized Company for delivery upon exercise of the stock options:
Common stock of the Reorganized Company

(3) Number of shares of the Reorganized Company for delivery upon exercise of the stock options:
This will be determined in accordance with "Note 1" above after considering the terms and conditions of the Reorganization, etc.

(4) Amount of assets to be contributed upon exercise of the stock options:
The contribution to be made upon exercise of the stock options to be delivered will be made for cash, and the amount of the assets to be contributed shall be obtained by multiplying one Japanese yen, which is the amount per share of the Reorganized Company to be delivered upon exercise of the stock options, by the number of shares of the Reorganized Company underlying the stock options to be determined pursuant to (3) above.

(5) Exercise period of the stock options:
The exercise period of the stock options will be from the later of the commencement date of the period set out in “Exercise period” above in which the stock options are exercisable or the effective date of the Reorganization through the expiration date of the period set out in “Exercise period” above in which the stock options are exercisable.

(6) Matters relating to capital stock or capital surplus to be increased by the issuance of new shares upon exercise of the stock options:
In accordance with “Note 2” above.

(7) Restrictions on acquiring the stock options by means of transfer:
Acquiring stock options by means of a transfer requires approval of the board of directors of the Reorganized Company.

(8) Acquisition terms of stock options:
In accordance with “Note 4” above.

(9) Other conditions for exercise of the stock options:
This will be determined in accordance with “Note 3” above.

2. Acquisition of Own Shares
The Company has resolved at the Meeting of Board of Directors held on March 25, 2019 to authorize an acquisition of own shares up to a prescribed limit pursuant to the Article 156 of the Corporate Law of Japan as applied pursuant to Article 165, §3 of the same.

1) Reasons for acquisition of own shares
To enhance shareholder returns and capital efficiency and to carry out flexible financial operation in response to changes in the business environment.

2) Details of acquisition
(1) Type of shares to be acquired: Common stock of Renesas
(2) Total number of shares that may be acquired: Up to 20,000,000 shares
(1.20* percent of the total number of shares issued, excluding treasury stock)
*The figure is rounded to two decimal places.
(3) Total amount of purchase price: Up to 10.0 billion yen
(4) Period for share acquisition: From March 26, 2019 to March 25, 2020 (one year)

43. First-time Adoption

The Group has adopted IFRS for the fiscal year ended December 31, 2018. The most recent consolidated financial statements prepared in accordance with JGAAP are those for the fiscal year ended December 31, 2017, and the date of transition to IFRS is January 1, 2017.

IFRS 1 requires the retrospective application of IFRS for entities that adopt IFRS for the first time, in principle, but permits the voluntary application of certain standards, and includes exemptions to retrospective application and mandatory exceptions to retrospective application.

Of the exemptions from retrospective application set in IFRS 1, the Group has adopted the following exemptions.

• Business combinations

The Group has elected not to apply IFRS 3 “Business Combinations” retrospectively to business combinations that were conducted before the date of transition. As a result, the amount of goodwill arising from business combinations before the date of transition is determined based on the carrying amount in accordance with JGAAP.

• Exchange differences on translation of foreign operations

For the accumulated exchange differences of foreign operations, the Group has elected not to apply IAS 21 “The Effects of Changes in Foreign Exchange Rates” retrospectively. As a result, the accumulated exchange differences of foreign operations on the date of transition are deemed to be zero, and the entire amount is reclassified to retained earnings.

• Designation of financial instruments that were recognized before the date of transition

The Group has designated financial instruments in accordance with IFRS 9 based on the facts and circumstances existing as of the date of transition to IFRS.

• Application of the practical expedient in IFRS 15

Under IFRS 15, a first-time adopter of IFRS can choose not to restate contracts that were completed at the beginning of the earliest period presented and contracts that were modified before the beginning of the earliest period presented. The Group applies to the practical expedient and does not restate contracts that were completed as of January 1, 2017 as the earliest IFRS reporting period presented and contracts that were modified before the beginning of the earliest period presented.

As the mandatory exceptions from the retrospective application of IFRS 1, the retrospective application of IFRS is prohibited for “estimations,” “derecognition of financial assets and financial liabilities” and “non-controlling interests,” etc., and the Group applies IFRS for these items prospectively into the future from the date of transition.

The impacts of the transition from JGAAP to IFRS on the financial position, operating results and cash flows are as follows. On the adjustment sheet, items that do not have an impact on retained earnings or comprehensive income are included and presented in “Reclassification”, and items that have an impact on retained earnings or comprehensive income are included and presented in “Differences in recognition and measurement.”

(1) Reconciliations of equity as of the date of transition to IFRS (January 1, 2017)

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Assets						Assets
Current assets						Current assets
Cash and deposits	354,569	(282)	—	354,287	a	Cash and cash equivalents
Notes and accounts receivable-trade	80,480	4,450	(300)	84,630	b	Trade and other receivables
Merchandise and finished goods	34,432	60,745	(150)	95,027	c	Inventories
Work in process	55,754	(55,754)	—	—	c	
Raw materials and supplies	7,110	(7,110)	—	—	c, g	
Deferred tax assets	3,579	(3,579)	—	—	l	
Accounts receivable-other	12,721	(12,721)	—	—	b, e	
Other current assets	9,925	(9,925)	—	—	a, e	
Allowance for doubtful accounts	(71)	71	—	—	b	
		3,721	—	3,721	a	Other current financial assets
		2,340		2,340	e	Income tax receivables
		12,346	166	12,512	e	Other current assets
Subtotal	558,499	(5,698)	(284)	552,517		Subtotal
		103	—	103	f	Assets held for sale
Total current assets	558,499	(5,595)	(284)	552,620		Total current assets
Long-term assets						Non-current assets
Property, plant and equipment	201,505	2,016	8,006	211,527	g	Property, plant and equipment
Intangible assets	28,553	16,673	4,235	49,461	i	Intangible assets
Investments and other assets						
Investment securities	6,098	(2,933)	418	3,583	j	Investments accounted for using the equity method
		4,307	—	4,307	k	Other non-current financial assets
Net defined benefit asset	2,113	—	(2,113)	—	v	
Deferred tax assets	2,263	3,579	40,951	46,793	l	Deferred tax assets
Long-term prepaid expenses	21,971	(21,971)	—	—	m, i	
Other assets	2,411	(2,411)	—	—	k, m	
Allowance for doubtful accounts	(359)	359	—	—	k	
		5,976	(1,026)	4,950	m	Other non-current assets
Total long-term assets	264,555	5,595	50,471	320,621		Total non-current assets
Total assets	823,054	—	50,187	873,241		Total assets

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Liabilities						Liabilities and equity
						Liabilities
Current liabilities						Current liabilities
Electronically recorded obligations	11,138	124,971	—	136,109	n	Trade and other payables
Notes and accounts payable-trade	74,750	(74,750)	—	—	n	
Current portion of lease obligations	4,481	(4,481)	—	—	p	
Accounts payable-other	44,652	(44,652)	—	—	n, s	
Accrued expenses	32,473	(32,473)	—	—	s	
Accrued income taxes	2,309	(2,309)	—	—	q	
Provision for product warranties	287	(287)	—	—	r	
Provision for business structure improvement	2,002	(2,002)	—	—	r	
Provision for contingent loss	220	(220)	—	—	r	
Provision for loss on disaster	708	(708)	—	—	r	
Asset retirement obligations	22	(22)	—	—	r	
Other current liabilities	12,546	(12,546)	—	—	l, n, s	
		4,481	876	5,357	g, p	Other current financial liabilities
		1,153	18	1,171	q	Income tax payables
		3,239	(197)	3,042	r	Provisions
		39,803	9,409	49,212	q, s	Other current liabilities
Total current liabilities	185,588	(803)	10,106	194,891		Total current liabilities
Long-term liabilities						Non-current liabilities
Long-term borrowings	152,568	—	(863)	151,705	m, t	Borrowings
Lease obligations	269	(269)	—	—	u	
		569	2,339	2,908	g, u	Other non-current financial liabilities
Provision for business structure improvement	89	(89)	—	—	w	
Net defined benefit liability	39,571	812	255	40,638	v	Retirement benefit liabilities
Asset retirement obligations	2,645	(2,645)	—	—	w	
		2,734	266	3,000	w	Provisions
Deferred tax liabilities	9,198	803	(9,859)	142	l	Deferred tax liabilities
Other liabilities	10,733	(10,733)	—	—	u,v,x,y	
		2,653	92	2,745	x	Other non-current liabilities
		6,968	—	6,968	y	Trade and other payables
Total long-term liabilities	215,073	803	(7,770)	208,106		Total non-current liabilities
Total liabilities	400,661	—	2,336	402,997		Total liabilities

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Net assets						Equity
Common stock	10,000	—	—	10,000		Issued capital
Capital surplus	191,919	—	(2,544)	189,375	aa	Share premium
Retained earnings	206,345	—	53,635	259,980	ab	Retained earnings
Treasury stock	(11)	—	—	(11)		Treasury shares
Total accumulated other comprehensive income	11,909	23	(3,703)	8,229	v, ac	Other components of equity
Warrants	23	(23)	—	—	ac	
	420,185	—	47,388	467,573		Total equity attributable to owners of the parent
Non-controlling interests	2,208	—	463	2,671		Non-controlling interests
Total net assets	422,393	—	47,851	470,244		Total equity
Total liabilities and net assets	823,054	—	50,187	873,241		Total liabilities and equity

(2) Reconciliations of equity as of December 31, 2017

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Assets						Assets
Current assets						Current assets
Cash and deposits	123,320	16,225	―	139,545	a, d	Cash and cash equivalents
Notes and accounts receivable-trade	99,155	5,107	―	104,262	b	Trade and other receivables
Short-term investment securities	16,756	(16,756)	―	―	d	
Merchandise and finished goods	48,430	75,456	(186)	123,700	c	Inventories
Work in process	69,936	(69,936)	―	―	c	
Raw materials and supplies	8,215	(8,215)	―	―	c, g	
Accounts receivable-other	16,637	(16,637)	―	―	b, e	
Other current assets	7,598	(7,598)	―	―	a, e	
Allowance for doubtful accounts	(80)	80			b	
		1,782	―	1,782	a	Other current financial assets
		4,158	―	4,158	e	Income tax receivables
		14,889	13	14,902	e	Other current assets
Total current assets	389,967	(1,445)	(173)	388,349		Total current assets
Long-term assets						Non-current assets
Property, plant and equipment	267,341	2,695	8,051	278,087	g	Property, plant and equipment
		172,750	17,853	190,603	h	Goodwill
Intangible assets	334,644	(136,690)	4,448	202,402	h, i	Intangible assets
Investments and other assets						
Investment securities	8,133	(5,028)	529	3,634	a, j	Investments accounted for using the equity method
		6,651	―	6,651	k	Other non-current financial assets
Net defined benefit asset	2,525	―	(2,525)	―	v	
Deferred tax assets	3,344	―	56,851	60,195	l	Deferred tax assets
Long-term prepaid expenses	42,527	(42,527)	―	―	m, i	
Other assets	2,993	(2,993)	―	―	k, m	
		7,109	(1,030)	6,079	m	Other non-current assets
Total long-term assets	661,507	1,967	84,177	747,651		Total non-current assets
Total assets	1,051,474	522	84,004	1,136,000		Total assets

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Liabilities						Liabilities and equity
						Liabilities
Current liabilities						Current Liabilities
Electronically recorded obligations	19,240	136,397	1,146	156,783	n	Trade and other payables
Notes and accounts payable-trade	78,496	(78,496)	—	—	n	
Short-term borrowings	35,000	12,875	—	47,875	o	Borrowings
Current portion of long-term borrowings	12,875	(12,875)	—	—	o	
Current portion of lease obligations	114	(114)	—	—	p	
Accounts payable-other	51,605	(51,605)	—	—	n, s	
Accrued expenses	39,166	(39,166)	—	—	s	
Accrued income taxes	15,920	(15,920)	—	—	q	
Provision for product warranties	157	(157)	—	—	r	
Provision for business structure improvement	2,331	(2,331)	—	—	r	
Provision for contingent loss	9,096	(9,096)	—	—	r	
Provision for loss on disaster	2	(2)	—	—	r	
Provision for sales rebates	1,275	(1,275)	—	—	n	
Asset retirement obligations	56	(56)	—	—	r	
Other current liabilities	16,048	(16,048)	—	—	l, n, s	
		114	713	827	g, p	Other current financial liabilities
		13,405	18	13,423	q	Income tax payables
		11,642	(1,417)	10,225	r	Provisions
		53,230	6,309	59,539	q, s	Other current liabilities
Total current liabilities	281,381	522	6,769	288,672		Total current liabilities

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Long-term borrowings	181,396	—	(812)	180,584	m, t	Borrowings
Lease obligations	146	(146)	—	—	u	
		446	1,653	2,099	g, u	Other non-current financial liabilities
Provision for business structure improvement	210	(210)	—	—	w	
Net defined benefit liability	25,171	633	8,485	34,289	v	Retirement benefit liabilities
Asset retirement obligations	2,537	(2,537)	—	—	w	
		2,747	250	2,997	w	Provisions
Deferred tax liabilities	22,828	—	849	23,677	l	Deferred tax liabilities
Other liabilities	25,907	(25,907)	—	—	u,v,x y,z	
		2,582	59	2,641	x	Other non-current liabilities
		16,966	—	16,966	y	Trade and other payables
		5,426	—	5,426	z	Income tax payables
Total long-term liabilities	258,195	—	10,484	268,679		Total non-current liabilities
Total liabilities	539,576	522	17,253	557,351		Total liabilities
Net assets						Equity
Common stock	10,022	—	—	10,022		Issued capital
Capital surplus	191,941	—	(2,544)	189,397	aa	Share premium
Retained earnings	283,541	—	80,001	363,542	ab	Retained earnings
Treasury stock	(11)	—	—	(11)		Treasury shares
Total accumulated other comprehensive income	21,659	2,311	(11,187)	12,783	v, ac	Other components of equity
Warrants	2,311	(2,311)	—	—	ac	
	509,463	—	66,270	575,733		Total equity attributable to owners of the parent
Non-controlling interests	2,435	—	481	2,916		Non-controlling interests
Total net assets	511,898	—	66,751	578,649		Total equity
Total liabilities and net assets	1,051,474	522	84,004	1,136,000		Total liabilities and equity

(3) Reconciliations of profit or loss and comprehensive income for the previous fiscal year (from January 1, 2017 to December 31, 2017)

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Net sales	780,261	(3,117)	2,111	779,255	A	Revenue
Cost of sales	(427,463)	2,697	(369)	(425,135)	B, F	Cost of sales
Gross profit	352,798	(420)	1,742	354,120		Gross profit
Selling, general and administrative expenses	(274,398)	(70)	16,323	(258,145)	A,B,F	Selling, general and administrative expenses
		12,339	―	12,339	C	Other income
		(7,887)	1,429	(6,458)	C	Other expenses
Operating income	78,400	3,962	19,494	101,856		Operating profit
Non-operating income	2,061	(2,061)	―	―	C	
Non-operating expenses	(5,173)	5,173	―	―	C	
Special income	15,369	(15,369)	―	―	C	
Special loss	(5,865)	5,865	―	―	C	
		1,130	(419)	711	C,G	Finance income
		(3,052)	(223)	(3,275)	C	Finance costs
		114	102	216	C	Share of profit of investments accounted for using the equity method
Income before income taxes	84,792	(4,238)	18,954	99,508		Profit before tax from continuing operations
Total income taxes	(7,517)	383	5,878	(1,256)	D	Income tax expense
	77,275	(3,855)	24,832	98,252		Profit for the year from continuing operations
		3,855	―	3,855	E	Profit after tax for the year from discontinued operations
Net income	77,275	―	24,832	102,107		Profit for the year
						Profit for the year attributable to
Net income attributable to shareholders of parent company	77,196	―	24,829	102,025		Owners of the parent
Net income attributable to non-controlling interests	79	―	3	82		Non-controlling interests

(In millions of yen)

Accounts under JGAAP	JGAAP	Reclassification	Differences in recognition and measurement	IFRS	Notes	Accounts under IFRS
Other comprehensive income						Other comprehensive income
						Items that will not be reclassified to profit or loss
Remeasurements of defined benefit plans, net of tax	7,715	—	(6,443)	1,272	F	Remeasurements of defined benefit plans
Unrealized gains (losses) on securities	(140)	—	418	278	G	Financial assets measured at fair value through other comprehensive income
Share of other comprehensive income of affiliates accounted for by the equity method	59	—	—	59		Share of other comprehensive income of investments accounted for using the equity method
						Items that may be reclassified subsequently to profit or loss
Foreign currency translation adjustments	11,277	—	93	11,370		Exchange differences on translation of foreign operations
Deferred gains or losses on hedges	(9,012)	—	2,747	(6,265)	H	Changes in fair value of cash flow hedges
Total other comprehensive income	9,899	—	(3,185)	6,714		Total other comprehensive income
Comprehensive income	87,174	—	21,647	108,821		Total comprehensive income for the year
						Comprehensive income for the year attributable to
Comprehensive income attributable to shareholders of parent company	86,946	—	21,629	108,575		Owners of the parent
Comprehensive income attributable to non-controlling interests	228	—	18	246		Non-controlling interests

(4) The major details of adjustments for differences between JGAAP and IFRS in the adjustment sheet above are as follows.

(Notes to adjustments to equity)

(a) Other current financial assets

(Reclassification)

Time deposits with a deposit term of more than three months that were included in cash and deposits in JGAAP are presented as “Other current financial assets” in IFRS. Derivative assets that were included in other current assets in JGAAP are presented as “Other current financial assets” in IFRS. Investment securities for sale within one year that were include in investment securities in JGAAP are presented as “Other current financial assets” in IFRS.

(b) Trade and other receivables

(Reclassification)

Some accounts receivable-other and allowance for doubtful accounts (current assets) that were presented separately in JGAAP are included and presented in “Trade and other receivables” in IFRS.

(c) Inventories

(Reclassification)

Merchandise and finished goods, work in progress, and raw materials and supplies that were presented separately in JGAAP are presented en bloc as “Inventories” in IFRS.

(d) Cash and cash equivalents

(Reclassification)

Investment securities matured within three months that were included in short-term investment securities in JGAAP are presented as “Cash and cash equivalents” in IFRS.

(e) Other current assets

(Reclassification)

Some accounts receivable-other and other current assets that were presented separately in JGAAP are presented as “Other current assets” in IFRS. Also, corporate tax receivables that were include in receivable-other in JGAAP are presented as “Income tax receivables” in IFRS.

(f) Assets held for sale

(Reclassification)

Current assets that are very likely to be sold and available for immediate sale in their present condition are presented as “Assets held for sale”.

(g) Property, plant and equipment

(Reclassification)

Spare parts, etc. that were included in raw materials and supplies in JGAAP are presented as “Property, plant and equipment” in IFRS.

(Recognition and measurement)

Low-value long-term assets that were accounted for as an expense in JGAAP are recorded as “Property, plant and equipment” in IFRS because they qualify for capitalization. Expenses for leased facilities that were accounted for evenly as an expense over a certain period in JGAAP are recorded as “Property, plant and equipment”, “Other current financial liabilities” and “Other non-current financial liabilities” in IFRS because they meet the requirements for finance leases.

(h) Goodwill

(Reclassification)

Goodwill that was accounted for as an intangible asset in JGAAP are presented separately as “Goodwill” in IFRS.

(Recognition and measurement)

While amortization of goodwill was recognized over certain periods in JGAAP, the amount of goodwill increases because amortization is not recognized in IFRS.

(i) Intangible assets

(Reclassification)

Technical resources, etc. that were included in long-term prepaid expenses in JGAAP are recorded as “Intangible assets” in IFRS.

(Recognition and measurement)

Some development expenses that were accounted for as an expense in JGAAP are recorded as “Intangible assets” in IFRS because they meet the requirements for capitalization.

(j) Investments accounted for using the equity method

(Reclassification)

While investments accounted for using the equity method were included and presented in investment securities in JGAAP, they are presented separately as “Investments accounted for using the equity method” in IFRS.

(Recognition and measurement)

Immaterial subsidiaries to which the equity method should be applied were excluded from the scope of the equity method in JGAAP, but they are included in the scope of the equity method in IFRS. Accordingly, “Investments accounted for using the equity method” have increased.

(k) Other non-current financial assets

(Reclassification)

Allowance for doubtful accounts (long-term assets), and long-term accounts receivable and guarantee deposits paid, etc. included in other of investments and other assets, which were presented separately in JGAAP, are included and presented in “Other non-current financial assets” in IFRS.

(l) Deferred tax assets and deferred tax liabilities

(Reclassification)

Regarding deferred tax assets and deferred tax liabilities that were presented as a current item in JGAAP, their entire amounts are presented as a non-current item in IFRS.

(Recognition and measurement)

While tax effects associated with the elimination of unrealized profits or losses were calculated using the seller’s effective tax rate in JGAAP, they are calculated using the purchaser’s effective tax rate in IFRS.

In addition, “Deferred tax assets” and “Deferred tax liabilities” have been adjusted as a result of the generation of temporary differences arising from adjustments of differences to other IFRS, the re-examination of the recoverability of all deferred tax assets and the changes in the net amount of deferred tax assets and deferred tax liabilities.

(m) Other non-current assets

(Reclassification)

The assets other than technical resources, etc. included in long-term prepaid expenses that were presented separately in JGAAP are included and presented in “Other non-current assets” in IFRS.

(Recognition and measurement)

While borrowing fees were capitalized as long-term prepaid expenses and amortized over the amortization period in JGAAP, “Other non-current assets” and “Borrowings” (non-current liabilities) have decreased because these transaction costs are deducted from directly-attributable financial liabilities measured at amortized cost and expensed at amortized cost using the effective interest method in IFRS.

(n) Trade and other payables (current liabilities)

(Reclassification)

Electronically recorded obligations, notes, accounts payable-trade and accounts payable-other, etc. that were presented separately in JGAAP are included and presented in “Trade and other payables” (current liabilities) in IFRS.

(Recognition and measurement)

While sales revenue was deferred in some transactions that consideration amount has not been determined yet at the point of sales in JGAAP, “Trade and payables” (current liabilities) has increased because sales revenue is recognized at the point of sales, the consideration amount that expects to be refunded to the customer is estimated, and refund liability is recognized in IFRS.

(o) Borrowings (current liabilities)

(Reclassification)

The current portion of long-term borrowings that was presented separately in JGAAP is included and presented as “Borrowings” (current liabilities) in IFRS.

(p) Other current financial liabilities

(Reclassification)

The current portion of lease obligations that was presented separately in JGAAP is presented as “Other current financial liabilities” in IFRS.

(q) Income tax payables (current liabilities)

(Reclassification)

Size-based business taxes, etc. that were included in accrued income taxes in JGAAP are included and presented in “Other current liabilities” in IFRS.

(r) Provisions (current liabilities)

(Reclassification)

The provisions for loss contingencies (current liabilities) and business structure improvement (current liabilities), etc. that were presented separately in JGAAP are presented separately as “Provisions” (current liabilities) in IFRS.

(Recognition and measurement)

While expected future expenses that meet certain requirements were recognized as a provision in JGAAP, provisions that do not meet the recognition requirements in IFRS are revoked.

(s) Other current liabilities

(Reclassification)

Accrued expenses, etc. that were presented separately in JGAAP are presented as “Other current liabilities” in IFRS.

(Recognition and measurement)

Because unused paid leave not recognized in JGAAP is recognized as an obligation in IFRS, “Other current liabilities” have increased. While sales revenue was deferred and recorded as part of other current liabilities in some transactions that consideration amount has not been determined yet at the point of sales in JGAAP, “Other current liabilities” have decreased since the amount of variable consideration is estimated at the point of sales and sales revenue is recognized in IFRS.

(t) Borrowings (non-current liabilities)

(Reclassification)

“Long-term borrowings” that were presented separately in JGAAP are presented as “Borrowings” (non-current liabilities) in IFRS.

(u) Other non-current financial liabilities

(Reclassification)

Lease obligations (long-term liabilities), etc. that were presented separately in JGAAP are presented as “Other non-current financial liabilities” in IFRS.

(v) Retirement benefit liabilities

(Reclassification)

Pension contributions that were accounted for as part of other long-term liabilities in JGAAP are included and presented in “Retirement benefit liabilities” in IFRS because they meet the requirements for the defined benefit plan.

(Recognition and measurement)

In JGAAP, actuarial differences and prior service costs were recognized in other comprehensive income when they were generated and accounted for as an expense using the straight-line method over a certain number of years within the average remaining service years of employees, and interest cost and the expected return on plan assets were recognized in profit or loss. In IFRS, remeasurements of defined benefit plans including actuarial differences are recognized in other comprehensive income when they occur and are immediately reclassified to “Retained earnings,” and prior service costs are recognized in profit or loss en bloc when they occur. Regarding net interest cost, the amount obtained by multiplying the net defined benefit asset (liability) by a discount rate is recognized in profit or loss.

The net defined benefit asset is limited to the asset ceiling if the defined benefit plan is in surplus in IFRS and if there are minimum funding requirements, assets are decreased or liabilities are increased to the extent to which the net defined benefit asset will not become available as either the reduction of future contributions to be paid to the plan or the return of future contributions. Accordingly, these adjustments are recognized in other comprehensive income and are immediately reclassified to “Retained earnings.”

(w) Provisions (non-current liabilities)

(Reclassification)

Asset retirement obligations (long-term liabilities) and the provision for business structure improvement (long-term liabilities) that were presented separately in JGAAP are presented as “Provisions” (non-current liabilities) in IFRS.

(x) Other non-current liabilities

(Reclassification)

Liabilities other than long-term accounts payable – other stated in “Trade and other payables” (non-current liabilities) and “Income tax payable” (non-current liabilities) that were included in other of long-term liabilities in JGAAP are presented as “Other non-current liabilities” in IFRS.

(y) Trade and other payables (non-current liabilities)

(Reclassification)

Long-term accounts payable – other included in other of long-term liabilities that were presented separately in JGAAP are presented as “Trade and other payables” (non-current liabilities) in IFRS.

(z) Income tax payables (non-current liabilities)

(Reclassification)

Accrued income taxes included in other of long-term liabilities that were presented separately in JGAAP are presented in “Income tax payables” (non-current liabilities) in IFRS.

(aa) Share premium

(Recognition and measurement)

Although share issue expense was accounted for as an expense when incurred in JGAAP, it is accounted for as a deduction item from “Share premium” in IFRS.

(ab) Retained earnings

(Recognition and measurement)

The impacts of the application of IFRS on retained earnings are as follows (figures in parentheses indicate decreases).

	Date of transition to IFRS (January 1, 2017)	As of December 31, 2017
Adjustments to property, plant and equipment	4,525	5,435
Adjustments to intangible assets	4,235	4,448
Adjustments to unused paid leave	(9,659)	(8,634)
Adjustments to retirement benefit liabilities	2,884	2,108
Adjustments to deferred tax assets/ liabilities	50,813	55,947
Adjustments to share issue cost	2,544	2,544
Adjustments to financial assets	1,273	1,124
Adjustments to goodwill	-	17,670
Adjustments to provisions	197	1,432
Adjustments to exchange differences on translation of foreign operations	(3,306)	(3,306)
Adjustments to revenue from contracts with customers	-	1,212
Other	129	21
Total adjustment to retained earnings	53,635	80,001

(ac) Other components of equity

(Reclassification)

Warrants that were presented separately in JGAAP are included and presented as “Other components of equity” in IFRS.

(Recognition and measurement)

The entire amount of accumulated exchange difference on translation of overseas subsidiaries in JGAAP is reclassified to “Retained earnings” on the date of transition in IFRS.

Gains or losses on sales of equity instruments and impairment losses were recognized in profit or loss in JGAAP, but in IFRS, for equity instruments measured at fair value through other comprehensive income, the amount of changes in the fair value is recognized in “other comprehensive income” and reclassified to “Retained earnings” at the time of derecognition.

(Notes to adjustments to profit or loss and comprehensive income)

(A) Revenue

(Reclassification)

While some rebates were presented in selling, general and administrative expenses in JGAAP, they are deducted from “Revenue” in IFRS.

(Recognition and measurement)

While sales revenue was deferred in some transactions that consideration amount has not been determined yet at the point of sales in JGAAP, the sale revenue has been adjusted because the amount of variable consideration is estimated at the point of sales and sales revenue is recognized in IFRS.

(B) Cost of sales and selling, general and administrative expenses

(Recognition and measurement)

Unused paid leave was not recognized in JGAAP, but “Cost of sales” and “Selling, general and administrative expenses” have been adjusted since unused paid leave is recognized as an expense in IFRS

Amortization of goodwill was recognized over certain periods in JGAAP, but “Selling, general and administrative expenses” has been adjusted because amortization of goodwill is not recognized in IFRS.

(C) Other income, other expenses, finance income, finance costs and share of profit of investments accounted for using the equity method

(Reclassification)

For those items that were classified into non-operating income, non-operating expenses, special income and special losses in JGAAP, finance-related items (interest income, dividends income, interest expenses and foreign exchange gains or losses, etc.) are presented as “Finance income” or “Finance costs,” and the other items are presented in “Other income,” “Other expenses,” “Share of profit or loss of investments accounted for using the equity method”, etc. according to the nature of each item in IFRS.

(Recognition and measurement)

Future expenses that met the requirements were recognized as provisions in JGAAP, but provisions that do not meet the recognition requirements are revoked in IFRS. As a result, “Other expenses” has been adjusted.

(D) Income tax expense

(Recognition and measurement)

As a result of examining the recoverability of deferred tax assets based on IFRS, “Income tax expense” has been adjusted.

(E) Profit for the year from discontinued operations

(Reclassification)

Discontinued operations are presented separately in IFRS, and income, expenses and income tax relating to discontinued operations are presented collectively as “Profit for the year from discontinued operations” by differentiating them from continuing operations.

(F) Remeasurements of defined benefit plans

(Recognition and measurement)

In JGAAP, actuarial differences and prior service costs were recognized in other comprehensive income when they occurred and accounted for as an expense over a certain number of years within the average remaining service years of employees using the straight-line method. Interest costs and the expected return on plan assets were recognized in profit or loss.

In IFRS, remeasurements of defined benefit plans including actuarial differences are recognized in other comprehensive income when they occur and immediately reclassified to “Retained earnings,” and prior service costs are recognized in profit or loss en bloc when they occur and recorded as an expense in “Cost of sales” and “Selling, general and administrative expenses”. For the net interest expense, the amount obtained by multiplying the net defined benefit asset (liability) by a discount rate is recognized in profit or loss.

The net defined benefit asset is limited to the asset ceiling if the defined benefit plan is in surplus in IFRS, and if there are minimum funding requirements, assets are decreased or liabilities are increased to the extent to which the net defined benefit asset will not become available as either the reduction of future contributions to be paid to the plan or the return of future contributions. Accordingly, these adjustments are recognized in other comprehensive income and immediately reclassified to “Retained earnings.”

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

(Recognition and measurement)

Gains or losses on sales of equity instruments and impairment losses were recognized in profit or loss in JGAAP, but in IFRS, for equity instruments measured at fair value through other comprehensive income, the amount of changes in the fair value is recognized in “other comprehensive income” and reclassified to “Retained earnings” at the time of derecognition.

(H) Cash flow hedges

(Recognition and measurement)

When the amount accumulated in retained earnings related to cash flow hedges in JGAAP is basis adjusted to the carrying amount of the non-financial asset or non-financial liability, it’s recorded in other comprehensive income in accordance with reclassification adjustments, but is not recognized in “other comprehensive income” in IFRS because they do not meet the requirements for reclassification adjustments.

(5) Adjustments to cash flows in the previous fiscal year (from January 1, 2017 to December 31, 2017)

While installment payments in the case where technical resources, etc. were acquired through installment transactions were classified into cash flows from financing activities in accordance with the provisions of JGAAP, they are classified into cash flows from investing activities in IFRS. As a result, cash flows from investing activities have decreased by 13,104 million yen, and cash flows from financing activities have increased by the same amount.

Of the payments for the acquisition of low-value assets and major replacement parts etc. that were classified into cash flows from operating activities in JGAAP, those payments for the acquisition of low-value assets and major replacement parts etc. that were recognized as property, plant and equipment in IFRS are classified into cash flows from investing activities. As a result, cash flows from operating activities have increased by 5,926 million yen, and cash flows from investing activities have decreased by the same amount.

Of the payments for research and development that were classified into cash flows from operating activities in JGAAP, those payments for research and development that meet the recognition requirements for intangible assets in IFRS are classified into cash flows from investing activities. As a result, cash flows from operating activities have increased by 2,135 million yen, and cash flows from investing activities have decreased by the same amount.

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Independent Auditor's Report

The Board of Directors
Renesas Electronics Corporation

We have audited the accompanying consolidated financial statements of Renesas Electronics Corporation and its consolidated subsidiaries, which comprise the consolidated statement of financial position as at December 31, 2018, and the consolidated statements of profit or loss, comprehensive income, changes in equity, cash flows for the year then ended and notes to consolidated financial statements, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. The purpose of an audit of the consolidated financial statements is not to express an opinion on the effectiveness of the entity's internal control, but in making these risk assessments the auditor considers internal controls relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Renesas Electronics Corporation and its consolidated subsidiaries as at December 31, 2018, and their consolidated financial performance and cash flows for the year then ended in conformity with International Financial Reporting Standards.

Emphasis of Matter

We draw attention to Note of "Additional Information" to the consolidated financial statements referred to above, which describes that Renesas Electronics Corporation resolved at the Meeting of Board of Directors to reach an agreement with Integrated Device Technology, Inc., whereby Integrated Device Technology, Inc. will become a wholly-owned subsidiary of Renesas Electronics Corporation, and concluded a merger agreement for the purpose of implementing the acquisition on September 11, 2018.

Our opinion is not qualified in respect of this matter.

Ernst & Young ShinNihon LLC

March 28, 2019
Tokyo, Japan