NSG GROUP

ANNUAL CONSOLIDATED FINANCIAL STATEMENTS

FISCAL YEAR ENDED 31 MARCH **2020**

Contents

Nippon Sheet Glass Company, Limited

1. MANAGEMENT POLICY, BUSINESS ENVIRONMENT AND ISSUES TO BE ADDRESSED

This information does not form part of the audited consolidated financial statements of Nippon Sheet Glass Company, Limited and is provided purely for the information of investors.

Business Environment and Issues to be Addressed

The current pandemic of novel coronavirus (COVID-19) is not only threatening the health and lives of people across the globe but also affecting the global economy significantly. It likely impacts on both manufacturing and consumption for the next several years. The Group's core businesses – Architectural and Automotive have been considerably affected and the Group will carefully watch demand trends going forward.
The longer-term trend is going to be more commoditization and lower prices of flat glass products with the higher presence of glass manufacturers in emerging markets. On the other hand, expectations for new kinds of glass products are increasing, which can contribute to the environment and people's health and safety, further to the once-in-a-century technical innovation in the automotive industry. In addition to the momentum toward information technology revolution and digital transformation to date, the post-COVID-19 work and lifestyle would lead us to much more expectation that glass materials could make a contribution in fields such as life science, IoT and cloud computing.
The Group views these changes as an innovative opportunity to transform its business structure, responding to them agilely and flexibly and adapting to the new business environment.

Management Principle

The NSG Group announced its new management principle "Our Vision" at the Company's 100th anniversary in 2018. "Our Vision" comprises the Mission (core purpose), Aspiration (desired future position) and Core Values (the basis on which work and conduct ourselves). With "Our Vision," the NSG Group is striving to realize a sustainable society by offering new values and services with glass swiftly and appropriately to meet the growing needs of its customers and society.

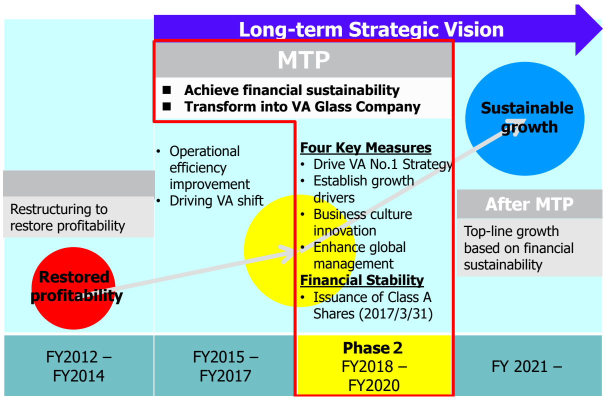
Our Vision

Long-term Strategic Vision and Medium-term Plan (MTP) Phase2 and its Review

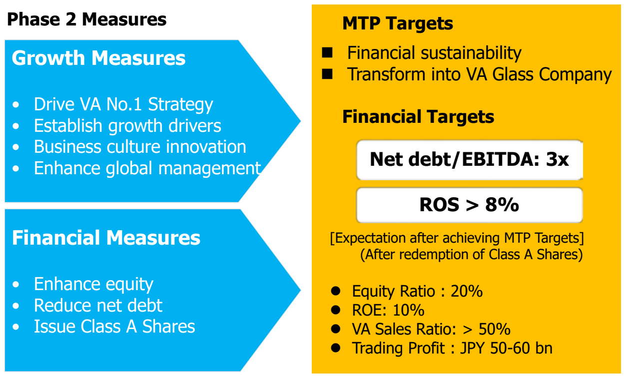
(1) Long-term Strategic Vision and Medium-term Plan (MTP) Phase2

Based on the Group's Long-term Strategic Vision announced in May 2014 to transform the NSG Group into a VA Glass Company (VA stands for value-added), the NSG Group developed and executed Medium-term Plan (MTP) Phase 2 over the three-year period from FY2018 to FY2020. The objectives of MTP Phase 2 were to achieve financial sustainability and start the transformation into a VA Glass Company. The two financial targets were: net debt/EBITDA of 3x and operating return on sales (ROS) of greater than 8 percent*.
*ROS: Based on trading profit (profit before amortization arising from the acquisition of Pilkington plc)

Positioning of MTP Phase 2



MTP Phase 2 (FY2018-FY2020)



ROS: (Return on Sales): based on trading profit (profit before amortization of non-tangible assets)

(2) Review of MTP Phase 2

Since the start of MTP in FY2015, the Group's profitability improved steadily, and the VA shift progressed during the first half of MTP Phase 2. With the growth measures to pursue the "VA No. 1" strategy, the Group successfully established an advantageous position in the field of online coating in the Architectural Glass business and was increasingly awarded new business of VA glass in the Automotive Glass business.
Financially, the Group improved the equity ratio by issuing Class A Shares in 2017; achieved the target to reduce financial expenses one year earlier and thereby, successfully contributing to the improvement of net profitability; and resumed dividend distribution for the first time in six years.
In order to further expedite the growth with strategic investment, the Group decided to expand manufacturing facilities for solar energy glass in Vietnam and North America and to construct a new float plant in South America (Argentina), a promising emerging market. The solar energy glass line in Vietnam started production in February 2020.
In order to accelerate new business development and create new customer value, the Business Innovation Center was established in July 2018.

Although the Group steadily improved profits up to FY2019 as mentioned above, it has been severely impacted by the sharp drop of automotive production in Europe and the deterioration of the supply and demand balance in architectural glass markets since the beginning of FY2020. As a result, the Group failed to achieve the financial targets of MTP Phase 2 in FY2020, the final year of MTP Phase2.

(3) Open issues in view of MTP Phase 2

In the review of MTP Phase2 based on the achievements mentioned above, the Group has identified the following issues to be addressed and the approach to them as follows.

Review of MTP Phase 2	Approach
Stronger business less vulnerable to economic fluctuations Even with the VA sales ratio of 46%, still bound to commodity-centric and price-competitive business model Insufficient reduction of fixed cost ratio	Increasing "number one" and "only one" products Promotion of leaner-asset management
Top line growth based on launches of new products Accelerated with the establishment of BIC but not enough	Reinforcement of R&D including BIC
More stable financial foundation Delay in improvement, while equity enhanced with Class A Shares	Improvement of business profitability Capital expenditure within depreciation Disposals of non-core business/assets

Next Steps and Business Plan

(1) Challenges and mitigation plan against the coronavirus pandemic

The most urgent and critical challenge for the Group now is how it mitigates the adverse impact on the business due to the coronavirus pandemic worldwide.
Currently, the Group's main businesses – Architectural and Automotive are severely suffering the impact across the world in the uncertainties caused by the pandemic.
In light of these circumstances, the employees' safety and health are the Group's first priority, and it has formed a management structure to enable agile decision makings by the local management of each region and implemented the following emergency actions.

Safety measures for employees and their family	Establishing and maintaining a workplace to prioritize safety of employees and their family first and foremost Creating and following guidelines to prevent the spread of infection within the Group in accordance with the government policy of each country
Funding activities	Securing cash position and unused commitment lines and if necessary, additional funding Freezing new capital expenditure except most critical projects Minimizing discretionary spending and maximizing utilization of government subsidies
Production mitigation	Temporary line suspension and layoffs and furloughs in response to declining demand Preparation for flexible restart of operations including the introduction of additional safety measures as demand recovers

With a possibility of prolonged influence in mind, the Group will continue to review its business direction from time to time.

(2) Enhancement of financial foundation

The Group recognizes that the improvement of its financial stability is critical and urgent. It will continue to make efforts such as below to recover its equity ratio, which declined in FY2020.

1) Recovery and improvement of profitability
   In order to enhance its profitability and cash flow, the Group will reinforce profitable businesses and reform the cost structure of underperforming businesses drastically, while accelerating new business development with the reinforcement of R&D and Business Innovation Center activities.
2) Reduction of interest-bearing debt
   The Group will control capital expenditure and dispose non-core businesses and assets to reduce interest-bearing debt.

(3) New medium-term management plan and long-term direction

The Group has decided to postpone the announcement of a new medium-term management plan, which was planned to start in FY2021, considering the current uncertainties of its business environment due to the novel coronavirus pandemic.
However, the Group believes its overall long-term direction remains valid, but will be re-confirmed once the longer-term impact of the pandemic is better understood. The broad direction is shown below.

Innovation Company, Changing our Surroundings with Advanced Ideas

- Establish stable financial base
- Core business as basis for a certain level of profitability
  - Contribution from the strategic investment projects
  - Continuous drive for VA shift
  - Improvement of underperforming businesses
- New business development led by BIC to drive the Group's growth
- Portfolio transformation based on profitability, capital efficiency and growth
- Promotion of lean and agile organization and culture

Even when the current coronavirus pandemic subsides, the society and economy may change drastically in the future. Irrespective of such changes, however, the Group believes that its strengths will continuingly enable it to make a contribution in fields such as; environment (glass for solar panels, energy saving glass for ZEB and ZEH); health (PCR test device and antivirus glass); and increased telecommunication demands associated with new working styles (optical telecom devices).

Despite the current uncertain and ambiguous socio-economic circumstances, the Group will make its best effort in solidarity to transform the business structure into one suitable for sustainable growth under the new management principle – "Our Vision."

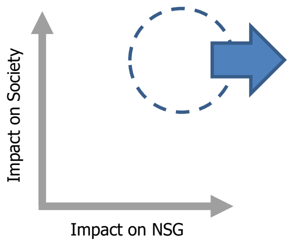
(4) New Materiality defined for sustainable growth

Based on "Our Vision", the Group redefined the Materiality in the process of formulating a new medium-term management plan.

The following five items have been identified as Materiality to attain sustainable growth of the Group and contribute to a sustainable society in the medium to long term. The Group selected these five items according to their significance as assessed on the matrix measuring the axes of impacts on both society and the Group.

The Group will set targets for each item and take specific actions accordingly.

New Materiality



Ethics and Compliance	Carry off significant trust from stakeholders by constant address on Ethics and Compliance
Society Shift and Innovation	Identify significant challenges to society and providing technology/product/service to their solution in a timely fashion
Environment	Target Carbon Neutral with GHG emissions reduction by eco-friendly manufacturing process and sales expansion of eco-friendly products
Safe and High-Quality Products and Services	Enhance both the products and service quality through improvement of quality and supply chain control
Human Capital	Ensure sustainable growth of the Group and contribute employees' welfare through a variety of initiatives to enhance developing Change Leaders at global level, safety, health, and Inclusion and Diversity

2. BUSINESS AND OTHER RISKS

This information does not form part of the audited consolidated financial statements of Nippon Sheet Glass Company, Limited and is provided purely for the information of investors.

The Group regularly reviews the principal financial and operating risk factors considered relevant to its current business activities and financial position. An updated analysis of the principal financial and operating risk factors facing the Group is presented below. Any references to future events below are based on what the Group judged as effective as at the end of this financial year. Therefore, the list below is not comprehensive of all the risk factors relevant to the Group and any risk factor unforeseen or considered immaterial as of now could emerge and impact the Group in the future.

There were no material issues or events occurring during the year that cast doubt on the ability of the Group to continue to operate as a going concern for the foreseeable future.

Impact of the COVID-19 pandemic

The global COVID-19 pandemic which started in February to March 2020 is severely affecting economic activities in many regions and industries.

The Group's operations, product shipments and input material logistics have been impacted as it has temporarily reduced or closed its manufacturing activities in response to lockdowns mainly in Europe and North and South America and customers' reduction in production and product shipments, particularly in the automotive industry. Should a slowdown in the global economy result in lower construction activities or vehicle production, the Group's business and financial performance could be affected.

Economic conditions

The Group operates in three principal regions around the world being, Asia including Japan, Europe, and the Americas. As a result, changes in the business environment of its customers worldwide including the impact of the COVID-19 pandemic and geopolitical issues such as Brexit and the US-China trade war may affect our business.

In addition, the Group believes that emerging markets such as South America will grow at a faster pace than developed countries or regions in the long run, but, compared to the developed countries or regions in which the Group operates, there is also a greater potential risk.

Dependency on certain specified industries and sectors

The Group's Architectural and Automotive businesses together account for over 90 percent of Group revenues for the year ended 31 March 2020. In FY2020, the Group's Architectural and Automotive business accounted for 42 percent and 51 percent of sales to external customers respectively. Products are principally provided to customers in the construction, housing and automotive industries. These industries have historically experienced swings in demand in response to cyclical changes in consumer confidence, and this is likely to continue to be the case in the future.

The Group is working to increase its revenues generated from value-added glass products that generate higher than average margins and are typically sold into markets with significant growth prospects. Such products would normally have a lower level of cyclical volatility than commodity products and are therefore less likely to be affected by deteriorating economic conditions. However, there can be no assurance that such products will continue to enjoy higher than average margins, or that the markets for such products will continue to grow at higher than average rates. In addition, technological advances by other glass manufacturers in these areas could lead to an increased level of competition with a resulting erosion of profit margins for value-added products.

Further, there is a possibility that customers may change their strategies in such a way that is disadvantageous to the Group. In that case, the business results and financial condition of the Group may be affected, particularly with respect to value-added products that have been designed for such specific customers.

The Automotive business is also working to diversify its customer base. In recent years there has been a significant level of consolidation in the Automotive industry, leading to increased purchasing power for the Group's automotive customers. If such consolidation continues then this could mean that the Group's automotive customer base becomes more concentrated.

Competition

The Group competes with domestic and overseas glass product manufacturers. The Group also competes with material manufacturers of various plastic, metal and other materials used in the Architectural, Automotive and/or IT sectors. Although the Group endeavors to ensure a competitive edge in the provision of original technologies and products in these markets, if the Group is unable to ensure a competitive advantage due to changes in market needs or due to the emergence of a manufacturer providing low-cost products, or due to a manufacturer with a solid customer base and a high level of name recognition, or if our competitors receive governmental subsidies which are not available to us, there could be an adverse effect on the Group's financial performance and financial position.

Development of new products and technological innovation

The Group focuses on developing original technologies and products in its existing business fields and on developing new products in non-exploited business fields. Swift and adequate responses to rapid and significant technological changes in recent years are required for the Group to enhance and maintain the technological competitiveness of its products and services. It is important for the Group to look ahead of customers' needs and technological developments and to allocate and focus its resources selectively on the areas where it has strengths so that new technologies, products and businesses can be developed effectively. However, the new product development process could require considerable time and expenses, and the Group might be requested to invest considerable amounts of capital and resources before achieving revenues from the sale of new products. Should any competitor launch a similar product in the target market earlier than the Group, or if alternative technologies and products are preferred by the market, the previous investment in the Group's product development might not produce the profits initially expected. Should the Group be unable to predict or respond to an anticipated technological innovation and/or succeed in the development of a new product that sufficiently meets customers' needs, such failure in product development or technological innovation could adversely affect the Group's businesses, financial performance and financial position.

Funds necessary for future business operations

The Group might have additionally to raise funds to 1) launch new products, 2) conduct business or R&D projects, 3) extend manufacturing capacity, 4) acquire a supplementary business, technology or service, 5) implement cost-saving initiatives and restructuring projects, or 6) repay maturing debt or redeeming Class A Shares . Further, raising additional funds could be required at an unexpected timing, should an early repayment of debt be required as a result of a breach of certain terms and conditions of a loan agreement. If such funds cannot be raised under the intended conditions or at all, the Group might not be able to invest in the expansion, development or reinforcement of any product or service, capitalize on an opportunity for business development, ensure higher competitiveness to its competitors or maintain its finance expenses at a competitive level, or the Group's business and financial position could be negatively affected.

Overseas operations

The Group has many production facilities in numerous areas around the world including Japan, elsewhere in Asia, Europe, North America, and South America.

The Group has various joint venture operations, investments, alliances and subsidiary operations in emerging markets such as South America, Russia, China. The Group believes that the stakes it holds in these operations are an important part of its strategy to keep its manufacturing capacities in these regions. In previous years the Group has impaired certain of these investments, resulting in an exceptional charge within the Group's income statement. There can be no assurance that there will not be a further deterioration in the underlying markets faced by the Group's affiliates and subsidiaries in these regions. Consequently, there can be no assurance that the Group will not have to recognize further impairments with respect to these businesses in the future. In addition, the Group could face unexpected losses from these investments if it becomes difficult to continue an operation as a result of disagreements with its joint venture partners or other partners regarding business operation policy or for other reasons.

Risk involved in the suspension of production due to incidents including accidents and natural disasters

The Group undertakes regular anti-disaster inspections and the maintenance of facilities in order to minimize the potential adverse effects that might be caused by the suspension of production activity. In addition to this, to minimize the potential adverse effects on production facilities due to a natural disaster or incident (including an earthquake, a typhoon, a flood, an electrical power outage or any other type of event that causes a suspension of the Group's or of its customers' production), business continuity plans (BCP) are formulated at major business locations. Nevertheless, the impact on its facilities or suspension of operation cause by a natural disaster, incident including the COVID-19 pandemic cannot always be mitigated. In some cases, certain types of products manufactured at a Group facility might not be able to be produced by another facility. Consequently, in the case that production activity is suspended at a facility due to a natural disaster, the possibility of considerably reduced production capacity for certain specific product(s) could adversely affect the Group's financial performance and financial position. The Group insures against such events but there can be no guarantee that such insurance will fully compensate the Group in all circumstances or may not fully or partially cover an event. In such case the Group's financial performance and financial position could be adversely affected

Fluctuations in foreign exchange and interest rates

The Group has manufacturing operations in a variety of different countries around the world. Consequently, the Group is exposed to the risk of fluctuations in foreign exchange and interest rates associated with those countries. In addition, as the assets and liabilities denominated in local currencies are translated into yen when consolidated financial statements are prepared, the Group might be exposed to the risk of fluctuations in foreign exchange rates. Furthermore, fluctuations in interest rates might affect the values of interest expenses, interest income or financial assets and liabilities. Although the Group aims to hedge these risks with such contracts as foreign exchange forward and interest rate swap, such fluctuations in foreign exchange and interest rates could adversely affect the Group's businesses, financial performance and financial position.

Changes in supply of raw materials and fuel, and distribution of products

Specific raw materials, such as silica sand and soda ash, and fuels, such as fuel oil and natural gas, are critical to the glass manufacturing process. Fluctuations in the cost of supplying raw materials and fuel may adversely affect the Group's financial performance and financial condition. The Group uses commodity derivatives and swap contracts to hedge the effect of fluctuations in the market prices for raw materials and fuel. However, there can be no assurance that such measures can eliminate the impact of future increases in the prices of raw materials and fuel and fluctuations in prices could impact the financial performance and position of the Group.

The Group has entered into purchase agreements with selected suppliers of raw materials and fuel for medium and long-term fixed prices. The Group also sells its products through third party distributors in addition to its own distribution channels. If, for some reason, the Group's relationship with a major supplier or distributor ended, or such suppliers failed to perform their contractual obligations, the Group may have to enter into agreements with less favorable terms and conditions, or the supply of raw materials and the distribution of products may be impeded. This may result in the Group's financial performance and financial condition being adversely affected.

Retirement benefit obligations

The Group operates numerous corporate pension plans and healthcare benefit plans for retiring employees. In the event of large fluctuations in the market value of the assets backing such schemes, discount rates used to calculate pension liabilities, or mortality assumptions used in the calculation of pension liabilities, the Group may be obliged to contribute additional funds into the schemes.

While providing appropriate retirement benefit plans for its employees, the Group regularly reviews its retirement benefit obligations in order to reduce the risk to the Group. In recent years the Group has taken actions such as reducing the risk profile of assets within asset backed schemes, hedging longevity risks of certain groups of pensioners, and capping pensionable salaries for certain groups of active employees. However, there can be no assurance that such actions will be completely effective in eliminating the risk of increasing cash outflows into the Group's pension schemes in the future.

Legal restrictions

The Company and its subsidiaries and affiliates are subject to local and international regulations regarding investments, imports and exports, fair competition rules, regulations for environmental conservation, and other laws regarding business transactions, labor, pension, intellectual property rights, income tax, currency control and so forth of the respective countries and regions where they operate. Any change to these laws and regulations or operation thereof could adversely affect the Group's financial performance and financial position through limitation of the Group's business activities or imposition of expenses to be disbursed regarding legal compliance or penalty fees, and their subsequent claims for damages based on civil liability, to the Group by reason of infringement of any of the relevant laws and regulations.

The Group has published the NSG Group Code of Ethics and established the Ethics and Compliance function to continuously communicate and train its directors, officers and employees in order to ensure the compliance of its business activities with laws and regulations as well as its Articles of Incorporation. However, should an act by a member of the Group or a director, officer or employee thereof be incompliant with laws or regulations, the Group's reputation, business or financial performance or position could be adversely affected.

Business strategies

The Group's business strategies are affected by a variety of factors, including the economic environment, the price of raw materials, foreign exchange rates, and the development and provision of new technologies and products. However, there can be no assurances that, under these conditions, the intended results of the business strategies will be achieved. Furthermore, it is possible that the proposed execution of the Group's business plan will not be delivered, or that the intended effects will not be realized.

The Group develops and invests in new technology and products with the aim of transitioning from relatively low margin products to value-added products in order to keep its competitive advantages. However, there can be no assurance that the Group can succeed in development and commercialization of higher technology earlier than its competitors, or, as a result, can ensure higher competitiveness than its competitors. As stated in the "Issues to be addressed" section hereof, the Group has decided to postpone the announcement of a new medium-term management plan, which was planned to start in FY2021, considering the current uncertainties of our business environment due to the novel coronavirus pandemic. The Group believes its overall long-term direction remains valid and will continue to aim for improving its financial position by increasing business profits. However, should the business strategy fail to be executed as planned, the need for additional restructuring or disposals, and incidental additional funding or financial support, could arise.

Intellectual property rights

Patents and other intellectual property rights are an important competitive factor in the Group's operation. However, there can be no assurance that the Group will always be successful in adequately protecting its intellectual property rights. In addition, the Group conducts its operations globally, which increases the risk of disputes between the Group and third parties over intellectual property rights. Any such infringements or disputes could have a negative impact on the Group's business, financial performance and financial condition.

Civil liability

If individuals are injured as a result of defects in the Group's products, the Group could be subject to claims for damages based on product liability. In addition, the occurrence of the claim could negatively affect the Group's reputation.

The Group strives to ensure that its products are of the highest quality. However, if unexpected quality problems occur, the Group may need to conduct a major recall. If this happens, the Group's reputation may be harmed, and its financial performance and financial position may be adversely affected.

Laws and regulations regarding environment and climate change

The Group is focusing on efforts to build a sustainable society such as measuring its performance against targets aimed at contributing to the mitigation of climate change. The Group makes efforts to work on environmental issues such as greenhouse gas reduction, energy saving and generation, waste reduction and non-use or removal of harmful substances in order to have a beneficial environmental impact and comply with all relevant laws and regulations. However, any change to environmental laws and regulations or operation thereof, could adversely affect the Group's reputation, financial performance and financial position through limitation of the Group's business activities or imposition of expenses to be disbursed regarding legal compliance or penalty fees charged to the Group by reason of infringement of any relevant laws and regulations.

Evaluation and impairment of balance sheet assets

The Group has a considerable value of assets included on its balance sheet that must be tested annually for impairment. Such assets include, but are not limited to, goodwill and intangible assets arising on the acquisition of Pilkington plc, and deferred taxation assets arising largely from historic taxable losses generated in certain territories. In previous years, the Group has concluded that an impairment of goodwill and intangible assets was required with respect to its Automotive Europe and Rest of World Cash Generating Units (CGUs). There can be no assurance that further impairments of goodwill or intangible assets with respect to those CGUs will not be required in the future, and there can also be no assurance that goodwill or intangible assets held with respect to other CGUs will not also be required in the future. In particular, if the performance of the Group in the future does not improve to the extent that has been assumed in previous impairment tests, then impairments of such assets in the future will be more likely. Further, should the Group decide to reduce the size of or exit certain businesses in response to changes in the economic situation, other assets could also be impaired.

Whilst the Group has recorded various write-downs of deferred tax assets following its annual review of the realization profile of such assets in recent years, there can be no assurance that there will not be further similar write downs in the future. In addition, as the current tax environment globally is one of falling corporate tax rates, write-downs could arise in the future as a result of the application of reduced tax rates to the deferred tax assets recognized on the Group's balance sheet. Balance sheet values could be affected by factors such as a reduction in profit, or the volatility of foreign exchange markets, causing a reduction in consolidated asset values, and write-downs and write-offs of assets. Such factors could reduce shareholders' equity further and adversely affect funding and business transactions and as a result the Group's business and financial performance and position.

Information security

The Group owns and uses various kinds of confidential information and data related to its business activities. Controls over information technology systems are increasingly important to enable the Group to control such information and data appropriately and manage operations efficiently. The Group makes efforts in sufficiently protecting such confidential information and its information systems, but in the case the information system and the business activities are disrupted or any confidential information leaks externally due to any events such as natural disasters, telecommunications failures, computer viruses and cyber-attacks, it could have a material adverse effect on the Group's financial performance and financial position.

Employing and retaining talent

The Group's development and future growth depend largely on employing and developing capable talent. The Group has been taking actions to employ, develop and retain people. However, competition to attract talent is increasingly intense, especially regarding those with technical and scientific backgrounds. Should the Group be unable to employ, develop or retain required people in a timely manner, it could affect the Group's business and financial performance adversely.

Class A Shares

The right to request that the Company should acquire Class A Shares in exchange for ordinary shares granted to the holders of those Class A Shares may be exercised by such shareholders only on or after 1 July 2020, as provided in a subscription agreement entered into by and among the Company, Japan Industrial Solutions Fund II, UDS III Corporate Mezzanine Limited Partnership and UDS IV Corporate Mezzanine Limited Partnership, as announced in the "Notice regarding Issuance of Class Shares through Third-Party Allotment, Partial Amendments to the Articles of Incorporation, Reduction of Amounts of Capital Stock and Legal Capital Surplus, and Holding of Extraordinary General Meeting of Shareholders" dated 2 February 2017. However, due to the occurrence of a Conversion Restriction Removal Reason, the shareholders may exercise such right on or after 22 May 2020. Should all or part of Class A Shares be converted into ordinary shares, the number of ordinary shares issued would increase, which could dilute the value attributable on a per-share basis as well as adversely affect the trading and price of the Company's shares. Further, in such a case, one or more shareholders of Class A Shares could become a Major Shareholder(s) and their voting or disposals of shareholding could affect the Company's business activities and the demand and supply of the Company's shares.

3. ANALYSIS OF FINANCIAL POSITION, OPERATING RESULTS AND CASH FLOW BY MANAGEMENT

This information does not form part of the audited consolidated financial statements of Nippon Sheet Glass Company, Limited and is provided purely for the information of investors.

(1) Business Results

(Millions of yen)

	Revenue	Operating profit before exceptional items	Profit/(loss) before taxation	Profit/(loss) for the period	Profit/(loss) attributable to owners of the parent
FY2020	556,178	21,177	(13,549)	(17,518)	(18,925)
FY2019	612,789	36,855	22,730	14,378	13,287
Change (%)	(9.2)	(42.5)	-	-	-

1) Background to results

The Group experienced increasingly difficult trading conditions in its core markets during the year with underlying market conditions deteriorating from the third quarter. COVID-19 impacted the Group's Technical Glass business from January 2020 and severely impacted the Group's Automotive and Architectural businesses from March 2020. In some regions, vehicle production fell to near-zero levels towards the end of the year, as the Group's main automotive customers temporarily ceased production, particularly at plants in Europe and the Americas. Vehicle production continued at customers in Asia, albeit at much reduced levels. In Architectural, construction activity also weakened significantly towards the end of the year in response to COVID-19 lockdown restrictions, particularly in Europe and South America, but also in other regions. Demand for Solar Energy glass remains robust. Conditions facing the Group's Technical Glass business were also negatively impacted by COVID-19, although conditions began to stabilize somewhat by the end of the year.

2) Review by business segment

The Group's business lines cover three core product sectors: Architectural, Automotive, and Technical Glass.
Architectural, representing 42 percent of cumulative Group sales, includes the manufacture and sale of flat glass and various interior and exterior glazing products within the commercial and residential markets. It also includes glass for the Solar Energy sector.
Automotive, with 51 percent of Group sales, supplies a wide range of automotive glazing for new vehicles and for replacement markets.
Technical Glass, representing 7 percent of Group sales, comprises several discrete businesses, including the manufacture and sale of very thin glass used as cover glass for displays, lenses and light guides for printers, as well as glass fiber products, such as battery separators and glass components for engine timing belts.
Other operations include corporate costs, consolidation adjustments, certain small businesses not included in the segments covered above and the amortization of other intangible assets related to the acquisition of Pilkington.

The business results by business segment for the fiscal years ended 31 March 2020 and 31 March 2019, are summarized as in the table below.

(Millions of yen)

	Revenue		Operating profit before exceptional items	
	FY2020	FY2019	FY2020	FY2019
Architectural	233,687	247,348	17,331	25,811
Automotive	280,977	314,645	6,100	15,118
Technical Glass	40,143	49,106	7,116	8,062
Other operations	1,371	1,690	(9,370)	(12,136)
Total	556,178	612,789	21,177	36,855

Architectural

The Architectural business recorded revenues of ¥ 233,687 million (4Q FY2019: ¥ 247,348 million) and operating profit before exceptional items of ¥ 17,331 million (4Q FY2019: ¥ 25,811 million).
Architectural revenues fell from the previous year, mainly due to the translational impact of foreign exchange movements. Currency effects, together with the impact of increasingly challenging market conditions also led to a reduction in reported profits.
In Europe, representing 37 percent of the Group's architectural sales, revenues fell, due to lower volumes and restructuring projects concluded during the previous year, together with the impact of foreign exchange movements. Prices weakened from the third quarter, reflecting capacity additions in the region. Profits also fell in line with the lower prices, reduced volumes, and currency effects. Volumes declined sharply towards the end of the year due to the COVID-19 pandemic.
In Asia, representing 39 percent of the Group's architectural sales, revenues were similar to the previous year with increased dispatches of solar energy glass largely offsetting difficult domestic markets. Revenues from conventional architectural glass in Japan remained stable, and underlying profitability in Japan was also positive, although reported profits were hit by a one-off inventory valuation adjustment in an earlier quarter. On 31 March 2020 the Group announced the suspension of the Chiba #1 furnace effective from July 2020. On 30 January 2020 the Group announced the commencement of production at its second furnace in Vietnam dedicated to the production of glass for Solar Energy.
In the Americas, representing 24 percent of the Group's architectural sales, revenues and profits were below the previous year. Domestic market conditions in North America were more challenging than the previous year, with increased flat glass supply causing an erosion of market prices. Sales of glass for solar energy improved, however. In South America, revenues fell mainly due to the translational impact of foreign exchange movements. In addition, volumes were impacted by COVID-19 towards the end of the year.

Automotive

The Automotive business recorded sales of ¥ 280,977 million (4Q FY2019: ¥ 314,645 million) and operating profit before exceptional items of ¥ 6,100 million (4Q FY2019: ¥ 15,118 million).
In the Automotive business, revenues and profits were below the previous year due to the translational impact of foreign exchange movements, together with a decline in new car production in Europe.
Europe represents 43 percent of the Group's automotive sales. Revenues and profits fell, due mainly to a reduction in volumes as a result of declining light-vehicle build levels. Volumes were significantly affected by COVID-19 related stoppages at customer's plants towards the end of the year.
In Asia, representing 24 percent of the Group's automotive sales, revenues were below the previous year, and profits also declined. In Japan, revenues were below the previous year, as an improvement in sales volumes during the first two quarters was more than offset by a reduction from the third quarter after the imposition of increased sales taxes from 1 October 2019. Profits also fell from the previous year, being impacted by raw glass cost increases and the reduction of volumes from the third quarter.
In the Americas, representing 33 percent of the Group's automotive sales, revenues fell due to the translational impact of foreign exchange movements and weakening market conditions particularly towards the end of the year with a significant impact from the COVID-19 pandemic. In North America, despite OE volumes being slightly below the previous year, profits strengthened, benefitting from further manufacturing efficiency improvements. Profitability in South America was similar to the previous year.

Technical Glass

The Technical Glass business recorded revenues of ¥ 40,143 million (4Q FY2019: ¥ 49,106 million) and operating profit before exceptional items of ¥ 7,116 million (4Q FY2019: ¥ 8,062 million).
Revenues and profits fell in the Technical Glass business due to the challenging market conditions in some areas.
In the fine glass business, continued cost reduction efforts and a better sales mix provided a strong foundation for further improvement in results. In the information devices business, demand for glass components used in printers and scanners declined. Demand for glass cord used in engine timing belts fell, reflecting conditions in the automotive sector generally, particularly towards the end of the year. Results in the battery separator business remained stable.

Other

Other Operations and Eliminations recorded revenues of ¥ 1,371 million (Q4 FY19 ¥ 1,690 million) and operating costs of ¥ 9,370 million (Q4 FY19 cost of ¥ 12,136 million).
This segment covers corporate costs, consolidation adjustments, certain small businesses not included in the segments covered above and the amortization of other intangible assets related to the acquisition of Pilkington plc.

Joint Ventures and Associates

The Group's share of joint ventures and associates' profits after tax was ¥ 1,077 million (4Q FY2019: ¥ 6,244 million).
The Group's share of joint ventures and associate's profits was below the previous year, due partly to the non-recurrence of a one-off gain recorded during the second quarter of the previous year at Cebrace, the Group's architectural joint venture in Brazil, following the conclusion of a legal challenge regarding the calculation of sales-based taxes. In addition, underlying results also fell as the Group's joint ventures and associates faced increasingly difficult market conditions towards the end of the year.

(2) Accounting Principles, and Critical Accounting Estimates and Assumptions

The significant accounting principles applied by the Group in the preparation of the consolidated financial statements are as explained in "Basis of presenting the consolidated financial statements" of the "Consolidated financial statements" in "**Section4 Financial Information**." The preparation of consolidated financial statements may require management to make certain estimates or judgments deemed reasonable in view of current circumstances of trading, past results and other factors in determining the amounts of the assets, liabilities, revenues and expenses reported in the consolidated financial statements and accompanying notes in accordance with these accounting principles.
Please refer to note 12 "Goodwill" for the impairment test for goodwill at the year-end date and calculation of the impairment loss.

(3) Financial Position

The Group's forecasts and projections show that the Group is able to continue to operate within existing financial facilities. The Group will enter renewal negotiations with its providers of finance before such facilities fall due. In discussions with its bankers on future borrowing requirements, no matters have been drawn to the Group's attention to suggest that renewal would not be forthcoming on acceptable terms. After making enquiries, the directors have reasonable expectation that the Group will have adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Group continues to apply the going concern basis in preparing these financial statements.

1) Total assets

Total assets at the end of March 2020 were ¥ 765,197 million, representing an increase of ¥ 3,328 million from the end of March 2019. The increase in assets was largely caused by the recognition of Right-of-Use assets, within Property, Plant & Equipment, as a result of the adoption of IFRS16 "Leases".

2) Net debt

Net financial indebtedness increased by ¥ 72,468 million from 31 March 2019 to ¥ 390,169 million at the period end. The increase in indebtedness arose from the adoption of IFRS16, and also from capital expenditure in growth investment projects. Gross debt was ¥ 435,007 million at the period end. As of 31 March 2020, the Group had un-drawn, committed facilities of ¥ 65,511 million.

3) Net assets

Total equity was ¥ 88,194 million, representing a decrease of ¥ 44,312 million from the March 2019 figure of ¥ 132,506 million. Total equity fell mainly as a result of the strengthened yen when compared to many of the Group's currencies, the loss recorded for the period and the acquisition and cancellation of Class A shares.

(4) Operating results

1) Revenue

Group revenues fell by nine percent to ¥ 556,178 million (4Q FY2019 ¥ 612,789 million), affected by the translational impact of foreign exchange movements, and also by the difficult market conditions facing the Group in many areas. At constant exchange rates, revenues would have fallen by five percent.

2) Operating profit before exceptional items

The Group recorded a trading profit (before exceptional items and amortization relating to the acquisition of Pilkington) of ¥ 23,018 million (4Q FY2019 ¥ 38,824 million). Operating profit before exceptional items was ¥ 21,177 million (4Q FY2019 ¥ 36,855 million).

3) Profit before taxation

Profit before taxation worsened by ¥ 36,279 million to a loss of ¥ 13,549 million. The Group recorded exceptional items of ¥ 23,960 million, including the impairment of goodwill and other intangible assets for the Automotive Europe and Rest of World Cash Generating Units of ¥ 11,728 million. In addition to the exceptional costs, the Group's share of Joint Ventures' and Associates profits also declined due partly to the non-recurrence of a one-off gain recorded during the second quarter of the previous year at Cebrace, the Group's architectural joint venture in Brazil, following the conclusion of a legal challenge regarding the calculation of sales-based taxes. In addition, underlying results also fell as the Group's joint ventures and associates faced increasingly difficult market conditions towards the end of the year.

4) Profit attributable to equity shareholders

The loss attributable to owners of the parent was ¥ 18,925 million (4Q FY2019 profit of ¥ 13,287 million) with the deterioration due mainly to the exceptional items recorded as well as the reduced operating profit.

5) Other indices

Basic earnings per share worsened from a profit of ¥ 115.16 in the previous year, to a loss of ¥ 235.96 in FY2020. Basic earnings per share is calculated by dividing the profit attributable to owners of the parent, after deducting dividends and redemption premium paid to holders of Class A shares, by the weighted average number of ordinary shares in issue during the year.
In FY2020, dividends relating to Class A Shares of ¥ 1,700 million (FY2019: ¥ 2,114 million) and redemption premium paid on Class A shares of ¥ 750 million (FY2019: ¥ 750 million) have been included in this calculation.

(5) Cash flow

Cash inflows from operating activities were ¥ 30,444 million. Cash outflows from investing activities were ¥ 56,888 million, including capital expenditure on property, plant, and equipment of ¥ 60,868 million. Capital expenditure increased due to the progression of strategic investment projects in the U.S., Vietnam and Argentina. As a result, free cash flow was an outflow of ¥ 26,444 million.

After taking into account the effect of financing cash flows and movements in exchange rates, cash and cash equivalents at the end of the year decreased by ¥ 9,780 million year-on-year to ¥ 40,512 million.

4. FINANCIAL INFORMATION

CONSOLIDATED INCOME STATEMENT

Nippon Sheet Glass Company, Limited and consolidated subsidiaries

For the period ended 31 March 2020

	Note	2020	2019
			Millions of yen
Revenue	2	**556,178**	612,789
Cost of sales		**(421,881)**	(452,095)
Gross profit		**134,297**	160,694
Other income	4	**3,177**	1,130
Distribution costs		**(51,430)**	(55,582)
Administrative expenses		**(59,351)**	(63,999)
Other expenses	5	**(5,516)**	(5,388)
Operating profit before exceptional items	3	**21,177**	36,855
Exceptional items	7	**(23,960)**	(7,068)
Operating (loss)/profit after exceptional items		**(2,783)**	29,787
Finance income	9	**2,126**	2,131
Finance expenses	9	**(13,969)**	(15,432)
Share of post-tax profit of joint ventures and associates accounted for using the equity method	17	**1,077**	6,244
(Loss)/profit before taxation		**(13,549)**	22,730
Taxation	10	**(3,969)**	(8,352)
(Loss)/profit for the period		**(17,518)**	14,378
Profit attributable to non-controlling interests	42	**1,407**	1,091
(Loss)/profit attributable to owners of the parent		**(18,925)**	13,287
		(17,518)	14,378
Earnings per share attributable to owners of the parent:			
Basic earnings per share (yen)	37	**(235.96)**	115.16
Diluted earnings per share (yen)	37	**(235.96)**	85.14

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Nippon Sheet Glass Company, Limited and consolidated subsidiaries

For the period ended 31 March 2020

	Note	2020	2019
			Millions of yen
(Loss)/profit for the period		**(17,518)**	14,378
Other comprehensive income:			
Items that will not be reclassified to profit or loss:			
Re-measurement of retirement benefit obligations (net of taxation)	28	**9,117**	697
Revaluation of Assets held at Fair Value through Other Comprehensive Income – equity investments (net of taxation)		**(1,974)**	(157)
Sub total		**7,143**	540
Items that may be reclassified to profit or loss:			
Foreign currency translation adjustments		**(25,908)**	(18,054)
Revaluation of Assets held at Fair Value through Other Comprehensive Income – other investments (net of taxation)		**209**	36
Cash flow hedges – fair value gains (net of taxation)		**(4,845)**	(103)
Hyperinflation adjustment	40	**4,386**	2,829
Sub total		**(26,158)**	(15,292)
Other comprehensive income for the period (net of taxation)		**(19,015)**	(14,752)
Total comprehensive income for the period		**(36,533)**	(374)
Attributable to non-controlling interests		**1,544**	508
Attributable to owners of the parent		**(38,077)**	(882)
		(36,533)	(374)

CONSOLIDATED BALANCE SHEET

Nippon Sheet Glass Company, Limited and consolidated subsidiaries

As at 31 March 2020

	Note	2020	2019
			Millions of yen
Assets			
Non-current assets			
Goodwill	12	**91,199**	107,349
Intangible assets	13	**47,390**	53,790
Property, plant and equipment	14	**294,545**	241,506
Investment property	15	**303**	371
Investments accounted for using the equity method	17	**17,083**	18,294
Retirement benefit asset	28	**32,894**	27,557
Contract assets	2	**622**	1,047
Trade and other receivables	18	**10,474**	14,327
Financial assets			
assets held at fair value through other comprehensive income	19	**17,571**	18,640
derivative financial instruments	20	**51**	435
Deferred tax assets	22	**28,658**	32,411
Tax receivables		**318**	561
		541,108	516,288
Current assets			
Inventories	23	**118,388**	119,645
Contract assets	2	**2,117**	1,645
Trade and other receivables	18	**54,003**	63,994
Financial assets			
assets held at fair value through other comprehensive income	19	**461**	—
derivative financial instruments	20	**1,179**	966
Cash and cash equivalents	24	**43,608**	52,406
Tax receivables		**2,119**	1,721
		221,875	240,377
Assets held for sale or included in a disposal group held for sale	25	**2,214**	5,204
		224,089	245,581
Total assets		**765,197**	761,869

CONSOLIDATED BALANCE SHEET

	Note	Millions of yen 2020	2019
Liabilities and equity			
Current liabilities			
Financial liabilities			
borrowings	26	**54,000**	41,054
derivative financial instruments	20	**4,664**	1,132
Trade and other payables	27	**124,145**	127,425
Contract liabilities	2	**4,537**	3,780
Taxation liabilities		**2,232**	3,084
Provisions	29	**9,423**	13,880
Deferred income	30	**996**	1,191
		199,997	191,546
Liabilities related to assets held for sale	25	**392**	1,432
		200,389	192,978
Non-current liabilities			
Financial liabilities			
borrowings	26	**373,728**	328,598
derivative financial instruments	20	**2,615**	724
Trade and other payables	27	**382**	481
Contract liabilities	2	**6,120**	590
Deferred tax liabilities	22	**16,105**	18,469
Taxation liabilities		**2,646**	2,408
Retirement benefit obligations	28	**58,589**	66,177
Provisions	29	**13,261**	14,184
Deferred income	30	**3,168**	4,754
		476,614	436,385
Total liabilities		**677,003**	629,363
Capital and reserves attributable to the owners of the parent			
Called up share capital	32	**116,607**	116,588
Capital surplus	33	**155,222**	160,953
Retained earnings	34	**(54,276)**	(40,530)
Retained earnings (translation adjustment at the IFRS transition date)		**(68,048)**	(68,048)
Other reserves	35	**(75,893)**	(45,203)
Total shareholders' equity		**73,612**	123,760
Non-controlling interests	42	**14,582**	8,746
Total equity		**88,194**	132,506
Total liabilities and equity		**765,197**	761,869

The financial statements on page 14 to 75 were approved by the Executive Officers on 30 June 2020.

Executive Officers

Shigeki Mori
Representative Executive Officer
President and Chief Executive Officer

Kenichi Morooka
Representative Executive Officer
Chief Financial Officer

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Nippon Sheet Glass Company, Limited and consolidated subsidiaries

For the period ended 31 March 2020

Millions of yen

	Called up share capital	Capital surplus	Retained earnings	Retained earnings (translation adjustment at the IFRS transition date)	Other reserves	Total shareholders' equity	Non-controlling interests	Total equity
Note	32	33	34		35		42	
Balance at 1 April 2018	**116,546**	**166,661**	**(51,350)**	**(68,048)**	**(28,617)**	**135,192**	**8,523**	**143,715**
Hyperinflation adjustment	—	—	770	—	—	770	598	1,368
Balance at 1 April 2018 (after hyperinflation adjustment)	**116,546**	**166,661**	**(50,580)**	**(68,048)**	**(28,617)**	**135,962**	**9,121**	**145,083**
Profit for the period	—	—	13,287	—	—	13,287	1,091	14,378
Other comprehensive income	—	—	2,432	—	(16,601)	(14,169)	(583)	(14,752)
Total comprehensive income	—	—	15,719	—	(16,601)	(882)	508	(374)
Transactions with owners								
Dividends paid	—	—	(5,669)	—	—	(5,669)	(472)	(6,141)
Stock options	42	42	—	—	19	103	—	103
Purchase of treasury stock	—	—	—	—	(5,754)	(5,754)	—	(5,754)
Retirement of treasury stock	—	(5,750)	—	—	5,750	—	—	—
Equity transaction with non-controlling interests	—	—	—	—	—	—	(411)	(411)
Balance at 31 March 2019	**116,588**	**160,953**	**(40,530)**	**(68,048)**	**(45,203)**	**123,760**	**8,746**	**132,506**
Adoption of new standards	—	—	(3,576)	—	—	(3,576)	—	(3,576)
Balance at 1 April 2019	**116,588**	**160,953**	**(44,106)**	**(68,048)**	**(45,203)**	**120,184**	**8,746**	**128,930**
Loss for the period	—	—	(18,925)	—	—	(18,925)	1,407	(17,518)
Other comprehensive income	—	—	11,567	—	(30,719)	(19,152)	137	(19,015)
Total comprehensive income	—	—	(7,358)	—	(30,719)	(38,077)	1,544	(36,533)
Transactions with owners								
Dividends paid	—	—	(2,822)	—	—	(2,822)	(508)	(3,330)
Stock options	19	19	—	—	31	69	—	69
Purchase of treasury stock	—	—	—	—	(5,752)	(5,752)	—	(5,752)
Retirement of treasury stock	—	(5,750)	—	—	5,750	—	—	—
Equity transaction with non-controlling interests	—	—	10	—	—	10	4,800	4,810
Balance at 31 March 2020	**116,607**	**155,222**	**(54,276)**	**(68,048)**	**(75,893)**	**73,612**	**14,582**	**88,194**

CONSOLIDATED STATEMENT OF CASH FLOWS

Nippon Sheet Glass Company, Limited and consolidated subsidiaries

For the period ended 31 March 2020

	Note	2020	2019
			Millions of yen
Cash flows from operating activities			
Cash generated from operations	36	**43,873**	44,434
Interest paid		**(11,097)**	(12,047)
Interest received		**3,236**	2,019
Income tax paid		**(5,568)**	(5,376)
Net cash generated from operating activities		**30,444**	29,030
Cash flows from investing activities			
Dividends received from joint ventures and associates		**1,490**	3,606
Purchase of associates		**(13)**	—
Proceeds on disposal of joint ventures and associates		**—**	15
Proceeds on disposal of subsidiaries		**1,950**	—
Decrease in cash and cash equivalents resulting from change in scope of consolidation		**(129)**	—
Purchases of property, plant and equipment		**(60,868)**	(28,125)
Proceeds on disposal of property, plant and equipment		**1,879**	479
Purchases of intangible assets		**(1,778)**	(2,380)
Proceeds on disposal of intangible assets		**37**	1
Purchases of assets held at fair value through other comprehensive income		**(2,218)**	(1,801)
Proceeds on disposal of assets held at fair value through other comprehensive income		**1**	10
Loans advanced to joint ventures, associates and third parties		**(1,075)**	(502)
Loans repaid from joint ventures, associates and third parties		**2,663**	555
Others		**1,173**	(1)
Net cash used in investing activities		**(56,888)**	(28,143)
Cash flows from financing activities			
Dividends paid to owners of the parent		**(2,818)**	(5,656)
Dividends paid to non-controlling interests		**(508)**	(472)
Repayment of borrowings	26	**(46,567)**	(107,973)
Proceeds from borrowings	26	**69,040**	108,907
Increase in treasury stock		**(5,752)**	(5,754)
Capital contribution from non-controlling interests		**5,248**	—
Others		**(438)**	(410)
Net cash generated from/(used in) financing activities		**18,205**	(11,358)
Decrease in cash and cash equivalents (net of bank overdrafts)		**(8,239)**	(10,471)
Cash and cash equivalents (net of bank overdrafts) at the beginning of the period	24	**50,292**	62,799
Effect of foreign exchange rate changes		**(3,627)**	(3,558)
Hyperinflation adjustment	40	**2,086**	1,522
Cash and cash equivalents (net of bank overdrafts) at the end of the period	24	**40,512**	50,292

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1.1. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the periods presented except for the accounting treatment of leases, which was amended with effect from 1 April 2019 following the adoption of IFRS 16 'Leases'; see note 1.2.

Reporting entity

Nippon Sheet Glass Company, Limited (the Company) together with its consolidated subsidiaries (the Group) is a world leader in the supply of flat glass for architectural and automotive applications. In addition, the Group has a number of discrete technical glass businesses, operating in high technology areas.

The parent company of the Group, Nippon Sheet Glass Company, Limited is incorporated and domiciled in Japan and has shares publicly traded on the Tokyo Stock Exchange. The registered office is located at 5-27, Mita 3-chome, Minato-ku, Tokyo, Japan.

Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). The consolidated financial statements have been prepared on a historical cost basis, except for investment property, derivative financial instruments and assets held at fair value through other comprehensive income that have been measured at fair value, and also except for the application of hyperinflationary accounting at the Group subsidiaries in Argentina.

The financial statements are presented in Japanese yen and are rounded to the nearest million yen (¥m) except where otherwise indicated.

IFRS standards not relevant for this financial period

Certain new standards, amendments and interpretations to existing standards have been published that are mandatory for the Group's annual accounting periods beginning on or after 1 April 2020 and are considered to be relevant and potentially material to the Group's primary financial statements. The Group has elected not to adopt early the standards as described below:

IFRS 17 "Insurance Contracts" addresses accounting for insurance contracts and will be effective from the Group's financial period commencing 1 April 2021. This new standard will replace IFRS 4 "Insurance Contracts". The Group has not yet calculated the impact of the adoption of this standard.

Consolidation

(a) Subsidiaries

Subsidiaries are all entities over which the Group has the power to control the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights arising from equity share options that are currently exercisable or convertible, are considered when assessing whether the Group controls another entity. Subsidiaries where the Group controls more than 50 percent of the voting rights are fully consolidated from the date on which control is transferred to the Group. They are consolidated until the date that control ceases.

The Group uses the acquisition method of accounting to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred includes the fair value of any assets or liabilities resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired, and liabilities and contingent liabilities assumed, in a business combination are measured initially at their fair values at the acquisition date.

The excess of the consideration transferred, the amount of any non-controlling interest, based upon the appropriate share of the acquiree's net asset value, and the acquisition-date fair value of any previous equity

Segment reporting

interest in the acquiree, over the fair value of the Group's share of the identifiable net assets acquired, is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognized immediately in the consolidated income statement (see Intangible Assets — Goodwill).

Inter-company transactions, balances and unrealized gains on transactions between Group companies are eliminated. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. All Group companies use a common set of accounting policies and are consolidated using a common accounting reference date of 31 March.

(b) Non-controlling interests, joint ventures and associates

Non-controlling interests

Changes in the Group's ownership interests in subsidiaries, arising from transactions between the Group and non-controlling interests, that do not result in a change in the Group's control over a subsidiary, are treated as equity transactions and therefore do not result in goodwill, or in gains and losses in the income statement.

Joint ventures

A joint venture is a contractual arrangement whereby the Group and other parties undertake an economic activity, which is then subject to joint control. In the Group, all such jointly controlled activities are undertaken through jointly controlled entities with the Group entitled to a share of the net assets of the jointly controlled entity. Consequently, the Group considers each of its joint arrangements to be joint ventures rather than joint operations. The Group considers that it has no other material contractual arrangements with its joint venture partners, other than the joint venture agreement itself. The Group accounts for its interest in these jointly controlled entities by the equity method of accounting, as described in relation to associates below.

Associates

Associates are all entities over which the Group has significant influence, generally accompanying a shareholding of between 20 and 49 percent of the voting rights. Significant influence is the power to participate in the financial and operating policy decisions of an investee, but is not control or joint control over these policies. Investments in associates are accounted for by the equity method of accounting and are initially recognized at cost. The Group considers that it has no material contractual arrangements with the other investors in each of the Group's associated entities, other than those which arise in the normal course of business. The Group's investment in associates includes goodwill (net of any accumulated impairment loss) identified on acquisition (see Intangible Assets— Goodwill).

The Group's share of its associates' post-acquisition profits or losses is recognized in the income statement, and its share of post-acquisition movements in reserves is recognized in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associate.

Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

Accounting for joint ventures and associates

Joint ventures and associates are accounted for on the basis of audited accounts, or where these are not available, on the basis of unaudited management accounts prepared up to the Group's accounting date. Where it is not practicable to obtain such accounts, audited accounts or unaudited management accounts prepared to an accounting date not more than three months prior to the Group's accounting date are used. Where appropriate, the financial statements of joint ventures and associates are adjusted to conform to the Group's accounting policies.

The chief operating decision-making body in the Group is the Board of

Directors. The Group reports the results of its operating segments externally in a manner consistent with its internal reporting to the Board of Directors. The Board of Directors is responsible for allocating resources to, and assessing the performance of, the Group's operating segments.

Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in Japanese yen which is the Company's functional and the Group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

Translation differences on non-monetary items, such as equities classified as assets held at fair value through other comprehensive income, are included in the fair value reserve in equity.

(c) Group companies

The results and financial position of all Group entities with a functional currency different from the Group's presentation currency, except for subsidiary companies in Argentina which have a functional currency considered to be hyperinflationary, are translated into the presentation currency as follows:

- assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;
- income and expenses for each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
- all resulting exchange differences are recognized in the exchange translation reserve, a separate component of equity.

The results and transactions of subsidiaries in Argentina are translated into the Group's presentational currency using closing year-end rates of exchange as a result of the use of hyperinflationary accounting.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to the exchange translation reserve within shareholders' equity. When a foreign operation is sold, such exchange differences are recognized in the income statement as part of the gain or loss on sale.

Exchange differences recognized prior to 31 March 2010 are included in a separate reserve within retained earnings called 'Retained earnings (translation adjustment at the IFRS transition date)'. Exchange differences arising on or after 1 April 2010 are recognized within a separate exchange reserve.

Goodwill, intangibles and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

Property, plant and equipment – owned by the Group

Land and buildings comprise mainly the Group's manufacturing facilities. Land is shown at historical cost. All property (excluding land) and plant and equipment are stated at historical cost less accumulated depreciation and impairment. Historical cost comprises all expenditure that is directly attributable to the acquisition of the items. Cost may also include transfers from equity of any gains/losses on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Borrowing costs are capitalized with respect to material capital expenditure projects, using the Group's marginal cost of borrowing over the period of construction of the asset. Borrowing costs are depreciated over the useful economic life of the asset to which they relate.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Freehold land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost less their residual values over their estimated useful lives, as follows:

Freehold buildings	3 to 50 years
Float glass tanks	10 to 15 years
Glass-making plant	25 years
Glass-processing plant	15 years
Other plant and equipment	5 to 20 years
Vehicles	5 years

The assets' residual values and useful lives are reviewed to take account of technological changes, intensity of use over their lives and market requirements, and adjusted if appropriate, at each balance sheet date. In the event of impairment, an asset's carrying amount is written down immediately to its recoverable amount (see 'Impairment of assets').

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount. These are included in the income statement.

For the right-of-use assets representing the Group's right to use an underlying asset according to a contract including a lease, see 'Leases'.

Investment property

Investment property principally comprises land, office buildings and small industrial units, and those parts of other properties not occupied by the Group, which are held for long-term rental yields. Investment properties are initially recognized at cost and are thereafter carried at fair value, representing open-market value determined annually by discounted cash flows or by the use of external valuers. Changes in fair value are recorded in the income statement as part of other income and expense.

Intangible assets

(a) Goodwill

Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. Each of those cash-generating units represents the Group's investments in each region of operation by each primary reporting segment (see 'Impairment of assets').

(b) Trademarks and licenses

Trademarks and licenses are shown at historical cost. Trademarks and licenses have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight-line method to allocate the cost of trademarks and licenses over their estimated useful lives (over a maximum of twenty years).

(c) Computer software

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortized over their estimated useful lives (five to ten years).

Costs associated with developing or maintaining computer software programs are recognized as an expense as incurred. Costs that are directly associated with the production of identifiable and unique software products controlled by the Group, which are seen to generate economic benefits exceeding costs beyond one year, are recognized as intangible assets. Direct costs include the software development employee costs and an appropriate portion of relevant overheads.

Computer software development costs recognized as assets are amortized over their estimated useful lives (not exceeding ten years).

(d) Research and development

Research expenditure is recognized as an expense as incurred. Costs incurred on development projects (relating to the design and testing of new or improved products or processes which will be used internally within the Group) are recognized as intangible assets when it is probable that the project will be commercially successful and technologically feasible or will give rise to internally improved processes, and costs can be measured reliably.

Other development expenditure is recognized as an expense as incurred. Development costs previously recognized as an expense are not recognized as an asset in a subsequent period. Development costs with a finite useful life that have been capitalized, are amortized from the date when the product or use of the process becomes available for commercial production on a straight-line basis over the period of its expected benefit, not exceeding five years (products) and twenty years (processes).

(e) Intangible assets created on acquisition

The intangible assets identified on acquisition of the Pilkington Group in June 2006 as part of the fair valuing of the net assets acquired include customer relationships, know-how, license agreements, the Pilkington brand name and other brands, in-process research and development and developed technology. These have been capitalized and are amortized over the estimated life of each category of intangible asset and are amortized on a straight-line basis over the period of their expected benefit to the Group as follows:

Customer relationships	Up to 20 years
Know-how**	10 years
License agreements **	11 years
Pilkington brand name*	Nil
Other brands**	10 years
Research and development	Up to 20 years
Developed technology	Up to 15 years

* The Pilkington brand name has been assigned an indefinite useful life and is therefore not subject to routine amortization, but is instead tested annually for impairment.

** Fully amortized, with remaining book value of nil

Impairment of assets

Assets that have an indefinite useful life are not subject to amortization (or depreciation) and are tested annually for impairment. Assets that are subject to amortization (or depreciation) are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized when the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use.

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). A number of significant assumptions and estimates are involved in forecasting future cash flows, including market growth rates, sales volumes and market prices. Forecasts of future cash flows are based on best estimates of future revenues and operating expenses using historical trends, market conditions and industry trends. These assumptions are subject to review by management and the Board of Directors. The future forecasts are adjusted by an appropriate discount rate derived from the cost of capital plus a risk premium at the date of the evaluation. The discount rate, based on the pre-tax weighted average cost of capital used in calculating the recoverable value, is set at a rate appropriate to each territory, consistent with the rates used to assess the potential impairment of goodwill, detailed in note 12.

Financial risk management

Financial risk factors

The Group's multinational operations and debt financing expose it to a variety of financial risks that include the effects of changes in foreign currency exchange rates, energy prices, debt market prices, interest rates, credit risks, and liquidity. The Group has in place a risk management program that seeks to limit the effects on the financial performance of the Group by using financial instruments.

Financial risk management is carried out by a central treasury department (Group Treasury) under policies approved by the Board of Directors. Group Treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units. The Board provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, energy price risk, use of derivative and non-derivative financial instruments, credit risk, and investing excess liquidity.

(a) Market risk

(i) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the euro, sterling and US dollar. Foreign exchange risk arises from future commercial transactions, recognized assets and liabilities and net investments in foreign operations.

To manage their foreign exchange risk arising from future commercial transactions and recognized assets and liabilities, companies in the Group use forward contracts, transacted with Group Treasury. Foreign exchange risk arises when future commercial transactions and recognized assets and liabilities are denominated in a currency that is not the entity's functional currency. Group Treasury is responsible for managing the net position in each foreign currency by using external forward currency contracts.

Each subsidiary designates contracts with Group Treasury as fair value hedges or cash flow hedges, as appropriate.

External foreign exchange contracts are designated at Group level as hedges of foreign exchange risks on specific assets, liabilities or future transactions on a gross basis.

The Group's risk management policy is to hedge forecast transactions creating the foreign currency exposure provided that such forecast transactions are reasonably certain.

The Group has certain investments in foreign operations, whose net assets are exposed to foreign currency translation risk. Currency exposure arising from the net assets of the Group's foreign operations is managed primarily through borrowings denominated in the relevant foreign currencies.

The Group is exposed to the risk of fluctuations in foreign exchange rates, mainly as the assets, liabilities, incomes and expenses denominated in local currencies are translated into yen when consolidated financial statements are prepared.

All other things being equal, a 1% increase in the value of the yen would lead to a decrease in total equity of ¥3,100 million (2019: ¥3,300 million). Based on the financial results for the year to 31 March 2020, a 1% increase in the value of the yen would result in a decrease in the loss for the period of ¥100 million (2019: a decrease in the profit for the period of ¥200 million).

(ii) Energy price risks

The Group consumes significant amounts of energy and is exposed to energy price risk arising from this consumption, principally of oil and gas.

The Group's risk management policy is to hedge between 20 percent and 100 percent of anticipated purchases for the subsequent 12 months and between 0 percent and 80 percent for the subsequent four years.

(iii) Cash flow and fair value interest rate risk
As the Group has no significant interest-bearing assets, the Group's income and operating cash inflows are substantially independent of changes in market interest rates.

The Group's interest rate risk arises primarily from long-term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk. Borrowings issued at fixed rates expose the Group to fair value interest rate risk. Group policy is to maintain approximately 30 to 70 percent of net borrowings in fixed rate instruments. All other things being equal, a 1 percent increase in interest rates would result in an increase in annual interest costs on financial balances of ¥2,479 million (2019: ¥2,154 million).

The Group manages its cash flow interest rate risk by using floating-to-fixed interest rate swaps. Such interest rate swaps have the economic effect of converting borrowings from floating rates to fixed rates. Under the interest rate swaps, the Group agrees with other parties to exchange, at specific intervals, the difference between fixed contract rates and floating rate interest amounts calculated by reference to the agreed notional principal amounts.

(b) Credit risk
The Group has no significant concentrations of credit risk other than in relation to the receivables due from automotive original equipment manufacturers. It has policies in place to ensure that sales of products are made to customers with an appropriate credit history. Derivative counterparties are limited to high credit quality financial institutions. The Group has policies that limit the amount of credit exposure to any financial institution.

As set out in note 39, the Group has outstanding loans and receivables owed by joint ventures and associates. The Group manages these balances on an arms-length basis, ensuring that loans and receivables are only advanced to joint ventures and associates where the Group is satisfied that these balances will be repaid.

(c) Liquidity risk
Prudent liquidity risk management policies maintain sufficient cash and cash equivalents and availability of funding through committed credit facilities. Due to the dynamic nature of the underlying businesses, Group Treasury aims to maintain flexibility in funding by keeping a substantial portion of committed credit lines undrawn.

Financial Instruments
The Group classifies its financial instruments in the following categories: financial assets and liabilities at fair value through profit or loss, financial assets and liabilities held at amortized cost, and financial assets held at fair value through other comprehensive income. Management determines the classification of its instruments at initial recognition and re-evaluates this designation at every reporting date. The evaluation considers the characteristics of the cash flows generated by the instruments and the Group's business model rationale for holding the instruments.

(a) Financial assets/liabilities at fair value through profit or loss
This category has two sub-categories: financial assets held for trading, and those designated at fair value through profit or loss at inception. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also categorized as held for trading unless they are designated as hedges. Assets/liabilities in this category are classified as current assets/liabilities if they are either held for trading or are expected to be realized within 12 months of the balance sheet date. With the exception of derivatives not qualifying for hedge accounting, at the balance sheet date the Group does not have any assets or liabilities in this category.

(b) Financial assets and liabilities at amortized cost
Assets within this category are included in the Group's balance sheet as receivables. Receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the Group provides money, goods or services directly to a debtor with no intention of trading the receivable. They are included in current assets, except for maturities greater than 12 months after the balance sheet date and these are classified as non-current assets. Loans and receivables are included in trade and other receivables in the balance sheet.

Liabilities in this category are included in the balance sheet either as financial liabilities – borrowings, or as trade and other payables. Financial liabilities - borrowings predominantly arise from the Group's lending facilities arranged with its banks, classified either as current liabilities for maturities within 12 months, or non-current for maturities later than 12 months. Liabilities in this category have fixed or determinable payments to debt holders and are not quoted in an active market. Trade and other payables arise when the Group receives goods and services from its suppliers and is similarly split into current and non-current liabilities dependent on the time period expected before settlement.

Financial assets and liabilities at amortized cost are carried at amortized cost using the effective interest method, unless the asset or liability arises through the normal course of business with payments terms that indicate that the Group is neither granting a financing arrangement to its suppliers or receiving one from its customers. Where no financing arrangement exists then the asset or liability, classified as a receivable or payable, is held at amortized cost.

Borrowings consist of bonds payable, loans payable, lease liabilities and non-controlling interests entitled to receive a fixed share dividend. Borrowings are recognized initially at fair value then subsequently stated at amortized cost. Borrowing transaction costs are expensed in the income statement over the period to the maturity of the related financial liability. Any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the income statement over the period of the borrowings using the effective interest method.

Non-equity preference shares are classified as liabilities and are measured in the balance sheet at their most recent redemption price. The dividends on these preference shares are recognized in the income statement as interest expense. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

The Group applies the expected credit loss method to receivables balances and considers individual provisions for specific balances where appropriate. This involves considering likely credit losses for a group of receivables using a range of forward-looking scenarios. A provision for impairment of trade receivables is established with respect to an individual receivable when the Group will not be able to collect all amounts due according to the original terms of trade. The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the effective interest rate. The expected credit loss method applied to a group of receivables can result in a provision being created even when on an individual basis, the Group expects each receivable to be converted to cash with no loss arising. The movement in receivables provisions is recognized in the income statement. Same methodology is also applied to contract assets balances.

Where trade receivables are sold to a financial institution through a securitization program and where the Group does not retain the significant risks and rewards of these receivables, or where the Group retains an element of risk and reward but no longer controls the asset, the Group derecognizes the trade receivables.

(c) Financial assets at fair value through other comprehensive income
Financial assets held at fair value through other comprehensive income are non-derivative financial investments where the Group is unable to exert significant influence over the investee. This category of investment could include equity investments which are not held for trading and irrevocably elected to be measured at fair value through other comprehensive income, or investments that are expected to generate fixed or determinable

payments by collecting contracted cash flows and selling financial assets.

Financial assets at fair value through other comprehensive income are initially and subsequently recognized at fair value. Unrealized gains and losses arising from changes in the fair value of such assets are recognized within the statement of comprehensive income and result in a movement within the fair value reserve within equity. The Group assesses at each balance sheet date whether a financial asset or a group of financial assets is impaired. When assets that represent fixed interest investments held in this category are impaired, then the Group treats this as a realized loss recognized in the income statement, with historical amounts recycled from reserves through the statement of comprehensive income.

Accounting for derivative financial instruments and hedging activities

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and, if so, the nature of the item being hedged and the effectiveness of the hedging arrangement. The Group designates certain derivatives as hedges of the changes in fair value of recognized assets or liabilities or a firm commitment (fair value hedges), hedges of exposure to variability in cash flows associated with an asset or liability or arising from highly probable forecast transactions (cash flow hedges), and hedges of net investments in foreign operations (net investment hedges).

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Group also documents, both at hedge inception and on an ongoing basis, its assessment of whether the derivatives used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items. For time period related hedges, the cost of hedging is reflected in the income statement on a straight-line basis over the period of the hedge, with the accounting treatments described below relating to movements in the principal value of the hedge.

(a) Fair value hedge

Changes in the fair value of derivatives, designated and qualifying as fair value hedges, are recorded in either the statement of comprehensive income, if hedging a financial instrument at fair value through comprehensive income, or the income statement if hedging other items. Consequently, the movement in the fair value of the hedging contract is treated in a manner consistent with the movement in the fair value of the item being hedged.

(b) Cash flow hedge

The effective portion of changes in the fair value of derivatives, designated and qualifying as cash flow hedges, is recognized in equity. The gain or loss relating to the ineffective portion is recognized immediately in the income statement.

Amounts accumulated in equity are recycled in the income statement in the periods when the hedged item affects profit or loss (for instance, when the forecast sale that is hedged takes place). However, when the forecast transaction that is hedged results in the recognition of a non-financial asset (for example, inventory) or a liability, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset or liability.

When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement.

(c) Net investment hedge

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in equity, the gain or loss relating to the ineffective portion is recognized immediately in the income statement.
Gains and losses accumulated in equity are included in the income statement when the foreign operation is disposed of.

(d) Derivatives that do not qualify for hedge accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instruments, not qualifying for hedge accounting, are recognized immediately in the income statement.

Fair value estimation

The fair value of financial instruments traded in active markets (such as investments at fair value through other comprehensive income) is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Group is the current bid price. The appropriate quoted market price for financial liabilities is the current offer price. In the event of an indication of a potential impairment, management assess the recoverable value of the asset based on the higher of its value in use and fair value less cost to sell.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses a variety of methods and makes assumptions that are based on market conditions existing at each balance sheet date.

The fair values of foreign exchange contracts are determined using forward exchange market rates at the balance sheet date. The fair values of interest rate swaps are calculated as the present value of the estimated future cash flows based on observable yield curves at the balance sheet date. The fair values of commodity hedges are determined by using forward market prices at the balance sheet date.

The fair value of financial liabilities is determined using cash flows discounted using a rate based on credit risk factors and the relevant currency swap rate for the specific maturity, plus a margin.

Unlisted equities are valued using forward-looking projections where available, however in most cases forward-looking projections are not available. Therefore, fair value is determined based on net asset values at the balance sheet date.

Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is mainly determined using the first-in, first-out (FIFO) method. The cost of finished goods and work-in-progress comprises design costs, raw materials, direct labor, other direct costs and related production overheads (based on normal operating capacity). Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses. Costs of inventories include the transfer from equity of any gains/losses on qualifying cash flow hedges relating to purchases of raw materials.

Inventories carried in the balance sheet are reviewed on a regular basis and, in the case of any inventories which are slow moving, or where the Group considers that it is unlikely to recover the cost of such inventory through subsequent sale, appropriate provisions are made to impair the inventory to its estimated net realizable value.

As result of the Group's adoption of IFRS15 'Revenue from Contracts with Customers', incremental costs of obtaining a contract with a customer are recognized as inventory, if the Group expects such cost will be recovered. Such costs are amortized by the straight-line method over the length of the contract it relates to.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held on call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the balance sheet.

Leases

The Group has adopted IFRS 16 'Leases' from the Group's financial period commencing 1 April 2019. This new standard addresses the principles for the recognition and measurement of leases, and replaces IAS 17 'Leases' and IFRIC 4 'Determining whether an Agreement contains a Lease'.

The Group as a lessee

At inception of a contract, the Group assesses whether the contract is or contains a lease, with a focus on whether the fulfilment of the contract depends on the use of an identified asset. The assessment involves judgement of whether the Group obtains substantially all the economic benefits from the use of the identified asset and whether it has the right to direct the use of the asset. If the criteria are met, the Group will recognize a right-of-use asset and a lease liability in its balance sheet on the commencement date.

The Group has more than 3,000 leases with a wide range of different terms and conditions in accordance with local regulations and business practices. Some leases contain extension and termination options, which provide the Group with operational flexibility. Such options are taken into account when determining the lease term if the Group is reasonably certain to exercise an extension option and reasonably certain not to exercise a termination option.

Right-of-use assets

Right-of-use assets are initially measured at the discounted value of future lease payments, adjusted by initial direct costs, prepaid lease payments and estimates of future dismantling or clean-up costs. Subsequently, right-of-use assets are measured at cost less accumulated depreciation and impairment losses, and adjusted for any remeasurements of lease liabilities.

Right-of-use assets are presented as 'Property, plant and equipment' in the Group's consolidated balance sheet. Depreciation is charged on a straight-line basis over the shorter of the lease term or remaining estimated life of the asset.

In the event of impairment, an asset's carrying amount is written down immediately to its recoverable amount (see 'Impairment of assets').

Lease liabilities

Lease liabilities are measured at the present value of future lease payments at the reporting date, using the practical expedient to apply consistent discount rates to portfolios of leases with similar characteristics.

The discount rate used for the measurement of a lease liability is the interest rate implicit in the lease, equating the future lease payments with the present value of the leased asset. Where this cannot be readily determined the Group will use its incremental borrowing rate, as adjusted to take account of factors such as the term and currency of the lease, the financial position of the NSG Group lessee, and the security inherently provided to the lessor in a lease arrangement.

Lease liabilities are presented as 'Borrowings' in the Group's consolidated balance sheet. Lease liabilities are subsequently measured based on the effective interest method, and interest expenses will be charged to the income statement.

Short-term leases and low value leases

The Group has elected not to recognize right-of-use assets and lease liabilities for short-term leases with terms within 12 months, and leases for which the underlying asset is of low value. In such cases, the Group will recognize the payments associated with those leases as an expense on a straight-line basis over the lease term.

The Group as a lessor

The Group may enter into contracts to sublease vacant leasehold or freehold properties, to offset or mitigate the unavoidable costs associated with such properties. In these cases, the Group classifies each sublease as a finance lease whenever the sublease transfers substantially all the economic benefits from the use of the asset and the right to direct the use of the asset to the tenant. All other subleases are classified as operating leases.

The Group recognizes a net investment asset for all subleases, considered as finance leases, based on the present value of future sublease payments at the sublease commencement date. This net investment is included in trade receivables in the Group's consolidated balance sheet. Subsequently, the net investment asset is measured on an amortized cost basis using the effective interest method.

Sublease payments received from operating subleases are recognized in the income statement on a straight-line basis over the lease term.

The Group policy in the previous year

Prior to 1 April 2019, the Group applied IAS 17 'Leases' and IFRIC 4 'Determining whether an Agreement contains a Lease'.

When entering into a contract that commits the Group to a series of regular cash flows in return for a right to use an asset, the Group considers whether the arrangement contains a lease. In the event that the arrangement represents in substance payment for a service, the Group does not consider the arrangement to be a lease. In other cases, the Group considers the arrangement to be a finance or operating lease as appropriate and accounts for all cash flows on this basis without separating non-lease components.

Assets held under finance leases (in which a significant proportion of the risks and rewards of ownership are retained by the Group) are included in property, plant and equipment or intangible assets at cost and are depreciated/amortized over the shorter of the lease term or their useful economic life. Obligations under finance leases, net of finance charges in respect of future periods, are included as appropriate under borrowings due within or after one year. Finance charges are allocated to accounting periods over the lease term to reflect a constant rate of interest on the remaining balance of the obligations.

Where a lease is identified as an operating lease (a lease other than a finance lease), any payments made thereunder (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease.

Where a sale and lease-back transaction results in the creation of a finance lease, the Group does not recognize a disposal of the asset sold nor any resulting gain or loss. Similarly the Group accounts for the finance lease created as a secured borrowing.

Taxation

Current income taxes for the current period are measured based on the amount expected to be paid to, or recovered from, local taxation authorities.

Deferred income tax is provided in full, using the liability method and without discounting, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, if the temporary difference arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss, it is not accounted for. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized to the extent that it is probable that future taxable profits will be available, against which the temporary differences can be utilized. Deferred income tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred taxation liabilities are not recognized on timing differences arising from the initial recognition of goodwill. The Group offsets deferred tax assets and liabilities if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred tax asset and liability are related to the same taxable entity or group of entities and the same taxation authority.

Employee benefits

(a) Pension obligations

The Group operates various pension schemes globally. The schemes are generally funded through payments to insurance companies or trustee-administered funds, as determined by periodic actuarial calculations. The Group has both defined benefit and defined contribution plans.

The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability.

Retirement benefit assets, net of applicable taxes that would be levied on the refund of a pension surplus, are recognized for schemes in surplus, when the Group has an unconditional right to a refund of that surplus.

Current service costs, representing the additional liability accrued as a result of employee's services undertaken during the period, are charged to operating costs within the income statement.

Past service costs are recognized immediately in the income statement.

Finance costs are calculated by applying territory specific discount rates to the net defined benefit obligation in that region.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are taken through the statement of comprehensive income to equity in accordance with IAS 19 'Employee Benefits'.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid.

Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

(b) Other post-employment retirement obligations

Group companies in the USA provide post-retirement healthcare benefits to certain retired employees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using an accounting methodology similar to that for defined benefit pension plans.

Actuarial gains and losses arising from experience adjustments, and changes in actuarial assumptions, are charged or credited to the statement of comprehensive income in accordance with IAS 19. These obligations are valued annually by independent qualified actuaries.

(c) Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognizes termination benefits when it is demonstrably committed to either terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal, or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

(d) Profit-sharing, bonus and management incentive plans

The Group recognizes a liability and an expense for bonus schemes, which take into consideration the attainment of profit and cash flow targets. The Group recognizes a provision where contractually obliged or where there is a past practice that has created a constructive obligation.

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When the Group expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement is recognized as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the income statement net of any reimbursement. Provisions are not recognized for future losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognized even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

All provisions, where the time value of money is material with a settlement date exceeding 12 months, are discounted and carried at their discounted value. The discount is unwound through a charge to finance costs each period until the provision is settled. Discount rates are based on rates applicable in each relevant territory where the provision is carried, consistent with risks specific to the liability.

Revenue from contracts with customers

In accordance with IFRS 15, the Group's revenue is recognized based on the following five-step model:

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

The Group has three primary strategic business units (SBUs) -Architectural, Automotive and Technical Glass. Each SBU is organized on a worldwide basis.

The Architectural Glass SBU engages in the manufacturing and sale of flat glass and various interior and exterior glazing products within commercial and residential markets. It also includes glass for the solar energy sector. Customers of this SBU include manufacturers which process the glass products which we supply into their own products, construction and house building companies, distributors and merchants.

The Automotive Glass SBU supplies a wide range of automotive glazing for new vehicles and for replacement markets. Customers include major global automotive manufacturers and aftermarket glazing distributors.

The Technical Glass SBU comprises a number of discrete businesses, including the manufacture and sale of very thin glass used as cover glass for displays, lenses and light guide for printers, glass components for engine timing belts and battery separators. Customers are mainly manufacturers which process the glass-related products which we supply into their own products.

The revenue streams derived from the three SBUs are analyzed into the following categories based on the nature and circumstances of the contracts:

(a) Sales of glass and glass-related products

The majority of the Group's revenue is derived from sales of glass and glass-related products. The Group usually considers specific purchase orders to be a contract with a customer, which in some cases is governed by a framework agreement. In cases where purchase orders are governed by a framework agreement, the terms and conditions within both the framework agreement and the purchase order would together form the basis for determining how revenue would be recognized. Contracts with customers are considered to be short-term when the time between order confirmation and satisfaction of the performance obligations in equal to or less than one year.

In most cases, revenue is recognized as the customer obtains control over the glass and glass-related products upon delivery. This is based on the judgement that the performance obligation had been satisfied upon transfer of control. Unless there is a specific reason to use an alternative assumption, the Group considers the control over the glass and glass-related products to rest with the customer once the customer has either accepted the glass at their premises or has collected the glass themselves from the Group's premises.

(b) Sales of services

Revenue in relation to sales of services is recognized when services have been rendered and obligations under the terms of a contract have been satisfied. This may be at a point in time or over time depending on the conditions of the contract.

(c) Engineering revenue

The Group's engineering contracts usually relates to a building, construction and supply of float glass lines or a material asset for an external customer or a related party, such as a joint venture. Contracts in this category represent performance obligation satisfied over time, as it creates or enhances an asset that the customer controls as the asset is created or enhanced. This is because the asset would usually be such of a size that it is physically located at the customer's premises with no realistic prospect of being relocated. The Group's revenue in relation to the engineering contracts is recognized based on the actual service provided to the end of the reporting period as a proportion of the total services to be provided. This is determined by the input method, except for cases where specific milestones are clearly set in the contract against which the revenue could be reliably measured.

Estimates of revenues, costs or extent of progress toward completion are revised if circumstances change. Any resulting increases or decreases in estimated revenues or costs are reflected in profit or loss in the period in which the circumstance arises.

(d) Royalty and licensing contracts

The Group enters into licensing agreements with customers under which it licenses its intellectual property, such as patents and developed technologies. Revenue in relation to royalty and licensing contracts is recognized at a point in time or over time depending on the nature of the technology rights that the Group has granted to its customer.

If the license is to use a certain technology which the Group owns as it exists at the start of the contract, revenue will be recognized in full at the point in time when the license is granted.

If the license is to use a certain technology which the Group owns as it exists at the start of the contract and as it develops over the life of the license, revenue will be recognized over time through the life of the contract.

Revenues arising from licenses that contain an ongoing support obligation from the Group are recognized over time through the contract, as the obligation to provide support is not usually distinct from the obligation to grant a license.

(e) Tooling

The Group constructs tooling in order to manufacture glass products to the customers' specification. Revenue from sale of tooling is recognized based on judgement of specific facts and circumstances of related contracts.
If the construction of tooling is a separate performance obligation from the sale of glass and glass-related products, the Group recognizes inventory as the tooling is constructed. Revenue is recognized based on the stand-alone selling price (SSP) of the tooling when the control of tooling passes to the customer. Any shortfall between the invoiced amount and the SSP of the tooling is accounted for as contract assets. Revenue will be adjusted based on the input or output method over the life of the contract.

If the construction of tooling is not a separate performance obligation from the sale of glass products glass-related products, and the control remains with the Group, tooling will be included in property, plant and equipment in the Group's balance sheet. Any customer contribution in relation to tooling will be held as deferred income and released to the revenue over the life of the contract based on the output method.

Group's considerations in relation to revenue recognition

The transaction price includes estimates of variable consideration, such as rebates and price discounts, which are accounted for as reductions in revenue. All estimates are based on the Group's historical experience and the Group's best judgement at the time the estimate is made. Variable considerations included in the transaction price are estimated using the expected value method or most likely amount depending on the nature of the variable considerations. These estimates are reassessed each reporting period and are included in the transaction price to the extent it is highly probable that a significant reversal will not occur.

The majority of contracts have a single performance obligation of which the transaction price is stated in the contract. For contracts with multiple performance obligations, the Group allocates the transaction price to each performance obligation based on the stand-alone selling price, which is the price the Group would sell a promised good or service to the customer.
The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. Consequently, the Group has elected to use the practical expedient not to adjust transaction prices for the effects of a significant financing component.

Interest income

Interest income is recognized on a time-apportioned basis using the effective interest method. Interest income on impaired loans is recognized either as cash is collected or on a cost recovery basis as conditions warrant.

Dividend income

Dividend income is recognized when the right to receive payment is established.

Exceptional Items

The Group discloses certain gains or losses in the income statement as exceptional items if this is necessary to gain a fair understanding of the Group's operating performance. Exceptional items would usually be material in value and/or would be of a non-recurring nature.

Deferred income

(a) Government grants

The Group recognizes government grants at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognized as income over the periods necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the grant relates to property, plant and equipment, the fair value is credited to deferred income and released to the income statement over the expected useful life of the relevant asset by equal annual installments.

(b) Other deferred income

The Group recognizes other deferred income including fair valued customers' contributions to automotive tooling that continues to be recognized in the Group's balance sheet following the adoption of IFRS 15. The income is recognized in the income statement over the periods necessary to match the write-off of the asset, to which the deferred income relates, by equal annual installments.

Emission rights

Emissions rights granted are recognized on a systematic basis over the period to which they relate. The difference between the emission rights granted and recognized at the balance sheet date, and CO_2 emitted is recorded as an asset or liability at fair value at each balance sheet date.

Borrowing costs
Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of these assets, until such time as the assets are substantially ready for their intended use or sale. All other borrowing costs are recognized in the consolidated income statement in the period in which they are incurred.

Share capital
Common (ordinary) shares are classified as equity. Preferred shares, that are not mandatorily redeemable with cash or other monetary asset, and where the Group has no contractual obligation to pay cash dividends or to deliver a variable number of the entity's own equity instruments by exercise of any put options attached to the preferred shares, are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Treasury shares
Treasury shares represent the Group's interests in its own equity instruments, and are included within shareholders' funds. Treasury shares are measured at their cost.

Share based payments
The Group operates a number of equity settled, share-based payment plans, under which the entity receives services from directors, senior executive officers, executive officers, senior corporate officers and corporate officers as consideration for equity instruments (options) of the Group. The fair value of the employee services received in exchange for the grant of options is calculated using the Black-Scholes model. In accordance with IFRS 2 'Share-based Payment', the resulting cost is recognized in the income statement over the vesting period of the options, being the period in which the services are received. All plans are classified as equity settled.

Discontinued operations and assets held for sale
Discontinued operations include components of the Group that have been disposed of (through sale or abandonment) or are classified as held for sale and represent a major line of the Group's business or geographical area of operations or represent a part of a single coordinated plan to dispose of such a business line or geographical area.

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continued use. This condition is regarded as met only when the sale is highly probable and the non-current asset (or disposal group) is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to be completed within one year.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a minority interest in its former subsidiary after the sale.

Assets classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell. Property, plant and equipment and intangible assets classified as held for sale are not depreciated or amortized after classification as held for sale.

Critical accounting estimates, judgements and assumptions
Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will not usually be equal to the resulting actual results. The estimates, judgements and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are discussed below.

In response to the COVID-19 pandemic and a lack of demand for glass, the Group has taken appropriate action to suspend or reduce production at various plants. The Group expects a gradual recovery of demand during FY2021, but it is not clear what the timing and extent of this recovery is likely to be. In the medium term, the Group expects a gradual recovery of markets to more normal levels as experienced prior to the COVID-19 pandemic, although it will vary in different industrial sectors. As noted above, the pace and timing of such a recovery is currently unclear although the Group expects that this is likely to be gradual and does not anticipate a rapid return to pre COVID-19 levels of demand.

(a) Estimated impairment of goodwill and intangible assets
The Group tests, on an annual basis, whether goodwill or intangible assets with an indefinite useful life have suffered any impairment, in accordance with the accounting policy stated above.

(b) Income taxes
The Group is subject to income taxes in numerous jurisdictions worldwide. During the normal course of business, there are a significant number of transactions where the final tax determination is uncertain. The Group recognizes liabilities for anticipated tax audit issues based on an estimate of both the value of any additional taxes that may be due and the likelihood that the final tax audit outcome may result in such additional liabilities. In arriving at the total liability to be provided, significant judgment is required. Where the final tax outcome of these matters is different from the amounts provided, any difference is recorded in the period in which that final outcome is known.

(c) Post-retirement benefits
The Group has a variety of post-retirement benefit schemes in various countries in which it operates. Where such schemes are in the nature of a defined benefit arrangement, the Group uses a variety of assumptions in the calculation of the scheme assets and liabilities. These assumptions are subject to a degree of uncertainty and the Group takes advice from professional actuaries before finalizing such assumptions.

(d) Provisions
Provisions are evaluated using either the Group's experience of previous provisions or, where appropriate, using the advice of professional consultants. Claims and litigation provisions are calculated based on discussions with claimants and the Group's legal advisors. Environmental provisions are calculated based on either currently estimated remediation costs, or, for more material environmental provisions, simulation models, evaluated with the assistance of environmental consultants, which consider a range of possible outcomes. Bonus provisions are estimated based on the Group's current and expected future performance evaluated against the terms of specific bonus schemes. Redundancy and restructuring provisions are estimated using the expected costs of restructuring programs that have been announced prior to the balance sheet date. Warranty provisions are calculated using the Group's experience of previous customer claims rates.

(e) Preferred shares
The Group has considered the terms and conditions attaching to Class A Shares, and determined that these shares are classified as equity instruments, as a fixed number of common shares would be delivered to Class A Shareholders in the event of relevant put options being exercised. The Group has no contractual obligation to mandatorily redeem these shares through cash or any other monetary assets. Also, the Group has no contractual obligation to pay dividends although terms of dividends are stipulated in the contract, and any payment of dividends for each relevant period is ultimately determined by the Company's board of directors.

1.2. Changes in accounting policies and disclosures

IFRS 16 'Leases'

The Group has adopted IFRS 16 'Leases' from the Group's financial period commencing 1 April 2019. This new standard addresses the principles for the recognition and measurement of leases, and replaces IAS 17 'Leases' and IFRIC 4 'Determining whether an Agreement contains a Lease'. The Group has adopted this new standard retrospectively with the cumulative effect of initial application recognized in the opening balance sheet on 1 April 2019. The values for the comparative period are based on IAS 17 rules and are presented as previously reported.

Leases that were previously classified as operating leases in accordance with IAS 17 are recognized to conform with IFRS 16 rules using the recognition and measurement requirements and exemptions as set out below:

Right-of-use asset

Right-of-use assets recognized by the Group as a lessee at 1 April 2019 are measured at cost, generally corresponding with the discounted remaining lease payments due as at that date.

Subsequent acquisitions of right-of-use assets will be measured at the discounted value of future lease payments as adjusted by initial direct costs, prepaid lease payments, and estimates of future dismantling or clean-up costs.

Right-of-use assets are presented as 'Property, plant and equipment' in the Group's consolidated balance sheet. Depreciation is charged on a straight-line basis over the shorter of the lease term or remaining estimated life of the asset.

Lease liability

Lease liabilities recognized by the Group as a lessee at 1 April 2019 are measured at the present value of future lease payments at that date, using the practical expedient to apply consistent discount rates to portfolios of leases with similar characteristics.

For leases contracted after 1 April 2019, the discount rate used is the interest rate implicit in the lease, equating the future lease payments with the present value of the leased asset. Where this cannot be readily determined the Group will use its incremental borrowing rate, as adjusted to take account of factors such as the term and currency of the lease, the financial position of the NSG Group lessee, and the security inherently provided to the lessor in a lease arrangement.

Lease liabilities are presented as 'Borrowings' in the Group's consolidated balance sheet. Lease liabilities are subsequently measured based on the effective interest method, and interest expenses will be charged to the income statement.

Practical expedients used upon initial application of IFRS 16

The Group has used the following practical expedients as permitted upon initial application of IFRS 16, at 1 April 2019:

- Right-of-use assets and lease liabilities are not recognized for leases where the lease term ends within 12 months of the date of initial application.
- Hindsight is used in determining the lease term if the contract contains options to extend or terminate the lease.

The Group has applied IFRS 16 to contracts that were previously identified as leases when applying IAS 17 without reassessing whether a contract is, or contains, a lease at 1 April 2019. The Group has not applied this standard to contracts that were not identified as containing a lease when applying IAS 17.

The Group has also elected not to recognize right-of-use assets and lease liabilities for short-term leases with terms within 12 months, and leases for which the underlying asset is of low value. In such cases, the Group will recognize the payments associated with those leases as an expense on a straight-line basis over the lease term.

At the date of initial application of IFRS 16, the Group recognized right-of-use assets of ¥34,288 million and lease liabilities of ¥34,289 million, in both cases representing an increase of ¥34,220 million on the IAS 17 value. The difference of ¥1 million is due to the assets and liabilities accounted for as finance leases when applying IAS17 which now have been reclassified as leases without any amendment to their 31 March 2019 value.

The ongoing income statement impact is likely to be relatively immaterial and will involve operating lease rental costs being replaced with a depreciation charge on right-of-use assets and a finance charge on lease liabilities.

Repayments of capitalized lease balances will now be shown as financing cash flows, whereas previously these were shown as operating cash flows.

The difference between the lease liabilities recognized in the Group's balance sheet at the date of initial application of IFRS 16, and the operating lease commitments in accordance with IAS 17 as at 31 March 2019 which were disclosed in the Group's FY2019 consolidated financial statements, are as follows:

	Millions of yen
IAS 17 Operating lease commitments as at 31 March 2019, as disclosed in the Group's FY2019 consolidated financial statements	29,884
Effect of discounting using the Group's weighted-average incremental borrowing rate (4.3%) as at 1 April 2019	(4,743)
IAS 17 Operating lease commitments as at 31 March 2019, discounted using the Group's weighted-average incremental borrowing rate applied to lease liabilities recognized in the statement of financial position at 1 April 2019 (4.3%)	25,141
IAS 17 finance lease liabilities as at 31 March 2019	69
Leases excluded from IAS 17 disclosures due to cancellation clauses in the underlying lease agreements and new leases identified during IFRS 16 implementation, less short-term and low-value leases excluded from IFRS 16 lease liability	9,079
Lease liabilities recognized in the Group's balance sheet at 1 April 2019	34,289

IFRIC 23 'Uncertainty over Income Tax Treatments'

IFRIC 23 'Uncertainty over Income Tax Treatments' clarifies the recognition and measurement guidance contained within IAS 12 "Income Taxes" with respect to uncertain tax treatments. An uncertain tax treatment is any tax treatment, applied in local tax filings, where there is uncertainty whether the local tax authority will accept that tax treatment according to local laws. This new interpretation is effective from the Group's financial period commencing 1 April 2019. The Group has adopted this new interpretation retrospectively with the cumulative effect of initial application recognized in the opening balance sheet on 1 April 2019. The values for the comparative period do not include the impact of adopting this new interpretation and are as previously reported.

The adoption of IFRIC 23 has caused the Group to decrease its deferred tax assets by ¥1,191 million, decrease its deferred tax liability by ¥68 million, increase its taxation liabilities by ¥1,780 million and decrease its retained earnings by ¥2,903 million for uncertain tax positions at 1 April 2019. The ongoing income statement impact is not expected to be material.

2. Revenue from contracts with customers

Disaggregation of revenue

The Group's revenue is disaggregated by geographical markets, revenue categories and timing of revenue recognition in the table below. Geographical markets are based on the location where revenues were recognized. This table also includes a reconciliation of the disaggregated revenue with the Group's three strategic business units, which are also its reportable segments.

Millions of yen

					2020
	Architectural	**Automotive**	**Technical Glass**	**Other**	**Total**
Geographical markets					
Europe	**87,069**	**119,772**	**7,108**	**629**	**214,578**
Asia	**91,370**	**67,147**	**31,694**	**742**	**190,953**
Americas	**55,248**	**94,058**	**1,341**	**—**	**150,647**
	233,687	**280,977**	**40,143**	**1,371**	**556,178**
Revenue category					
Sale of glass and glass related products	**225,379**	**273,945**	**39,885**	**262**	**539,471**
Sale of services	**65**	**1,948**	**—**	**90**	**2,103**
Engineering contracts	**—**	**—**	**—**	**201**	**201**
Royalty and licensing contracts	**183**	**176**	**15**	**349**	**723**
Tooling	**—**	**3,225**	**—**	**—**	**3,225**
Other sundry sales	**8,060**	**1,683**	**243**	**469**	**10,455**
	233,687	**280,977**	**40,143**	**1,371**	**556,178**
Timing of revenue recognition					
Products and services transferred at a point in time	**216,874**	**279,985**	**40,143**	**743**	**537,745**
Products and services transferred over time	**16,813**	**992**	**—**	**628**	**18,433**
	233,687	**280,977**	**40,143**	**1,371**	**556,178**

Millions of yen

					2019
	Architectural	Automotive	Technical Glass	Other	Total
Geographical markets					
Europe	95,976	140,169	8,125	735	245,005
Asia	92,928	70,601	39,448	955	203,932
Americas	58,444	103,875	1,533	—	163,852
	247,348	314,645	49,106	1,690	612,789
Revenue category					
Sale of glass and glass related products	239,311	307,714	45,486	151	592,662
Sale of services	69	1,640	—	143	1,852
Engineering contracts	—	—	3,333	73	3,406
Royalty and licensing contracts	181	100	21	362	664
Tooling	—	3,355	—	—	3,355
Other sundry sales	7,787	1,836	266	961	10,850
	247,348	314,645	49,106	1,690	612,789
Timing of revenue recognition					
Products and services transferred at a point in time	244,320	313,545	45,847	956	604,668
Products and services transferred over time	3,028	1,100	3,259	734	8,121
	247,348	314,645	49,106	1,690	612,789

Assets and liabilities related to contracts with customers

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers.

Millions of yen

	31 March 2020	31 March 2019	1 April 2018
Trade receivables, net of provision for impairment of receivables	**34,135**	44,429	44,186
Contract assets	**2,739**	2,692	4,252
Contract liabilities	**(10,657)**	(4,370)	(4,445)

Contract assets can be separated into two categories. Firstly, contract assets include the Group's rights to consideration for glass products dispatched or works related to engineering contracts and other minor Architectural projects, which are not billed at the balance sheet date. The contract assets in this category are transferred to trade receivables when the rights become unconditional. Secondly, contract assets also include balances arising upon recognition of revenue on automotive tooling, which is included in the transaction price of glass and glass-related products. The contract assets in this category are amortized over the length of the related supply contract.

Contract liabilities include amounts with respect to customer contributions on automotive tooling and other prepayments received from customers. Contract liabilities are classified as current or non-current based on the timing of when the Group expects to recognize revenue for contributions on automotive tooling and other prepayments.

Changes in the contract assets and the contract liabilities balances during the period are as follows.

	Millions of yen	
	Contract assets	**Contract liabilities**
At 1 April 2019	**2,692**	**(4,370)**
Exchange differences	**(85)**	**175**
Cumulative catch-up adjustments to revenue	**(5)**	**(4)**
Impairment of contract assets	**(51)**	**–**
Contract assets transferred to receivables	**(1,118)**	**–**
Satisfaction of performance obligations not yet invoiced	**1,561**	**–**
Opening contract liabilities recognized as revenue in the period	**–**	**2,129**
Cash received, excluding amounts recognized as revenue during the period	**18**	**(8,471)**
Transfers to assets held for sale	**15**	**(11)**
Other	**(288)**	**(105)**
At 31 March 2020	**2,739**	**(10,657)**

	Millions of yen	
	Contract assets	Contract liabilities
At 1 April 2018	4,252	(4,445)
Exchange differences	(51)	162
Cumulative catch-up adjustments to revenue	(38)	2
Impairment of contract assets	(97)	–
Contract assets transferred to receivables	(2,080)	–
Satisfaction of performance obligations not yet invoiced	1,412	–
Opening contract liabilities recognized as revenue in the period	–	2,250
Cash received, excluding amounts recognized as revenue during the period	(82)	(2,420)
Transfers to assets held for sale	(310)	110
Other	(314)	(29)
At 31 March 2019	2,692	(4,370)

Transaction price allocated to the remaining performance obligations

The following table includes revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the balance sheet date.

	Millions of yen		
	Within one year	After one year	Total
At 31 March 2020	**215**	**342**	**557**
At 31 March 2019	2,906	643	3,549

As permitted under the practical expedient in IFRS15 para 121, the Group does not disclose information about remaining performance obligations that have original expected duration of one year or less. No consideration from contracts with customers is excluded from the amounts presented above.

Capitalized costs of obtaining a contract

The costs of obtaining a contract are capitalized on premises these incremental costs would not have been incurred if the Group had not attempted to win the contract. The Group considers the amount of capitalized costs to be recoverable, as they do not exceed the overall level of profit expected from the contract.

These assets are included in inventory in the Group's balance sheet and are amortized over the life of the contract. The amount of amortization was ¥234 million (2019: ¥277 million).

Applying the practical expedient in IFRS 15 para 94, the Group recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that the Group otherwise would have recognized is one year or less.

3. Segmental information

Primary reporting format – by business line

The Group is organized on a worldwide basis into the following principal primary operating segments:

The Architectural segment engages in the manufacturing and sale of flat glass and various interior and exterior glazing products within commercial and residential markets. It also includes glass for the solar energy sector.

The Automotive segment supplies a wide range of automotive glazing for new vehicles and for replacement markets.

The Technical Glass segment comprises a number of discrete businesses, including the manufacture and sale of very thin glass used as cover glass for displays, lenses and light guides for printers, as well as glass fiber products, such as battery separators and glass components for engine timing belts.

The Other segment covers corporate costs, certain small businesses not included in the segments covered above, and consolidation adjustments including amortization and impairment costs recorded with respect to goodwill and intangible assets related to the acquisition of Pilkington plc.

No operating segments have been aggregated to form the above reportable operating segments. The segmental results for the periods ended 31 March 2020 and 2019 are as follows:

					Millions of yen
					2020
	Architectural	**Automotive**	**Technical Glass**	**Other**	**Total**
Revenue					
External revenue	**233,687**	**280,977**	**40,143**	**1,371**	**556,178**
Inter-segmental revenue	**13,452**	**1,593**	**2,464**	**3,653**	**21,162**
Total revenue	**247,139**	**282,570**	**42,607**	**5,024**	**577,340**
Trading profit (segmental profit)	**17,331**	**6,100**	**7,116**	**(7,529)**	**23,018**
Amortization arising from acquisition of Pilkington plc	**–**	**–**	**–**	**(1,841)**	**(1,841)**
Operating profit before exceptional items	**17,331**	**6,100**	**7,116**	**(9,370)**	**21,177**
Exceptional items	**(4,568)**	**(7,123)**	**829**	**(13,098)**	**(23,960)**
Operating loss after exceptional items					**(2,783)**
Finance costs – net					**(11,843)**
Share of post-tax profits from joint ventures and associates					**1,077**
Loss before taxation					**(13,549)**
Taxation					**(3,969)**
Loss for the period					**(17,518)**

					Millions of yen
					2019
	Architectural	Automotive	Technical Glass	Other	Total
Revenue					
External revenue	247,348	314,645	49,106	1,690	612,789
Inter-segmental revenue	16,582	1,843	1,331	3,638	23,394
Total revenue	263,930	316,488	50,437	5,328	636,183
Trading profit (segmental profit)	25,811	15,118	8,062	(10,167)	38,824
Amortization arising from acquisition of Pilkington plc	–	–	–	(1,969)	(1,969)
Operating profit before exceptional items	25,811	15,118	8,062	(12,136)	36,855
Exceptional items	(4,172)	(4,596)	3,327	(1,627)	(7,068)
Operating profit after exceptional items					29,787
Finance costs – net					(13,301)
Share of post-tax profits from joint ventures and associates					6,244
Profit before taxation					22,730
Taxation					(8,352)
Profit for the period					14,378

The Group uses a number of methods to calculate the price of intra-group transactions depending upon the business sector and geographic location. This is based on internationally recognized tax principles regarding Base Erosion and Profit Shifting (BEPS) as well as local custom and regulations. Usual methods include reference to external market prices or to manufacturing costs plus an appropriate margin.

No significant changes were made in the method of pricing intra-group transactions in the period that would impact the allocation of revenues and profits by primary operating segment.

Finance costs include results from cash flow hedges of interest-bearing borrowings that have been reported in the income statement during the period. They also include gains and losses from the re-measuring of interest rate derivatives designated as fair value hedges. Unallocated costs represent corporate Group expenses.

Other information in respect of items (charged) or credited within operating profit, excluding exceptional items, in the income statement are as follows:

						Millions of yen
						2020
	Note	**Architectural**	**Automotive**	**Technical Glass**	**Other**	**Total**
Depreciation	14	**(12,811)**	**(13,803)**	**(1,966)**	**(1,471)**	**(30,051)**
Amortization	13	**(186)**	**(454)**	**(16)**	**(3,139)**	**(3,795)**
Impairment of property, plant and equipment	14	**(472)**	**(168)**	**(116)**	**(373)**	**(1,129)**
(Loss)/profit on sale of property, plant and equipment		**(25)**	**30**	**71**	**(398)**	**(322)**
Research and development expenditure		**(2,686)**	**(2,591)**	**(883)**	**(2,854)**	**(9,014)**
Lease costs not included in lease liabilities		**(196)**	**(765)**	**(17)**	**(300)**	**(1,278)**
Bad debts written off		**(62)**	**40**	**–**	**(103)**	**(125)**
Net (charge)/credit for doubtful debt provision		**27**	**(77)**	**1**	**1**	**(48)**
Amortization of deferred income		**781**	**365**	**–**	**371**	**1,517**

						Millions of yen
						2019
	Note	Architectural	Automotive	Technical Glass	Other	Total
Depreciation	14	(10,586)	(10,988)	(1,597)	(1,014)	(24,185)
Amortization	13	(176)	(402)	(21)	(3,093)	(3,692)
Impairment of property, plant and equipment	14	(112)	(44)	(41)	(998)	(1,195)
Reversal of prior period impairments of property, plant and equipment	14	1	–	–	–	1
Profit/(loss) on sale of property, plant and equipment		66	28	(2)	62	154
Research and development expenditure		(2,641)	(2,979)	(759)	(3,004)	(9,383)
Operating lease rentals						
plant and equipment		(1,551)	(1,762)	(35)	(61)	(3,409)
property		(1,062)	(4,519)	(141)	(1,005)	(6,727)
Bad debts written off		(24)	(204)	–	–	(228)
Net credit for doubtful debt provision		118	134	1	–	253
Amortization of deferred income	30	498	481	–	32	1,011

Segmental net trading assets at 31 March 2020 and 2019 and capital expenditure for the periods then ended are as follows:

					Millions of yen
					2020
	Architectural	**Automotive**	**Technical Glass**	**Other**	**Total**
Segmental net trading assets	**146,810**	**158,386**	**33,602**	**7,467**	**346,265**
Capital expenditure (including intangibles)	**43,770**	**13,476**	**1,672**	**8,053**	**66,971**

					Millions of yen
					2019
	Architectural	Automotive	Technical Glass	Other	Total
Segmental net trading assets	140,370	137,588	31,972	7,379	317,309
Capital expenditure (including intangibles)	15,150	14,110	1,919	971	32,150

Segmental net trading assets consist of property, plant and equipment, investment properties, intangible assets excluding those arising from a business combination, inventories, contract balances, trade and other receivables (excluding financial receivables) and trade and other payables (excluding financial payables).

Capital expenditure comprises additions to property, plant and equipment (owned), note 14, and intangible assets, note 13.

Secondary reporting format – geographical location of customers

The Group's revenue from its external customers based on the geographical location of those customers is as follows:

	Millions of yen	
	2020	2019
Japan	**135,761**	141,390
Europe	**208,756**	239,136
North America	**111,740**	120,921
Rest of World	**99,921**	111,342
	556,178	612,789

No individual customer accounts for more than 10 percent of total revenues of the Group.

The total of non-current assets, other than retirement benefit assets, financial instruments, deferred tax assets, contract assets, trade and tax receivables, located in Japan is ¥67,120 million (2019: ¥58,383 million), UK ¥162,834 million (2019: ¥184,809 million) and the total of these non-current assets located in other countries is ¥220,566 million (2019: ¥178,118 million).

4. Other income

	Millions of yen	
	2020	2019
Dividend income on assets held at fair value through other comprehensive income	**158**	135
Profit on disposals	**373**	219
Increase in fair value of investment properties	**129**	–
Foreign exchange gains	**1,426**	–
Others	**1,091**	776
	3,177	1,130

5. Other expenses

		Millions of yen	
	Note	**2020**	2019
Amortization of intangibles	13	**(3,795)**	(3,692)
Impairment of property, plant and equipment	14	**(1,129)**	(1,195)
Reversal of prior period impairments of property, plant and equipment	14	**–**	1
Impairment of intangible assets	13	**(3)**	(36)
Research and development costs expensed in the period		**(961)**	(1,007)
Write-off of lease liabilities		**593**	–
Bad debts written off		**(125)**	(95)
Doubtful debt provision increase		**(314)**	(425)
Reversal of previously held doubtful debt provision	18	**266**	545
Float tank repair costs		**(121)**	(41)
Net foreign exchange on other expense items		**456**	10
Decrease in fair value of investment properties		**(37)**	(20)
Redundancy and restructuring		**(220)**	(246)
Loss on disposal		**(120)**	(60)
Reversal of environmental provision		**–**	1,279
Others		**(6)**	(406)
		(5,516)	(5,388)

6. Net foreign exchange gains and losses

The net foreign exchange differences on operating items charged to the income statement in the year amounted to a gain of ¥1,556 million (2019: a gain of ¥116 million).

7. Exceptional items

	Note	2020	2019
		Millions of yen	
Exceptional Items (gains):			
Gain on disposal of subsidiaries and joint ventures (a)		**1,278**	–
Gain on disposal of property, plant and equipment (b)		**1,092**	–
Reversal of impairment of non-current assets (c)	14	**378**	2,717
Exchange gain on business closure (d)		**–**	698
Settlement of litigation matters (j)		**–**	271
		2,748	3,686
Exceptional Items (losses):			
Impairment of goodwill and other intangible assets (e)	12,13	**(11,728)**	–
Restructuring costs, including employee termination payments (f)		**(6,368)**	(4,415)
Impairments of non-current assets (g)	14	**(4,706)**	(3,544)
Suspension costs caused by COVID-19 (h)		**(2,228)**	–
Suspension of facilities (i)		**(1,479)**	(968)
Settlement of litigation matters (j)		**(158)**	(194)
Retirement benefit obligations – past service cost (k)		**–**	(1,385)
Others		**(41)**	(248)
		(26,708)	(10,754)
		(23,960)	(7,068)

(a) The gain on disposal of a subsidiaries and joint ventures relates partly to the sale of Nippon Sheet Glass Environment Amenity Co., Limited, a subsidiary operating within the Technical Glass business, and partly to the disposal of the Group's shares in Jiangsu Pilkington SYP Glass Co., Ltd a float glass manufacturing entity in China.

(b) The gain on disposal of property, plant and equipment relates to the disposal of assets within the architectural business in Europe.

(c) The reversal of impairment of non-current assets to an asset in Architectural North America and also assets in Architectural Asia. The previous-year reversal of impairment of non-current assets relates mainly to a float line in Vietnam. This line was previously mothballed after being impaired during the year to 31 March 2016. The Group has now converted this line from its former usage as thin-glass line into a solar-energy line.

(d) The previous-year exchange gain on business closure relates to gains previously posted to reserves using the Statement of Comprehensive Income which have now been recycled to retained earnings through the income statement having been realized following the closure of a Technical Glass business in China.

(e) The impairment of goodwill and intangible assets relates to goodwill and other intangible assets created on the acquisition of Pilkington in 2006. The impairment relates to the Automotive Europe and Automotive Rest of World Cash Generating Units (CGU's), however is included within 'Other' segment for the purpose of the Group's segmental reporting, as shown in note 3. A summary of the methodology used to calculate this impairment is set out in note 12.

(f) Restructuring costs principally include the cost of compensating redundant employees for the termination of their contracts of employment. The most significant costs during the year related to projects in Automotive Europe and to a lesser extent Automotive in South America. The most significant projects during the previous year were in Architectural and Automotive Europe, and Architectural in Japan.

(g) The impairment of non-current assets relates mainly to architectural assets in Asia, particularly in Japan. The previous year impairment of non-current assets relates to assets in both Architectural and Automotive Europe as a consequence of restructuring projects in these businesses.

(h) Suspension costs caused by COVID-19 relate to the costs of maintaining facilities that have been temporarily idled as a direct consequence of the COVID-19 pandemic. These costs are not recovered through external sales during this period so have been reclassified to exceptional items. These costs do not represent the full impact of COVID-19 which is predominantly an opportunity cost of lost margin due to the significant decline in sales arising.

(i) The suspension of facilities mainly relates to a short-term suspension of the Group's Architectural facility in Laurinburg, U.S.A., due to a power failure in the local area, and also includes a short-term suspension of the Group's Architectural facility in Chiba, Japan as a result of Typhoon damages. The previous year suspension of facilities included the cost of repair to a float line in Japan required as a direct result of Typhoon damages during the third quarter, and also the temporary suspension of automotive facilities in Europe to equate the Group's production capacity with levels of demand.

(j) The settlement of litigation matters in both the current and previous years relates to legal claims arising as a result of transactions that were previously recorded as exceptional items.

(k) The previous year past service cost on retirement benefit obligations relates to a court ruling in the U.K. regarding Guaranteed Minimum Pensions (GMP's). Following this judgement, U.K. pension schemes are required to equalize benefits in excess of the GMP as between male and female scheme members for the period between 1990 and 1997. GMP's represent an element of the Group's pension liability which was designed to substitute for pension benefits that would otherwise have been provided by the state, with the state-provided pension benefits being unequal between men and women resulting in inequality of the scheme-provided benefit. The exceptional item recognized consists of a gross charge of ¥ 2,144 million and a credit with respect to taxation on pension surplus of ¥ 759 million.

8. Employee benefit expenses

	Note	2020	2019
		Millions of yen	
Wages and salaries		**(118,408)**	(126,439)
Redundancy and termination benefits		**(1,699)**	(2,926)
Social security costs		**(14,520)**	(14,881)
Share options granted to directors and employees	31	**(69)**	(102)
Pension costs, excluding those classed as exceptional items			
defined contribution schemes		**(9,041)**	(9,037)
defined benefit schemes		**(3,172)**	(3,489)
Other short-term employee benefits		**(6,257)**	(6,805)
		(153,166)	(163,679)

Key management compensation (included above) comprises:

	2020	2019
	Millions of yen	
Short-term employee benefits	**(976)**	(1,133)
Post-employment benefits	**(104)**	(185)
Other long-term benefits	**–**	(289)
Share-based payments	**(69)**	(102)
	(1,149)	(1,709)

Key management compensation comprises the remuneration of those 34 (2019: 35) key employees who have responsibility for planning, controlling and directing the activities of the Group and includes all the members of the Group's Board of Directors, Executive Officers and Corporate Officers. Included within key management remuneration are post-employment benefits based on the IFRS operating cost charge in respect of service costs.

9. Finance income and expenses

	Note	2020	2019
		Millions of yen	
Finance income			
Interest income		**1,967**	2,003
Foreign exchange transaction gains		**67**	128
Hyperinflation - gain on net monetary position	40	**92**	–
		2,126	2,131
Finance expenses			
Interest expense – bank and other borrowings		**(11,882)**	(12,219)
Dividend on non-equity preference shares due to minority shareholders		**(242)**	(258)
Foreign exchange transaction losses		**(437)**	(90)
Other interest and similar charges		**(890)**	(697)
		(13,451)	(13,264)
Unwinding of discounts on provisions	29	**(199)**	(205)
Retirement benefit obligations – net finance charge	28	**(319)**	(480)
Hyperinflation – loss on net monetary position	40	**–**	(1,483)
		(13,969)	(15,432)

10. Income tax

The analysis of the tax charge for the period is as follows:

	Note	2020	2019
		Millions of yen	
Current tax			
Charge for the period		**(3,814)**	(6,159)
Adjustment in respect of prior periods		**542**	(254)
		(3,272)	(6,413)
Deferred tax			
Charge for the period		**(192)**	(2,119)
Adjustment in respect of prior periods		**206**	192
Adjustment in respect of rate changes		**(711)**	(12)
	22	**(697)**	(1,939)
		(3,969)	(8,352)

The tax charge for the year is calculated as the sum of the total current and deferred tax charge or credit arising in each territory in which the Group operates.

The Group's expected weighted average tax rate (after deducting the Group's share of post-tax profit of joint ventures and associates) is 13.4 percent (2019: 26.26 percent). The tax rate is different to the prior year because of changes in the mix of profits and losses realized by the Group in each of the territories in which it operates and differences in tax rates across each of those territories.

A number of countries have changed their corporate income tax rates during the year and any such changes that have been enacted or substantively enacted at

31 March 2020 are reflected in the weighted average tax rate. None of these rate changes are significant enough, on their own, to have a material impact on the weighted average tax rate. For reference, the applicable tax rate in Japan is 30.62 percent (2019: 30.62 percent) and this consists of corporate income tax, inhabitants' taxes and enterprise tax.

The tax charge for the year period differs from the tax charge that would be anticipated by applying the weighted average tax rate to the Group's profit before tax. The differences are explained as follows:

	Millions of yen	
	2020	2019
(Loss)/profit before taxation	**(13,549)**	22,730
Deduct share of post-tax profits of joint ventures and associates	**(1,077)**	(6,244)
(Loss)/profit before tax of Group companies	**(14,626)**	16,486
Tax credit/ (charge) calculated at the statutory tax rates applicable to (losses)/profits in the respective countries	**1,960**	(4,329)
Expenses not deductible for tax purposes	**(4,393)**	(3,253)
Income not subject to tax	**4,152**	3,825
Non-deductible amortization and impairment of goodwill	**(1,849)**	–
Non-deductible gains on hedging derivative contracts	**25**	30
Other items giving rise to local tax adjustments	**385**	(315)
Adjustment to tax in respect of prior periods		
current tax	**542**	(254)
deferred tax	**206**	192
Adjustment to tax as a result of changes in tax rates	**(711)**	(12)
Tax losses and other temporary differences for which no deferred tax asset is recognized	**(3,248)**	(2,658)
Other local, non-corporate and withholding taxes suffered	**(1,038)**	(1,578)
Total taxation charge – continuing operations	**(3,969)**	(8,352)

11. Dividends

	Millions of yen	
	2020	2019
Dividends on ordinary shares declared and paid during the period:		
Final dividend for the previous year		
Dividend total (¥ millions)	**1,811**	1,809
Dividend per share (¥)	**20**	20
Interim dividend for the year		
Dividend total (¥ millions)	**–**	905
Dividend per share (¥)	**–**	10*
Dividends on ordinary shares declared after the end of the reporting period and not recognized as a liability:		
Final dividend for the year		
Dividend total (¥ millions)	**–**	1,811
Dividend per share (¥)	**–**	20

* Centennial commemoration dividend

	Millions of yen	
	2020	2019
Dividends on Class A Shares declared and paid during the period:		
Final dividend for the previous year		
Dividend total (¥ millions)	**960**	1,800
Dividend per share (¥)	**27,424.70**	45,000.00
Interim dividend for the year		
Dividend total (¥ millions)	**–**	1,103
Dividend per share (¥)	**–**	27,575.30
The daily pro-rated preferred dividend for the partial acquisition during the year		
Dividend total (¥ millions)	**50**	51
Dividend per share (¥)	**10,068.30**	10,246.60
Dividends on Class A Shares declared after the end of the reporting period and not recognized as a liability:		
Final dividend for the year		
Dividend total (¥ millions)	**1,650**	960
Dividend per share (¥)	**55,000.00**	27,424.70

12. Goodwill

	Millions of yen	
	2020	2019
Cost		
At 1 April	**112,965**	118,850
Exchange differences	**(7,316)**	(5,885)
At 31 March	**105,649**	112,965
Accumulated impairment		
At 1 April	**5,616**	6,395
Impairment losses arising in the period	**10,197**	–
Exchange differences	**(1,363)**	(779)
At 31 March	**14,450**	5,616
Net book amount at 31 March	**91,199**	107,349

In accordance with IAS 36, goodwill has been tested for impairment at 31 March 2020. This testing involved comparing the value-in-use of the Group's identified Cash Generating Units (CGUs) with the accounting value of assets within each CGU. The value in use for this purpose is considered to be the capitalized current value of the future cash flows of each CGU as calculated by discounting the projected future operating cash flows of each cash-generating unit, using the discount rates in the table below. Future operating cash flows were considered for the financial periods from FY2021 to FY2024 with a perpetuity thereafter. Critical assumptions included discount rates, perpetuity growth rates, projected sales volumes and prices, and input costs. The Group then applied risk-based downside adjustments to its base case assumptions, prepared before the COVID-19 pandemic, to generate forecast value-in-use cash flows for comparison to asset values. These risk-based downsides were prepared assuming that any recovery in the Group's key markets will be modest compared to the base case assumption with some residual COVID-19 impact on demand still prevailing in FY2024.

The key assumptions used in this process were as follows:

Assumption	**Value**
Period used for discounted cash flow calculations	Maximum of four years from the balance sheet date with perpetuity thereafter
Perpetuity growth rate	1.4% to 2.2%
Pre-tax discount rate used	5.72% to 10.69%

The pre-tax discount rate for each cash-generating unit is determined by adding weighted average country- specific risk premiums to prevailing risk-free rates for the currencies predominantly used within each business unit. The resulting discount rates ranged from 5.72 percent applied to Architectural Europe to 10.69 percent applied to Architectural Rest of World. The pre-tax discount rate for Automotive Europe was 6.07%.

A general perpetuity growth rate of 1.4 percent and 2.0 percent was included in the cash flow projections for CGU's in Europe and North America respectively. For Architectural Rest of World the perpetuity growth rate assumed was also 2.0 percent, whereas a growth rate of 2.2 percent was assumed for Automotive Rest of World.

Other key assumptions include glass prices, growth in market volumes, and input prices. Glass prices are projected using current trends and expectations of demand and supply movements in the period covered. Growth in market volumes is estimated with reference to general GDP growth in each territory and specific factors pertaining to the glass industry in that market including for example changes in regulatory environment. Input prices are estimated based on recent negotiations with suppliers and also generally available industry forecasts.

For the Automotive Europe and Automotive Rest of World CGUs, the risk-adjusted value-in-use calculation was lower than the asset values within those CGU's resulting in an impairment of goodwill as noted in the above table. Following this impairment, the Group is no longer recognizing any goodwill relating to the Automotive Rest of World CGU.

Following the impairment processed during the year, the remaining value of goodwill included on the balance sheet with an indefinite useful life is allocated to cash-generating units as set out in the table below.

	Millions of yen	
	2020	2019
Architectural Europe	**37,379**	39,918
Architectural Japan	**12**	12
Architectural North America	**7,972**	8,166
Architectural Rest of World	**1,526**	2,044
Automotive Europe	**30,724**	41,550
Automotive North America	**12,542**	12,848
Automotive Rest of World	**–**	1,718
Others	**1,044**	1,093
Total	**91,199**	107,349

The key sensitivity in the impairment test described above is the selection of the discount rate. If discount rates greater than the rates quoted above were used, there would be a reduction in the headroom for each cash-generating unit.

With respect to the remaining balances of goodwill, the cash-generating unit with the least amount of headroom was Automotive Europe. Following the partial impairment of goodwill during the year there is no residual headroom remaining for this CGU. An increase in the discount rate applied to this CGU of one percent would result in an additional impairment of ¥21,357 million. This sensitivity considers changes in the discount rate in isolation. The Group considers that the economic conditions that may be likely to be associated with an increased discount rate may also be consistent with an improvement in the Group's markets, and therefore taken together may not necessarily result in further impairment.

The Group considers that there is a satisfactory level of headroom with respect to other cash-generating units.

13. Intangible assets

Millions of yen

	Trademark and licenses	**Development costs**	**Computer software**	**Other**	**Total**
Cost					
At 1 April 2019	**311**	**17,320**	**15,986**	**139,415**	**173,032**
Exchange differences	**(8)**	**(1,273)**	**(609)**	**(7,830)**	**(9,720)**
Additions	**–**	**1,411**	**345**	**22**	**1,778**
Disposals	**–**	**–**	**(8)**	**(63)**	**(71)**
At 31 March 2020	**303**	**17,458**	**15,714**	**131,544**	**165,019**
Accumulated amortization and impairment					
At 1 April 2019	**309**	**12,178**	**12,782**	**93,973**	**119,242**
Exchange differences	**(8)**	**(919)**	**(410)**	**(5,577)**	**(6,914)**
Amortization charge for the period	**1**	**1,246**	**685**	**1,863**	**3,795**
Impairment losses arising in the period	**–**	**–**	**–**	**1,541**	**1,541**
Eliminated on disposals	**–**	**–**	**(7)**	**(28)**	**(35)**
At 31 March 2020	**302**	**12,505**	**13,050**	**91,772**	**117,629**
Net book amount at 31 March 2020	**1**	**4,953**	**2,664**	**39,772**	**47,390**

Millions of yen

	Trademark and licenses	Development costs	Computer software	Other	Total
Cost					
At 1 April 2018	319	16,742	15,727	145,396	178,184
Exchange differences	(7)	(683)	(369)	(6,046)	(7,105)
Additions	–	1,261	1,033	86	2,380
Transfers (to)/from assets held for sale	(1)	–	(65)	(5)	(71)
Disposals	–	–	(340)	(16)	(356)
At 31 March 2019	311	17,320	15,986	139,415	173,032
Accumulated amortization and impairment					
At 1 April 2018	316	11,410	12,877	96,332	120,935
Exchange differences	(7)	(486)	(281)	(4,175)	(4,949)
Amortization charge for the period	1	1,103	587	2,001	3,692
Impairment losses arising in the period	–	151	1	35	187
Reversal of impairment losses from prior periods	–	–	–	(199)	(199)
Transfer (to)/from assets held for sale	(1)	–	(62)	(5)	(68)
Eliminated on disposals	–	–	(340)	(16)	(356)
At 31 March 2019	309	12,178	12,782	93,973	119,242
Net book amount at 31 March 2019	2	5,142	3,204	45,442	53,790

Amortization of ¥3,795 million has been charged to other expenses, note 5 (2019: ¥3,692 charged to other expenses, note 5). Impairment of ¥1,538 million has been charged to exceptional items and ¥3 million to other expenses (2019: ¥151 million to exceptional items and ¥36 million to other expenses). 2019 reversal of previous impairments of ¥199 million was credited to exceptional items.

Development costs represent internally generated intangible assets. Computer software represents the acquisition cost of purchasing software plus internal costs to implement the usage of that software. Trademarks and licenses and other intangible assets represent the acquisition cost of those assets.

'Other' intangibles include the following amounts recognized on the acquisition of the Pilkington Group in June 2006:

Millions of yen

	Customer relationships	Know-how	Pilkington brand	Other brands	Developed technology	Other	Total
Cost							
At 1 April 2019	**24,357**	**40,027**	**43,009**	**4,549**	**21,889**	**374**	**134,205**
Exchange differences	**(1,773)**	**(2,204)**	**(1,982)**	**(416)**	**(1,195)**	**(28)**	**(7,598)**
At 31 March 2020	**22,584**	**37,823**	**41,027**	**4,133**	**20,694**	**346**	**126,607**
Accumulated amortization and impairment							
At 1 April 2019	**17,981**	**40,027**	**8,064**	**4,549**	**19,659**	**374**	**90,654**
Exchange differences	**(1,301)**	**(2,204)**	**(372)**	**(416)**	**(1,097)**	**(28)**	**(5,418)**
Amortization charge for the period	**877**	**–**	**–**	**–**	**964**	**–**	**1,841**
Impairment losses arising in the period	**550**	**–**	**912**	**–**	**69**	**–**	**1,531**
At 31 March 2020	**18,107**	**37,823**	**8,604**	**4,133**	**19,595**	**346**	**88,608**
Net book amount at 31 March 2020	**4,477**	**–**	**32,423**	**–**	**1,099**	**–**	**37,999**

Millions of yen

	Customer relationships	Know-how	Pilkington brand	Other brands	Developed technology	Other	Total
Cost							
At 1 April 2018	25,656	41,764	44,670	4,765	22,895	390	140,140
Exchange differences	(1,299)	(1,737)	(1,661)	(216)	(1,006)	(16)	(5,935)
At 31 March 2019	24,357	40,027	43,009	4,549	21,889	374	134,205
Accumulated amortization and impairment							
At 1 April 2018	17,931	41,764	8,376	4,765	19,489	390	92,715
Exchange differences	(890)	(1,737)	(312)	(216)	(859)	(16)	(4,030)
Amortization charge for the period	940	–	–	–	1,029	–	1,969
At 31 March 2019	17,981	40,027	8,064	4,549	19,659	374	90,654
Net book amount at 31 March 2019	6,376	–	34,945	–	2,230	–	43,551

Intangible assets arising on the acquisition of the Pilkington Group have been tested for impairment as part of the exercise to test goodwill for potential impairment. Details of this testing are set out in note 12, Goodwill.

In addition to the other intangible assets recognized on the acquisition of the Pilkington Group, the Group also has intangible assets relating to customer relationships recognized on smaller acquisitions and other intangible assets, amounting to ¥1,773 million (2019: ¥1,891 million). Amortization charged in the period on these other intangible assets amounted to ¥22 million (2019: ¥32 million) and impairments on these other intangible assets amounts to ¥10 million (2019: ¥35 million).

The Pilkington brand has been assigned an indefinite useful life and is therefore not subject to routine amortization. This brand has a long history in an established industry, with a significant share of the worldwide glass market. These factors, together with the scale of the business, contribute to the brand's durability. The Group intends to use the Pilkington brand indefinitely. All other intangible assets have finite lives, as set out in note 1.1.

For the purposes of testing for potential impairment, the Pilkington brand included in the intangible assets on the balance sheet has been allocated to cash generating units as set out in the table below.

Millions of yen

	2020	2019
Architectural Europe	**16,054**	16,786
Architectural North America	**3,360**	3,442
Automotive Europe	**8,269**	8,644
Automotive North America	**4,740**	4,856
Automotive Rest of World	**–**	1,217
Total	**32,423**	34,945

14. Property, plant and equipment

Millions of yen

	Owned			Right-of-use assets			Total
	Land and buildings	Plant, equipment, and vehicles	Sub-total	Land and buildings	Plant, equipment, and vehicles	Sub-total	Property, plant and equipment
Cost							
At 1 April 2019	**176,265**	**561,187**	**737,452**	**–**	**–**	**–**	**737,452**
Adoption of IFRS 16	**–**	**(119)**	**(119)**	**24,885**	**9,403**	**34,288**	**34,169**
At 1 April 2019 (restated)	**176,265**	**561,068**	**737,333**	**24,885**	**9,403**	**34,288**	**771,621**
Exchange differences	**(6,278)**	**(28,061)**	**(34,339)**	**(1,352)**	**(384)**	**(1,736)**	**(36,075)**
Hyperinflation adjustment	**1,007**	**3,885**	**4,892**	**–**	**12**	**12**	**4,904**
Transfer to assets held for sale	**–**	**(4)**	**(4)**	**(40)**	**(80)**	**(120)**	**(124)**
Sub-leased assets	**–**	**–**	**–**	**(80)**	**–**	**(80)**	**(80)**
Additions	**27,886**	**37,307**	**65,193**	**2,055**	**1,159**	**3,214**	**68,407**
Disposals	**(3,309)**	**(12,435)**	**(15,744)**	**(743)**	**(60)**	**(803)**	**(16,547)**
At 31 March 2020	**195,571**	**561,760**	**757,331**	**24,725**	**10,050**	**34,775**	**792,106**
Accumulated depreciation and impairment							
At 1 April 2019	**100,259**	**395,687**	**495,946**	**–**	**–**	**–**	**495,946**
Adoption of IFRS 16	**–**	**(52)**	**(52)**	**–**	**–**	**–**	**(52)**
At 1 April 2019 (restated)	**100,259**	**395,635**	**495,894**	**–**	**–**	**–**	**495,894**
Exchange differences	**(2,035)**	**(19,070)**	**(21,105)**	**(146)**	**(49)**	**(195)**	**(21,300)**
Hyperinflation adjustment	**421**	**1,991**	**2,412**	**–**	**–**	**–**	**2,412**
Charge for the period	**2,927**	**20,366**	**23,293**	**5,354**	**2,400**	**7,754**	**31,047**
Impairment losses arising in the period	**727**	**4,466**	**5,193**	**569**	**66**	**635**	**5,828**
Reversal of impairment losses from prior periods	**–**	**(378)**	**(378)**	**–**	**–**	**–**	**(378)**
Sub-leased assets	**–**	**–**	**–**	**(12)**	**–**	**(12)**	**(12)**
Eliminated on disposals	**(2,947)**	**(12,180)**	**(15,127)**	**(743)**	**(60)**	**(803)**	**(15,930)**
At 31 March 2020	**99,352**	**390,830**	**490,182**	**5,022**	**2,357**	**7,379**	**497,561**
Net book amount at 31 March 2020	**96,219**	**170,930**	**267,149**	**19,703**	**7,693**	**27,396**	**294,545**

Millions of yen

	Land and buildings	Plant, equipment, and vehicles	Total
Cost			
At 1 April 2018	175,958	551,065	727,023
Exchange differences	1,807	(4,968)	(3,161)
Transfer to assets held for sale	(4,772)	(229)	(5,001)
Additions	5,501	24,268	29,769
Disposals	(2,229)	(8,949)	(11,178)
At 31 March 2019	176,265	561,187	737,452
Accumulated depreciation and impairment			
At 1 April 2018	96,752	386,166	482,918
Exchange differences	1,324	(1,193)	131
Charge for the period	3,285	20,933	24,218
Impairment losses arising in the period	3,125	1,302	4,427
Reversal of impairment losses from prior periods	–	(2,536)	(2,536)
Transfer to assets held for sale	(2,201)	(155)	(2,356)
Eliminated on disposals	(2,026)	(8,830)	(10,856)
At 31 March 2019	100,259	395,687	495,946
Net book amount at 31 March 2019	76,006	165,500	241,506

In the previous year, the carrying amount of the Group's land and buildings included ¥870 million and the Group's plant, equipment and vehicles included ¥67 million, in respect of assets held under finance leases based on the Group's previous lease accounting policy in accordance with IAS 17 'Leases'.

Of the additions in the previous year, ¥32 million were financed by new finance leases.

Land and buildings including assets with a carrying amount of ¥749 million (2019: ¥824 million), and plant and machinery including assets with a carrying amount of ¥7,719 million (2019: ¥14,034 million), are subject to specific charges to secure Group borrowings.

Capitalized borrowing costs of ¥15 million have been included within additions of land and buildings (2019: ¥ nil million) and ¥202 million have been included within plant, equipment and vehicles (2019: ¥5 million). The average rate used to calculate borrowing costs capitalized during the year was 1.89% (2019: 4.95%).

Depreciation charged in the period all relates to continuing operations, this has been charged to cost of sales ¥24,579 million (2019: ¥21,291 million), distribution costs ¥1,612 million (2019: ¥653 million), administrative expenses ¥3,860 million (2019: ¥2,241 million) and exceptional items ¥996 million (2019: ¥33 million), note 7. Impairments in the period have been charged to exceptional items ¥4,699 million (2019: ¥3,232 million) and other expenses ¥1,129 million (2019: ¥1,195 million). The reversal of previous period impairments have been credited to exceptional items ¥378 million (2019: ¥2,535 million) and other expenses ¥nil million (2019: ¥1 million).

Property, plant and equipment includes ¥3,935 million (2019: ¥2,956 million) in respect of assets in the course of construction.

15. Investment property

	Note	Millions of yen 2020	2019
Fair value			
At 1 April		**371**	413
Exchange differences		**(160)**	(22)
Net increase/(decrease) in fair value	4,5	**92**	(20)
At 31 March		**303**	371

Investment property principally comprises land, office buildings and small industrial units, and those parts of other properties not occupied by the Group, which are held for long-term rental yields. Investment properties are initially recognized at cost and are thereafter carried at fair value, representing open-market value determined annually by discounted cash flows or by the use of external valuers. Changes in fair value are recorded in the income statement as part of other income and other expenses.

The property rental income earned by the Group from its investment properties, all of which are leased out under operating leases, amounted to ¥178 million (2019: ¥220 million). Direct operating expenses arising on the investment properties in the period amounted to ¥68 million (2019: ¥130 million).

The Group has no restrictions on the realizability of its investment properties and there were no commitments at 31 March 2020 or 2019.

Fair value measurement disclosures for investment properties are provided in note 21.

16. Leases

The Group as a lessee

The Group leases land and buildings for its manufacturing facilities, offices and warehouses at various locations worldwide. The Group also leases equipment and vehicles used in the ordinary course of the business, along with housing and cars which are provided as employee benefits.

The weighted-average lease term is approximately 7 years for land and buildings, and 6 years for plant, equipment and vehicles.

The following amounts are included in the consolidated income statement:

	Millions of yen 2020
Interest expense on lease liabilities	**1,283**
Expenses relating to short-term leases	**816**
Expenses relating to leases of low-value assets	**437**
Expenses related to variable lease payments not included in the measurement of lease liabilities	**25**

The following amount are included in the consolidated statement of cash flow:

	Millions of yen 2020
Cash outflow for leases	**9,767**

The cash outflow for leases in the chart above includes; the principal portion and interest of lease liabilities, payments for short-term leases, leases of low-value assets and variable lease payments not included in the measurement of lease liabilities.

The leases recognized as at 31 March 2020, includes options such as extension and termination options, that were not considered to be reasonably certain as at that date and therefore are not included in the measurement of lease liabilities. These options may result in potential future cash outflows in the future years, once it becomes reasonably certain that they will be exercised.

As at 31 March 2020, there are no leases which the Group has committed but have not yet commenced.

For the depreciation charge, additions and the carrying amount of right-of-use assets at the end of the reporting period, see note 14.

For the maturity analysis of lease liabilities, see note 26.

The Group as a lessor

The Group leases out right-of-use assets to third parties in cases where the Group no longer requires the assets for its own use. As at 31 March 2020, the Group recognized a net investment asset of ¥67 million, in relation to a finance lease arrangement where the Group leases out an industrial unit not occupied by the Group.

The Group also leases out its investment property to third parties under operating lease arrangements (see note 15).

17. Investments accounted for using the equity method

Joint ventures

The Group's interests in its material joint ventures, all of which are unlisted, are as follows:

Name	Proportion of issued ordinary shares held	Country of operation and incorporation	Principal activity
Cebrace Cristal Plano Limitada (Cebrace)	50%	Brazil	Glass manufacturing
SP Glass Holdings BV	62.5%	Russia/Netherlands	Glass manufacturing

There were no material additions to joint ventures in the period ended 31 March 2020 (31 March 2019 – none).

The Group has legal ownership of 62.5 percent of the issued share capital of SP Glass Holdings BV, but, due to the existence of call options held by one of the Group's joint venture partners over part of the Group's shareholding and also other potential shareholder transactions, the Group accounts for this investment using a beneficial shareholding percentage of 43.75 percent.

Of the joint ventures above, Cebrace reports to an accounting date coterminous with that of the Group, but SP Glass Holdings BV reports to 31 December, being its local statutory accounting date.

During the year to 31 March 2020, the Group's investment in Jiangsu Pilkington SYP Glass Co., Ltd was disposed, as set out in note 7.

The balance sheet values of the Group's material joint ventures are as follows:

				Millions of yen
				2020
	Cebrace	**SP Glass Holdings BV**	**Others**	**Total**
Current assets	**14,011**	**5,554**	**1,059**	**20,624**
Non-current assets	**17,236**	**10,410**	**389**	**28,035**
Current liabilities	**(15,363)**	**(2,837)**	**(445)**	**(18,645)**
Non-current liabilities	**(3,570)**	**(10,337)**	**(64)**	**(13,971)**
Total equity	**12,314**	**2,790**	**939**	**16,043**
NSG Group interest in total equity	**6,157**	**1,221**	**286**	**7,664**
Goodwill	**–**	**2,915**	**–**	**2,915**
Carrying amount of the Group's investment	**6,157**	**4,136**	**286**	**10,579**
The total equity above includes:				
Cash and cash equivalents	**4,894**	**1,334**	**236**	**6,464**
Current financial liabilities	**(10,987)**	**(651)**	**–**	**(11,638)**
Non-current financial liabilities	**(193)**	**(9,975)**	**–**	**(10,168)**

					Millions of yen
					2019
	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd	Others	Total
Current assets	16,761	5,098	2,637	1,102	25,598
Non-current assets	24,132	9,422	7,526	419	41,499
Current liabilities	(18,311)	(2,029)	(5,059)	(458)	(25,857)
Non-current liabilities	(5,368)	(11,599)	(6,720)	(70)	(23,757)
Total equity	17,214	892	(1,616)	993	17,483
NSG Group interest in total equity	8,607	390	(808)	302	8,491
NSG Group's unrecognized interest in total equity	–	–	808	–	808
Goodwill	–	3,048	–	–	3,048
Carrying amount of the Group's investment	8,607	3,438	–	302	12,347
The total equity above includes:					
Cash and cash equivalents	827	1,880	109	242	3,058
Current financial liabilities	(10,271)	–	(329)	–	(10,600)
Non-current financial liabilities	–	(7,400)	(6,720)	–	(14,120)

The Group considers that for all joint ventures accounted for using the equity method the balance sheet value approximates the fair value of the Group's investment. Current and non-current financial liabilities exclude trade and other payables as well as provisions.

The Group has no unrecognized commitments, relating to any of its joint ventures, which would result in a future outflow of economic resources from the Group.

The key income statement and comprehensive income figures of the Group's material joint ventures are as follows:

Millions of yen

2020	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd*	Others	Total
Revenue	**39,315**	**13,200**	**5,404**	**1**	**57,920**
Profit/(loss) for the period from continuing operations	**2,379**	**(896)**	**142**	**(7)**	**1,618**
Other comprehensive income	**(8)**	**2,870**	**–**	**(3)**	**2,859**
Total comprehensive income	**2,371**	**1,974**	**142**	**(10)**	**4,477**
NSG Group's share of profit/(loss) for the period	**1,190**	**(392)**	**–**	**(2)**	**796**
NSG Group's unrecognized share of profit for the period	**–**	**–**	**71**	**–**	**71**
Dividends received by NSG Group	**1,407**	**–**	**–**	**–**	**1,407**
The profit/(loss) for the period includes the following:					
Depreciation and amortization	**(2,569)**	**(1,004)**	**(487)**	**–**	**(4,060)**
Interest expense	**(295)**	**(1,247)**	**(198)**	**1**	**(1,739)**
Taxation	**(1,269)**	**(41)**	**–**	**(3)**	**(1,313)**

* Data prior to disposal

Millions of yen

2019	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd	Others	Total
Revenue	48,701	13,571	5,716	4	67,992
Profit/(loss) for the period from continuing operations	11,110	307	(282)	(1)	11,134
Other comprehensive income	–	(40)	–	–	(40)
Total comprehensive income	11,110	267	(282)	(1)	11,094
NSG Group's share of profit for the period	5,555*	134	–	–	5,689
NSG Group's unrecognized share of loss for the period	–	–	(141)	–	(141)
Dividends received by NSG Group	3,528	–	–	–	3,528
The profit/(loss) for the period includes the following:					
Depreciation and amortization	(3,028)	(1,007)	(575)	–	(4,610)
Interest expense	423	(783)	(305)	1	(664)
Taxation	(5,787)	(202)	–	(1)	(5,990)

* During FY2019, Cebrace recorded a one-off gain, of which the Group's share was ¥2,321 million, following the conclusion of a legal challenge regarding the calculation of sales-based taxes borne by the company in previous years.

Associates

The Group's interest in material associates is as follows:

Name	Proportion of issued ordinary shares held	Country of operation and incorporation	Principal activity
Flachglas Wernberg GmbH	49%	Germany	Glass manufacturing and processing
Holding Concorde SA	22.2%	Colombia	Glass manufacturing and processing

The Group now owns 22.2% of Holding Concorde SA, as a result of the reorganization of its Group which took place during the year to 31 March 2020.

The accounting date for each of the associates listed above, is 31 December, the date to which each draws up its annual accounts.

The balance sheet values of the Group's material associates are as follows:

Millions of yen

	2020			
	Flachglas Wernberg GmbH	**Holding Concorde SA**	**Others**	**Total**
Current assets	**4,238**	**6,269**	**8,720**	**19,227**
Non-current assets	**5,281**	**11,894**	**7,764**	**24,939**
Current liabilities	**(2,347)**	**(2,396)**	**(5,560)**	**(10,303)**
Non-current liabilities	**(3,195)**	**(4,150)**	**(2,403)**	**(9,748)**
Total equity	**3,977**	**11,617**	**8,521**	**24,115**
NSG Group interest in total equity	**1,949**	**2,579**	**1,959**	**6,487**
Goodwill	**–**	**–**	**17**	**17**
Carrying amount of the Group's investment	**1,949**	**2,579**	**1,976**	**6,504**

Millions of yen

	2019			
	Flachglas Wernberg GmbH	Holding Concorde SA	Others	Total
Current assets	4,460	4,286	7,729	16,475
Non-current assets	5,378	11,081	7,393	23,852
Current liabilities	(2,591)	(2,974)	(4,219)	(9,784)
Non-current liabilities	(3,129)	(2,821)	(2,075)	(8,025)
Total equity	4,118	9,572	8,828	22,518
NSG Group interest in total equity	2,018	2,202	1,710	5,930
Goodwill	–	–	17	17
Carrying amount of the Group's investment	2,018	2,202	1,727	5,947

The Group considers that for all associates accounted for using the equity method, the balance sheet value is approximately equal to the fair value.

The key income statement and comprehensive income figures of the Group's material associates are as follows:

Millions of yen

	2020			
	Flachglas Wernberg GmbH	**Holding Concorde SA**	**Others**	**Total**
Revenue	**17,373**	**8,305**	**15,097**	**40,775**
Profit for the period from continuing operations	**218**	**435**	**(46)**	**607**
Other comprehensive income	**(58)**	**32**	**–**	**(26)**
Total comprehensive income	**160**	**467**	**(46)**	**581**
NSG Group's share of profit for the period	**107**	**97**	**77**	**281**
Dividends received by NSG Group	**59**	**–**	**24**	**83**

Millions of yen

	2019			
	Flachglas Wernberg GmbH	Holding Concorde SA	Others	Total
Revenue	17,944	9,912	14,691	42,547
Profit for the period from continuing operations	547	1,142	(215)	1,474
Other comprehensive income	–	(28)	(1)	(29)
Total comprehensive income	547	1,114	(216)	1,445
NSG Group's share of profit for the period	268	250	37	555
Dividends received by NSG Group	63	–	15	78

18. Trade and other receivables

	Note	2020	2019
		Millions of yen	
Trade receivables		**36,291**	46,831
Less provision for impairment of receivables		**(2,156)**	(2,402)
Trade receivables – net		**34,135**	44,429
Amounts due from customers for contract work		**783**	797
Amounts owed by related parties (trading)	39	**680**	1,553
Loans to related parties	39	**7,306**	9,255
Other receivables		**18,250**	18,492
Prepayments and accrued income		**3,323**	3,795
		64,477	78,321
Current		**54,003**	63,994
Non-current		**10,474**	14,327
		64,477	78,321

The directors consider that the carrying amount of trade and other receivables approximates to their fair value.

There is no particular concentration of credit risk relating to Architectural, Automotive AGR, or Technical Glass balances, as these operations have a large number of customers. There is, however, a concentration of credit risk within the Automotive OE balances where the Group is supplying automotive manufacturers worldwide. The Automotive OE business customers constitute the majority of the major global car manufacturers. Due to the nature of the industry with a relatively small number of large customers, there is therefore a higher credit risk concentration. Total amounts owed by Automotive OE customers were ¥10,084 million (2019: ¥16,045 million). This risk is managed through the monitoring of aged receivables, analysis of the cost effectiveness of insuring receivables and through general credit collection procedures.

Receivable balances are impaired on a case by case basis when the value may not be collectable. Overdue balances may not be impaired when there is good reason to expect that the receivable would still be collected.

As at 31 March 2020, trade receivables at nominal value of ¥2,156 million, (2019: ¥2,402 million) were impaired and fully provided for.

Movements in the provision for impairment of receivables were as follows:

	Note	2020	2019
		Millions of yen	
At 1 April		**(2,402)**	(3,431)
Exchange differences		**145**	112
Charge for the period		**(554)**	(425)
Unused amounts reversed	5	**266**	545
Utilized		**389**	797
At 31 March		**(2,156)**	(2,402)

As at 31 March, the ageing analysis of current trade and other receivables (excluding prepayments and accrued income) is below. All non-current trade and other receivables (excluding prepayments and accrued income) are considered neither past due nor impaired.

Millions of yen

			Past due but not impaired			
	Total	Neither past due nor impaired	Less than 3 months overdue	Between 3 and 6 months overdue	Between 6 and 12 months overdue	More than 12 months overdue
2020	**51,096**	**46,144**	**3,593**	**813**	**222**	**324**
2019	60,905	56,784	1,956	476	232	1,457

19. Assets held at fair value through other comprehensive income

The equity investments held within this category are those where the Group does not have a significant influence over the finance and operating policies of the investee. The Group generally expects to retain its investments in these entities, although may consider disposals on an opportunistic basis if appropriate. The Group considers gains and losses arising from fluctuations in valuations of investments to be unrealized. On adoption of IFRS 9 the Group elected to classify such investments at fair value through other comprehensive income with subsequent gains and losses recorded in other comprehensive income.

		Millions of yen	
	Note	**2020**	2019
At 1 April		**18,640**	17,390
Exchange differences		**(1,070)**	(399)
Transferred to assets held for sale		–	(3)
Acquisitions		**2,218**	1,801
Original value of assets disposed		**(4)**	(10)
Revaluation surplus			
transferred to equity	35	**(1,752)**	(139)
At 31 March		**18,032**	18,640
Current		**461**	–
Non-current		**17,571**	18,640
		18,032	18,640

The acquisition in the period ended 31 March 2020 mainly relates to the Group's additional investment in UK Government gilts. The acquisition in the period ended 31 March 2019 mainly relates to the Group's investment in SYP Kangqiao Autoglass Company Limited (SYPKA), a company registered and operating in China.

The disposal in the period ended 31 March 2020 and 31 March 2019 mainly related to the sale of unlisted shares.

Assets held at fair value through other comprehensive income include the following:

	Millions of yen	
	2020	2019
UK Government gilts	**4,468**	2,315
Listed equities	**8,704**	11,052
Unlisted equities	**4,538**	4,942
Bond funds	**277**	289
Other	**45**	42
	18,032	18,640

Fair value measurement disclosures are provided in note 21.

20. Derivative financial instruments

				Millions of yen
		2020		2019
	Assets	**Liabilities**	Assets	Liabilities
Interest rate swaps				
not qualifying as hedges	**3**	**62**	10	106
cash flow hedges	**57**	**908**	132	601
Forward foreign exchange contracts				
not qualifying as hedges	**30**	**82**	10	2
cash flow hedges	**250**	**877**	203	96
net investment hedges	**875**	**313**	267	203
Commodity hedges				
cash flow hedges	**15**	**5,037**	779	848
	1,230	**7,279**	1,401	1,856
Current	**1,179**	**4,664**	966	1,132
Non-current	**51**	**2,615**	435	724
	1,230	**7,279**	1,401	1,856
Derivatives at fair value through income statement	**33**	**144**	20	108
Derivatives at fair value through other comprehensive income	**1,197**	**7,135**	1,381	1,748
	1,230	**7,279**	1,401	1,856
Maturity				
within one year	**1,179**	**4,664**	966	1,132
between one and two years	**8**	**1,301**	304	624
between two and three years	**36**	**569**	80	75
between three and four years	**7**	**697**	45	11
over four years	**–**	**48**	6	14
	1,230	**7,279**	1,401	1,856

Of the above financial instruments, gross cash flows are exchanged for forward foreign exchange contracts only. The contractual liabilities are ¥78,089 million (2019: ¥60,303 million), falling due within one year.

Gains and losses in equity on forward foreign exchange contracts as of 31 March 2020 will be released to the income statement at various dates up to 12 months from the balance sheet date. Fair values are calculated with reference to market prices discounted to current value.

The notional principal amounts of the outstanding interest rate swap contracts at 31 March 2020 were ¥55,207 million (2019: ¥58,512 million). At 31 March 2020, the fixed interest rates on interest rate swaps vary from (0.263) percent to 1.478 percent (2019: (0.263) percent to 1.478 percent) and the main floating rates are TIBOR, EURIBOR and LIBOR. The Group designates a portion of its currency denominated borrowings and derivatives as hedges of the net investment in the Group's overseas subsidiaries. The fair value of these borrowings as at 31 March 2020 was ¥74,516 million (2019: ¥71,419 million). The fair value of the derivatives as at 31 March 2020 was a gain of ¥457 million (2019: a loss of ¥17 million). The foreign exchange loss of ¥3,136 million (2019: ¥1,661 million) on translation of the borrowings and derivatives to yen at the balance sheet date was recognized in the exchange translation reserve in shareholders' equity, note 35.

Fair value measurement disclosures for derivative assets and liabilities are provided in note 21.

Financial risk management

An explanation of the Group's financial instrument risk management objectives, policies and strategies is set out in the financial risk management section in note 1.1, Summary of significant accounting policies.

21. Fair value measurement

Fair value hierarchy

For those assets and liabilities included in the consolidated balance sheet at fair value, the table below provides the fair value measurement of the Group's assets and liabilities by valuation method. The different levels have been defined as follows:

Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities.
Level 2: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
Level 3: inputs for the asset or liability that are not based upon market data (unobservable inputs)

Assets and liabilities included in the balance sheet at amortized cost, have fair value disclosures included within the relevant disclosure note for that balance sheet item, where required by IFRS 13 or other relevant standards.

Millions of yen

	Note	Level 1	Level 2	Level 3	Total
					2020
Investment properties	15				
rental properties		**–**	**–**	**303**	**303**
		–	**–**	**303**	**303**
Assets held at fair value through other comprehensive income	19				
UK Government gilts		**4,468**	**–**	**–**	**4,468**
listed equities		**8,704**	**–**	**–**	**8,704**
unlisted equities		**–**	**–**	**4,538**	**4,538**
bond funds		**277**	**–**	**–**	**277**
other		**–**	**–**	**45**	**45**
		13,449	**–**	**4,583**	**18,032**
Derivative assets	20				
interest rate swaps		**–**	**60**	**–**	**60**
forward foreign exchange contracts		**–**	**1,155**	**–**	**1,155**
commodity swaps		**–**	**15**	**–**	**15**
		–	**1,230**	**–**	**1,230**

Millions of yen

	Note	Level 1	Level 2	Level 3	Total
					2019
Investment properties	15				
rental properties		–	–	371	371
		–	–	371	371
Assets held at fair value through other comprehensive income	19				
UK Government gilts		2,315	–	–	2,315
listed equities		11,052	–	–	11,052
unlisted equities		–	–	4,942	4,942
bond funds		289	–	–	289
other		–	–	42	42
		13,656	–	4,984	18,640
Derivative assets	20				
interest rate swaps		–	142	–	142
forward foreign exchange contracts		–	480	–	480
commodity swaps		–	779	–	779
		–	1,401	–	1,401

Millions of yen

	Note	Level 1	Level 2	Level 3	Total
					2020
Derivative liabilities	20				
interest rate swaps		**–**	**970**	**–**	**970**
forward foreign exchange contracts		**–**	**1,272**	**–**	**1,272**
commodity swaps		**–**	**5,037**	**–**	**5,037**
		–	**7,279**	**–**	**7,279**

Millions of yen

	Note	Level 1	Level 2	Level 3	Total
					2019
Derivative liabilities	20				
interest rate swaps		–	706	–	706
forward foreign exchange contracts		–	301	–	301
commodity swaps		–	849	–	849
		–	1,856	–	1,856

Investment properties

Investment properties are valued either by reference to future expected rental receipts or by reference to a recently obtained valuation prepared by a qualified valuation professional. Gains or losses arising on the fair value of investment properties are recognized in operating profit, see note 15. The sensitivity of the fair value of investment properties is subject to rental yields and fluctuation of property prices in the relevant markets however the Group has not quantified the impact of any change as any reasonable change would not have a material impact.

Assets held at fair value through other comprehensive income

UK Government gilts, listed equities, and bond funds are valued based on quoted market prices obtained by the Group at the balance sheet date. Unlisted equities and other assets held at fair value through other comprehensive income are valued using a variety of different techniques including future projected cash flows and net asset values of the underlying investments. Those classified in level 3 of the fair value hierarchy are subject to a variety of sensitivities and, as these investments comprise mainly Japanese trading companies, economic growth projections in Japan are the main sensitivity influencing the valuation. The Group has not quantified the impact of the change in GDP growth rates for these investments, included within level 3, as any reasonable movement would not have a material impact.

Fair value gains and losses are recognized within the statement of comprehensive income, see note 19.

Derivatives

The fair values of foreign exchange contracts are determined using forward exchange market rates at the balance sheet date. The fair values of interest rate swaps are calculated as the present value of the estimated future cash flows based on observable yield curves at the balance sheet date. The fair values of commodity hedges are determined by using forward market prices at the balance sheet date.

Gains and losses arising on the fair value of net derivative assets and liabilities have been recognized as follows. A loss of ¥17 million was recognized in operating profit (2019: a gain of ¥9 million) in relation to derivatives classed as fair value through profit or loss. A loss of ¥6,642 million was recognized directly in the statement of comprehensive income (2019: a gain of ¥38 million) in relation to derivatives classed as fair value through other comprehensive income.

There was no hedge ineffectiveness in the year therefore no charge to the income statement in respect of hedge ineffectiveness of assets classed as fair value through other comprehensive income.

Transfer between levels

The Group determines whether a transfer between levels in the hierarchy has occurred by reassessing categorization at the end of each reporting period. During the periods ended 31 March 2020 and 2019, there were no transfers between Level 1 and Level 2 fair value measurements.

There have been no changes in the valuation techniques in either the current or prior year.

A reconciliation of movements in assets held at fair value through other comprehensive income included in the above hierarchy based on level 3 valuation techniques is as follows:

	Millions of yen	
	2020	2019
At 1 April	**4,984**	4,311
Acquisition	–	1,792
Transfer to assets held for sale	–	(3)
Disposals	**(1)**	(10)
Movements in fair value recognized in comprehensive income within “Revaluation of assets held at fair value through other comprehensive income – equity investments (net of taxation)”	**(262)**	(1,041)
Exchange differences recognized in other comprehensive income	**(138)**	(65)
At 31 March	**4,583**	4,984

The acquisition in the period ended 31 March 2019 mainly relates to the Group’s additional investment in SYP Kangqiao Autoglass Company Limited (SYPKA), a company registered and operating in China.

Management have assessed that fair value of assets and liabilities such as cash and short-term deposits, trade receivables, trade payables, bank overdrafts and other current liabilities approximate their carrying amounts largely due to the short-term maturity of these instruments.

22. Deferred income tax

	2020 (Millions of yen)	2019 (Millions of yen)
Deferred tax assets	**28,658**	32,411
Deferred tax liabilities	**(16,105)**	(18,469)
Net deferred tax assets	**12,553**	13,942

The movement for the period in the net deferred tax asset is as follows:

	Note	2020 (Millions of yen)	2019 (Millions of yen)
At 1 April		**13,942**	17,483
Adjustment on adoption of IFRIC23		**(1,123)**	–
Exchange differences		**33**	(573)
Charge to the income statement for the period	10	**(697)**	(1,939)
Deferred tax transferred to assets held for sale		**41**	(117)
Credit/(Charge) to other comprehensive income for the period		**357**	(912)
At 31 March		**12,553**	13,942

The credit of ¥357 million (2019: a charge of ¥912 million) to other comprehensive income in the year comprises a credit to the hedging reserve of ¥1,467 million (2019: ¥13 million), note 35, and a charge to the fair value reserve of ¥13 million (2019: a credit of ¥18 million), note 35. The Company also has a charge to other comprehensive income in respect of retirement benefit obligations in retained earnings of ¥1,097 million (2019: ¥943 million), note 28.

Adoption of IFRIC 23 'Uncertainty over Income Tax Treatments'

Following the adoption of IFRIC23 the Group has now increased its provisions in respect of the potential tax liability that may arise. As at 31 March 2020 the Group holds provisions for such potential liabilities of ¥3,488 million. These provisions relate to multiple issues, across the jurisdictions in which the Group operates.

The following movement in the Group's deferred tax assets and liabilities took place during the periods ended 31 March 2020 and 31 March 2019.

Millions of yen

	Note	**Property, plant and equipment**	**Tax losses**	**Fair value losses**	**Defined benefit obligations**	**Provisions**	**Other**	**Total**
Deferred tax assets								
At 1 April 2019		**3,315**	**9,501**	**384**	**11,673**	**7,805**	**2,023**	**34,701**
Adjustment on adoption of IFRIC23		**–**	**(1,191)**	**–**	**–**	**–**	**–**	**(1,191)**
Exchange differences		**(162)**	**(393)**	**(17)**	**(369)**	**(297)**	**(115)**	**(1,353)**
(Charge)/credit to the income statement in the period	10	**50**	**(749)**	**–**	**(314)**	**(98)**	**(201)**	**(1,312)**
Transfer to assets held for sale		**26**	**8**	**–**	**–**	**7**	**–**	**41**
(Charge)/credit to other comprehensive income for the period		**–**	**–**	**–**	**(1,097)**	**–**	**893**	**(204)**
Gross deferred tax assets		**3,229**	**7,176**	**367**	**9,893**	**7,417**	**2,600**	**30,682**
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		**(870)**	**(292)**	**–**	**(191)**	**(277)**	**(394)**	**(2,024)**
At 31 March 2020		**2,359**	**6,884**	**367**	**9,702**	**7,140**	**2,206**	**28,658**

Millions of yen

	Note	Property, plant and equipment	Tax losses	Fair value losses	Defined benefit obligations	Provisions	Other	Total
Deferred tax assets								
At 1 April 2018		3,856	12,098	406	12,807	7,347	2,972	39,486
Exchange differences		(3)	(156)	(22)	(22)	(158)	(79)	(440)
(Charge)/credit to the income statement in the period	10	(512)	(2,402)	–	(169)	665	(762)	(3,180)
Transfer to assets held for sale		(26)	(39)	–	–	(49)	(3)	(117)
Charge to other comprehensive income for the period		–	–	–	(943)	–	(105)	(1,048)
Gross deferred tax assets		3,315	9,501	384	11,673	7,805	2,023	34,701
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		(768)	(315)	–	(198)	(128)	(881)	(2,290)
At 31 March 2019		2,547	9,186	384	11,475	7,677	1,142	32,411

Tax losses

The Group assesses its ability to utilize tax losses in future periods based on management-approved financial forecasts. This takes account of the Group's medium and long-term strategic and financial plans and the expected future economic outlook. The ability to utilize tax losses in future periods also takes account of material tax adjusting items and the period (if any) in which tax losses might expire under local tax laws. The Group's ability to utilize its tax losses is re-assessed annually and looked at in the territories in which we operate. The recognized amount of losses is calculated with reference to the availability of future taxable profits.

At 31 March 2020, the Group has tax losses which it is able to carry forward of ¥204,958 million (2019: ¥215,679 million), in respect of which it is recognizing a deferred tax asset of ¥7,176 million (2019: ¥9,501 million).

A significant part of this deferred tax asset arises in the USA and a deferred tax asset of ¥3,897 million (2019: ¥4,408 million) has been recognized based on management-approved financial forecasts, taking into account the date of expiry of tax losses under US tax laws and these are expected to be utilized by 2028. There are deferred tax assets recognized in Poland of ¥1,018 million (2019: ¥1,460 million). The Group has reviewed the latest forecasted results for the Polish business and based on these believe it is probable that this asset will be utilized by 2026.

There are deferred tax assets in Italy of ¥1,419 million (2019: ¥1,348 million). Based on the current forecast the Group believes it is probable that this credit will be fully utilized in the next 5 to 7 years.

Tax losses of ¥28,568 million (2019: ¥28,272 million) are being carried forward in Japan, on which a deferred tax asset of ¥58 million is recognized (2019: ¥59 million). ¥24 million of tax losses have time expired in the current year. The remaining tax losses have no deferred tax recognized and are subject to time expiry between 2021 and 2026, with ¥17,847 million expiring within the next 5 years.

A further ¥791 million (2019: ¥889 million) of the deferred tax asset relates to tax losses arising in the UK, based on the management-approved financial forecasts. These tax losses are not subject to time expiry. Further tax losses of ¥96,978 million (2019: ¥100,615 million) are being carried forward in the UK and the Group does not consider it probable that there will be sufficient future taxable profits against which these losses may be utilized and therefore no deferred tax asset is recognized.

A deferred tax asset of ¥1,172 million (2019: ¥1,337 million), in respect of tax losses arising in other territories, is recognized in full, based on management-approved financial forecasts.

Following the implementation of IFRIC 23, locally held deferred tax assets as described above, are then adjusted to take account of any potential additional tax risks. The net deferred tax asset recognized includes an adjustment in this respect of ¥(1,179) million, relating mainly to deferred tax assets in the USA and Poland.

In addition to tax losses in Japan and the UK on which no deferred tax asset is being recognized, the Group also considers it appropriate not to recognize a deferred tax asset in respect of other tax losses of ¥39,961 million (2019: ¥41,538 million) arising in other countries, of which ¥7,116 million subject to time expiry under local tax laws. The balance of unrecognized tax losses of ¥32,845 million, is not subject to time expiry.

The deferred tax asset in respect of the Group's retirement benefit obligations arises mainly in USA, where a deferred tax asset of ¥5,478 million (2019: ¥5,935 million) is recognized. The other significant deferred tax asset recognized relates to Germany, being ¥3,840 million (2019: ¥5,030 million).

There are unrecognized deferred tax assets in relation to retirement benefit obligations of ¥1,647 million (2019: ¥1,301 million) of which ¥891 million relates to the UK (2019: ¥809 million).

The Group also has other assets on which no deferred tax is recognized amounting to ¥15,367 million (2019: ¥13,562 million), of which ¥9,107 million relates to Japan and ¥5,087 million to the UK.

The Group has tax losses amounting to ¥893 million (2019: ¥16,995 million) which are only available for offset against future capital gains in the UK and the USA. Since it is uncertain whether these losses will be utilized, no deferred tax is recognized.

	Note	Property, plant and equipment	Fair value gains	Provisions	Other	Total
						Millions of yen
Deferred tax liabilities						
At 1 April 2019		**9,649**	**9,402**	**449**	**1,259**	**20,759**
Adjustment on adoption of IFRIC23		**–**	**–**	**–**	**(68)**	**(68)**
Exchange differences		**(870)**	**(439)**	**(14)**	**(63)**	**(1,386)**
(Credit)/charge to the income statement in the period	10	**(869)**	**69**	**(275)**	**460**	**(615)**
(Credit)/charge to other comprehensive income for the period		**–**	**13**	**–**	**(574)**	**(561)**
Gross deferred tax liabilities		**7,910**	**9,045**	**160**	**1,014**	**18,129**
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		**(1,651)**	**–**	**(3)**	**(370)**	**(2,024)**
At 31 March 2020		**6,259**	**9,045**	**157**	**644**	**16,105**

	Note	Property, plant and equipment	Fair value gains	Provisions	Other	Total
						Millions of yen
Deferred tax liabilities						
At 1 April 2018		10,216	9,943	373	1,471	22,003
Exchange differences		602	(394)	(15)	(60)	133
(Credit)/charge to the income statement in the period	10	(1,169)	(129)	91	(34)	(1,241)
(Credit)/charge to other comprehensive income for the period		–	(18)	–	(118)	(136)
Gross deferred tax liabilities		9,649	9,402	449	1,259	20,759
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		(1,366)	–	(296)	(628)	(2,290)
At 31 March 2019		8,283	9,402	153	631	18,469

Deferred taxation provided on unremitted earnings of joints ventures and associates at 31 March 2020, was ¥140 million (2019: ¥174 million). This reflects local withholding and other taxes which would be suffered if these earnings were repatriated and which would not be creditable against local corporation tax.

Fair value gains principally relate to the recognition of intangible assets on acquisition of the Pilkington Group by NSG UK Enterprises Ltd in June 2006.

23. Inventories

	Millions of yen	
	2020	2019
Raw materials	**25,657**	26,130
Work-in-progress	**20,180**	22,829
Finished goods	**68,029**	67,150
Capitalized costs of obtaining a contract	**4,522**	3,536
	118,388	119,645

The cost of inventories recognized as an expense and included in cost of sales amounted to ¥341,975 million (2019: ¥358,376 million) and includes the write down of inventories totaling ¥2,720 million (2019: ¥1,564 million) and the reversal of inventory write-downs made in previous periods amounting to ¥1,969 million (2019: ¥1,205 million). The reversal of previous write-downs relates to an increase in the net realizable value at the end of the period. In addition, write-down of inventories totaling ¥82 million (2019: ¥55 million) has been charged to exceptional items, note 7.

The carrying amount of inventories carried at fair value less cost to sell (net realizable value) amount to ¥14,617 million (2019: ¥12,450 million).

24. Cash and cash equivalents

	Millions of yen	
	2020	2019
Cash at bank and in hand	**37,587**	42,841
Short-term deposits	**6,021**	9,565
	43,608	52,406

The effective interest rate on the Group's short-term bank deposits was 1.78 percent (2019: 1.77 percent) with an average maturity of 44 days (2019: 35 days).

The short-term deposits noted above, which constitute cash equivalents, are represented by deposit account balances principally in the UK and Vietnam.

The Group's cash flow statement includes the following:

		Millions of yen	
	Note	**2020**	2019
Cash and cash equivalents		**43,608**	52,406
Bank overdrafts	26	**(3,096)**	(2,114)
		40,512	50,292

25. Assets held for sale

	Millions of yen	
	2020	2019
Assets held for sale within a disposal group		
Intangible assets	**–**	3
Property, plant and equipment	**1,643**	2,605
Investments accounted for using the equity method	**–**	10
Assets held at fair value through other comprehensive income	**–**	3
Deferred tax assets	**10**	128
Inventories	**39**	81
Trade and other receivables	**530**	2,169
Contract assets and liabilities	**(8)**	205
	2,214	5,204
Liabilities related to assets held for sale within a disposal group		
Deferred tax liabilities	**–**	(1)
Borrowings	**(94)**	(6)
Trade and other payables	**(202)**	(1,215)
Provisions	**(96)**	(210)
	(392)	(1,432)
Assets held for sale within a disposal group held for sale (net)	**1,822**	3,772

At 31 March 2020, assets and liabilities held within a disposal group relates to Architectural and Automotive businesses in Europe and Architectural businesses in Japan (2019: mainly related to Architectural businesses in Europe and Technical Glass businesses in Japan). They are expected to be disposed within one year from the balance sheet date.

26. Borrowings

a. Borrowings and net debt

	Note	2020	2019
		Millions of yen	
Current			
Bank overdrafts	24	**3,096**	2,114
Bank borrowings		**43,736**	38,599
Other long-term loans		**61**	64
Lease liabilities		**6,864**	23
Non-equity non-controlling interest preference shares		**243**	254
		54,000	41,054
Non-current			
Bank borrowings		**347,693**	323,752
Other long-term loans		**291**	331
Lease liabilities		**21,469**	46
Non-equity non-controlling interest preference shares		**4,275**	4,469
		373,728	328,598
Total borrowings		**427,728**	369,652

Group borrowings include secured liabilities of ¥9,654 million (2019: ¥12,144 million). Borrowings are secured by fixed and floating charges over certain assets of undertakings in the Group. Bank borrowings in the above table include the liabilities of ¥9,654 million (2019: ¥12,144 million) as a consequence of the finance lease contracts from the sale and leaseback transactions made by the Group in Japan.

	Note	2020	2019
		Millions of yen	
Summary of net debt			
Financial liabilities			
borrowings		**427,728**	369,652
derivative financial instruments	20	**7,279**	1,856
Financial assets			
derivative financial instruments	20	**(1,230)**	(1,401)
Cash and cash equivalents	24	**(43,608)**	(52,406)
Net debt		**390,169**	317,701

Net debt includes commodity hedges within derivative financial instruments.

b. Movements of total borrowings

Millions of yen

2020

	Borrowings, other long term loans and bank overdrafts	**Lease liabilities (IFRS16)**	**Non-equity non-controlling interest preference shares**	**Total**
At 1 April 2019	**364,860**	**69**	**4,723**	**369,652**
Adoption of IFRS 16	**–**	**34,220**	**–**	**34,220**
At 1 April (after adoption of IFRS 16)	**364,860**	**34,289**	**4,723**	**403,872**
Exchange differences and other movements	**(3,096)**	**(1,267)**	**(205)**	**(4,568)**
Repayment of borrowings	**(38,079)**	**(8,488)**	**–**	**(46,567)**
Proceeds from borrowings	**69,040**	**–**	**–**	**69,040**
Addition of lease liabilities	**–**	**3,203**	**–**	**3,203**
Interest on lease liabilities	**–**	**1,283**	**–**	**1,283**
Write-offs of lease liabilities	**–**	**(593)**	**–**	**(593)**
Amortization of arrangement fees	**2,152**	**–**	**–**	**2,152**
Transfer to assets held for sale	**–**	**(94)**	**–**	**(94)**
At 31 March 2020	**394,877**	**28,333**	**4,518**	**427,728**

Millions of yen

2019

	Borrowings, other long term loans and bank overdrafts	Finance lease obligations (IAS17)	Non-equity non-controlling interest preference shares	Total
At 1 April 2018	365,583	67	5,005	370,655
Exchange differences and other movements	(4,556)	–	(282)	(4,838)
Repayment of borrowings	(107,948)	(25)	–	(107,973)
Proceeds from borrowings	108,874	33	–	108,907
Amortization of arrangement fees	2,907	–	–	2,907
Transfer to assets held for sale	–	(6)	–	(6)
At 31 March 2019	364,860	69	4,723	369,652

c. Interest rate exposure

The exposure of the Group's borrowings to interest rate changes and the contractual re-pricing dates are as follows:

	Less than one year	One to five years	Over five years	Total
				Millions of yen
				2020
Total borrowings	**357,609**	**62,705**	**7,414**	**427,728**
Effect of interest rate swaps	**(55,207)**	**55,207**	**–**	**–**
	302,402	**117,912**	**7,414**	**427,728**

	Less than one year	One to five years	Over five years	Total
				Millions of yen
				2019
Total borrowings	316,275	47,896	5,481	369,652
Effect of interest rate swaps	(58,512)	58,512	–	–
	257,763	106,408	5,481	369,652

The effective interest rates at the balance sheet date on the Group's principal currency borrowings were as follows:

	Yen	£	US$	Euro	Other
					Interest rate %
					2020
Bank overdrafts	**–**	**1.46**	**–**	**0.07**	**0.96**
Bank borrowings	**1.42**	**2.36**	**3.68**	**1.87**	**–**
Other long-term loans	**3.99**	**–**	**–**	**–**	**–**
Lease liabilities (IFRS 16)	**2.12**	**4.79**	**5.44**	**3.52**	**4.66**

	Yen	£	US$	Euro	Other
					Interest rate %
					2019
Bank overdrafts	–	0.99	–	0.06	1.14
Bank borrowings	1.56	–	5.01	1.73	–
Other long-term loans	1.56	–	–	–	–
Finance lease obligations (IAS 17)	3.04	–	–	–	9.00

The non-equity non-controlling interest preference shares relate to Pilkington Deutschland AG and Dahlbusch AG with the right to a dividend of 5.6 and 4.5 percent of nominal value respectively in perpetuity.

d. Fair value of borrowings

The carrying amounts and fair values of the Group's non-current borrowings are as follows:

				Millions of yen
		2020		2019
	Carrying amounts	**Fair values**	Carrying amounts	Fair values
Bank borrowings	**347,693**	**320,858**	323,752	299,020
Other long-term loans	**291**	**261**	331	331
Non-equity non-controlling interest preference shares	**4,275**	**4,275**	4,469	4,469
Non-current borrowings excluding lease liabilities	**352,259**	**325,394**	328,552	303,820
Lease liabilities / finance lease obligations	**21,469**	**–**	46	46
Non-current borrowings	**373,728**	**–**	328,598	303,866

The above fair values are based on cash flows discounted using a rate based on credit risk factors and the relevant currency swap rate for the specific maturity, plus a margin. This methodology is consistent with hierarchy level 2 inputs as set out in note 21.

e. Currency of borrowings

		Millions of yen
	2020	2019
Japanese yen	**287,591**	266,366
Euro	**85,557**	64,261
Sterling	**10,910**	7,842
Polish zloty	**6,992**	7,103
US dollar	**31,037**	21,189
Swedish krona	**1,812**	1,832
Other currencies	**3,829**	1,059
	427,728	369,652

f. Maturity profile of committed borrowings

The Group has the following undrawn borrowing facilities:

	Millions of yen	
	2020	2019
Floating rate		
maturing after one year	**65,511**	74,591

The overall maturity profile of the Group's borrowings is as follows:

	Millions of yen	
	2020	2019
Within one year	**54,000**	41,054
One to two years	**113,827**	38,617
Two to three years	**135,962**	138,114
Three to four years	**86,624**	82,734
Four to five years	**23,128**	62,571
After five years	**14,187**	6,562
	427,728	369,652

The maturity profile of the Group's lease liabilities is as follows:

	Millions of yen
	2020
Within one year	**6,864**
One to two years	**5,611**
Two to three years	**4,255**
Three to four years	**3,028**
Four to five years	**1,701**
After five years	**6,874**
	28,333

g. Finance leases (IAS17)

The finance lease liabilities are analyzed as follows:

	Millions of yen
	2019
Finance lease liabilities – minimum lease payments	
not later than one year	23
later than one year and not later than five years	45
later than five years	1
Present value of finance lease liabilities	69

The maturity of the present value of finance lease liabilities is as follows:

	Millions of yen
	2019
Not later than one year	23
Later than one year and not later than five years	45
Later than five years	1
Present value of finance lease liabilities	69

The fair value of the Group's previous year non-current finance lease obligations accounted for in accordance with IAS 17 equates to book value.

27. Trade and other payables

		Millions of yen	
	Note	**2020**	2019
Trade payables		**76,218**	85,976
Amounts owed to related parties (trading)	39	**1,921**	2,206
Social security and other taxes		**4,705**	5,880
Other payables		**29,012**	20,711
Accruals		**12,671**	13,133
		124,527	127,906
Current		**124,145**	127,425
Non-current		**382**	481
Trade payables		**124,527**	127,906

The directors consider that the carrying amount of trade and other payables approximates to their fair value.

28. Pensions and other post-employment benefits

The Group operates a number of defined benefit pension arrangements, together with related arrangements, which are required to be disclosed as post-employment or other long-term benefits under IAS 19. The defined benefit pension arrangements cover schemes operating in Japan, the UK, Germany, Austria, the USA, Canada and Sweden and there are leaving indemnity arrangements in Italy and Austria.

The defined benefit pension schemes are closed with the exception of those in Japan, Canada and Sweden. The German and UK defined benefit pension schemes are closed to new members but continuing employees accrue pension rights covering their current employment. Although benefits are accruing in the UK plans, the definition of pensionable salary has been 'frozen' so that benefits no longer increase in line with salary increases.

All the pension schemes are unfunded except for those in Japan, the UK, the USA and Canada. The assets of the funded schemes are generally held in separately administered trusts, either as specific assets or as a proportion of a general fund, or are insurance contracts. Pension scheme assets held in trust are governed by local regulations and practice in each country. Responsibility for governance of the schemes, including investment decisions and contribution schedules, lies either with the Group or jointly with the Group and the board of trustees.

Through its defined benefit pension schemes, the Group is exposed to a number of risks, the most significant of which are detailed below:

Asset volatility	The liabilities are calculated using a discount rate set with reference to corporate bond yields; if assets underperform against this yield, this will create a deficit. All funded schemes hold a significant proportion of growth assets, which are expected to outperform corporate bonds in the long-term while providing volatility and risk in the short-term. The allocation to growth assets is monitored regularly to ensure it remains appropriate and in line with the Group's long-term strategy to manage the schemes.
Changes in bond yields	A decrease in corporate bond yields will increase the scheme liabilities, although this will be partially offset by an increase in the value of the schemes' bond holdings.
Inflation risk	Much of the UK schemes' benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities (although, in most cases, caps on the level of inflationary increases are in place to protect against extreme inflation). The Pilkington Superannuation Scheme (PSS) hedges 90% of liability movements against interest and inflation rate volatility.
Life expectancy	The majority of the plans' obligations are to provide benefits for the life of the member, and in some cases, their spouse on death of the member, so increases in life expectancy will result in an increase in the liabilities. Some of the longevity risk in the main UK plan is hedged with a longevity swap which was put in place in 2012. In August 2016 NSG entered into an agreement with the Pension Insurance Corporation (PIC) to insure pensions in payment for a group of current pensioners in the UK main plan. The plan now holds annuity contracts to cover these thereby removing all risks in respect of these pensions.

Pension plan assets are invested in different asset classes in order to maintain a balance between risk and return. The main plans use government and corporate bonds as well as cash as liability matching assets. The remainder of the asset classes are used as return seeking assets. Investments are well diversified to limit the financial effect of the failure of any individual investment.

The largest pension scheme is in the UK. This scheme, the Pilkington Superannuation Scheme (PSS), covered 574 active employees, 2,449 deferred members and 9,529 pensioners as at 31 March 2020. This scheme was closed to new members with effect from 30 September 2008. This scheme is subject to applicable UK employment laws and is governed by a Board of Trustees. The Board of Trustees consists of six member nominated directors and six employer nominated directors. Of the employer nominated directors, two are independent and four are current or former employees of the Group. The Board of Trustees is responsible for the overall governance of the scheme and the management of its assets.

Prior to 1 January 2009, employer contributions under the PSS's governing trust deed were fixed at 10.5 percent of pensionable salary for active members. However, with effect from that date, employer contributions are now levied at 16 percent of pensionable salary for active members accruing on a 1/60th basis, and 12.5 percent for active members accruing on a 1/80th basis.

A formal funding valuation of the scheme's liabilities is carried out using a prudent basis, as agreed between the Trustee and the Company, every three years. If the funding valuation reveals a deficit the Trustee agree with the Group a plan for recovering that deficit. Following the actuarial valuation as at 31 December 2017, the Group agreed a funding plan which requires annual deficit contributions of £25 million (¥3,675 million at FY2018 exchange rates) payable up to and including 2018. For the financial years FY2020 to FY2022 the Company has agreed with the Trustee to set up and contribute to an escrow account in favor of the scheme. This will provide further security to the scheme should it be required in the future in order to meet the scheme's funding targets or in the unlikely event of a company insolvency. The contributions to the escrow account will be not more than £12 million (¥1,656 million at FY2020 exchange rates) per year.

The Group has an unconditional right to a refund of surplus, as defined under IFRIC 14 and considers that the possibility that a surplus could be reduced or extinguished by discretionary actions by the trustee does not affect the existence of the asset at the end of the reporting period. The Group therefore recognizes a pension asset with respect to this scheme valued on an IAS19R basis. No liability is recognized with respect to further funding contributions.

The investment objectives and asset allocation policy adopted by the Trustee are defined in the scheme's Statement of Investment Principles and associated documentation. The Company and Trustee continue to investigate jointly any potential opportunities to de-risk the PSS including but not limited to the composition of the investment portfolio and further use of buy-in policies when this becomes financially attractive.

The Group operates a number of defined benefit pension plans in Japan. These plans are of cash balance design and generally provide lump sums at retirement (although plan participants with service over 20 years can choose if they receive their benefit as annuity or lump sum). The plans are governed by the Japanese Ministry of Health, Labor and Welfare in accordance with the Defined Benefit Corporate Pension Law. They are subject to minimum funding requirements stipulated in law, which requires the plan sponsor to pay additional contributions to achieve a minimum funding level within a certain time scale if the plan does not hold sufficient assets. The largest Japanese plan covers employees of Nippon Sheet Glass Company, Limited, NSG Co Ltd (Tarui), and NSG Co Ltd (Tsu). The latest funding valuation for this plan was carried out as at 31 March 2019 and showed a surplus of ¥2,725 million. The investment strategy is determined by the

Trustee and the current strategic allocation is approximately 22% equity, 78% bonds and insurance products.

The Group also operates post-retirement healthcare and life insurance benefits for employees, retirees and their dependents in the USA and for retirees in the UK. The method of accounting, assumptions and the frequency of actuarial valuations are similar to those used for defined benefit pension schemes.

Balance sheet obligations (assets) are as follows:

	Millions of yen	
	2020	2019
Recognized in non-current (assets):		
Pension and early-retirement benefit schemes in surplus	**(32,894)**	(27,557)
Recognized in Pension and other long-term benefit obligations:		
Pension and early-retirement benefit schemes in deficit	**40,597**	45,057
Post-retirement healthcare benefits	**17,992**	20,972
Long service arrangements*	**–**	148
Total recognized in Pension and other long-term benefit obligations	**58,589**	66,177
Net liability in the balance sheet	**25,695**	38,620

* Long service arrangements transferred to provisions from 1 April 2019

(Charges)/credits in the income statement and statement of comprehensive income are as follows:

	Millions of yen						
	2020			2019			
	Operating profit	**Finance costs**	**SoCI***	Operating profit	Exceptional items	Finance costs	SoCI*
Pension and early-retirement benefits	**(3,227)**	**293**	**12,457**	(3,600)	(2,144)	361	(465)
Post-retirement healthcare benefits	**(22)**	**(612)**	**1,915**	(26)	–	(839)	3,682
Long service arrangements***	–	–	–	(11)	–	(2)	–
Deferred income and other taxes**	–	–	**(5,255)**	–	759	–	(2,520)
At 31 March	**(3,249)**	**(319)**	**9,117**	(3,637)	(1,385)	(480)	697

* Statement of comprehensive income

** Of the deferred income and other taxes in the Statement of Comprehensive Income, a charge of ¥1,097 million (2019: ¥943 million) is included within deferred tax (note 22). Other taxes of ¥4,158 million (2019: ¥1,577 million) are included as a charge against the pension asset.

*** Long service arrangements transferred to provisions from 1 April 2019

Excluding long service arrangements, the amounts recognized in the balance sheet are determined as follows:

Millions of yen

					2020
	Pension and early retirement benefits				Post-retirement healthcare
	Japan	**UK**	**Rest of World**	**Total**	**Total**
Present value of the funded benefit obligation	**34,004**	**200,652**	**23,427**	**258,083**	**–**
Fair value of assets of the plans	**(31,315)**	**(251,259)**	**(18,892)**	**(301,466)**	**–**
Deficit/(surplus) in the funded plans	**2,689**	**(50,607)**	**4,535**	**(43,383)**	**–**
Present value of the unfunded benefit obligation	**–**	**4,057**	**29,316**	**33,373**	**17,992**
Net liability/(asset) in the balance sheet	**2,689**	**(46,550)**	**33,851**	**(10,010)**	**17,992**
Taxes relating to refund of pension fund surplus	**–**	**17,713**	**–**	**17,713**	**–**
Net liability/(asset) in the balance sheet after tax on refund	**2,689**	**(28,837)**	**33,851**	**7,703**	**17,992**
Included in non-current assets	**–**	**(32,894)**	**–**	**(32,894)**	**–**
Included in pension and other long-term benefit obligations	**2,689**	**4,057**	**33,851**	**40,597**	**17,992**

Millions of yen

					2019
	Pension and early retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of World	Total	Total
Present value of the funded benefit obligation	35,767	229,663	24,584	290,014	–
Fair value of assets of the plans	(33,355)	(272,058)	(20,715)	(326,128)	–
Deficit/(surplus) in the funded plans	2,412	(42,395)	3,869	(36,114)	–
Present value of the unfunded benefit obligation	–	4,507	34,269	38,776	20,972
Net liability/(asset) in the balance sheet	2,412	(37,888)	38,138	2,662	20,972
Taxes relating to refund of pension fund surplus	–	14,838	–	14,838	–
Net liability/(asset) in the balance sheet after tax on refund	2,412	(23,050)	38,138	17,500	20,972
Included in non-current assets	–	(27,557)	–	(27,557)	–
Included in pension and other long-term benefit obligations	2,412	4,507	38,138	45,057	20,972

The weighted average duration of the pension obligations across all plans was 13 years as at 31 March 2020 (31 March 2019: 14 years).

Excluding long service arrangements, the amounts recognized in the income statement are determined as follows:

					Millions of yen
					2020
	Pension and early retirement benefits				**Post-retirement healthcare**
	Japan	**UK**	**Rest of World**	**Total**	**Total**
Current service cost	**(1,323)**	**(1,207)**	**(337)**	**(2,867)**	**(22)**
Settlements and terminations losses	**–**	**(55)**	**–**	**(55)**	**–**
Administration expenses	**(13)**	**–**	**(292)**	**(305)**	**–**
Operating profit charge	**(1,336)**	**(1,262)**	**(629)**	**(3,227)**	**(22)**
Net interest on the net defined benefit liability	**(11)**	**887**	**(583)**	**293**	**(612)**
Finance costs – (charge)/credit	**(11)**	**887**	**(583)**	**293**	**(612)**
Total income statement charge	**(1,347)**	**(375)**	**(1,212)**	**(2,934)**	**(634)**

					Millions of yen
					2019
	Pension and early retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of World	Total	Total
Current service cost	(1,328)	(1,325)	(494)	(3,147)	(26)
Past service cost	–	–	(35)	(35)	–
Past service cost (exceptional, net of tax credit)	–	(1,385)	–	(1,385)	–
Settlements and terminations losses	–	(122)	–	(122)	–
Administration expenses	(13)	(1)	(282)	(296)	–
Operating profit charge	(1,341)	(2,833)	(811)	(4,985)	(26)
Net interest on the net defined benefit liability	(8)	1,089	(720)	361	(839)
Finance costs – (charge)/credit	(8)	1,089	(720)	361	(839)
Total income statement charge	(1,349)	(1,744)	(1,531)	(4,624)	(865)

Of the total charge to operating profit of ¥3,249 million (2019: a charge of ¥5,021 million), a charge of ¥1,256 million (2019: a charge of ¥1,429 million) is included in cost of sales, a charge of ¥184 million (2019: a charge of ¥68 million) is included within distribution costs, a charge of ¥1,809 million (2019: a charge of ¥2,166 million) is included within administrative expenses, and a charge of ¥nil million (2019: a charge of ¥1,385 million) is included within exceptional items.

The actual return on the various plan assets was a gain of ¥13,153 million (2019: a gain of ¥15,018 million). The Group expects to contribute ¥4,649 million to pension plans (excluding contributions to the escrow account) during the next financial period and ¥1,284 million to post-retirement healthcare plans.

The (charges)/credits recognized in the statement of comprehensive income during the period are as follows:

	Millions of yen				
	2020				
	Pension and early retirement benefits				**Post-retirement healthcare**
	Japan	**UK**	**Rest of World**	**Total**	**Total**
Actual return less interest income on plan assets recognized in the income statement	**(1,048)**	**7,067**	**145**	**6,164**	**–**
Experience gains arising on schemes' liabilities	**1,119**	**166**	**(145)**	**1,140**	**3,081**
Changes in the financial assumptions underlying the present value of the schemes' liabilities	**(458)**	**2,096**	**1,363**	**3,001**	**(1,184)**
Changes in the demographic assumptions underlying the present value of the schemes' liabilities	**269**	**1,767**	**116**	**2,152**	**18**
	(118)	**11,096**	**1,479**	**12,457**	**1,915**

	Millions of yen				
	2019				
	Pension and early retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of World	Total	Total
Actual return less interest income on plan assets recognized in the income statement	(137)	7,003	(87)	6,779	–
Experience gains arising on schemes' liabilities	(28)	(57)	(25)	(110)	2,614
Changes in the financial assumptions underlying the present value of the schemes' liabilities	(368)	(7,559)	(459)	(8,386)	(348)
Changes in the demographic assumptions underlying the present value of the schemes' liabilities	–	(9)	1,261	1,252	1,416
	(533)	(622)	690	(465)	3,682

The movements in the present value of the Defined Benefit Obligations (DBO) recognized in the balance sheet are as follows:

Millions of yen

	Pension and early retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of World	Total	Total
At 31 March 2018	**35,336**	**243,900**	**63,062**	**342,298**	**23,913**
Current service cost	1,328	1,325	494	3,147	26
Interest cost on the schemes' liabilities	242	6,107	1,529	7,878	839
Members' contributions	–	33	–	33	–
Plan amendments	–	2,144	35	2,179	–
Settlements and terminations	–	122	–	122	–
Actuarial losses	396	7,625	(777)	7,244	(3,682)
Benefits paid	(1,535)	(17,354)	(4,452)	(23,341)	(1,099)
Exchange differences	–	(9,731)	(1,039)	(10,770)	975
At 31 March 2019	**35,767**	**234,171**	**58,852**	**328,790**	**20,972**
Current service cost	1,323	1,206	337	2,866	22
Interest cost on the schemes' liabilities	208	5,202	1,287	6,697	612
Members' contributions	–	18	–	18	–
Settlements and terminations	–	55	–	55	–
Actuarial losses	(930)	(4,029)	(1,335)	(6,294)	(1,916)
Benefits paid	(2,364)	(14,461)	(3,946)	(20,771)	(1,051)
Exchange differences	–	(17,453)	(2,150)	(19,603)	(519)
Other movements	–	–	(302)	(302)	(128)
At 31 March 2020	**34,004**	**204,709**	**52,743**	**291,456**	**17,992**

The movements in the fair value of assets recognized in the balance sheet are as follows:

Millions of yen

	Pension and early retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of World	Total	Total
At 31 March 2018	**33,622**	**281,085**	**21,480**	**336,187**	**–**
Members' contributions	–	33	–	33	–
Settlements and terminations	–	122	–	122	–
Return on plan assets (excluding amount included in interest income)	(137)	7,003	(87)	6,779	–
Benefits paid	(1,535)	(17,354)	(4,452)	(23,341)	(1,099)
Expenses paid	(13)	(1)	(282)	(296)	–
Employer's contributions	1,184	5,248	2,419	8,851	1,099
Interest income on assets	234	7,196	809	8,239	–
Exchange differences	–	(11,274)	828	(10,446)	–
At 31 March 2019	**33,355**	**272,058**	**20,715**	**326,128**	**–**
Members' contributions	–	18	–	18	–
Settlements and terminations	–	55	–	55	–
Return on plan assets (excluding amount included in interest income)	(1,048)	7,067	145	6,164	–
Benefits paid	(2,364)	(14,461)	(3,946)	(20,771)	(1,051)
Expenses paid	(13)	–	(292)	(305)	–
Employer's contributions	1,188	1,215	2,269	4,672	1,051
Interest income on assets	197	6,088	704	6,989	–
Exchange differences	–	(20,781)	(557)	(21,338)	–
Other movements	–	–	(146)	(146)	–
At 31 March 2020	**31,315**	**251,259**	**18,892**	**301,466**	**–**

The movements in the net liability recognized in the balance sheet are as follows (excluding taxation arising on refund of surplus):

Millions of yen

	Pension and early retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of World	Total	Total
At 31 March 2018	**(1,714)**	**37,185**	**(41,582)**	**(6,111)**	**(23,913)**
Total charge recognized in the income statement	(1,349)	(2,503)	(1,531)	(5,383)	(865)
Total credit/(charge) recognized in other comprehensive income	(533)	(622)	690	(465)	3,682
Employer's contributions	1,184	5,248	2,419	8,851	1,099
One-off employer contributions for financing terminations	–	122	–	122	–
Exchange differences	–	(1,543)	1,867	324	(975)
At 31 March 2019	**(2,412)**	**37,887**	**(38,137)**	**(2,662)**	**(20,972)**
Total charge recognized in the income statement	(1,347)	(375)	(1,212)	(2,934)	(634)
Total credit/(charge) recognized in other comprehensive income	(118)	11,096	1,479	12,457	1,915
Employer's contributions	1,188	1,215	2,269	4,672	1,051
One-off employer contributions for financing terminations	–	55	–	55	–
Exchange differences	–	(3,328)	1,594	(1,734)	520
Other movements	–	–	156	156	128
At 31 March 2020	**(2,689)**	**46,550**	**(33,851)**	**10,010**	**(17,992)**

The principal actuarial assumptions (calculated as weighted averages over the various Group plans) were as follows:

	2020			2019		
	Japan	UK	Rest of World	Japan	UK	Rest of World
Discount rate	**0.40%**	**2.40%**	**2.20%**	0.60%	2.40%	2.30%
Future salary increases*	**2.40%**	**–**	**1.80%**	2.40%	–	2.20%
Future pension increases	**–**	**1.10%**	**1.20%**	–	1.10%	1.60%
Consumer Price inflation	**0.25%**	**2.00%**	**1.70%**	0.25%	2.10%	1.90%
Long-term increase in healthcare costs	**–**	**–**	**4.50%**	–	4.60%	4.50%

* The weighted average future salary increases exclude frozen salaried plans; UK PSS, NGF and US salaried plan.

The Group uses appropriate mortality tables in each geographical location. The mortality assumptions used for the valuation of the PSS (which accounts for around 63 percent of the Group's total Defined Benefit Obligation) at 31 March 2020 are based on the 'SAPS2' standard UK mortality tables, with an adjustment to reflect actual mortality experience of members of that scheme based on recent experience investigations carried out by the scheme's Trustees. Future improvements in mortality have been allowed for in line with the CMI 2018 Core Projections with a long-term rate of mortality improvements of 1.25 percent per annum. Expected future lifetimes of pensioners using this mortality basis are shown below:

	31 March 2020
	Years
Expected future lifetime of a current pensioner aged 60	
- Men	**26.2**
- Women	**28.1**
Expected future lifetime, at age 60, of a future pensioner aged 60 in 20 years time	
- Men	**27.8**
- Women	**29.7**

The composition and fair value of the schemes' assets are:

	Japan		UK		Rest of World	
						Millions of yen
						2020
	Quoted	**Unquoted**	**Quoted**	**Unquoted**	**Quoted**	**Unquoted**
Domestic government bonds	**10,913**	**–**	**140,634**	**–**	**1,678**	**–**
Domestic corporate bonds	**–**	**1,443**	**30,804**	**–**	**10,604**	**–**
Overseas bonds	**4,779**	**282**	**8,698**	**–**	**265**	**–**
Domestic equities	**5,697**	**–**	**4,279**	**–**	**2,329**	**–**
Overseas equities	**1,745**	**–**	**32,670**	**5,812**	**2,254**	**–**
Property	**–**	**–**	**5,460**	**532**	**–**	**–**
Cash	**–**	**1,715**	**451**	**–**	**772**	**–**
Other	**–**	**4,741**	**2,581**	**19,338***	**–**	**990**
	23,134	**8,181**	**225,577**	**25,682**	**17,902**	**990**

* Note: this includes ¥24,938 million in respect of the buy-in assets and a negative asset of ¥5,600 million in respect of the longevity swap.

	Japan		UK		Rest of World	
						Millions of yen
						2019
	Quoted	Unquoted	Quoted	Unquoted	Quoted	Unquoted
Domestic government bonds	10,591	–	147,557	–	2,118	–
Domestic corporate bonds	–	1,701	46,060	–	10,158	–
Overseas bonds	6,109	300	–	–	1,605	–
Domestic equities	6,423	–	5,347	–	2,600	–
Overseas equities	2,184	–	38,623	5,731	2,602	–
Property	–	–	358	1,354	–	–
Cash	–	1,812	244	3,110	551	–
Other	–	4,235	–	23,674*	1,081	–
	25,307	8,048	238,189	33,869	20,715	–

* Note: this includes ¥28,152 million in respect of the buy-in assets and a negative asset of ¥4,478 million in respect of the longevity swap.

The principal assumptions used to determine the Defined Benefit Obligation (DBO) are the discount rate, inflation rate and the mortality basis. The sensitivity of the DBO to changes in each of these assumptions is set out below for the material plans in UK and Japan:

Assumption	**Change in assumption**	**Impact of scheme liabilities (%)**	
		Japan	**UK**
Discount rate	Increase/decrease by 0.5%	Decrease/increase by 4.6% / 4.9%	Decrease/increase by 6.7% / 7.4%
Inflation rate	Increase/decrease by 0.5%	n/a	Increase/decrease by 3.9% / 3.2%
Mortality	Increase life expectancy by one year	n/a	Increase by 4.2%

Sensitivities in the above table consider only the impact of assumption changes on gross scheme liabilities. As discussed earlier in this note, changes in discount rates which would be reflected in changes in bond yields, would be partially offset by a change in the value of bond holdings within funded schemes.

A one percent reduction in healthcare cost trend rates would result in a decrease in the benefit obligation of ¥1,616 million and a decrease in the interest and service costs of ¥55 million. A one percent increase in healthcare cost trend rates would result in an increase in the benefit obligation of ¥908 million and an increase in the interest and service costs of ¥34 million. The above trend rate sensitivities take into account the fact that increases in employer costs are subject to an annual cap.

The above sensitivity analyses are generally based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and some changes of the assumptions may be correlated. Where relevant, the inflation sensitivity above includes changes to any inflation linked pension increases.

When calculating the sensitivity of the DBO to significant assumptions the same method has been applied as when calculating the pension liability recognized in the statement of financial position. The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to previous periods.

29. Provisions

	Note	Warranty	Redundancy and Restructuring	Bonus	Environmental	Claims and litigation	Other	Total
								Millions of yen
At 1 April 2019		**655**	**3,115**	**6,272**	**6,922**	**3,769**	**7,331**	**28,064**
Exchange differences		**(16)**	**(87)**	**(158)**	**(167)**	**(326)**	**(180)**	**(934)**
Charged to the income statement								
Charged to provisions		**190**	**2,809**	**6,950**	**340**	**2,071**	**1,790**	**14,150**
Effect of discounting	9	**–**	**–**	**–**	**199**	**–**	**–**	**199**
Transferred to assets held for sale		**–**	**–**	**–**	**–**	**–**	**(14)**	**(14)**
Released to the income statement in the period		**(247)**	**(291)**	**(4,210)**	**–**	**(692)**	**(261)**	**(5,701)**
Utilized in the period		**(209)**	**(4,297)**	**(6,293)**	**(281)**	**(1,395)**	**(605)**	**(13,080)**
At 31 March 2020		**373**	**1,249**	**2,561**	**7,013**	**3,427**	**8,061**	**22,684**
Current		**219**	**918**	**2,558**	**267**	**1,699**	**3,762**	**9,423**
Non-current		**154**	**331**	**3**	**6,746**	**1,728**	**4,299**	**13,261**
		373	**1,249**	**2,561**	**7,013**	**3,427**	**8,061**	**22,684**

	Note	Warranty	Redundancy and Restructuring	Bonus	Environmental	Claims and litigation	Other	Total
								Millions of yen
At 1 April 2018		531	2,994	7,856	8,141	4,773	8,024	32,319
Exchange differences		(26)	(121)	(206)	148	(410)	(67)	(682)
Charged to the income statement								
Charged to provisions		547	3,815	7,542	97	1,226	956	14,183
Effect of discounting	9	–	–	(2)	207	–	–	205
Transferred to assets held for sale		–	–	(73)	–	–	(137)	(210)
Released to the income statement in the period		(242)	(78)	(856)	(1,285)	(839)	(299)	(3,599)
Utilized in the period		(155)	(3,495)	(7,989)	(386)	(981)	(1,146)	(14,152)
At 31 March 2019		655	3,115	6,272	6,922	3,769	7,331	28,064
Current		442	3,025	5,733	335	1,255	3,090	13,880
Non-current		213	90	539	6,587	2,514	4,241	14,184
		655	3,115	6,272	6,922	3,769	7,331	28,064

Warranty provisions are created where the Group has given a guarantee to cover the reliability and performance of products over an extended period. Warranty provisions are calculated based on historical claims levels. Future claim levels could be different to historical claims, although changes in claims levels are not expected to have a material effect on the amounts provided. Warranty provisions are expected to be utilized over the warranty periods granted, resulting in an average period of utilization of more than two years.

Redundancy and restructuring provisions relate to provisions set up in Architectural amounting to ¥233 million (2019: ¥1,801 million), Automotive ¥1,001 million (2019: ¥1,262 million), Technical Glass ¥13 million (2019: ¥nil million) and Other Operations ¥2 million (2019: ¥52 million). Redundancy and restructuring provisions are established when the Group has a detailed formal plan and has announced that plan to the employees affected. The eventual outcome of such restructuring programs is unlikely to be materially different to the amounts provided as the provision is calculated based on specific data on the number of employees affected and related employment termination costs. Redundancy and restructuring provisions are expected to be utilized mainly within the next financial period.

Bonus provisions are established on the accrued expected payment with respect to bonus schemes offered to employees. These are calculated with reference to the performance of the Group in comparison to the metrics within the bonus scheme. Where this relates to expectations of future performance, the Group compares its estimates of expected future performance with the metrics of the bonus scheme, to calculate an expected future bonus payment.

Environmental provisions cover the cost of remediating environmental issues where the Group has a constructive or legal obligation to do so. At 31 March 2020, ¥868 million (2019: ¥912 million) of this provision was recorded in Architectural, ¥53 million (2019: ¥53 million) was recorded in Automotive, ¥172 million (2019: ¥173 million) was recorded in Technical Glass and ¥5,920 million (2019: ¥5,784 million) was recorded in Other Operations. The environmental provision in Other Operations relates primarily to historic liabilities in North America.

Claims and litigation provisions cover a variety of claims and potential settlements. Included in this category are historic employee and public liability issues, some of which are the subject of litigation. Where appropriate this provision includes an element of Incurred But Not Reported (IBNR) liabilities.

Other provisions relate principally to immaterial pension provisions of ¥4,101 million (2019: ¥3,804 million), cumulative leave provisions of ¥3,131 million (2019: ¥2,994 million) and onerous lease and rental provisions of ¥105 million (2019: ¥172 million).

30. Deferred income

	Millions of yen	
	2020	2019
Deferred income	**1,012**	2,079
Government grants	**3,152**	3,866
	4,164	5,945
Current	**996**	1,191
Non-current	**3,168**	4,754
	4,164	5,945

	Millions of yen	
	2020	2019
At 1 April	**5,945**	5,471
Exchange differences	**(318)**	(294)
Deferred income receivable	**369**	1,779
Released to income statement	**(1,832)**	(1,011)
At 31 March	**4,164**	5,945

Deferred income comprises of customer contributions to automotive tooling costs ¥303 million (2019: ¥309 million) and other deferred income of ¥709 million (2019: ¥1,770 million). The former principally comprises income received from automotive customers, whereby the tool (carried in property, plant and equipment within non-current assets) is depreciated over the same period as the related deferred income is amortized to the income statement.

Government grants mainly arise in the European Architectural and Automotive businesses and relate to capital expenditure grants in the UK, Germany, Italy and Poland. Government grants are recognized in the income statement on a straight-line basis over the period of the grant. There are no unfulfilled conditions or contingencies relating to government grants recognized as deferred income.

31. Share-based payments

The Group operates a number of equity settled, share-based payment plans, under which the entity receives services from Directors, Senior Executive Officers, Executive Officers, Senior Corporate Officers or Corporate Officers as consideration for equity instruments (options) of the Group. The fair value of the employee services received in exchange for the grant of options is calculated using the Black-Scholes model. In accordance with IFRS 2 'Share-based Payment', the resulting cost is recognized in the income statement over the vesting period of the options, being the period in which the services are received. All plans are classified as equity settled.

The expense recognized for compensation type share options received during the period is shown below:

		Millions of yen	
	Note	**2020**	2019
Total expenses arising from share-based payment transactions	8	**69**	102

There have been no cancellations or modifications to any of the plans during 2020 or 2019.

Each share option entitles the recipient to acquire one hundred shares of common stock. Movements in the number of stock compensation-type stock options outstanding and their related weighted average exercise price are as follows:

	Millions of yen			
	2020		2019	
	Weighted average exercise price Yen/share	**Options**	Weighted average exercise price Yen/share	Options
At 1 April	**1**	**6,404**	1	6,546
Granted	**1**	**1,026**	1	917
Exercised	**1**	**(491)**	1	(1,059)
At 31 March	**1**	**6,939**	1	6,404

Out of the 6,939 outstanding options (2019: 6,404 options), 561 options (2019: 1,052 options) were exercisable. Options exercised in 2020 resulted in 49,100 shares (2019: 105,900 shares) being transferred at a price of 1 yen each (2019: 1 yen each). The related weighted average share price at the time of exercise was 604 yen (2019: 965 yen) per share.

Share options outstanding at the end of the period have the following expiry date and exercise prices:

			2020	2019
Stock option	Expiry date	Exercise price in yen/share	**Shares**	Shares
2008 Stock Options	27 September 2038	1	**5,200**	5,200
2009 Stock Options	30 September 2039	1	**10,300**	10,300
2010 Stock Options	30 September 2040	1	**6,600**	6,600
2011 Stock Options	14 October 2041	1	**12,400**	12,400
2012 Stock Options	28 September 2042	1	**56,200**	61,200
2013 Stock Options	15 October 2043	1	**72,000**	84,500
2014 Stock Options	30 September 2044	1	**49,700**	71,400
2015 Stock Options	30 September 2045	1	**83,500**	83,500
2016 Stock Options	14 October 2046	1	**112,000**	121,900
2017 Stock Options	29 September 2047	1	**91,700**	91,700
2018 Stock Options	26 July 2048	1	**91,700**	91,700
2019 Stock Options	24 July 2049	1	**102,600**	–
			693,900	640,400

There are no vesting conditions for these stock options.

Method for estimating the fair value per share of stock options

The fair value of options granted during the period is determined using the Black-Scholes valuation model and the significant inputs into the model are listed below.

	Note	2019 plan	2018 plan
Share price at grant date (yen)		**719**	1,182
Exercise price (yen)		**1**	1
Expected volatility of the share price	i	**40.6%**	42.2%
Expected remaining life of the option	ii	**7 years**	7 years
Expected dividend	iii	**7.1 yen/share**	9.3 yen/share
Risk-free interest rate	iv	**(0.25%)**	(0.05)%

Notes:

i. The volatility of the share price for the 2019 plan is estimated by taking into account the actual share prices for seven years (from 25 July 2012 to 24 July 2019 (2018 plan: seven years from 28 July 2011 to 26 July 2018)).

ii. The expected remaining life of the option is estimated reflecting the actual conditions of the option, taking into account that any person to whom the stock options were allotted may exercise the stock options five years after the holders' tenure as a Director, a Senior Executive Officer, an Executive Officer, Senior Corporate Officer or a Corporate Officer had ended.

iii. Expected dividends for the 2019 plan is based on the actual dividends paid in the seven-year period between 31 March 2013 and 31 March 2020 (2018 plan: based on the actual dividends paid in the seven-year period between 31 March 2012 and 31 March 2019).

iv. The risk-free interest rate represents the yield on Government bonds for the period that corresponds to the expected remaining life of each option.

32. Called up share capital

	Number of shares	
	2020	2019
Shares authorized		
Common shares	**177,500,000**	177,500,000
Class A Shares	**40,000**	40,000
Shares issued		
Common shares of no par value each	**90,642,499**	90,593,399
Class A Shares of JPY 1,000,000 per share	**30,000**	35,000
Treasury shares		
Common shares	**21,279**	18,418

				Millions of yen
	2020		2019	
	Number of shares	**Value**	Number of shares	Value
Issued and fully paid common shares				
At 1 April	**90,593,399**	**116,588**	90,487,499	116,546
Increase due to exercise of share options	**49,100**	**19**	105,900	42
At 31 March	**90,642,499**	**116,607**	90,593,399	116,588
Issued and fully paid Class A (preferred) Shares				
At 1 April	**35,000**	**–**	40,000	–
Redemption for money	**(5,000)**	**–**	(5,000)	–
At 31 March	**30,000**	**–**	35,000	–

As at 31 March 2017, the Group issued Class A Shares. The issuance of Class A Shares improves the strength of the Group's balance sheet providing funds to enable the repayment of debt and investment in VA capital equipment in the Group's businesses.

The preferred dividend rate of Class A Shares was set at 4.5% a year if the record date falls before 31 March 2018, 5.5% a year if the record date falls between 1 April 2018 to 31 March 2020, and 6.5% a year if the record date falls on 1 April 2020 or thereafter. Class A Shareholders are entitled to receive dividends in priority to common shareholders. If preferred dividends for Class A Shareholders are insufficient in a business year, the said shortfall will be carried forward to the following business year and beyond. In principle, Class A Shareholders are not entitled to receive dividends of common shares of the Company in addition to the said preferred dividends. Please refer to note 11 for information regarding dividends on Class A Shares.

For Class A Shares, call options for money and put options the consideration for which is common shares are attached.

Any time on or after 1 April 2018, the Company may acquire all or a part of Class A Shares in exchange for cash.

The Group's operating profit for the financial year ended 31 March 2020 was lower than the threshold set out in the Class A Shares Agreement (the Agreement) which resulted in the occurrence of Conversion Restriction Removal Reason on 22 May 2020. As provided for in the Agreement, Class A Shareholders are now entitled to exercise put options, the consideration for which is common shares. The number of common shares to be delivered if the put options are exercised will be the number (excluding the total amount of the Amount Equivalent to Cumulative Accrued Dividends and Daily Prorated Accrued Preferred Dividend Amount) calculated by multiplying the amount equivalent to the amount to be paid in for the Class A Shares for which the put options are exercised by the following factor, depending on the day when the put options are exercised, and dividing that product by the acquisition price of the common shares.

From 1 April 2017 to 30 June 2017:	1.05
From 1 July 2017 to 30 June 2018:	1.08
From 1 July 2018 to 30 June 2019:	1.15
From 1 July 2019 to 30 June 2020:	1.22
From 1 July 2020 to 30 June 2021:	1.29
From 1 July 2021 to 30 June 2022:	1.36
From 1 July 2022 onward	1.43

On 7 December 2018 and on 6 June 2019, the Company acquired and then retired 5,000 Class A Shares respectively.

The acquisition price of common shares is 846.5 yen, which is equivalent to 95% (calculated to the second decimal place below one (1) yen and rounded to the first decimal place) of the average value of the Volume Weighted Average Price (VWAPs; calculated to the second decimal place below one (1) yen and rounded to the first decimal place) in ordinary trading of the common shares of the Company, publicly announced on the Tokyo Stock Exchange, Inc. over 30 consecutive trading days prior to 2 February 2017 (the signing date of the Agreement).

Class A Shares do not have voting rights and are subject to restrictions on transfer.

Capital management

The Group considers that called up share capital and capital surplus together constitutes its capital, and they are managed in such a way as to improve its financial strength consistent with its strategy. The directors will consider this position on an ongoing basis in line with the Group's performance. Capital may be issued where the directors consider that the beneficial impact of a strengthened balance sheet or the returns on investment that would be generated by investing such funds into new projects, would outweigh any potential dilutive effects from that new share issuance. When the Group issues share capital other than common shares, the directors consider the rights and obligations attaching to the shares issued and would prioritize repayment of such shares over and above other potential uses of its funds where appropriate to do so. During FY2017, the Group issued Class A Shares improving the strength of the Group's balance sheet and providing funds to enable the repayment of debt and investment in VA capital equipment in the Group's businesses. The Company intends to redeem the remaining Class A Shares in a timely and flexible manner, while maintaining financial stability, in order to ultimately redeem all of the Class A Shares in future for money.

33. Capital surplus

	Note	Millions of yen	
		2020	2019
At 1 April		**160,953**	166,661
Issuance and purchase of treasury stock		**19**	42
Retirement of treasury stock	35	**(5,750)**	(5,750)
At 31 March		**155,222**	160,953

34. Retained earnings

	Note	Millions of yen	
		2020	2019
At 1 April		**(40,530)**	(51,350)
Adoption of new standards		**(3,576)**	–
Hyperinflation adjustment	40	**–**	770
At 1 April (after adoption of new standards and hyperinflation adjustment)		**(44,106)**	(50,580)
(Loss)/profit for the period		**(18,925)**	13,287
Retirement benefit obligations	28	**14,372**	3,217
Deferred and other taxes on retirement benefit obligations	28	**(5,255)**	(2,520)
Hyperinflation adjustment	40	**2,450**	1,735
Dividends paid		**(2,822)**	(5,669)
Equity transaction with non-controlling interests		**10**	–
At 31 March		**(54,276)**	(40,530)
Retained earnings (translation adjustment at the IFRS transition date)		**(68,048)**	(68,048)
Total retained earnings at 31 March		**(122,324)**	(108,578)

Nippon Sheet Glass Company, Limited is subject to The Corporation Law of Japan (the Law). The Law provides that an amount equal to 10 percent of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25 percent of the capital stock account. Such distributions can be made at any time by resolution of the shareholders, or by the Board of Directors if certain conditions are met.

35. Other reserves

Millions of yen

	Note	Hedging reserve	Fair value reserve	Exchange translation reserve	Treasury stock	Stock subscription rights	Total
At 1 April 2019		**(3,395)**	**(6,377)**	**(35,939)**	**(37)**	**545**	**(45,203)**
Currency translation differences		**–**	**–**	**(20,973)**	**–**	**–**	**(20,973)**
Loss on net investment hedges	20	**–**	**–**	**(3,136)**	**–**	**–**	**(3,136)**
Cash flow hedges							
fair value losses in the period		**(6,642)**	**–**	**–**	**–**	**–**	**(6,642)**
transferred to income statement		**330**	**–**	**–**	**–**	**–**	**330**
deferred tax on fair value gains in the period	22	**1,467**	**–**	**–**	**–**	**–**	**1,467**
Assets held at fair value through other comprehensive income							
fair value losses in the period	19	**–**	**(1,752)**	**–**	**–**	**–**	**(1,752)**
deferred tax on fair value gains in the period	22	**–**	**(13)**	**–**	**–**	**–**	**(13)**
Purchase of treasury stock		**–**	**–**	**–**	**(5,752)**	**–**	**(5,752)**
Retirement of treasury stock	33	**–**	**–**	**–**	**5,750**	**–**	**5,750**
Share based payments		**–**	**–**	**–**	**–**	**31**	**31**
At 31 March 2020		**(8,240)**	**(8,142)**	**(60,048)**	**(39)**	**576**	**(75,893)**

Millions of yen

	Note	Hedging reserve	Fair value reserve	Exchange translation reserve	Treasury stock	Stock subscription rights	Total
At 1 April 2018		(3,290)	(6,256)	(19,564)	(33)	526	(28,617)
Currency translation differences		–	–	(14,714)	–	–	(14,714)
Loss on net investment hedges	20	–	–	(1,661)	–	–	(1,661)
Cash flow hedges							
fair value gains in the period		36	–	–	–	–	36
transferred to income statement		(154)	–	–	–	–	(154)
deferred tax on fair value gains in the period	22	13	–	–	–	–	13
Assets held at fair value through other comprehensive income							
fair value losses in the period	19	–	(139)	–	–	–	(139)
deferred tax on fair value gains in the period	22	–	18	–	–	–	18
Purchase of treasury stock		–	–	–	(5,754)	–	(5,754)
Retirement of treasury stock	33	–	–	–	5,750	–	5,750
Share based payments		–	–	–	–	19	19
At 31 March 2019		(3,395)	(6,377)	(35,939)	(37)	545	(45,203)

Hedging reserve
This reserve is used to record the portion of the gain or loss on a hedging instrument that is determined to be an effective hedge.

Of the net fair value losses of cash flow hedges transferred to the income statement of ¥330 million (2019: gains of ¥154 million), ¥38 million is credited to finance expenses (2019: ¥nil million), ¥1 million is credited (2019: credit of ¥1 million) to other expenses, and ¥ 369 million is charged (2019: credit of ¥153 million) to cost of sales.

Fair value reserve
This reserve records fair value changes on assets held at fair value through other comprehensive income.

Exchange translation reserve
This reserve is used to record exchange differences arising from the translation of the financial statements of foreign subsidiaries and the effect of hedging foreign net investments in foreign operations.

36. Cash flow from operating activities

	Note	2020	2019
		Millions of yen	
(Loss)/profit for the period from continuing operations		**(17,518)**	14,378
Adjustments for			
taxation	10	**3,969**	8,352
depreciation	14	**31,047**	24,218
amortization	13	**3,795**	3,692
Impairments		**17,507**	4,614
reversal of impairment of non-current assets		**(378)**	(2,735)
profit on sale of property, plant and equipment		**(1,117)**	(157)
profit on sale of subsidiaries, joint ventures, associates and businesses		**(1,362)**	(4)
exchange gain on business closure	7	**–**	(698)
movements in grants and deferred income	30	**(1,463)**	768
finance income	9	**(2,126)**	(2,131)
finance expense	9	**13,969**	15,432
share of profit from joint ventures and associates	17	**(1,077)**	(6,244)
Other		**(2,534)**	(1,433)
Operating cash flows before movement in provisions and working capital		**42,712**	58,052
Decrease in provisions and retirement benefit obligations		**(7,568)**	(8,593)
Changes in working capital:			
Inventories		**(5,460)**	(10,045)
trade and other receivables		**11,049**	2,211
trade and other payables		**(3,414)**	1,394
contract balances		**6,554**	1,415
Net change in working capital		**8,729**	(5,025)
Cash flows generated from operations		**43,873**	44,434

In the cash flow statement, proceeds from the sale of property, plant and equipment, joint ventures and associates and investments are as follows:

Millions of yen

2020	Subsidiaries	Joint ventures and associates	Property, plant and equipment	Intangible assets	Assets held at fair value through other comprehensive income	Other	Total
Net book amount	**977**	**–**	**762**	**36**	**4**	**981**	**2,760**
Profit/(loss) on sale	**973**	**389**	**1,117**	**1**	**(3)**	**192**	**2,669**
Proceeds from sale	**1,950**	**–**	**1,879**	**37**	**1**	**1,173**	**5,040**
Financial receivables at 31 March 2020	**–**	**389**	**–**	**–**	**–**	**–**	**389**

Millions of yen

2019	Joint ventures and associates	Property, plant and equipment	Assets held at fair value through other comprehensive income	Other	Total
Net book amount	11	322	10	–	343
Profit on sale	4	157	–	–	161
Proceeds from sale	15	479	10	–	504

There were no non-cash transactions in the period ended 31 March 2020 or 31 March 2019.

37. Earnings per share

Basic

Basic earnings per share is calculated by dividing the profit attributable to owners of the parent, after deducting dividends and redemption premium paid to holders of Class A Shares, by the weighted average number of ordinary shares in issue during the year. The dividends related to Class A Shares are calculated by the dividend rate defined in the terms and conditions of the shares. The weighted average number of ordinary shares excludes ordinary shares purchased by the Company and held as treasury shares.

	2020	2019
(Loss)/profit attributable to owners of the parent (millions of yen)	**(18,925)**	13,287
Adjustment for;		
- Dividends on Class A Shares (millions of yen)	**(1,700)**	(2,114)
- Redemption premium paid on Class A Shares (millions of yen)	**(750)**	(750)
(Loss)/profit used to determine basic earnings per share (millions of yen)	**(21,375)**	10,423
Weighted average number of shares (thousands)	**90,588**	90,509
Basic earnings per share (yen)	**(235.96)**	115.16

Diluted

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares, following the exercise of share options and exercise of put options, attached to Class A Shares, for which the consideration is common shares. As for share options, a calculation is performed to determine the number of shares that could have been acquired at fair value (determined as the average annual market share price of the Company's shares) based on the monetary value of the subscription rights attached to the outstanding share options. The number of shares calculated as above is deducted from the number of shares that would have been issued assuming the exercise of the share options. As for Class A Shares, a calculation is performed to determine the number of shares that would have been issued, assuming a conversion to common shares that is most advantageous for holders of the Class A Shares. Conversion of Class A Shares to common shares is reflected in the diluted earnings per share, using the factor applied to the case where the put options are exercised from 1 July 2022 onward, if the conversion has dilutive effect.

	2020	2019
(Loss)/profit attributable to owners of the parent (millions of yen)	**(18,925)**	13,287
Adjustment for;		
- Dividends on Class A Shares (millions of yen)	**(1,700)**	–
- Redemption premium paid on Class A Shares (millions of yen)	**(750)**	–
(Loss)/profit used to determine diluted earnings per share (millions of yen)	**(21,375)**	13,287
Weighted average number of shares (thousands)	**90,588**	90,509
Adjustments for;		
- Share options	**–**	611
- Preferred shares	**–**	64,934
Weighted average number of common shares for diluted earnings per share (thousands)	**90,588**	156,054
Diluted earnings per share (yen)	**(235.96)**	85.14

Diluted earnings per share for the period do not include stock options and Class A Shares due to the anti-dilutive effect caused by the profits and the losses during the period.

38. Commitments

Capital commitments

Capital expenditure contracted for at the balance sheet date but not yet incurred is as follows:

	2020	2019
Property, plant and equipment	**20,754**	12,696

Operating lease commitments – based on IAS17

The Group leases various property, plant and equipment under non-cancellable operating lease agreements. The leases have varying terms, escalation clauses and renewal rights. The lease expenditure charged to the income statement during the period ended 31 March 2019 is disclosed in note 3.

The future aggregate minimum lease payments under non-cancellable operating leases which fall due are as follows:

	Millions of yen	
	2019	
	Property	Plant and equipment
Not later than one year	4,315	2,461
Later than one year and not later than five years	11,131	4,271
Later than five years	7,436	270
	22,882	7,002

39. Related party transactions

During the period, the Group entered into the following transactions with related parties, who are not members of the Group. Related parties have been identified as those businesses that act as joint ventures or had an associate relationship with Nippon Sheet Glass Company, Limited and its subsidiaries.

Sales of goods and services

	Millions of yen 2020	2019
Sales of goods		
Joint ventures	**637**	519
Associates	**1,819**	1,932
Sales of services		
Joint ventures	**6**	5
Associates	**27**	38
	2,489	2,494

Goods and services are sold to joint ventures and associates on normal commercial terms, applicable to third parties. Additionally, services such as R&D support are provided to joint ventures. In 2020, these amounted to ¥6 million, of which related mainly to Jiangsu Pilkington SYP Glass Co Ltd and Cebrace (2019: ¥5 million of which related mainly to SP Glass Holdings BV and Cebrace).

Purchase of goods and services

	Millions of yen 2020	2019
Purchase of goods		
Joint ventures	**5,660**	6,496
Associates	**748**	874
Purchase of services		
Associates	**3,254**	3,222
	9,662	10,592

Goods are purchased from joint ventures by Nippon Sheet Glass Company, Limited's subsidiaries as follows:

Cebrace – on normal trading conditions at prices agreed by both joint venture parties. Payments are made on 37 day terms from the invoice date.

Period-end balances arising from sales and purchases of goods and services, technical assistance and license agreements

	Note	Millions of yen 2020	2019
Receivables from related parties			
Joint ventures		**590**	1,448
Associates		**90**	105
	18	**680**	1,553
Payables to related parties			
Joint ventures		**1,066**	1,289
Associates		**855**	917
	27	**1,921**	2,206

The Group has established provisions with respect to the potential non-payment of receivables due from related parties of ¥nil million (2019: ¥131 million). During the period ended 31 March 2020, receivable balances from related parties of ¥84 million were written off (2019: ¥nil million).

There are no restrictions in place which would prevent the related parties fulfilling their trading obligations to the Group.

Loans to related parties

		Millions of yen 2020		2019	
	Note	**Joint ventures**	**Associates**	Joint ventures	Associates
At 1 April		**9,142**	**113**	9,226	118
Exchange differences		**(440)**	**(7)**	(367)	(4)
Loans advanced in period		**1,034**	**–**	–	–
Loan repayments received		**(2,662)**	**–**	–	(1)
Interest charged		**126**	**–**	283	–
At 31 March	18	**7,200**	**106**	9,142	113

The loans to joint ventures and associates are unsecured.

Commitments and contingencies
There were no material commitments and contingencies of joint ventures and associates at 31 March 2020 or 2019.

At 31 March 2020 and 31 March 2019, the Group has not made any guarantees in the ordinary course of business in respect of joint ventures and associates.

Key management compensation
Details of the key management compensation are disclosed in note 8.

Post-employment benefit plans
Details of contributions into post-employment benefit plans are included in note 8. The assets (including details of the Group's right to surplus) and liabilities of post-employment benefit plans are detailed in note 28.

40. Hyperinflationary accounting adjustments

As from the second quarter of FY2019, the wholesale price index in Argentina indicated that cumulative 3-year inflation had exceeded 100 percent. Consequently the Group has concluded that its subsidiaries in Argentina, each of which has the Argentine Peso as a functional currency, are currently operating in a hyperinflationary environment. The Group has therefore applied accounting adjustments to the underlying financial results and position of its subsidiaries in Argentina as required by IAS 29 'Financial Reporting in Hyperinflationary Economies'.

As required by IAS 29, the Group's consolidated financial statements will include the results and financial position of its Argentinian subsidiaries, restated in terms of the measuring unit current at the period end date.

For the restatement of results and financial positions of its Argentinian subsidiaries, the Group will apply the conversion coefficient derived from the Internal Wholesales Price Index (IPIM) published by Instituto Nacional de Estadística y Censos de la República Argentina (INDEC). IPIM and corresponding conversion coefficients from June 2006 are presented below.

Balance sheet date	Internal Wholesale Price Index (IPIM) (30 June 2016 = 100)	Conversion coefficient
30 June 2006	100.0	14.408
31 March 2007	103.9	13.872
31 March 2008	120.2	11.986
31 March 2009	128.7	11.195
31 March 2010	146.5	9.835
31 March 2011	165.5	8.706
31 March 2012	186.7	7.716
31 March 2013	211.1	6.824
31 March 2014	265.6	5.425
31 March 2015	305.7	4.712
31 March 2016	390.6	3.688
31 March 2017	467.2	3.084
31 March 2018	596.1	2.417
31 March 2019	970.9	1.484
30 April 2019	1,012.9	1.422
31 May 2019	1,043.9	1.380
30 June 2019	1,075.2	1.340
31 July 2019	1,095.8	1.315
31 August 2019	1,139.1	1.265
30 September 2019	1,206.2	1.195
31 October 2019	1,245.9	1.156
30 November 2019	1,298.9	1.109
31 December 2019	1,347.5	1.069
31 January 2020	1,377.9	1.046
29 February 2020	1,405.6	1.025
31 March 2020	1,440.8	1.000

The Group's subsidiaries in Argentina have restated their non-monetary items held at historical cost, namely property, plant and equipment, by applying the conversion coefficient based on when the items were initially recognized. Monetary items and non-monetary items held at current cost will not be restated, as they are considered to be expressed in terms of the measuring unit current at the period end date. The effect of inflation on the net monetary position of the Group's Argentinian subsidiaries is presented in the finance income or finance expenses section of the income statement.

The Argentinian subsidiaries' income statement and cash flow statement will also be restated, applying the conversion coefficient for the current financial year as shown in the above table.

For the purpose of consolidation, the results and financial position of the Group's Argentinian subsidiaries are translated using the closing exchange rates at the period end date. Comparative financial statements are not restated based on IAS 21 'The Effects of Changes in Foreign Exchange Rates' para 42(b).

41. Group information

The consolidated financial statements of the Group include 214 entities in form of subsidiaries, joint ventures and associates. The following list of subsidiary undertakings comprises those companies that principally affect the financial statements of the Group. All subsidiary undertakings account to 31 March each year. Details of joint ventures and associates can be found in note 17.

Name	Proportion of issued ordinary shares held	Country of operation and incorporation	Principal activity
Europe			
Pilkington United Kingdom Ltd.	100%	UK	Architectural
Pilkington Automotive Ltd.	100%	UK	Automotive
Pilkington Technology Management Ltd.	100%	UK	Architectural and Automotive
Pilkington Deutschland AG	96.3%	Germany	Architectural
Pilkington Automotive Deutschland GmbH	100%	Germany	Automotive
Pilkington Automotive Poland Sp. zo.o.	100%	Poland	Automotive
Pilkington Italia SpA	100%	Italy	Architectural and Automotive
Asia			
NSG Building Products Co., Ltd.	100%	Japan	Architectural
NSG Vietnam Glass Industries Ltd.	100%	Vietnam	Architectural
Americas			
Pilkington North America Inc.	100%	USA	Architectural and Automotive
Vidrieria Argentina S.A.	51%	Argentina	Architectural
Pilkington Brasil Ltda.	100%	Brazil	Architectural and Automotive
Holding and financing companies			
NSG Holding (Europe) Ltd.	100%	UK	Holding company
NSG UK Enterprises Ltd.	100%	UK	Holding company
Pilkington Group Ltd.	100%	UK	Holding company

Parent company

The parent company of the Group, Nippon Sheet Glass Company, Limited, is incorporated and domiciled in Japan and has shares publicly traded on the Tokyo Stock Exchange.

Restrictions on accessing the assets of subsidiaries

The ability of NSG UK Enterprises Ltd, a significant subsidiary company of the Group, to pay cash dividends to its immediate parent company, and ultimately therefore to Nippon Sheet Glass Company, Limited, is restricted by the external banking agreements entered into by NSG UK Enterprises Ltd, such that NSG UK Enterprises Ltd is only able to pay cash dividends to its immediate parent, to the extent that such a dividend would not cause it to be in breach of its banking covenants.

In general, the Group's subsidiaries in Europe, North America, and South America are also subsidiaries of NSG UK Enterprises Ltd, although there are several examples of subsidiaries in these regions that are not also subsidiaries of NSG UK Enterprises Ltd, and also examples of subsidiaries in other regions that are subsidiaries of NSG UK Enterprises Ltd.

The cash and cash equivalent balances held by the Group's subsidiaries which are not generally available for use elsewhere amounted to ¥3,295 million (2019: ¥3,483 million).

42. Non-controlling interests

Name	Non-controlling shareholding	Country of operation and incorporation	Principal activity
Vidrieria Argentina S.A.	49%	Argentina	Architectural
Vidrios Lirquen S.A.*	48.4%	Chile	Architectural

*: Vidrios Lirquen S.A. is owned 51.6% by a 51% owned subsidiary of Pilkington Group Limited.

	Millions of yen	
	2020	2019
Accumulated balances of material non-controlling interests		
Vidrieria Argentina S.A.	**10,459**	3,390
Vidrios Lirquen S.A.*	**1,814**	2,273
Others	**2,309**	3,083
Total	**14,582**	8,746
Profit for the period allocated to material non-controlling interests		
Vidrieria Argentina S.A.	**781**	352
Vidrios Lirquen S.A.*	**435**	414
Others	**191**	325
Total	**1,407**	1,091

The summarized financial information of these subsidiaries is provided below. This information is based upon amounts before intra-company eliminations.

Summarized income statements

	Millions of yen			
	2020		2019	
	Vidrieria Argentina S.A.	**Vidrios Lirquen S.A**	Vidrieria Argentina S.A.	Vidrios Lirquen S.A
Revenue	**11,666**	**6,436**	12,894	7,166
Profit for the period from continuing operations	**1,593**	**591**	718	562
Total comprehensive income	**4,620**	**277**	2,650	491
Dividends paid to non-controlling interests	**–**	**(250)**	–	(177)

Summarized statements of financial position

	Millions of yen			
	2020		2019	
	Vidrieria Argentina S.A.	**Vidrios Lirquen S.A**	Vidrieria Argentina S.A.	Vidrios Lirquen S.A
Current assets	**7,848**	**2,320**	5,143	2,447
Non-current assets	**20,218**	**2,210**	6,623	2,899
Current liabilities	**(6,005)**	**(1,560)**	(3,853)	(1,598)
Non-current liabilities	**(717)**	**(509)**	(995)	(663)
Total equity	**21,344**	**2,461**	6,918	3,085
Attributable to owners of the parent	**10,885**	**647**	3,528	812
Attributable to non-controlling interests	**10,459**	**1,814**	3,390	2,273

Summarized cash flow statements

	Millions of yen			
	2020		2019	
	Vidrieria Argentina S.A.	**Vidrios Lirquen S.A**	Vidrieria Argentina S.A.	Vidrios Lirquen S.A
Cash flows from operating activities	**7,830**	**451**	209	387
Cash flows from investing activities	**(13,563)**	**(216)**	(1,932)	(153)
Cash flows from financing activities	**7,333**	**(312)**	1,093	(587)
Increase/(decrease) in cash and cash equivalents (net of bank overdrafts)	**1,600**	**(77)**	(630)	(353)
Cash and cash equivalents (net of bank overdrafts) at the beginning of the period	**922**	**742**	3,246	1,176
Effect of foreign exchange rates	**(314)**	**(156)**	(1,694)	(81)
Cash and cash equivalents (net of bank overdrafts) at the end of the period	**2,208**	**509**	922	742

43. Significant subsequent events

There were no significant subsequent events.

INDEPENDENT AUDITOR'S REPORT

The Board of Directors
Nippon Sheet Glass Company, Limited

Opinion
We have audited the accompanying consolidated financial statements of Nippon Sheet Glass Company, Limited and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 March 2020, the consolidated income statement, and the consolidated statements of comprehensive income, changes in equity, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 March 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

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

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

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

The Audit Committee is responsible for overseeing the Group's financial reporting process.

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

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

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

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

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

Conflicts of Interest
We have no interest in the Group which should be disclosed in accordance with the Certified Public Accountants Act.

Ernst & Young ShinNihon LLC
Tokyo, Japan
30 June 2020

Tomohiro Miyagawa
Designated Engagement Partner
Certified Public Accountant

Takayuki Ando
Designated Engagement Partner
Certified Public Accountant

Ryuichiro Umano
Designated Engagement Partner
Certified Public Accountant