

# ANNUAL REPORT 2016

FISCAL YEAR ENDED 31 MARCH 2016

'MAKING A DIFFERENCE TO OUR WORLD  
THROUGH GLASS TECHNOLOGY'



## THE NSG GROUP IS ONE OF THE WORLD'S LARGEST MANUFACTURERS OF GLASS AND GLAZING PRODUCTS FOR THE ARCHITECTURAL, AUTOMOTIVE AND TECHNICAL GLASS SECTORS.

With around 27,000 permanent employees, we have principal operations in 28 countries and sales in over 130.

Geographically, over a third of our sales are in Europe, around a third in Japan and Asia, and the rest primarily in North and South America.

We operate in three main sectors:

**Architectural** supplies glass for buildings and Solar Energy applications.

**Automotive** serves the original equipment, aftermarket replacement and specialized transport glazing markets.

**Technical Glass** products include very thin glass for displays, lenses and light guides for printers, and glass fiber, used in battery separators and engine timing belts.

### Cover photographs

**Top:** OP Pohjola's office block in Helsinki, Finland

**Bottom left:** The NSG Group supplies high-value-added windshields for the all-new Lexus RX, the perennial best-selling luxury cross over, supporting the vehicle's latest safety features and technologies such as head-up displays and wire heated windshields.

**Bottom right:** The bright and vivid color range of Metashine®, glittering pigment based on glass flake, has been developed specifically for the cosmetics applications.

## FINANCIAL HIGHLIGHTS

### Revenue

Millions of yen

**629,172**

FY2015: 626,713

### Trading profit\*

Millions of yen

**27,175**

FY2015: 25,270

### Profit/ (loss) before taxation

Millions of yen

**(37,439)**

FY2015: 4,807

### Profit/ (loss) for the period

Millions of yen

**(47,500)**

FY2015: 2,893

### Total assets

Millions of yen

**812,120**

FY2015: 920,106

### Number of employees

Permanent

**27,463**

FY2015: 27,371

\*Operating profit before exceptional items and the amortization of intangible assets arising on the acquisition of Pilkington plc.

## OPERATIONAL HIGHLIGHTS

- Trading profit continues to improve with better Architectural and Automotive results more than offsetting the reduction in Display profitability.
- Exceptional losses reflect market conditions in Display and demand downturns in emerging markets.

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Overview

### Our business

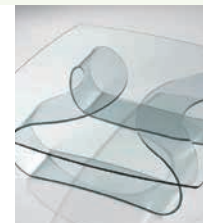
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Our business

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Financial performance

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Corporate information

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Financial statements

## BUSINESS OVERVIEW

WE OPERATE THREE BUSINESS LINES: ARCHITECTURAL, AUTOMOTIVE AND TECHNICAL GLASS.

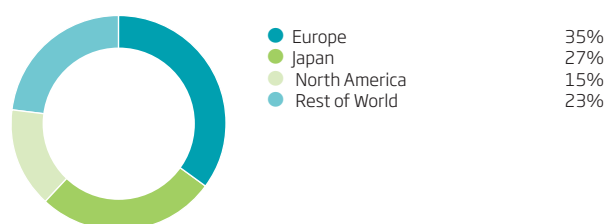
### Architectural

A leader in architectural glazing and glass for Solar Energy products

#### Financial year in review

- Operating results in the Architectural business improved from the previous year due to lower energy-related input costs and further improvements to market conditions in North America. Revenues also increased, due largely to the strong market conditions in North America.

Revenue by region  
Financial Year 2016



#### Financial highlights by business

	Millions of yen	
	2016	2015
Revenue	262,559	252,914
Operating profit*	24,560	17,020
Net trading assets	148,164	154,809
Capital expenditure	13,156	13,783

\*Before exceptional items.

42%

Contribution to Group revenue

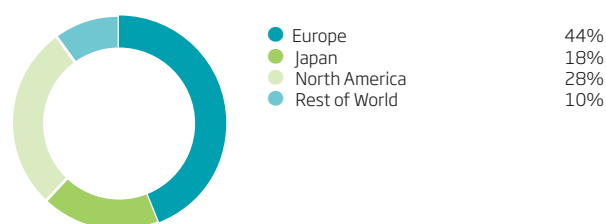
### Automotive

Supplying the major vehicle manufacturers in the world

#### Financial year in review

- Automotive business revenues were similar to the previous year. Profitability improved due to increased volumes and cost savings in Japan.

Revenue by region  
Financial Year 2016



#### Financial highlights by business

	Millions of yen	
	2016	2015
Revenue	316,327	313,956
Operating profit*	9,813	9,372
Net trading assets	155,754	165,599
Capital expenditure	13,272	17,500

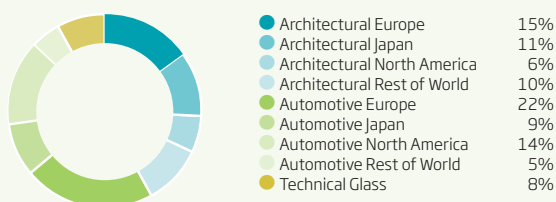
\*Before exceptional items.

50%

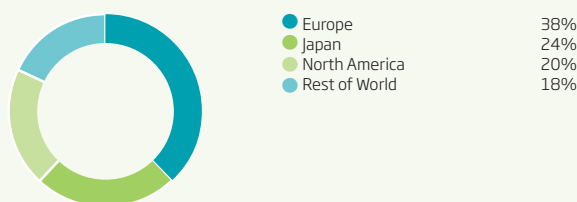
Contribution to Group revenue

## Consolidated revenue

### by business



### by region



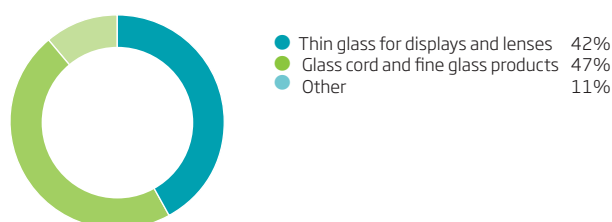
## Technical Glass

World leader in thin display glass and optical devices for office machinery

### Financial year in review

- Revenue and profits in the Technical Glass business were below the previous year due to a challenging competitive environment in the Display business.

### Revenue by sector Financial Year 2016



### Financial highlights by business

	Millions of yen	
	2016	2015
Revenue	<b>49,490</b>	58,741
Operating profit*	<b>267</b>	4,922
Net trading assets	<b>44,428</b>	50,645
Capital expenditure	<b>1,452</b>	4,513

\*Before exceptional items.

# 8%

Contribution to Group revenue

## Other

### Financial year in review

- 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.
- Operating costs and consolidation adjustments incurred in Other Operations and Eliminations were above the previous year due to non-recurring consolidation adjustments.

### Financial highlights by business

	Millions of yen	
	2016	2015
Revenue	<b>796</b>	1,102
Operating profit/(loss)*	<b>(15,278)</b>	(14,466)
Net trading assets	<b>2,786</b>	(1,955)
Capital expenditure	<b>312</b>	762

\*Before exceptional items.

# <1%

Contribution to Group revenue



## TO OUR SHAREHOLDERS

WE AIM TO BE THE GLOBAL LEADER IN INNOVATIVE HIGH-PERFORMANCE GLASS AND GLAZING SOLUTIONS, CONTRIBUTING TO ENERGY CONSERVATION AND GENERATION, WORKING SAFELY AND ETHICALLY.



**Günter Zorn** Chairman of the Board (Left)  
**Shigeki Mori** President and Chief Executive Officer (Right)

"On behalf of the NSG Group, we thank you for your continued support.

During the year to 31 March 2016, the Group experienced contrasting conditions in its major markets, with improvements in some regions and reductions in others. The Group posted a significant amount of one-off losses, reflecting the intensified market situation in Display and demand downturns in emerging markets. The full-year operating profit continued to increase with improvements to core business profitability following recent restructuring and cost reduction measures as well as making steady progress in increasing the ratio of value-added products.

The Group aims to be positioned to respond appropriately to a changing and diversified global economy, with a balanced global footprint and business mix. We will further accelerate the recovery of our profitability in line with our Medium-term Plan covering the period to 31 March 2018."

### Business results

Operating results in the Architectural business improved from the previous year due to lower energy-related input costs and further improvements to market conditions in North America. Revenues also increased.

Automotive business revenues were similar to the previous year. Profitability improved, with increased volumes and cost savings in Japan.

Revenues and profits in the Technical Glass business were below the previous year due to the challenging competitive environment in the Display business.



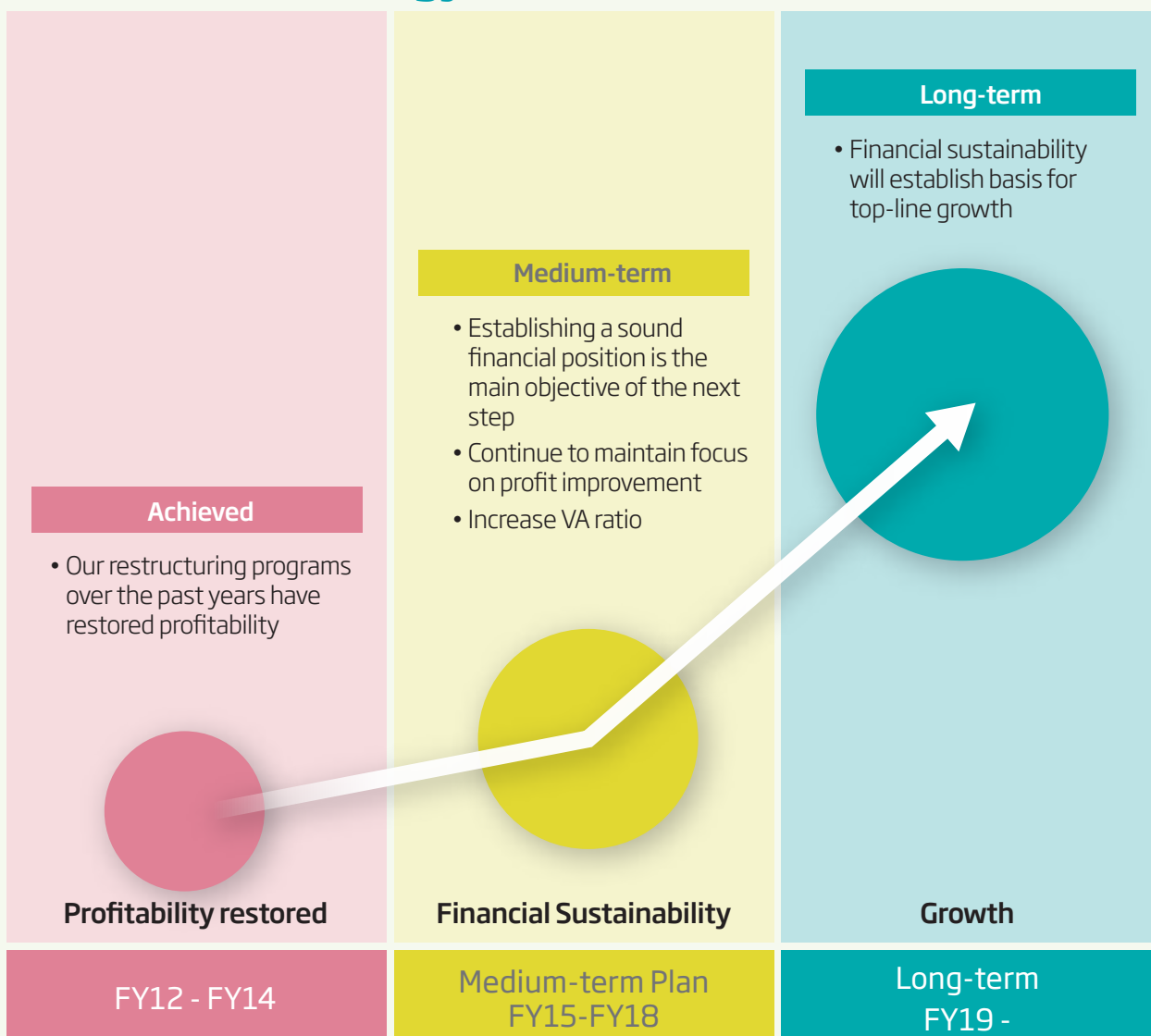
For the BART station at the Oakland International Airport in California, artist Tom Patti used Pilkington Eclipse™ Gold as the primary material to accentuate the artwork and improve visual performance. Created specifically for the airport, its appearance preserves the aesthetic integrity of an open-air environment while also representing the technologies of our time. Selected for its distinguished style and elegance, the Pilkington Eclipse™ Gold surface provides the desired balance of daylight transmittance with solar and glare control.

### Long-term Strategic Vision

In May 2014 the Group announced its Long-term Strategic Vision. Our strategic vision is to transform the NSG Group into a VA Glass Company. We believe that the Group will be able to create shareholder value by focusing on producing innovative

and technologically advanced glass products and thus improving financial performance.

## Our 3-Phase Strategy



FY19: Year to 31 March 2019

## Dividend policy

The Group's dividend policy is to secure dividend payments based on sustainable business results. As a consequence of the current market conditions faced by the Group and the loss sustained during the year, the Board of Directors did not recommend a dividend for the year to 31 March 2016.

We recognize the importance of dividends to our shareholders and anticipate resuming dividend payments when the financial performance of the Group allows.

## Corporate governance

Corporate governance is a key element in the operational agenda of the NSG Group. The Group adopts a three-committee structure, under which we seek to: introduce additional safeguards for shareholders; increase the transparency of management; and enhance corporate governance by separating the functions of execution and oversight, with the role of the Independent External Directors strengthened.

In 2015, we established the NSG Group Corporate Governance Guidelines and some related policies, supporting the Principles of the Tokyo Stock Exchange Corporate Governance Code.

These Guidelines provide the basic principles and framework for the NSG Group to enhance its corporate value in a sustainable way over a medium- to long-term period and thus increase the common value of the Group for our various stakeholders including our shareholders.

Under the corporate governance structure as shown in the Guidelines, including the balanced roles and membership of the Board of Directors, the three committees of Nomination, Audit, and Compensation, and the Independent External Directors and Executive Officers, we aim to ensure an appropriate system of checks and balances and accountability. This enables management to make prompt and bold business decisions in an effective, efficient and ethical manner, as well as maintaining good relationships with and balancing the needs of our stakeholders such as shareholders, customers, employees, suppliers and communities.

With regard to the approach to corporate governance including the NSG Corporate Governance Guidelines and the related policies published in June 2015, please refer to our corporate website: <http://www.nsg.com/en/sustainability/corporategovernance/approach>

We believe that good corporate governance contributes to sustainable development by enhancing the performance of companies and increasing access to outside sources of capital. The NSG Group is committed to continually improving the level and performance of the Group's corporate governance.

## The Board

In March 2016, the Group announced changes to the Board membership.

Messrs. Seiichi Asaka and Hiroshi Komiya have served as Independent External Directors of the Board since June 2010. Since they have completed the full six-year term expected of an Independent External Director, as stipulated in the NSG Corporate Governance Guidelines, they will now retire. We take this opportunity to thank Messrs. Asaka and Komiya for their contribution during their tenure with the Group. The Group appointed Messrs. Yasuyuki Kimoto and Masatoshi Matsuzaki as director candidates in their place, which were formally confirmed at the 150th Ordinary General Meeting of Shareholders on 29 June 2016 as well as the other five Directors. Mr. Kimoto has the career and experience of serving as chairman of the Board of a major international manufacturing company, a majority of whose Board consisted of Independent External Directors, as well as leading the Board, involving several non-Japanese Independent External Directors, of the UK local entity of the major Japanese financial institution. Mr. Matsuzaki has the career and experience of serving as both representative executive officer and subsequently chairman of the Board of a major international manufacturing company, which also has a governance system of "Company with Three Committees".

At the Board meeting on the same day, Mr. Günter Zorn, a German, was newly appointed Chairman of the Board; Mr. Matsuzaki, Chairman of Nomination Committee; Mr. Toshikuni Yamazaki, Chairman of Audit Committee; and Mr. Kimoto, Chairman of Compensation Committee, respectively.

The Board now comprises seven Directors, the majority of which are Independent External Directors. All of the Group's three Committees, as well as the Board of Directors itself, are chaired by an Independent External Director.

## Executive Officers

On 1 April 2016, the following six heads of Group's SBUs and certain functions were newly appointed Executive Officers in order for the Group to enhance its executive function. On the same day, Mark Lyons retired from the position of Representative Executive Officer, Executive Vice President and CFO, with Kenichi Morooka taking on the same role. We take this opportunity to thank Mark for his long years of service to the Group.

Name	Position	Responsibility	Nationality
Shirley Anderson	Executive Officer	Chief Human Resources Officer (CHRO)	British
Tony Fradgley	Executive Officer	Head of Automotive AGR SBU and Head of Automotive OE SBU	British
Kazuhiko Fujimaki	Executive Officer	Head of Technical Glass SBU	Japanese
Koichi Hiyoshi	Executive Officer	Chief Legal Officer (CLO) and Company Secretary	Japanese
Hiroshi Kishimoto	Executive Officer	Chief Corporate Planning Officer (CCPO)	Japanese
Jochen Settelmayer	Executive Officer	Head of Architectural Glass SBU	German



## Sustainability

The NSG Group is committed to sustainable development. Our strategy and policies respond to the challenges we all face in managing the world's limited resources. We deliver products and services of unique value to the markets we serve that contribute to improving living standards, promoting the safety and wellbeing of people, and to the generation and conservation of energy. We aim to achieve our sustainability objectives by balancing the needs of all our stakeholders, managing the environmental impacts of our activities, developing our people, encouraging innovation in processes and products, working in harmony with the communities in which we operate and encouraging our customers, contractors and suppliers to do the same.

Our policies underline the contribution our products can make to addressing climate change. We are also committed to improving our own energy usage and resource management. In CY2015 absolute greenhouse gas emissions dropped by 4 percent to 4.0 million tonnes due to improved capacity utilization and energy efficiency. We aim to make a positive environmental contribution to the value chains in which we operate while benefiting from the growing international demand for our products that help save and generate energy. Glass has an important contribution to make in helping to reduce greenhouse gas emissions. We work with stakeholders in the framing of policies and regulations to help improve energy efficiency through the use of glass.

Over the past year, we have made further progress in embedding the principles of sustainability within the NSG Group. We are a member of the UN Global Compact and support the advancement of its 10 principles. We consider these principles to be a natural extension of our Code of Ethics, which defines our commitment to our social and environmental responsibilities.

Our principal sustainability targets and the progress we have made so far towards their attainment are covered in our 2015 Sustainability Report and on our website.

## Employees

People being the most important asset of our company is deeply rooted in the 400-year-old Sumitomo Spirit to which we subscribe.

The Group has around 27,000 permanent employees operating in 28 countries and speaking over 25 languages. Around 45 percent of Group employees work in Europe, 16 percent in Japan, 17 percent in North America and just over 22 percent in the rest of Asia and South America.

Our policy is to put the best person in each job, regardless of nationality or regional identity. We have identified specific challenges in attracting and retaining talent, particularly in emerging markets, and we are already putting in place measures to address these.



Employee engagement is being given a high priority, with continuing training for managers and supervisors in communication skills and additional briefings to keep employees informed of developments. We continue to promote the health and wellbeing of our people.

## Safety

Safety at work is a priority for the Group. Our safety programs emphasize the importance of individuals taking personal responsibility and of appropriate safe behavior. All injuries at work are regarded as unnecessary and avoidable. We require full reporting of all incidents, no matter how minor, and appropriate investigation to ensure we learn from all such events.

The Significant Injury Rate (SIR) is our primary reactive indicator.

This records injuries requiring medical treatment or the reallocation of duties to allow an individual to continue working, expressed as a rate per 200,000 hours.

Over the past year, we had 110 Significant Injuries (48 of them resulting in time lost from work). The SIR for the year to 31 March 2016 of 0.33 represents a 6 percent improvement in safety performance compared to the previous year.

We owe it to our colleagues and their families to fully investigate and follow through on any improvement actions that are identified. We are committed to our high risk reduction program and the safety tools we operate.

## Management principles

The fundamental principles of the Group's basic management policy are ensuring open and fair business dealings, adhering to corporate ethical standards, and contributing to the resolution of global environmental issues, all of which are aimed at establishing a company with a global presence and a spirit of innovation and thereby maximizing value for all stakeholders.

In undertaking all of our actions and activities, we will not lose sight of our core values and principles, with safety and quality remaining top priorities. We aim to be a sustainable company in all senses of the word. Good management of our people, our resources, our communities and our environment makes good business sense.

## Prospects

Successful restructuring has restored the Group's profitability, helping create a more agile, leaner, lower cost organization. NSG is well positioned to capitalize on improvements in the global economy, with a balanced global footprint and business mix. Our management team is confident of increasing shareholder value by focusing on producing more innovative and technically advanced glass products as outlined in our Medium-term Plan. We aim to increase the proportion of sales of these value-added products and services to improve our financial performance and to build a more financially sustainable Group.

We remain optimistic about the longer-term future of the NSG Group as we operate in a good industry with positive prospects.

We at the NSG Group greatly appreciate the steadfast understanding and input of all our shareholders.

### Günter Zorn

Chairman of the Board

### Shigeki Mori

President and Chief Executive Officer

## REVIEW OF BUSINESS

THE FULL-YEAR OPERATING PROFIT REPRESENTS AN IMPROVEMENT ON THE PREVIOUS YEAR. MANAGEMENT IS COMMITTED TO IMPROVING PROFITABILITY FURTHER AS PART OF OUR MEDIUM-TERM PLAN TO INCREASE VALUE-ADDED SALES.

"In the year to 31 March 2016, the Group experienced contrasting conditions in its major markets, with improvements in some regions and reductions in others. The Group posted a significant amount of one-off losses, reflecting the intensified market situation in Display and demand downturns in emerging markets. The full-year operating profit continued to increase with improvements in core business profitability following recent restructuring and cost reduction measures. The Group made steady progress in the shift to 'VA Glass Company' as described in the Medium-term Plan (MTP), with increased ratio of value-added products. The Group is to maintain the strategic approach to increase profit through business improvements, a shift to value-added products and services and to focus on accelerating growth strategies in the year to 31 March 2017"



**Shigeki Mori** President and Chief Executive Officer (Right)  
**Clemens Miller** Chief Operating Officer (Left)

### Architectural

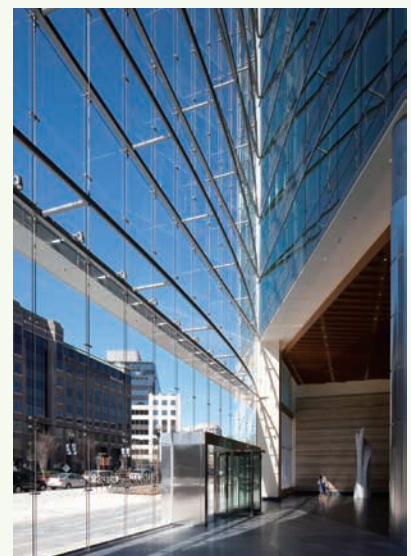
Operating results in the Architectural business improved from the previous year due to lower energy-related input costs and further improvements to market conditions especially in North America. Revenues also increased, due largely to the strong market conditions in North America.

In Europe, representing 35 percent of the Group's Architectural sales, demand increased through the year leading to an improved pricing environment. Cumulative local currency revenues increased reflecting the improved underlying conditions. Profitability was negatively affected by a cold repair, offsetting the positive impact of lower input costs.

In Japan, representing 27 percent of Architectural sales, cumulative volumes were similar to the previous year. Revenues and profitability improved due to improved prices and increased sales of value-added products.

In North America, representing 15 percent of Architectural sales, architectural glass markets continued to register year on year growth. The Group's revenues and profits improved from the previous year. Volumes increased, with domestic demand being particularly strong. Price levels were also above the previous year.

In the rest of the world, markets were generally at similar levels to the previous year. Solar glass dispatches were robust in South East Asia, and profits in South America were resilient despite a challenging economic environment and a cold repair in Argentina. On 31 March 2016, the Group announced its decision to exit from its loss-making business in China producing rolled glass for crystalline silicon photovoltaic applications.



601 Massachusetts Avenue, Washington DC, USA  
Pilkington Optiwhite™; Pilkington Planar™

## Automotive

**Automotive business revenues were similar to the previous year. Profitability improved with increased volumes and cost savings in Japan.**

Europe represents 44 percent of the Group's Automotive sales. Light-vehicle sales were ahead of the previous year, with further growth in Western Europe indicating a sustainable market recovery. The Group also benefitted from robust volumes in its Automotive Glass Replacement (AGR) business. Total local currency revenues and profits were both slightly improved from the previous year.

In Japan, representing 18 percent of the Group's Automotive sales, OE revenues and profits were both ahead of the previous year. The Group's volumes increased, despite light-vehicle sales falling after the implementation of revised eco-car tax exemption rules. AGR profits were also ahead of the previous year.

In North America, representing 28 percent of the Group's Automotive sales, cumulative OE local currency revenues were ahead of the previous year as market volumes continued to strengthen. The Group's AGR revenues fell however.

In the rest of the world, weak market conditions persist in South America, with a significant decrease in light-vehicle sales in Brazil.

## Technical Glass

**Revenues and profits in the Technical Glass business were below the previous year due to a challenging competitive environment in the Display business.**

On 31 March 2016, the Group announced an adjustment to its production of thin glass for displays, with the mothballing of its thin glass line in Vietnam. The timing for restarting this line is to be decided, and will be dependent on the future market situation, inventory levels, and other relevant factors.

Demand for components used in multi-function printers which had been robust in earlier quarters softened during the second half of the year. Volumes of glass cord used in engine timing belts were robust, consistent with strengthening automotive markets in Europe.



The NSG Group's HTS (High Tensile Strength) glass cord treated with an advanced coating system is adopted for PSA Peugeot Citroën 3-cylinder Turbo PureTech engine.

## Research and Development

The NSG Group continues its strong investment in R&D and recognizes that innovation is a critical part of the Group's recovery and future growth in difficult economic and market conditions.



A new automotive laminating line started in Collingwood, Ontario, Canada.

R&D costs amounted to ¥9,799 million for the year ended 31 March 2016.

## Outlook

The Group expects to see an improvement in market conditions during the year to 31 March 2017. In Europe, Architectural markets are likely to be broadly stable with supply and demand in balance across the region. Light-vehicle sales should continue to increase through the year to 31 March 2017. However, absolute levels of light vehicle sales in Europe will still be below their previous peak. Architectural markets in Japan are likely to be flat but with the Group benefitting from an increase in VA sales. Automotive revenues are likely to fall following the implementation of revised eco-car tax exemption rules during the year to 31 March 2016. Architectural markets in North America will continue to be robust with the Group benefitting from a high proportion of VA product sales. Automotive markets should also be at a good level, with the Group's profitability expected to improve. In South America, the Group expects to see the recent declines in light-vehicle sales starting to level off, although it does not anticipate a significant volume rebound. Market conditions in South East Asia are likely to continue at a good level and the Group's Architectural results will benefit from the closure of the rolled glass line in China as announced on 31 March 2016. Within the Technical Glass business unit, results from the Display division will benefit from the temporary closure of the Group's thin glass line in Vietnam, as announced on 31 March 2016. Across the Group, operating profitability is expected to benefit from relatively low energy costs and the Group's continued efforts to reduce its cost base. Amortization costs arising on the acquisition of Pilkington will fall to approximately half the level of the year to 31 March 2016.

Taking account of the above factors, the Group expects to record an improvement in operating profitability.

May 2016

**Shigeki Mori**  
President and Chief Executive Officer

**Clemens Miller**  
Chief Operating Officer



## CHIEF FINANCIAL OFFICER'S REVIEW

### THE CONTINUED IMPROVEMENT IN OPERATING PROFITABILITY REFLECTS A STRENGTHENING MARKET OUTLOOK ACROSS MANY OF THE GROUP'S BUSINESSES.

"Operating profitability has continued to improve as a result of strengthening markets and falling energy costs. However, partially offsetting these positive factors and operational improvements are the extremely challenging market conditions faced by the Display business.

Further down the income statement, the Group has posted an exceptional loss, reflecting our actions to address the continued difficult trading conditions in emerging markets, and the excess capacity in Display markets."



**Kenichi Morooka** Chief Financial Officer

#### Results for the year

##### Revenue

Revenues were broadly flat at ¥629,172 million compared to ¥626,713 million in the previous year. At constant exchange rates, revenues were almost two percent higher than the previous year.

##### Operating profit

Trading profit (before amortization arising from the acquisition of Pilkington plc) increased from a profit of ¥25,270 million to a profit of ¥27,175 million. After charging amortization costs, operating profit increased from a profit of ¥16,848 million to a profit of ¥19,362 million.

##### Exceptional items

Exceptional items are analyzed in a note to the Annual Financial Statements and comprise transactions that are of a material, non-routine nature. Exceptional items increased from a credit of ¥5,490 million to a charge of ¥35,142 million. The most significant items included impairments of non-current assets at the Group's facility producing rolled glass for crystalline silicon photovoltaic applications, and at the Group's facility in Vietnam, producing thin glass for displays.

##### Joint ventures and associates

The Group's share of the results of its joint ventures and associates decreased from a profit of ¥413 million to a loss of ¥3,435 million. Profits at Cebrace, the Group's joint venture in Brazil, were similar to the previous year. Losses narrowed at the Group's joint venture in Russia, although losses increased at the Group's joint ventures and associates in China.



Four engineers from our Laurinburg, North Carolina float plant spent time in a technology class at a middle school to help give students an insight into real-life engineering.

### Interest expenses

Net interest expenses were similar to the previous year.

### Taxation

The Group has a tax charge for the period to 31 March 2016 which results in an effective rate of -29.6 percent on the loss before taxation, after excluding the Group's share of net losses of its joint ventures and associates. Included in the tax charge for the period is a charge of ¥5,237 million arising in Japan following a re-assessment of expectations of future utilization of deferred tax assets recognized in previous years.

### Non-controlling interests

Profits attributable to non-controlling interests increased from ¥1,225 million to ¥2,338 million. This was due to improved profitability at the Group's operations with non-controlling interests, which operate mainly in the Architectural business unit.

### Earnings per share

Basic (undiluted) earnings per share decreased from a net profit per share of ¥1.85 to a net loss per share of ¥55.18.

### Cash flows

The continued improvement in trading profitability has led to a significant improvement in underlying cash flow performance, represented by operating cash flows before movements in working capital. Cash flows from working capital movements were slightly negative during the period to 31 March 2016, though this follows a significant cash inflow from the reduced working capital in recent years.

Cash inflows from operating activities were ¥21,789 million. Cash outflows from investing activities were ¥26,401 million, including capital expenditure on property, plant and equipment of ¥28,197 million. As a result, total cash outflows before financing were ¥4,612 million.

## Funding and liquidity

### Net debt

Net financial indebtedness increased by ¥6,952 million from 31 March 2015 to ¥381,044 million at the period end. Currency movements generated an increase in net debt of approximately ¥700 million over the period. Gross debt was ¥426,959 million at the period end. As of 31 March 2016, the Group had undrawn committed facilities of ¥49,647 million.

### Sources of finance

The Group is financed by a combination of cash flows from operations, bank loans and corporate bonds. The Group aims to refinance borrowings well before their due date and ensures that any uncommitted or short-term borrowings are supported by undrawn committed facilities. The Group aims to obtain its funding from a variety of sources and access markets globally as and when they are available to it.

The Group seeks to deal with relationship banks that are able to support its businesses worldwide with the services it requires and at the same time provide, where necessary, appropriate levels of credit.

### Shareholders' equity (net assets)

Total equity at the end of March 2016 was ¥112,011 million, representing a decrease of ¥73,997 million from the end of March 2015. The decrease was caused by the loss for the year and exchange translation adjustments as a result of the strengthening yen. These two effects were partly offset by gains arising on the re-measurement of retirement benefit obligations.

### Kenichi Morooka

Chief Financial Officer



The Chmielow site expansion opening ceremony in Poland



# LONG-TERM STRATEGIC VISION AND MEDIUM-TERM PLAN

## THE IMPLEMENTATION OF NSG GROUP'S LONG-TERM STRATEGIC VISION AND MEDIUM-TERM PLAN WILL ACCELERATE THE RECOVERY OF PROFITABILITY.

### Long-term Strategic Vision

The NSG Group's strategic vision is to become a VA Glass Company. The growth sector within the glass and glazing markets is for more value-added (VA) products with greater complexity and functionality. The Group already has a wide range of VA products in our Technical Glass, Architectural and Automotive business units.

Our aim as a VA Glass Company is to:

- Consolidate our trusted reputation as a glass specialist
- Work closely with our customers in a range of global industries to deliver unique values required by our customers through our products and services
- Transform our flat glass business, moving from a traditional commodity business model towards one increasingly focused on value-added products and services

By transforming ourselves into a VA Glass Company, we will become a more profitable and financially stronger business, with a lighter asset base, while reducing the cyclical nature of the business at the same time.

### Medium-term Plan: April 2014 to March 2018

These years are critical to the establishment of the Group as a "VA Glass Company". The priority is to enhance our financial and operational performance while we shift to selling more value-added products and services as described in our Long-term Strategic Vision.

### FY18 Main Financial Targets

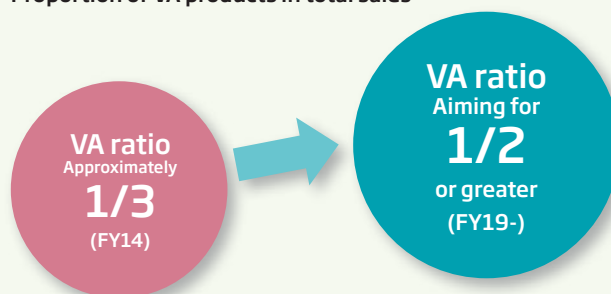
**Net Debt/EBITDA : 3x**

**Return on Sales : 8%\***

\*Operating Profit before amortization and exceptionals

### Accelerating shift to VA products

#### Proportion of VA products in total sales



\* Total sales: Architectural Glass + Automotive Glass (OE) + Technical Glass

### Execution

Operational performance will focus on our shift to selling a greater proportion of value-added products and services, fully utilizing our existing capacity and consolidating our reputation for manufacturing excellence.

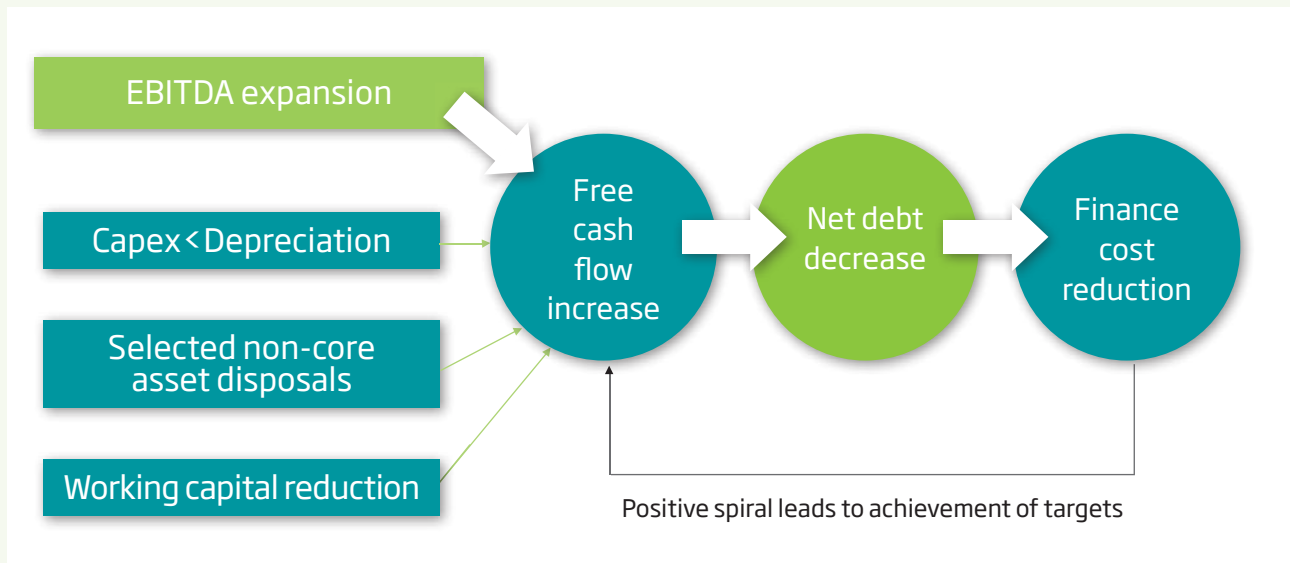
Financial performance will be focused on increasing our operating profit and the generation of free cash flows to reduce net debt and financing costs to create a more financially stable Group.

### Value-added products and services

Architectural	Automotive	Technical Glass
<ul style="list-style-type: none"> <li>• Glass for photovoltaics</li> <li>• Vacuum glazing (SPACIA™)</li> <li>• Low-E+Solar control glass</li> <li>• Fire protection glass</li> <li>• Extra-clear glass (Optiwhite™)</li> </ul>	<ul style="list-style-type: none"> <li>• Solar control, super UV+IR cut glass</li> <li>• Integrated functionality for safety and comfort</li> <li>• Complex and lightweight window</li> <li>• Automotive glass replacement (AGR)</li> </ul>	<ul style="list-style-type: none"> <li>• Thin glass for touch panels and cover glass (glanova™)</li> <li>• Optical devices for LED printers</li> <li>• Glass cord for timing belts in oil</li> <li>• Battery separators for automotive start-stop systems</li> <li>• Glass flake for anti-corrosion paint</li> </ul>

### Financial strategy

The Group aims to reduce net debt and finance cost by increasing free cash flow by expanding trading profits, managing capital expenditure, asset disposal and working capital reduction.



### Key Approaches by Business

Architectural	Provide value through glass expertise to meet expanding market needs	Shift from commodity to VA
Automotive (OE)	Expand VA products adapting to car technology evolution	Excellent Gemba + VA shift
(AGR)	Create new growth by providing best services	Unique service values
Technical Glass	Create new growth in ICT and various industrial fields	R&D Marketing

# BOARD OF DIRECTORS AND EXECUTIVE OFFICERS

## Members of the Board



**Günter Zorn**  
External Director  
Chairman of the Board



**Toshikuni Yamazaki**  
External Director



**Yasuyuki Kimoto**  
External Director



**Masatoshi Matsuzaki**  
External Director



**Shigeki Mori**  
Director  
Representative Executive Officer  
President and  
Chief Executive Officer



**Clemens Miller**  
Director  
Representative Executive Officer  
Executive Vice President and  
Chief Operating Officer



**Kenichi Morooka**  
Director  
Representative Executive Officer  
Executive Vice President and  
Chief Financial Officer

### Nomination Committee

Masatoshi Matsuzaki\*  
Günter Zorn  
Toshikuni Yamazaki  
Yasuyuki Kimoto  
Shigeki Mori

### Audit Committee

Toshikuni Yamazaki\*  
Günter Zorn  
Yasuyuki Kimoto  
Masatoshi Matsuzaki

### Compensation Committee

Yasuyuki Kimoto\*  
Günter Zorn  
Toshikuni Yamazaki  
Masatoshi Matsuzaki  
Shigeki Mori

\*Committee Chairman

## Executive Officers (Excluding Representative Executive Officers)



**Shirley Anderson**  
Executive Officer  
Chief Human Resources  
Officer



**Tony Fradgley**  
Executive Officer  
Head of Automotive AGR SBU and  
Automotive OE SBU



**Kazuhiko Fujimaki**  
Executive Officer  
Head of Technical Glass SBU



**Koichi Hiyoshi**  
Executive Officer  
Chief Legal Officer and  
Company Secretary



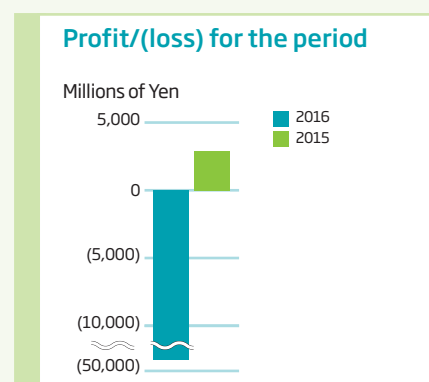
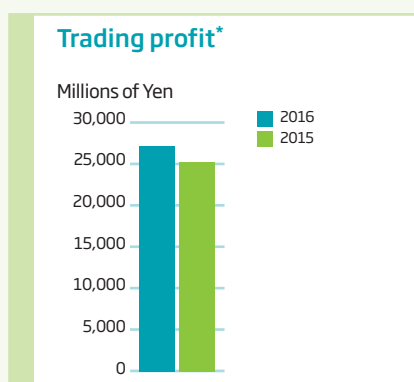
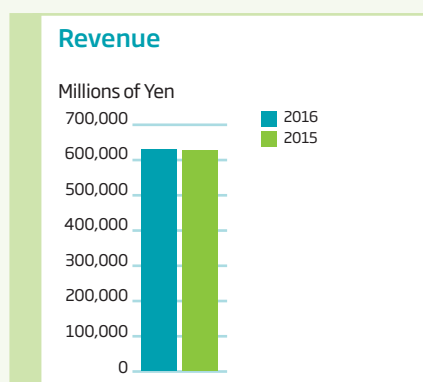
**Hiroshi Kishimoto**  
Executive Officer  
Chief Corporate Planning  
Officer



**Jochen Settelmayer**  
Executive Officer  
Head of Architectural Glass  
SBU

# FINANCIAL SUMMARY

Period ended 31 March	Millions of yen	
	2016	2015
Revenue	<b>629,172</b>	626,713
Trading profit*	<b>27,175</b>	25,270
Profit/(loss) before taxation	<b>(37,439)</b>	4,807
Profit/(loss) for the period	<b>(47,500)</b>	2,893
Profit/(loss) attributable to owners of the parent	<b>(49,838)</b>	1,668
Earnings per share attributable to owners of the parent (yen)		
Basic	<b>(55.18)</b>	1.85
Diluted	<b>(55.18)</b>	1.84
Total assets	<b>812,120</b>	920,106
Total shareholders' equity	<b>103,109</b>	175,746
Number of permanent employees	<b>27,463</b>	27,371



\*: Operating profit before exceptional items and the amortization of intangible assets arising on the acquisition of Pilkington plc.

## ADDITIONAL INFORMATION

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

### Business and other risks

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 in the below are based on what the Group judged as effective as at the end of this financial year.

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.

### Economic conditions

The majority of the Group's products are sold in the Japanese, European and North American markets, with these markets representing 24 percent, 38 percent and 20 percent, respectively, of net sales for the year ended 31 March 2016. The majority of sales made outside of these three areas are in emerging markets such as South America. Over the long-term, the Group expects that its growth in emerging markets is likely to exceed its growth in more mature markets, and therefore the proportion of Group sales recorded in such markets is likely to increase in the future. Such markets may be considered to have a more significant level of risk than the more mature markets in which the Group operates. Changes in the business environments of the Group's customers and any geopolitical issues around the world might affect the Group's business, and if economic conditions or particular business environments in these regions of the Group's major markets and emerging markets deteriorate, this could have a significant negative effect on the Group's financial performance and financial position.

Europe represents the largest region for Group revenues. European markets have experienced a gradual recovery during FY2016 and the Group expects that this will continue through FY2017. There can, however, be no assurance that this will be the case.

### 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 2016. In FY2016, the Group's Architectural and Automotive business accounted for 42 percent and 50 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 effected 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.

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. 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. 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, or ensure higher competitiveness to its competitors, or the Group's 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 and other areas. The Group believes that the stakes it holds in these operations are an important part of its strategy to expand its manufacturing capacities in these regions. During FY2016, the Group recorded certain impairments as exceptional costs with respect to the expected recoverable value of some of these investments. There can be no assurance that there will not be a further deterioration in the underlying markets faced by its 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, although the Group doesn't expect to recognize further significant amounts of impairments in short term. 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

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. Nevertheless, the potential adverse effects on production facilities due to a natural disaster (including an earthquake, an electric power outage or any other type of event that causes a suspension of the Group's or of its customers' production) cannot always be prevented or 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 case that production activity is suspended at a facility due to an earthquake or any other similar event, 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.

### Fluctuations in foreign exchange and interest rates

The Group has manufacturing operations in 28 countries and sales in around 130 countries. 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, 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.

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 Group's pension assets, 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 our 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

Foreign subsidiaries and affiliates of the Group are subject to local regulations relative to investment, imports and exports, fair competition rules, regulations for environmental conservation, and other laws regarding business transactions, labor, 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.

### 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 Group's business plan will be successful, or that the intended results of the business strategies through the success of the strategy 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 acquired Pilkington plc in June 2006, a company with a significant presence in Europe. If the financial performance in Europe underperform compared to the Group's expectations at the time of acquisition, or if some or all of the synergies cannot be achieved as planned, the Group could be required to recognize impairment charges on the goodwill or other intangible assets, which may have an adverse effect on the Group's financial performance and financial condition.

The Group invests intensively in shifting from relatively low margin products to value-added products which require advanced technology in order to keep its competitive advantages. However, there can be no assurance that the Group can succeed in development of higher technology earlier than its competitors, or, as a result, can ensure higher competitiveness than its competitors.

### 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 our intellectual property rights. In addition, we conduct our operations globally, which increases the risk of disputes between us 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.

### Environmental laws and regulations

The Group is subject to a variety of environmental laws and regulations. Although the Group makes efforts to implement a variety of measures in regard to product development and manufacturing process in order to have a beneficial environmental impact and comply with the relevant laws and regulations, there can be no assurance that the Group can achieve expected results through those measures. Also, 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 to the Group by reason of infringement of any of the 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. During FY2016, the Group concluded that an impairment of goodwill was required with respect to its Automotive Rest of World cash generating unit. This cash generating unit principally includes automotive operations in South America, which have suffered from declining volumes during FY2016, consistent with a severe reduction in light-vehicle sales in that region. There can be no assurance that further impairments of goodwill with respect to that cash generating unit will not be required in the future, and there can also be no assurance that goodwill held with respect to other cash generating units will not also be required in the future, although the Group doesn't expect to recognize further significant amounts of impairments in short term. 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.

During FY2016, the Group recorded write down of deferred tax assets mainly in Japan, following a re-assessment of expectations of future utilization of deferred tax assets recognized in previous years. The Group's balance sheet contains material amounts of deferred taxation assets, and whilst the charges recorded in FY2016 reduce the likelihood, there can be no assurance that further write-downs will not be required in the future.

# INDEPENDENT AUDITOR'S REPORT

The Board of Directors  
Nippon Sheet Glass Company, Limited

We have audited the accompanying consolidated financial statements of Nippon Sheet Glass Company, Limited and its consolidated subsidiaries, which comprise the consolidated balance sheet as at 31 March 2016, the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows for the year then ended and notes to the consolidated financial statements.

## Management's Responsibility for the Consolidated Financial Statements

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

## Auditor's Responsibility

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

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

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

## Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Nippon Sheet Glass Company, Limited and its consolidated subsidiaries as at 31 March 2016, and their consolidated financial performance and cash flows for the year then ended in conformity with International Financial Reporting Standards.

**Ernst & Young ShinNihon LLC**

30 June 2016  
Tokyo, Japan

# CONSOLIDATED INCOME STATEMENT

Nippon Sheet Glass Co., Ltd and consolidated subsidiaries  
For the period ended 31 March 2016

	Note	Millions of yen	
		2016	2015
<b>Revenue</b>	2	<b>629,172</b>	626,713
Cost of sales		<b>(472,217)</b>	(473,194)
<b>Gross profit</b>		<b>156,955</b>	153,519
Other income	3	<b>2,945</b>	3,929
Distribution costs		<b>(56,639)</b>	(59,131)
Administrative expenses		<b>(70,716)</b>	(68,788)
Other expenses	4	<b>(13,183)</b>	(12,681)
<b>Operating profit before exceptional items</b>	2	<b>19,362</b>	16,848
Exceptional items	6	<b>(35,142)</b>	5,490
<b>Operating profit/(loss) after exceptional items</b>		<b>(15,780)</b>	22,338
Finance income	8	<b>1,624</b>	2,201
Finance expenses	8	<b>(19,848)</b>	(20,145)
Share of post-tax profits/(losses) of joint ventures and associates accounted for using the equity method	14	<b>(3,435)</b>	413
<b>Profit/(loss) before taxation</b>		<b>(37,439)</b>	4,807
Taxation	9	<b>(10,061)</b>	(1,914)
<b>Profit/(loss) for the period</b>		<b>(47,500)</b>	2,893
Profit attributable to non-controlling interests	39	<b>2,338</b>	1,225
Profit/(loss) attributable to owners of the parent		<b>(49,838)</b>	1,668
		<b>(47,500)</b>	2,893
Earnings per share attributable to owners of the parent:			
Basic earnings per share (yen)	35	<b>(55.18)</b>	1.85
Diluted earnings per share (yen)	35	<b>(55.18)</b>	1.84

There were no revenues or costs incurred during the period with respect to discontinued operations.

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Nippon Sheet Glass Co., Ltd and consolidated subsidiaries  
For the period ended 31 March 2016

	Note	Millions of yen	
		2016	2015
Profit/(loss) for the period		<b>(47,500)</b>	2,893
<b>Other comprehensive income:</b>			
<b>Items that will not be reclassified to profit or loss:</b>			
Re-measurement of retirement benefit obligations (net of taxation)	26	<b>12,203</b>	(13,199)
Share of other comprehensive income of joint ventures and associates accounted for using the equity method		<b>(749)</b>	(1,721)
Sub total		<b>11,454</b>	(14,920)
<b>Items that may be reclassified to profit or loss:</b>			
Foreign currency translation adjustments		<b>(39,176)</b>	7,009
Revaluation of available-for-sale investments		<b>4,877</b>	795
Cash flow hedges - fair value (losses)/gains, net of taxation		<b>(2,855)</b>	(2,355)
Sub total		<b>(37,154)</b>	5,449
<b>Other comprehensive income for the period, net of taxation</b>		<b>(25,700)</b>	(9,471)
<b>Total comprehensive income for the period</b>		<b>(73,200)</b>	(6,578)
Attributable to non-controlling interests		<b>(496)</b>	1,728
Attributable to owners of the parent		<b>(72,704)</b>	(8,306)
		<b>(73,200)</b>	(6,578)

# CONSOLIDATED BALANCE SHEET

Nippon Sheet Glass Co., Ltd and consolidated subsidiaries  
As at 31 March 2016

	Note	Millions of yen	
		2016	2015
<b>Assets</b>			
<b>Non-current assets</b>			
Goodwill	10	113,459	130,734
Intangible assets	11	62,898	75,680
Property, plant and equipment	12	258,866	293,529
Investment property	13	715	867
Investments accounted for using the equity method	14	17,869	30,528
Retirement benefit asset	26	18,837	9,754
Trade and other receivables	15	15,297	16,656
Financial assets			
available-for-sale investments	16	33,995	31,870
derivative financial instruments	17	26	75
Deferred tax assets	19	48,357	62,072
Tax receivables		1,098	1,199
		571,417	652,964
<b>Current assets</b>			
Inventories	20	108,862	113,662
Construction work-in-progress	21	716	825
Trade and other receivables	15	72,574	79,010
Financial assets			
available-for-sale investments	16	346	3
derivative financial instruments	17	815	882
Cash and cash equivalents	22	55,074	67,695
Tax receivables		1,093	1,558
		239,480	263,635
Assets held for sale or included in a disposal group held for sale	23	1,223	3,507
		240,703	267,142
<b>Total assets</b>		<b>812,120</b>	<b>920,106</b>



## CONSOLIDATED BALANCE SHEET CONTINUED

	Note	Millions of yen	
		2016	2015
<b>Liabilities and equity</b>			
<b>Current liabilities</b>			
Financial liabilities			
borrowings	24	139,089	112,119
derivative financial instruments	17	4,453	3,090
Trade and other payables	25	120,979	133,550
Taxation liabilities		2,219	2,326
Provisions	27	16,181	12,509
Deferred income	28	2,989	3,345
		<b>285,910</b>	266,939
<b>Non-current liabilities</b>			
Financial liabilities			
borrowings	24	289,319	325,008
derivative financial instruments	17	4,098	2,527
Trade and other payables	25	714	741
Deferred tax liabilities	19	17,321	20,700
Taxation liabilities		1,002	650
Retirement benefit obligations	26	75,111	89,924
Provisions	27	16,512	17,826
Deferred income	28	10,122	9,783
		<b>414,199</b>	467,159
<b>Total liabilities</b>		<b>700,109</b>	734,098
<b>Capital and reserves attributable to the owners of the parent</b>			
Called up share capital	30	116,449	116,449
Capital surplus	31	127,511	127,511
Retained earnings	32	(63,502)	(25,082)
Retained earnings (translation adjustment at the IFRS transition date)		(68,048)	(68,048)
Other reserves	33	(9,301)	24,916
<b>Total shareholders' equity</b>		<b>103,109</b>	175,746
Non-controlling interests	39	8,902	10,262
<b>Total equity</b>		<b>112,011</b>	186,008
<b>Total liabilities and equity</b>		<b>812,120</b>	920,106

The financial statements on pages 20 to 81 were approved by the Executive Officers on 30 June 2016.

### 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 Co., Ltd and consolidated subsidiaries  
For the period ended 31 March 2016

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	30	31	32		33		39	
<b>Balance at 1 April 2014</b>	<b>116,449</b>	<b>127,511</b>	<b>(11,773)</b>	<b>(68,048)</b>	<b>19,835</b>	<b>183,974</b>	<b>9,512</b>	<b>193,486</b>
Profit for the period	-	-	1,668	-	-	1,668	1,225	2,893
Other comprehensive income	-	-	(14,920)	-	4,946	(9,974)	503	(9,471)
Total comprehensive income	-	-	(13,252)	-	4,946	(8,306)	1,728	(6,578)
Transactions with owners								
Stock options	-	-	-	-	138	138	-	138
Dividends paid	-	-	-	-	-	-	(978)	(978)
Issuance and purchase of treasury stock	-	(57)	-	-	(3)	(60)	-	(60)
Transfer from retained earnings to capital surplus	-	57	(57)	-	-	-	-	-
<b>Balance at 31 March 2015</b>	<b>116,449</b>	<b>127,511</b>	<b>(25,082)</b>	<b>(68,048)</b>	<b>24,916</b>	<b>175,746</b>	<b>10,262</b>	<b>186,008</b>
Profit for the period	-	-	(49,838)	-	-	(49,838)	2,338	(47,500)
Other comprehensive income	-	-	11,454	-	(34,320)	(22,866)	(2,834)	(25,700)
Total comprehensive income	-	-	(38,384)	-	(34,320)	(72,704)	(496)	(73,200)
Transactions with owners								
Stock options	-	(36)	-	-	107	71	-	71
Dividends paid	-	-	-	-	-	-	(864)	(864)
Issuance and purchase of treasury stock	-	-	-	-	(4)	(4)	-	(4)
Transfer from retained earnings to capital surplus	-	36	(36)	-	-	-	-	-
<b>Balance at 31 March 2016</b>	<b>116,449</b>	<b>127,511</b>	<b>(63,502)</b>	<b>(68,048)</b>	<b>(9,301)</b>	<b>103,109</b>	<b>8,902</b>	<b>112,011</b>

# CONSOLIDATED STATEMENT OF CASH FLOWS

Nippon Sheet Glass Co., Ltd and consolidated subsidiaries  
For the period ended 31 March 2016

	Note	Millions of yen	
		2016	2015
<b>Cash flows from operating activities</b>			
Cash generated from operations	34	42,281	44,935
Interest paid		(17,931)	(18,314)
Interest received		1,282	2,168
Income tax paid		(3,843)	(4,196)
Net cash generated from operating activities		21,789	24,593
<b>Cash flows from investing activities</b>			
Dividends received from joint ventures and associates		2,741	3,131
Purchase of joint ventures and associates		-	(183)
Proceeds on disposal of joint ventures and associates		-	162
Purchase of subsidiaries (net of cash acquired)		-	(488)
Proceeds on disposal of subsidiaries and businesses (net of cash disposed)		-	144
Purchases of property, plant and equipment		(28,197)	(32,602)
Proceeds on disposal of property, plant and equipment		608	6,229
Purchase of intangible assets		(1,790)	(2,338)
Proceeds on disposal of intangible assets		-	21
Purchase of available-for-sale investments		(13)	(10)
Proceeds on disposal of available-for-sale investments		128	203
Loans advanced to joint ventures, associates and third parties		(529)	(1,486)
Loans repaid from joint ventures, associates and third parties		370	630
Others		281	3,395
Net cash used in investing activities		(26,401)	(23,192)
<b>Cash flows from financing activities</b>			
Dividends paid to shareholders		-	(11)
Dividends paid to non-controlling interests		(857)	(978)
Repayment of borrowings		(136,485)	(135,828)
Proceeds from borrowings		131,438	144,115
Others		(4)	(3)
Net cash generated from/(used in) financing activities		(5,908)	7,295
<b>Increase/(decrease) in cash and cash equivalents (net of bank overdrafts)</b>		<b>(10,520)</b>	8,696
Cash and cash equivalents (net of bank overdrafts) at the beginning of the period	22	62,340	52,293
Effect of foreign exchange rate changes		(5,658)	1,351
<b>Cash and cash equivalents (net of bank overdrafts) at the end of the period</b>	22	<b>46,162</b>	62,340

# NOTES TO THE 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, unless otherwise stated. There were no material changes to the Group's accounting principles, practices and presentations arising as a result of amended IFRS accounting standards and interpretations during the year.

### Reporting entity

Nippon Sheet Glass Co., Ltd (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 discreet technical glass businesses, operating in high technology areas. The parent company of the Group, Nippon Sheet Glass Co., Ltd 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, 108-6321, 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 available-for-sale investments that have been measured at fair value.

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 2016 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 9 'Financial instruments', addresses the classification, measurement and recognition of financial assets and financial liabilities. This standard will become effective from the Group's financial period commencing 1 April 2018. Early adoption of the standard is permitted. This new standard will replace certain elements of IAS 39. The Group has not yet calculated the impact of the adoption of this new standard, although does not expect that the impact would be material. The Group anticipates adopting IFRS 9 starting with its financial period commencing 1 April 2016. The main impact for the Group from adoption of IFRS 9 is expected to be a reclassification of certain investments into a category of investments "Held at Fair Value through Other Comprehensive Income". The accounting treatment for the majority of such investments would be identical to the Group's current practice except in the event of an impairment, in which case such an impairment could be anticipated to be processed through the Statement of Comprehensive Income, rather than within the Consolidated Income Statement. No such impairments were processed during FY2016, and consequently the Group does not expect to process any restatement of its Consolidated Income Statement for that period.

IFRS 15 'Revenue from Contracts with Customers' addresses the recognition of revenues and will be effective from the Group's financial period commencing 1 April 2018. This new standard will replace IAS 18 'Revenue' and IAS 11 'Construction Contracts'. The Group has not yet

calculated the impact of the adoption of this new standard.

IFRS 16 'Leases' addresses the principles for the recognition and measurement of leases, and will be effective from the Group's financial period commencing 1 April 2019. This new standard will replace IAS 17 'Leases'. 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 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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

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.

### **Segment reporting**

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 available-for-sale financial assets, are included in the fair value reserve in equity.

#### **(c) Group companies**

The results and financial position of all the Group entities with a functional currency different from the Group's presentation currency (none of which has the currency of a hyperinflationary economy) 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.

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**

Land and buildings comprise mainly the Group's manufacturing facilities. Land is shown at historical cost (and depreciated if held on a finance lease). 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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

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
Long leasehold land and buildings	lease term or useful economic life
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.

### 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 definite 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 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.

### Impairment of assets

Assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization 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 10.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### Investments

The Group classifies its investments in the following categories: financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments, and available-for-sale investments. The classification depends on the purpose for which the investments were acquired. Management determines the classification of its investments at initial recognition and reevaluates this designation at every reporting date.

#### (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 or if so designated by management. 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.

#### (b) Loans and receivables

Loans and 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 (see Trade receivables).

#### (c) Held-to-maturity investments

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Group's management has the positive intention and ability to hold to maturity. The Group does not hold any investments in this category.

#### (d) Available-for-sale investments

Available-for-sale investments are non-derivative financial assets that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless management intends to dispose of the investment within 12 months of the balance sheet date. They are initially recognized at fair value plus transaction costs and thereafter at fair value.

Purchases and sales of investments are recognized on the trade date, the date on which the Group commits to purchase or sell the asset. Investments are derecognized when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the investments, the Group considers whether it has retained control of the investments. Available-for-sale investments and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables and held-to-maturity investments are carried at amortized cost using the effective interest method. Realized and unrealized gains and losses arising from changes in the fair value of the 'financial assets at fair value through profit or loss' category are included in the income statement in the period in which they arise. Unrealized gains and losses arising from changes in the fair value of non-monetary securities classified as available-for-sale are recognized in the fair value reserve within equity. When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments are included in the income statement as gains and losses from investment securities.

The fair values of quoted investments are based on current bid prices.

For unlisted securities or where the market for a financial asset is not active, the Group establishes fair value by using valuation techniques. These include the use of recent arm's-length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models refined to reflect the issuer's specific circumstances.

The Group assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets is impaired. In the case of equity securities classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost would be considered in determining whether the securities are impaired. If any such evidence exists for available-for-sale investments, the cumulative loss, measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognized in profit or loss, is removed from equity and recognized in the income statement.

### 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.

### Construction work-in-progress

Construction work-in-progress is represented by engineering construction contracts for the building, construction and delivery of float glass lines or other assets for third-party customers. Profits are recognized where revenue and contract costs can be reliably estimated and are based on the stage of completion of the contract. Where the outcome cannot be estimated reliably, revenue is only recognized to the extent that it is probable that the contract costs incurred will be recoverable. Where it is probable that the contract costs will exceed the total contract revenue, the expected loss is recognized as an expense immediately in the income statement.

The stage of completion on construction contracts is assessed at regular intervals by the engineering project team and is based on an analysis of construction progress made, order fulfillment, costs incurred and technical completion at the balance sheet date.

### Trade and other receivables

Trade and other receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less provision for impairment. A provision for impairment of trade receivables is established when there is objective evidence that 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 movement in the provision is recognized in the income statement.

Where trade receivables are sold to a financial institution through a

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

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.

### 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.

### Trade and other payables

Trade and other payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade and other payables are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

### Borrowings

Borrowings consist of bonds payable, loans payable, lease obligations and non-controlling interests entitled to receive a fixed share dividend. Borrowings are recognized initially at fair value. Borrowing transaction costs are expensed in the income statement over the period to the maturity of the related financial liability. Borrowings are subsequently stated at amortized cost. 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.

### Leases

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 and 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

Group companies operate various pension schemes. The schemes are generally funded through payments to insurance companies or trustee-administered funds, 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 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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

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 and the UK 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 recognition

Revenue comprises the fair value for the sale of goods and services, net of value-added or similar sales-based taxes, rebates and discounts and after eliminating sales within the Group. Revenue is recognized as follows:

#### (a) Sales of goods

Sales of goods are recognized when a Group entity has delivered products to the customer, the customer has accepted the products and collectability of the related receivables is reasonably assured.

Where a product is sold with a right of return, accumulated experience is used to estimate and provide for such returns at the time of sale.

#### (b) Sales of services

Sales of services are recognized in the accounting period in which the services are rendered, by reference to the completion of the specific transaction, and assessed on the basis of the actual service provided as a proportion of the total services to be provided.

#### (c) Engineering revenue

Engineering revenue is recognized on engineering construction contracts for the building, construction and supply of float glass lines for third-party customers.

Profits are recognized on such long-term contracts where revenue and contract costs can be reliably estimated and are based on the estimated stage of completion of the contract. Where the outcome of the contract cannot be estimated reliably, revenue is only recognized to the extent that it is probable that the contract costs incurred will be recoverable. In circumstances where it is probable that the total contract costs will exceed the total contract revenue, the expected loss is recognized as an expense immediately in the income statement.

#### (d) Interest income

Interest income is recognized on a time-proportion basis using the effective interest method. When a receivable is impaired, the Group reduces the carrying amount to its recoverable amount (i.e. the estimated future cash flow discounted at the original effective interest rate of the instrument), and continues unwinding the discount as interest income. Interest income on impaired loans is recognized either as cash is collected or on a cost-recovery basis as conditions warrant.

#### (e) Royalty income

Royalty income is recognized on an accruals basis in accordance with the substance of the relevant agreements.

#### (f) 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 customers' contributions to automotive tooling costs at their fair value. The income

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

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<sub>2</sub> 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.

### 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.

#### (a) Fair value hedge

Changes in the fair value of derivatives, designated and qualifying as fair value hedges, are recorded in the income statement, together with any changes in the fair value of the hedged asset or liability, attributable to the hedged risk.

#### (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 derivatives and available-for-sale investments) 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.

### Share capital

Ordinary shares are classified as equity. Mandatory redeemable preference shares are classified as liabilities.

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, 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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

period in which the services are received. The value of the charge is adjusted to reflect expected and actual levels of vesting options, except where the failure to vest is as a result of not meeting a market condition. 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.

### 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 ¥3,500 million (2015: ¥4,000 million). Based on the financial results for the year to 31 March 2016, a 1% increase in the value of the yen would result in a decrease in the loss for the period of ¥300 million (2015: decrease in profit for the period of ¥10 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 10 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 flows 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 ¥1,849 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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

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 37, 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.

### Critical accounting estimates 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 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.

### (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.

### 1.2 Changes in accounting policies and disclosures

The Group previously presented operating profit after exceptional items as "Operating profit" in the condensed quarterly consolidated income statement, but has now presented "Operating profit after exceptional items" to clearly show operating profit is after reflecting exceptional items.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 2. 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 for small 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, 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.

No operating segments have been aggregated to form the above reportable operating segments.

The segmental results for the periods ended 31 March 2016 and 2015 are as follows:

	Millions of yen				
	2016				
	Architectural	Automotive	Technical Glass	Other	Total
<b>Revenue</b>					
External revenue	262,559	316,327	49,490	796	629,172
Inter-segmental revenue	22,208	2,185	48	5,368	29,809
<b>Total revenue</b>	<b>284,767</b>	<b>318,512</b>	<b>49,538</b>	<b>6,164</b>	<b>658,981</b>
Trading profit	24,560	9,813	267	(7,465)	27,175
Amortization arising from acquisition of Pilkington plc	-	-	-	(7,813)	(7,813)
Operating profit before exceptional items	24,560	9,813	267	(15,278)	19,362
Exceptional items	(7,618)	(11,183)	(8,918)	(7,423)	(35,142)
Operating loss after exceptional items					(15,780)
Finance costs - net					(18,224)
Share of post-tax loss from joint ventures and associates					(3,435)
Loss before taxation					(37,439)
Taxation					(10,061)
<b>Loss for the period</b>					<b>(47,500)</b>

	Millions of yen				
	2015				
	Architectural	Automotive	Technical Glass	Other	Total
<b>Revenue</b>					
External revenue	252,914	313,956	58,741	1,102	626,713
Inter-segmental revenue	21,142	2,424	26	5,132	28,724
<b>Total revenue</b>	<b>274,056</b>	<b>316,380</b>	<b>58,767</b>	<b>6,234</b>	<b>655,437</b>
Trading profit	17,020	9,372	4,922	(6,044)	25,270
Amortization arising from acquisition of Pilkington plc	-	-	-	(8,422)	(8,422)
Operating profit before exceptional items	17,020	9,372	4,922	(14,466)	16,848
Exceptional items	(3,111)	(5,238)	(757)	14,596	5,490
Operating profit after exceptional items					22,338
Finance costs - net					(17,944)
Share of post-tax profit from joint ventures and associates					413
Profit before taxation					4,807
Taxation					(1,914)
<b>Profit for the period</b>					<b>2,893</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 2. Segmental information continued

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 largely dependent on 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.

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					
	2016					
	Note	Architectural	Automotive	Technical Glass	Other	Total
Depreciation	12	(12,062)	(14,744)	(2,852)	(819)	(30,477)
Amortization	11	(258)	(632)	(62)	(9,520)	(10,472)
Impairment of property, plant and equipment	12	(72)	(9)	-	-	(81)
Reversal of prior period impairments of property, plant and equipment	12	31	3	-	-	34
Profit on sale of property, plant and equipment		66	39	158	(8)	255
Research and development expenditure		(3,082)	(3,006)	(1,999)	(1,712)	(9,799)
Operating lease rentals						
plant and equipment		(1,250)	(2,100)	(46)	(150)	(3,546)
property		(768)	(4,692)	(154)	(644)	(6,258)
Net credit/(charge) for bad and doubtful debts	15	137	(78)	2	-	61
Amortization of deferred income	28	204	3,006	27	106	3,343

	Millions of yen					
	2015					
	Note	Architectural	Automotive	Technical Glass	Other	Total
Depreciation	12	(12,281)	(14,451)	(2,504)	(828)	(30,064)
Amortization	11	(273)	(649)	(42)	(9,971)	(10,935)
Impairment of property, plant and equipment	12	(33)	(135)	(381)	(44)	(593)
Reversal of prior period impairments of property, plant and equipment	12	647	341	-	-	988
Profit on sale of property, plant and equipment		174	83	66	53	376
Research and development expenditure		(2,703)	(3,058)	(931)	(1,520)	(8,212)
Operating lease rentals						
plant and equipment		(1,231)	(2,567)	(33)	(153)	(3,984)
property		(822)	(3,841)	(137)	(511)	(5,311)
Net credit/(charge) for bad and doubtful debts	15	138	(69)	10	-	79
Amortization of deferred income	28	165	3,478	47	346	4,036

Segmental net trading assets at 31 March 2016 and 2015 and capital expenditure for the periods then ended are as follows:

	Millions of yen					
	2016					
		Architectural	Automotive	Technical Glass	Other	Total
Segmental net trading assets		148,164	155,754	44,428	2,786	351,132
Capital expenditure (including intangibles)		13,156	13,272	1,452	312	28,192

	Millions of yen					
	2015					
		Architectural	Automotive	Technical Glass	Other	Total
Segmental net trading assets		154,809	165,599	50,645	(1,955)	369,098
Capital expenditure (including intangibles)		13,783	17,500	4,513	762	36,558

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

Capital expenditure comprises additions to property, plant and equipment, note 12, and intangible assets, note 11.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 2. Segmental information continued

#### Secondary reporting format - by revenue category and geographical location

	Millions of yen	
	2016	2015
<b>Analysis of revenue by category</b>		
Sale of glass and glass-related products	<b>609,833</b>	604,102
Sales of services	<b>706</b>	2,868
Royalty and licensing income	<b>544</b>	697
Engineering contracts	<b>4,965</b>	4,811
Other sundry sales	<b>13,124</b>	14,235
	<b>629,172</b>	626,713

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

	Millions of yen	
	2016	2015
<b>Revenue</b>		
Japan	<b>149,002</b>	144,167
Europe	<b>232,361</b>	239,162
North America	<b>125,667</b>	112,138
Rest of World	<b>122,142</b>	131,246
	<b>629,172</b>	626,713

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, trade and tax receivables, located in Japan is ¥34,612 million (2015: ¥34,322 million), UK ¥233,944 million (2015: ¥279,863 million) and the total of these non-current assets located in other countries is ¥185,251 million (2015: ¥217,153 million).

### 3. Other income

	Note	Millions of yen	
		2016	2015
Dividend income on available-for-sale assets		<b>236</b>	130
Gains on settlements of insurance proceeds		<b>352</b>	104
Profit on disposals		<b>378</b>	1,000
Increase in fair value of investment properties	13	-	288
Other		<b>1,979</b>	2,407
		<b>2,945</b>	3,929



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 4. Other expenses

	Note	Millions of yen	
		2016	2015
Amortization of intangibles	11	(10,472)	(10,935)
Impairment of property, plant and equipment	12	(81)	(593)
Reversal of prior period impairments of property, plant and equipment	12	34	988
Impairment of intangible assets	11	(3)	(4)
Impairment of available-for-sale investments	16	(3)	(1)
Research and development costs expensed in the period		(962)	(814)
Bad debts written back/(written off)		(133)	(170)
Doubtful debt provision increase	15	(455)	(686)
Reversal of previously held doubtful debt provision	15	516	765
Float tank repair costs		(6)	(2)
Net foreign exchange on other expense items		(892)	(197)
Decrease in fair value of investment properties	13	(137)	(10)
Redundancy and restructuring		(244)	(272)
Loss on disposal		(75)	(81)
Others		(270)	(669)
		<b>(13,183)</b>	<b>(12,681)</b>

### 5. 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 loss of ¥347 million (2015: a gain of ¥150 million).

### 6. Exceptional items

	Note	Millions of yen	
		2016	2015
Exceptional Items (gains):			
Gain on disposal of non-current assets		237	5,141
Gain on dilution of shares in an associate		96	-
Reversal of impairment of non-current assets	12	7	518
Gain on reclassification of investments		-	13,349
Others		90	560
		<b>430</b>	<b>19,568</b>
Exceptional Items (losses):			
Impairments of non-current assets	11,12,23	(12,708)	(560)
Impairments of goodwill	10	(6,914)	-
Impairment of investments in joint ventures and associates		(5,234)	(2,124)
Settlement of litigation matters		(4,721)	(1,337)
Restructuring costs, including employee termination payments		(4,305)	(8,922)
Loss on dilution of investment in associates		-	(649)
Loss on disposal of current assets		(1,681)	-
Others		(9)	(486)
		<b>(35,572)</b>	<b>(14,078)</b>
		<b>(35,142)</b>	<b>5,490</b>

The gain on disposal of non-current assets relates to the disposal of assets in China.

The previous year gain on disposal of non-current assets arose mainly on the sale and lease-back of land at Itami City, Hyogo Prefecture, Japan, as announced on 26 September 2014. It also included gains on disposals of property plant and equipment no longer in use following the Groups' restructuring program.

The gain on dilution of shares in an associate arose following a placing of shares by Holding Concorde SA in which the Group did not participate.

The reversal of impairment of non-current assets relates mainly to assets in Italy, which have had their recoverable value re-assessed during the year.

The previous-year reversal of impairments of non-current assets related to land located mainly in the UK, which had its recoverable value re-assessed during the year, following the receipt of an updated valuation.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 6. Exceptional items continued

The gain on reclassification of investments in the previous year related to the Group's interests in Shanghai Yaohua Pilkington Glass Group Co., Ltd (SYP). The Group owns a shareholding in SYP of 15.18 percent. Previously the Group had carried this investment in its balance sheet as an affiliated company using the equity method of accounting. Following a decrease in the level of the Group's management involvement with SYP, the Group is no longer able to exert a significant influence over SYP. IAS 28 "Investments in Associates and Joint Ventures" contains a rebuttable presumption that a shareholding of less than 20 percent does not enable an investor to exert significant influence over an investee. Previously the Group had been able to rebut this presumption due to the level of its management involvement with SYP. As a consequence of this change, the Group is no longer able to rebut this presumption in IAS 28. The Group is therefore required to record its investment in SYP at fair value, and reclassify it as an available-for-sale asset on the Group's balance sheet. The gain in the table above includes a credit, of ¥926 million, which arose on the recycling to the income statement of items relating to SYP previously posted to reserves using the Statement of Comprehensive Income.

The impairment of non-current assets includes asset write-downs following the Group's decision to exit from its business in China producing rolled glass for crystalline silicon photovoltaic applications, and also the asset write-downs at the Group's thin glass facility in Vietnam as a result of the current low level of profitability of the Display glass business.

The impairments of non-current assets in the previous-year related to the Group's Architectural facilities in Japan.

The impairment of goodwill mainly relates to the Group's Automotive Rest of World cash generating unit (CGU) and follows a significant reduction in light vehicle sales, particularly in Brazil, during FY2016. This write-down applies to goodwill created on the acquisition of Pilkington in 2006. It also includes an impairment of goodwill related to the Group's business in China producing rolled glass for crystalline silicon photovoltaic applications.

The impairment of the Group's investments in affiliates relates to difficult market conditions in Russia and China. The Group has processed an impairment of its investment in SP Glass Holdings BV, a joint venture company owning glass production facilities in Russia. The Group has also processed impairments of its investments in Jiangsu Pilkington SYP Glass Co., Limited and Tianjin Pilkington SYP Glass Co., Limited, both joint venture companies owning glass production facilities in China.

The previous-year impairment of investment in affiliates represented an impairment of the Group's interests in China Glass Holdings Ltd, following a review of the recoverable value of that investment.

In both the current and previous-years, the settlement of litigation matters relates to claims made by certain of the Group's Automotive customers in Europe, following the European Commission's earlier decision to fine the Group for alleged breaches of European competition law. Following an increase in litigation provisions during FY2016, the Group no longer believes that it has any further material contingent liabilities for such claims.

Restructuring costs arise in a variety of locations around the world and principally includes the cost of compensating redundant employees for the termination of their contracts of employment.

The previous-year loss on dilution of shares in an associate arose following a placing of shares by China Glass Holdings Ltd in which the Group did not participate.

The loss on disposal or scrapping of current assets relates to a variety of regions, principally China, Japan, and Vietnam.

### 7. Employee benefit expenses

	Note	Millions of yen	
		2016	2015
Wages and salaries		<b>(128,466)</b>	(127,144)
Redundancy and termination benefits		<b>(2,114)</b>	(1,261)
Social security costs		<b>(14,445)</b>	(14,523)
Share options granted to directors and employees	29	<b>(71)</b>	(81)
Pension costs, excluding those classed as exceptional items			
defined contribution schemes		<b>(8,801)</b>	(8,598)
defined benefit schemes		<b>(3,661)</b>	(2,981)
Other short-term employee benefits		<b>(6,505)</b>	(8,285)
		<b>(164,063)</b>	(162,873)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 7. Employee benefit expenses continued

Key management compensation (included above) comprises:

	Millions of yen	
	2016	2015
Short-term employee benefits	(910)	(1,150)
Post-employment benefits	(165)	(88)
Other long-term benefits	(131)	(132)
Share-based payment	(71)	(81)
	<b>(1,277)</b>	<b>(1,451)</b>

Key management compensation comprises the remuneration of those 26 (2015: 30) key employees who have responsibility for planning, controlling and directing the activities of the Group and includes all the members of the Group's Executive Board and corporate and senior corporate officers. Included within key management remuneration are post-employment benefits based on the IFRS operating cost charge in respect of service costs.

### 8. Finance income and expenses

		Millions of yen	
	Note	2016	2015
<b>Finance income</b>			
Interest income		1,312	2,093
Foreign exchange transaction gains		312	108
		<b>1,624</b>	<b>2,201</b>
<b>Finance expenses</b>			
Interest expense – bank and other borrowings		(16,943)	(15,852)
Dividend on non-equity preference shares due to minority shareholders		(263)	(278)
Foreign exchange transaction losses		(76)	(31)
Other interest and similar charges		(877)	(1,846)
		<b>(18,159)</b>	<b>(18,007)</b>
Unwinding of discounts on provisions	27	(240)	(139)
Retirement benefit obligations – net finance charge	26	(1,449)	(1,999)
		<b>(19,848)</b>	<b>(20,145)</b>

### 9. Income tax

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

		Millions of yen	
	Note	2016	2015
<b>Current tax</b>			
charge for the period		(4,962)	(3,483)
adjustment in respect of prior periods		460	(24)
		<b>(4,502)</b>	<b>(3,507)</b>
<b>Deferred tax</b>			
credit for the period		(6,322)	3,013
adjustment in respect of prior periods		52	(691)
adjustment in respect of rate changes		711	(729)
	19	(5,559)	1,593
		<b>(10,061)</b>	<b>(1,914)</b>

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 weighted average tax rate (after deducting the Group's share of post-tax losses of joint ventures and associates) is 25.47 percent (2015: 57.85 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 2016 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 33.06 percent (2015: 35.64 percent) and this consists of corporate income tax, inhabitants' taxes and enterprise tax.

Included in the deferred tax charge for the period is a charge of ¥5,237 million arising in Japan, and a charge of ¥147 million arising elsewhere, following a re-assessment of expectations of future utilization of deferred tax assets recognized in previous years.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 9. Income Tax continued

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

	Millions of yen	
	2016	2015
Profit/(loss) before taxation	(37,439)	4,807
Deduct share of post-tax (profits)/losses of joint ventures and associates	3,435	(413)
Profit/(loss) before tax of Group companies	(34,004)	4,394
Tax (charge)/credit calculated at the statutory tax rates applicable to profits/(losses) in the respective countries	8,661	(2,542)
Expenses not deductible for tax purposes	(2,829)	(3,178)
Income not subject to tax	4,407	6,158
Non-deductible amortization and impairments of goodwill and other intangible assets	(5,093)	-
Non-deductible gains/(losses) on hedging derivative contracts	371	(328)
Other items giving rise to local tax adjustments	97	778
Adjustment to tax in respect of prior periods		
current tax	460	(24)
deferred tax	52	(691)
Adjustment to tax as a result of changes in tax rates	711	(729)
Tax losses and other temporary differences for which no deferred tax asset is recognized	(14,351)	(2,440)
Other local, non-corporate and withholding taxes suffered	(2,547)	1,082
<b>Total taxation charge - continuing operations</b>	<b>(10,061)</b>	<b>(1,914)</b>

Non-deductible amortization and impairments of goodwill and other intangible assets includes the impairment of investments in the following affiliates; SP Glass Holdings BV, Jiangsu Pilkington SYP Glass Co., Ltd, and Tianjin Pilkington SYP Glass Co., Ltd. It also includes the impairment of property, plant & equipment and other assets at Pilkington Solar (Taicang) Ltd following the Group's decision to exit from that business, and impairment of goodwill with respect to the Automotive Rest of the World cash generating unit as described in note 6.

### 10. Goodwill

	Millions of yen	
	2016	2015
<b>Cost</b>		
<b>At 1 April</b>	<b>130,956</b>	136,072
Exchange differences	(10,367)	(5,116)
<b>At 31 March</b>	<b>120,589</b>	130,956
<b>Accumulated impairment</b>		
<b>At 1 April</b>	<b>222</b>	246
Exchange differences	(6)	(24)
Impairment charge in the period	6,914	-
<b>At 31 March</b>	<b>7,130</b>	222
<b>Net book amount at 31 March</b>	<b>113,459</b>	130,734

The impairments incurred during FY2016 were charged to exceptional items, see note 6.

In accordance with IAS 36, the goodwill has been tested for impairment at 31 March 2016. To perform this test, at 31 March 2016 and 2015, the directors compared the carrying value of each cash-generating unit, including the value of goodwill allocated to that unit and intangible assets, to the value in use of each cash-generating unit. The value in use for this purpose is considered to be the capitalized current value of the future cash flows of each cash-generating unit as calculated by discounting the projected future operating cash flows of each cash-generating unit, using the discount rates in the table below. The projected future operating cash flows were based on management-approved financial forecasts, covering a maximum four-year period being the Group's current planning horizon, with a perpetuity applied thereafter.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 10. Goodwill continued

A general growth rate of two percent each year has been applied to the cash flows included within the perpetuity for cash generating units in Europe and North America (2015: two percent each year). General growth rates of 2.0 and 3.5 percent have been applied to the perpetuity cash flows of the Architectural and Automotive Rest of World cash generating units respectively (2015: between 2.0 and 3.5 percent). The pre-tax discount rate for each cash-generating unit is determined by adding an appropriate risk factor onto the Group's weighted average cost of capital.

The goodwill included in the balance sheet with an indefinite useful life has been allocated to cash-generating units as set out in the table below, for the purposes of testing the goodwill for potential impairment.

	Millions of yen	
	2016	2015
Architectural Europe	<b>43,333</b>	46,199
Architectural Japan	<b>12</b>	12
Architectural North America	<b>8,649</b>	9,351
Architectural Rest of World	<b>2,359</b>	6,369
Automotive Europe	<b>42,698</b>	44,052
Automotive North America	<b>13,605</b>	14,707
Automotive Rest of World	<b>1,683</b>	8,893
Others	<b>1,120</b>	1,151
<b>Total</b>	<b>113,459</b>	130,734

The key assumptions used in this process are as follows:

<b>Assumption</b>	<b>Value</b>
Period used for discounted cash flow calculations	Maximum of four years from the balance sheet date with perpetuity thereafter
Perpetuity growth rate	2.0% to 3.5%
Pre-tax discount rate used	7.48% to 13.10%

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.

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.

The cash-generating unit with the least amount of headroom was Automotive Rest of World. An impairment has been processed during the year with respect to this cash-generating unit. Following this impairment, there is no residual headroom remaining and consequently, any deterioration in cash flows or increase in discount rates could result in an additional impairment of goodwill up to the maximum value remaining as shown in the table above. A 0.93% increase in discount rates would result in an additional impairment of approximately all of the remaining goodwill attributable to this cash-generating unit.

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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 11. Intangible assets

	Millions of yen				
	Trademarks and licenses	Development costs	Computer software	Other	Total
<b>Cost</b>					
<b>At 1 April 2015</b>	<b>388</b>	<b>16,086</b>	<b>14,511</b>	<b>151,715</b>	<b>182,700</b>
Exchange differences	(8)	(1,538)	(388)	(7,172)	(9,106)
Additions	–	1,370	414	7	1,791
Disposals	(59)	–	(80)	–	(139)
<b>At 31 March 2016</b>	<b>321</b>	<b>15,918</b>	<b>14,457</b>	<b>144,550</b>	<b>175,246</b>
<b>Accumulated amortization and impairment</b>					
<b>At 1 April 2015</b>	<b>384</b>	<b>9,686</b>	<b>10,491</b>	<b>86,459</b>	<b>107,020</b>
Exchange differences	(9)	(1,013)	(296)	(4,535)	(5,853)
Amortization charge for the period	1	1,348	1,006	8,117	10,472
Impairment charge in the period	–	405	–	443	848
Disposals	(59)	–	(80)	–	(139)
<b>At 31 March 2016</b>	<b>317</b>	<b>10,426</b>	<b>11,121</b>	<b>90,484</b>	<b>112,348</b>
<b>Net book amount at 31 March 2016</b>	<b>4</b>	<b>5,492</b>	<b>3,336</b>	<b>54,066</b>	<b>62,898</b>

	Millions of yen				
	Trademarks and licenses	Development costs	Computer software	Other	Total
<b>Cost</b>					
<b>At 1 April 2014</b>	<b>395</b>	<b>14,294</b>	<b>13,755</b>	<b>158,418</b>	<b>186,862</b>
Exchange differences	(7)	551	(314)	(6,678)	(6,448)
Additions	–	1,241	1,097	–	2,338
Disposals	–	–	(27)	(25)	(52)
<b>At 31 March 2015</b>	<b>388</b>	<b>16,086</b>	<b>14,511</b>	<b>151,715</b>	<b>182,700</b>
<b>Accumulated amortization and impairment</b>					
<b>At 1 April 2014</b>	<b>387</b>	<b>8,090</b>	<b>9,764</b>	<b>81,622</b>	<b>99,863</b>
Exchange differences	(6)	315	(175)	(3,882)	(3,748)
Amortization charge for the period	3	1,281	929	8,722	10,935
Impairment charge in the period	–	–	–	4	4
Disposals	–	–	(27)	(7)	(34)
<b>At 31 March 2015</b>	<b>384</b>	<b>9,686</b>	<b>10,491</b>	<b>86,459</b>	<b>107,020</b>
<b>Net book amount at 31 March 2015</b>	<b>4</b>	<b>6,400</b>	<b>4,020</b>	<b>65,256</b>	<b>75,680</b>

Amortization in 2016 has been charged to other expenses, note 4 (2015: other expenses). Impairment of ¥845 million has been charged to exceptional items, note 6, and ¥3 million to other expenses, note 4 (2015: all to other expenses).

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.

The carrying amount of the Group's computer software held under finance leases is ¥nil million (2015: ¥1,159 million).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 11. Intangible assets continued

'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
<b>Cost</b>							
<b>At 1 April 2015</b>	26,664	43,041	45,826	5,122	23,486	463	144,602
Exchange differences	(1,504)	(1,960)	(1,824)	(389)	(1,026)	(44)	(6,747)
<b>At 31 March 2016</b>	25,160	41,081	44,002	4,733	22,460	419	137,855
<b>Accumulated amortization and impairment</b>							
<b>At 1 April 2015</b>	15,016	37,661	8,593	4,481	16,342	368	82,461
Exchange differences	(871)	(1,919)	(343)	(366)	(804)	(40)	(4,343)
Amortization charge for the period	1,466	4,311	–	500	1,493	43	7,813
<b>At 31 March 2016</b>	15,611	40,053	8,250	4,615	17,031	371	85,931
<b>Net book amount at 31 March 2016</b>	9,549	1,028	35,752	118	5,429	48	51,924

	Millions of yen						
	Customer relationships	Know-how	Pilkington brand	Other brands	Developed technology	Other	Total
<b>Cost</b>							
<b>At 1 April 2014</b>	28,500	45,063	47,478	5,408	24,726	445	151,620
Exchange differences	(1,836)	(2,022)	(1,652)	(286)	(1,240)	18	(7,018)
<b>At 31 March 2015</b>	26,664	43,041	45,826	5,122	23,486	463	144,602
<b>Accumulated amortization and impairment</b>							
<b>At 1 April 2014</b>	14,248	34,924	8,902	4,191	15,293	313	77,871
Exchange differences	(822)	(1,770)	(309)	(252)	(692)	13	(3,832)
Amortization charge for the period	1,590	4,507	–	542	1,741	42	8,422
<b>At 31 March 2015</b>	15,016	37,661	8,593	4,481	16,342	368	82,461
<b>Net book amount at 31 March 2015</b>	11,648	5,380	37,233	641	7,144	95	62,141

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 ¥2,142 million (2015: ¥3,115 million). Amortization charged in the period on these other intangible assets amounted to ¥304 million (2015: ¥300 million) and impairments on these other intangible assets amounts to ¥443 million (2015: ¥4 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.

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, for the purposes of testing for potential impairment. The testing has been carried out as part of the exercise to test goodwill for potential impairment. See note 10, goodwill, for details of the assumptions used in this testing.

	Millions of yen	
	2016	2015
Architectural Europe	17,149	17,583
Architectural North America	3,499	3,737
Automotive Europe	8,827	9,047
Automotive North America	4,936	5,272
Automotive Rest of World	1,341	1,594
<b>Total</b>	<b>35,752</b>	<b>37,233</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 12. Property, plant and equipment

	Millions of yen		
	Land and buildings	Plant, equipment and vehicles	Total
<b>Cost</b>			
<b>At 1 April 2015</b>	<b>182,484</b>	<b>568,882</b>	<b>751,366</b>
Exchange differences	(6,152)	(31,173)	(37,325)
Transferred to assets held for sale	(1,466)	(88)	(1,554)
Additions	1,746	24,655	26,401
Disposals	(895)	(9,924)	(10,819)
<b>At 31 March 2016</b>	<b>175,717</b>	<b>552,352</b>	<b>728,069</b>
<b>Accumulated depreciation and impairment</b>			
<b>At 1 April 2015</b>	<b>92,335</b>	<b>365,502</b>	<b>457,837</b>
Exchange differences	(1,743)	(17,892)	(19,635)
Charge for the period	3,471	27,006	30,477
Impairment losses arising in the period	1,201	10,382	11,583
Reversal of impairment losses from prior periods	-	(41)	(41)
Transferred to assets held for sale	(543)	(7)	(550)
Eliminated on disposals	(696)	(9,772)	(10,468)
<b>At 31 March 2016</b>	<b>94,025</b>	<b>375,178</b>	<b>469,203</b>
<b>Net book amount at 31 March 2016</b>	<b>81,692</b>	<b>177,174</b>	<b>258,866</b>

	Millions of yen		
	Land and buildings	Plant, equipment and vehicles	Total
<b>Cost</b>			
<b>At 1 April 2014</b>	<b>189,056</b>	<b>542,130</b>	<b>731,186</b>
Exchange differences	(65)	6,490	6,425
Transferred to assets held for sale	(5,638)	(1,435)	(7,073)
Acquisition of businesses	295	140	435
Disposal of businesses	-	(415)	(415)
Additions	3,276	30,944	34,220
Disposals	(4,440)	(8,972)	(13,412)
<b>At 31 March 2015</b>	<b>182,484</b>	<b>568,882</b>	<b>751,366</b>
<b>Accumulated depreciation and impairment</b>			
<b>At 1 April 2014</b>	<b>96,052</b>	<b>345,745</b>	<b>441,797</b>
Exchange differences	807	2,612	3,419
Disposal of businesses	-	(326)	(326)
Charge for the period	3,372	27,406	30,778
Impairment losses arising in the period	374	779	1,153
Reversal of impairment losses from prior periods	(538)	(968)	(1,506)
Transferred to assets held for sale	(4,048)	(1,031)	(5,079)
Eliminated on disposals	(3,684)	(8,715)	(12,399)
<b>At 31 March 2015</b>	<b>92,335</b>	<b>365,502</b>	<b>457,837</b>
<b>Net book amount at 31 March 2015</b>	<b>90,149</b>	<b>203,380</b>	<b>293,529</b>

The carrying amount of the Group's land and buildings includes ¥1,165 million (2015: ¥1,309 million) and the Group's plant, equipment and vehicles includes ¥106 million (2015: ¥295 million) in respect of assets held under finance leases.

Land and buildings includes assets with a carrying amount of ¥1,124 million (2015: ¥1,218 million), and plant and machinery with a carrying amount of ¥10,512 million (2015: ¥5,724 million), are subject to specific charges to secure Group borrowings.

Of the additions in the period, ¥110 million were financed by new finance leases (2015: ¥48 million).

Capitalized borrowing costs have been included within additions of plant and equipment additions ¥nil million (2015: ¥102 million). The average rate used to calculate borrowing costs capitalized during 2015 was 4.05%.

Depreciation charged in the period all relates to continuing operations, this has been charged to cost of sales ¥26,989 million (2015: ¥26,443 million), distribution costs ¥1,304 million (2015: ¥1,693 million), administrative expenses ¥2,184 million (2015: ¥1,928 million), and exceptional items of ¥nil million (2015: ¥714 million)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 12. Property, plant and equipment continued

Impairments in the period have been charged to exceptional items ¥11,502 million (2015: ¥560 million), note 6, and other expenses ¥81 million (2015: ¥593 million), note 4. The reversal of previous period impairments have been credited to exceptional items ¥7 million (2015: ¥518 million), note 6, and other expenses ¥34 million (2015: ¥988 million), note 4.

Property, plant and equipment includes ¥1,509 million (2015: ¥2,493 million) in respect of assets in the course of construction.

### 13. Investment property

		Millions of yen	
	Note	2016	2015
<b>Fair value</b>			
<b>At 1 April</b>		<b>867</b>	644
Exchange differences		<b>(15)</b>	(55)
Net increase/(decrease) in fair value	3, 4	<b>(137)</b>	278
<b>At 31 March</b>		<b>715</b>	867

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 ¥239 million (2015: ¥254 million). Direct operating expenses arising on the investment properties in the period amounted to ¥149 million (2015: ¥156 million).

The Group has no restrictions on the realizability of its investment properties and there were no commitments at 31 March 2016 or 2015.

Fair value measurement disclosures for investment properties are provided in note 18.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 14. 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	50%	Russia/Netherlands	Glass manufacturing
Jiangsu Pilkington SYP Glass Co., Ltd	50%	China	Glass manufacturing

There were no material additions to joint ventures in the period-ended 31 March 2016 (31 March 2015 - none).

The Group has legal ownership of 50 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, the Group accounts for this investment using a beneficial shareholding percentage of 35 percent.

Jiangsu Pilkington SYP Glass Co., Ltd is a 50 percent joint venture with Shanghai Yaohua Pilkington Glass Group Co., Ltd. In addition, Pilkington International Holdings BV, a subsidiary of the Group, holds a 15.18 percent interest in Shanghai Yaohua Pilkington Glass Group Co., Ltd. Therefore, the Group's proportionate economic interest in the entity is 57.59 percent.

Of the joint ventures above, Cebrace and Jiangsu Pilkington SYP Glass Co., Ltd report 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 2016, the Group's equity investments in each of SP Glass Holdings BV, Jiangsu Pilkington SYP Glass Co., Ltd and Tianjin Pilkington SYP Glass Co., Ltd (which is included in other in the tables below) were impaired to nil. Each of these joint venture companies continue to face extremely challenging marketing conditions and has therefore been loss-making in recent years.

The impairment in the year amounted to ¥ 5,234 million and is recorded as an exceptional loss (See Note 6).

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

	Millions of yen				
	2016				
	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd	Others	Total
Current assets	12,903	2,659	2,852	3,678	22,092
Non-current assets	32,064	11,704	7,711	5,182	56,661
Current liabilities	(23,032)	(1,398)	(6,487)	(5,051)	(35,968)
Non-current liabilities	(6,701)	(8,702)	(3,043)	(92)	(18,538)
Total equity	15,234	4,263	1,033	3,717	24,247
NSG Group interest in total equity	7,617	1,492	517	1,469	11,095
Goodwill	-	3,112	-	-	3,112
Impairments	-	(4,604)	(517)	(1,156)	(6,277)
Carrying amount of the Group's investment	7,617	-	-	313	7,930
The total equity above includes:					
Cash and cash equivalents	307	304	88	290	989
Current financial liabilities	(16,123)	(215)	(3,387)	(1)	(19,726)
Non-current financial liabilities	(1)	(8,603)	(3,043)	(1)	(11,648)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 14. Investments accounted for using the equity method continued

	Millions of yen				
	2015				
	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd	Others	Total
Current assets	14,418	2,900	5,256	705	23,279
Non-current assets	41,461	15,276	10,429	487	67,653
Current liabilities	(22,695)	(3,170)	(5,194)	(58)	(31,117)
Non-current liabilities	(13,274)	(6,613)	(7,170)	(98)	(27,155)
Total equity	19,910	8,393	3,321	1,036	32,660
NSG Group interest in total equity	9,955	2,937	1,661	315	14,868
Goodwill	-	3,190	-	-	3,190
Impairments	-	(1,153)	-	-	(1,153)
Carrying amount of the Group's investment	9,955	4,974	1,661	315	16,905
The total equity above includes:					
Cash and cash equivalents	881	820	120	560	2,381
Current financial liabilities	(15,117)	(1,141)	(622)	-	(16,880)
Non-current financial liabilities	(4,432)	(6,396)	(7,170)	(2)	(18,000)

"Others" in the above table for FY2016 includes an investment, which has been shown as an asset held for sale during the previous year and which was recategorized to investments accounted for using the equity method in the year.

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				
	2016				
	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd	Others	Total
Revenue	44,707	10,209	5,324	5,419	65,659
Profit/(loss) for the period from continuing operations	3,896	(3,241)	(2,103)	(2,742)	(4,190)
Other comprehensive income	-	(850)	-	5	(845)
Total comprehensive income	3,896	(4,091)	(2,103)	(2,737)	(5,035)
NSG Group's share of profit/(loss) for the period	1,948	(1,134)	(1,051)	(1,182)	(1,419)
Dividends received by NSG Group	2,723	-	-	-	2,723
The profit/(loss) for the period includes the following:					
Depreciation and amortization	(3,600)	(1,403)	(968)	(453)	(6,424)
Interest expense	(1,732)	(2,208)	(300)	(92)	(4,332)
Taxation	(2,433)	(12)	-	(5)	(2,450)

	Millions of yen				
	2015				
	Cebrace	SP Glass Holdings BV	Jiangsu Pilkington SYP Glass Co., Ltd	Others	Total
Revenue	55,637	16,159	6,837	2,584	81,217
Profit/(loss) for the period from continuing operations	5,404	(4,664)	(701)	(571)	(532)
Other comprehensive income	-	(5,254)	-	(6)	(5,260)
Total comprehensive income	5,404	(9,918)	(701)	(577)	(5,792)
NSG Group's share of profit/(loss) for the period	2,702	(1,632)	(350)	(246)	474
Dividends received by NSG Group	2,868	-	-	-	2,868
The profit/(loss) for the period includes the following:					
Depreciation and amortization	(4,821)	(1,754)	(1,195)	(14)	(7,784)
Interest expense	(2,377)	(3,326)	(340)	(43)	(6,086)
Taxation	(1,542)	(19)	-	-	(1,561)



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 14. Investments accounted for using the equity method continued

#### Associates

The Group's interest in its material associates, all of which are unlisted except for China Glass Holdings Ltd, 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
China Glass Holdings Ltd	21.55%	China/Bermuda	Glass manufacturing and processing
Holding Concorde SA	21.9%	Columbia	Glass manufacturing and processing

During the year to 31 March 2016, the Group's associated entity in Columbia, Holdings Concorde SA issued a placing of new shares in which the Group did not participate. As a result, the Group's shareholding reduced to 21.9 percent (2015: 23.8 percent).

During the year to 31 March 2015, the Group's investment in Shanghai Yaohua Pilkington Glass Group Co., Ltd (SYP) was reclassified as an available-for-sale asset (See Note 6 - Exceptional items). In addition, the Group's associated entity, China Glass Holdings Ltd issued a placing of new shares in which the Group did not participate. As a result, the Group's shareholding reduced to 21.55 percent from 25.17 percent.

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				
	2016				
	Flachglas Wernberg GmbH	China Glass Holdings Ltd	Holding Concorde SA	Others	Total
Current assets	4,218	31,034	3,206	3,892	42,350
Non-current assets	5,887	67,018	13,019	3,835	89,759
Current liabilities	(2,254)	(49,874)	(2,993)	(2,555)	(57,676)
Non-current liabilities	(4,232)	(14,224)	(5,355)	(1,716)	(25,527)
Total equity	3,619	33,954	7,877	3,456	48,906
NSG Group interest in total equity	1,773	7,317	1,811	1,070	11,971
Goodwill	-	2,781	-	-	2,781
Impairments	-	(4,813)	-	-	(4,813)
Carrying amount of the Group's investment	1,773	5,285	1,811	1,070	9,939

	Millions of yen				
	2015				
	Flachglas Wernberg GmbH	China Glass Holdings Ltd	Holding Concorde SA	Others	Total
Current assets	4,753	44,081	3,892	3,940	56,666
Non-current assets	6,235	75,718	20,487	3,973	106,413
Current liabilities	(2,663)	(54,315)	(5,427)	(2,760)	(65,165)
Non-current liabilities	(4,052)	(19,634)	(7,453)	(1,799)	(32,938)
Total equity	4,273	45,850	11,499	3,354	64,976
NSG Group interest in total equity	2,094	9,880	2,878	1,044	15,896
Goodwill	-	3,112	-	-	3,112
Impairments	-	(5,385)	-	-	(5,385)
Carrying amount of the Group's investment	2,094	7,607	2,878	1,044	13,623

The Group considers that for all associates accounted for using the equity method, the balance sheet value is approximately equal to the fair value. Where an investment has been impaired, the Group considers that the recoverable value, assessed on either a value in use or fair value less cost of disposal basis, has not been below the book value of the investment either to a significant extent or over a prolonged period prior to the balance sheet date.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 14. Investments accounted for using the equity method continued

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

	Millions of yen				
	2016				
	Flachglas Wernberg GmbH	China Glass Holdings Ltd	Holding Concorde SA	Others	Total
Revenue	17,470	37,160	9,097	11,309	75,036
Profit/(loss) for the period from continuing operations	(607)	(8,048)	(233)	226	(8,662)
Other comprehensive income	33	414	(2,551)	-	(2,104)
Total comprehensive income	(574)	(7,634)	(2,784)	226	(10,766)
NSG Group's share of profit/(loss) for the period	(297)	(1,734)	(51)	66	(2,016)
Dividends received by NSG Group	-	-	-	18	18

	Millions of yen					
	2015					
	Shanghai Yaohua Pilkington Glass Group Co., Ltd*	Flachglas Wernberg GmbH	China Glass Holdings Ltd	Holding Concorde SA	Others	Total
Revenue	18,379	19,350	44,106	7,629	13,886	103,350
Profit/(loss) for the period from continuing operations	544	251	32	(1,573)	297	(449)
Other comprehensive income	-	(53)	(5)	622	-	564
Total comprehensive income	544	198	27	(951)	297	115
NSG Group's share of profit/(loss) for the period	83	123	8	(374)	99	(61)
Dividends received by NSG Group	15	102	54	-	92	263

\*Data prior to transfer to available-for-sale investments, see note 6.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 15. Trade and other receivables

	Note	Millions of yen	
		2016	2015
Trade receivables		50,422	55,130
Less provision for impairment of receivables		(2,832)	(3,829)
Trade receivables - net		47,590	51,301
Amounts due from customers for contract work	21	1,362	1,772
Amounts owed by related parties (trading)	37	1,906	2,141
Loans to related parties	37	9,316	9,157
Other receivables		23,545	26,624
Prepayments and accrued income		4,152	4,671
		87,871	95,666
Current		72,574	79,010
Non-current		15,297	16,656
		87,871	95,666

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, net of related provisions, were ¥17,680 million (2015: ¥18,318 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 there is evidence to suggest that 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 2016, trade receivables at nominal value of ¥2,832 million, (2015: ¥3,829 million) were impaired and fully provided for. Movements in the provision for impairment of receivables were as follows:

	Note	Millions of yen	
		2016	2015
<b>At 1 April</b>		<b>(3,829)</b>	<b>(4,331)</b>
Exchange differences		125	130
Charge for the period	4	(455)	(686)
Unused amounts reversed	4	516	765
Utilized		811	293
<b>At 31 March</b>		<b>(2,832)</b>	<b>(3,829)</b>

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) is considered neither past due nor impaired.

	Total	Neither past due nor impaired	Less than 3 months overdue	Between 3 and 6 months overdue	Past due but not impaired	
					Between 6 and 12 months overdue	More than 12 months overdue
<b>2016</b>	<b>68,893</b>	<b>63,397</b>	<b>2,389</b>	<b>1,048</b>	<b>311</b>	<b>1,748</b>
2015	75,861	69,707	3,266	903	315	1,670

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 16. Available-for-sale investments

	Note	Millions of yen	
		2016	2015
<b>At 1 April</b>		<b>31,873</b>	6,837
Exchange differences		(2,340)	3,325
Acquisitions		13	10
Transferred from investments accounted for using the equity method		–	20,955
Disposals		(82)	(182)
Impairment in the period to the income statement	4	(3)	(1)
Revaluation surplus transferred to equity	33	4,880	929
<b>At 31 March</b>		<b>34,341</b>	31,873
Current		346	3
Non-current		33,995	31,870
		<b>34,341</b>	31,873

The transfer from investments accounted for using the equity method in 2015 mainly relates to the Group's investment in Shanghai Yaohua Pilkington Glass Group Co., Ltd, see note 6.

The disposal in the period ended 31 March 2016 relates to the sale of listed equities and unlisted shares (2015: relates mainly to the sale of various bonds).

Impairments in the period have been charged to other expenses ¥3 million (2015: ¥1 million), note 4.

Available-for-sale financial assets include the following:

	Millions of yen	
	2016	2015
UK Government gilts	3,529	3,941
Listed equities	15,585	24,672
Unlisted shares	14,698	2,714
Bond funds	296	303
Other	233	243
	<b>34,341</b>	31,873

Fair value measurement disclosures for available-for-sale investments are provided in note 18.

### 17. Derivative financial instruments

	Millions of yen			
	2016		2015	
	Assets	Liabilities	Assets	Liabilities
<b>Interest rate swaps</b>				
not qualifying as hedges	–	104	–	203
cash flow hedges	–	1,747	17	1,163
<b>Forward foreign exchange contracts</b>				
not qualifying as hedges	216	42	32	33
cash flow hedges	469	238	194	110
net investment hedges	100	1,154	628	902
<b>Energy hedges</b>				
cash flow hedges	56	5,266	86	3,206
	<b>841</b>	<b>8,551</b>	957	5,617
Current	<b>815</b>	<b>4,453</b>	882	3,090
Non-current	<b>26</b>	<b>4,098</b>	75	2,527
	<b>841</b>	<b>8,551</b>	957	5,617
<b>Maturity</b>				
within one year	<b>815</b>	<b>4,453</b>	882	3,090
between one and two years	<b>20</b>	<b>1,748</b>	53	1,456
between two and three years	<b>2</b>	<b>782</b>	22	897
between three and four years	–	<b>1,546</b>	–	160
over four years	<b>4</b>	<b>22</b>	–	14
	<b>841</b>	<b>8,551</b>	957	5,617

Of the above financial instruments, gross cash flows are exchanged for forward foreign exchange contracts only. The contractual liabilities are ¥126,853 million (2015: ¥129,325 million), falling due within one year.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 17. Derivative financial instruments continued

Gains and losses in equity on forward foreign exchange contracts as of 31 March 2016 will be released to the income statement at various dates up to 9 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 2016 were ¥113,444 million (2015: ¥81,418 million). At 31 March 2016, the fixed interest rates on interest rate swaps vary from 0.068 percent to 2.66 percent (2015: 0.068 percent to 2.051 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 2016 was ¥63,324 million (2015: ¥68,087 million). The fair value of the derivatives as at 31 March 2016 was a loss of ¥873 million (2015: a loss of ¥213 million). The foreign exchange loss of ¥3,128 million (2015: a gain of ¥11,166 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 33.

Fair value measurement disclosures for derivative assets and liabilities are provided in note 18.

### 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.

### 18. 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.

	Note	Millions of yen			
		Level 1	Level 2	Level 3	2016 Total
<b>Investment Properties</b>	13				
Rental properties		-	-	715	715
		-	-	715	715
<b>Available-for-sale investments</b>	16				
UK Government gilts		3,529	-	-	3,529
listed equities		15,585	-	-	15,585
unlisted equities		-	-	14,698	14,698
bond funds		296	-	-	296
other		-	-	233	233
		19,410	-	14,931	34,341
<b>Derivative assets</b>	17				
forward foreign exchange contracts		-	785	-	785
energy hedges		-	56	-	56
		-	841	-	841

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 18. Fair value measurement continued

	Note	Millions of yen			
		Level 1	Level 2	Level 3	2015 Total
<b>Assets held for sale within a disposal group held for sale</b>	23				
Investment in affiliates		–	–	2,514	2,514
		–	–	2,514	2,514
<b>Investment Properties</b>	13				
Rental properties		–	–	867	867
		–	–	867	867
<b>Available-for-sale investments</b>	16				
UK Government gilts		3,941	–	–	3,941
listed equities		24,672	–	–	24,672
unlisted equities		–	–	2,714	2,714
bond funds		303	–	–	303
other		–	–	243	243
		28,916	–	2,957	31,873
<b>Derivative assets</b>	17				
interest rate swaps		–	17	–	17
forward foreign exchange contracts		–	854	–	854
energy hedges		–	86	–	86
		–	957	–	957

	Note	Millions of yen			
		Level 1	Level 2	Level 3	2016 Total
<b>Derivative liabilities</b>	17				
interest rate swaps		–	1,851	–	1,851
forward foreign exchange contracts		–	1,434	–	1,434
energy hedges		–	5,266	–	5,266
		–	8,551	–	8,551

	Note	Millions of yen			
		Level 1	Level 2	Level 3	2015 Total
<b>Derivative liabilities</b>	17				
interest rate swaps		–	1,366	–	1,366
forward foreign exchange contracts		–	1,045	–	1,045
energy hedges		–	3,206	–	3,206
		–	5,617	–	5,617

#### Assets held for sale within a disposal group held for sale

Investments in affiliates classified as held for sale are valued at expected sales proceeds less cost to sell. Other assets classified as held for sale are valued at cost, being lower than fair value.

#### 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 13. The sensitivity of the fair value of investment properties is subject to rental yields and fluctuation of property prices in the relevant markets.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 18. Fair value measurement continued

#### Available-for-sale investments

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 available-for-sale investments 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 and, on a look-through basis, receivables owned by companies trading in Central and South America, economic growth projections in Japan, Central and South America 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.

Gains and losses arising on the fair value of available-for-sale investments are posted either to operating profit or are recognized directly within the statement of comprehensive income, depending on the nature of the change in the fair value, see note 16. During FY2016, the Group has recognized an increase of ¥11,893 million in the fair value of an investment located in Switzerland, but on a look-through basis, owning financial assets owed by companies operating predominantly in Central and South America. The fair value has been determined, using a level 3 valuation technique, based on the balance sheet net assets of the investee.

#### 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 ¥44 million was recognized in operating profit (2015: gain of ¥13 million). A loss of ¥4,588 million was recognized directly in the statement of comprehensive income (2015: loss of ¥3,479 million).

#### Transfers 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 2016 and 2015, 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 available-for-sale investments included in the above hierarchy based on level 3 valuation techniques is as follows:

	Millions of yen	
	2016	2015
<b>At 1 April</b>	<b>2,957</b>	2,639
Acquisitions	2	–
Transferred from investments accounted for using the equity method	–	104
Disposals	(31)	(6)
Movements in fair value recognized in income statement	(3)	–
Movements in fair value recognized in comprehensive income	12,515	236
Exchange differences recognized in other comprehensive income	(509)	(16)
<b>At 31 March</b>	<b>14,931</b>	2,957

Management have assessed that 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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 19. Deferred income tax

	Millions of yen	
	2016	2015
Deferred tax assets	48,357	62,072
Deferred tax liabilities	(17,321)	(20,700)
<b>Net deferred tax asset</b>	<b>31,036</b>	<b>41,372</b>

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

	Note	Millions of yen	
		2016	2015
<b>At 1 April</b>		<b>41,372</b>	28,790
Exchange differences		(2,038)	5,046
(Charge)/Credit to the income statement for the period	9	(5,559)	1,593
Deferred tax transferred to assets held for sale		33	(421)
(Charge)/Credit to other comprehensive income for the period		(2,772)	6,364
<b>At 31 March</b>		<b>31,036</b>	<b>41,372</b>

The charge of ¥2,772 million (2015: a credit of ¥6,364 million) to other comprehensive income in the year comprises a credit to the hedging reserve of ¥113 million (2015: ¥1,261 million), note 33, and a charge to the fair value reserve of ¥3 million (2015: ¥134 million). The company also has a charge to other comprehensive income in respect of retirement benefit obligations in retained earnings of ¥2,882 million (2015: a credit of ¥5,237 million), note 26.

The following movement in the Group's deferred tax assets and liabilities took place during the periods ended 31 March 2016 and 31 March 2015:

	Note	Millions of yen						
		Property, plant and equipment	Tax losses	Fair value losses	Defined benefit obligations	Provisions	Other	Total
<b>Deferred tax assets</b>								
<b>At 1 April 2015</b>		2,609	30,723	405	22,748	8,867	7,740	73,092
Exchange differences		(173)	(1,353)	(9)	(992)	(632)	(303)	(3,462)
(Charge)/credit to the income statement in the period	9	543	(8,446)	(4)	(1,598)	696	(2,447)	(11,256)
(Charge)/credit to assets held for sale		(30)	63	-	-	-	-	33
(Charge)/credit to other comprehensive income for the period		-	-	-	(2,882)	-	93	(2,789)
Gross deferred tax assets		2,949	20,987	392	17,276	8,931	5,083	55,618
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		(1,077)	(202)	(392)	(3,104)	(1,495)	(991)	(7,261)
<b>At 31 March 2016</b>		<b>1,872</b>	<b>20,785</b>	<b>-</b>	<b>14,172</b>	<b>7,436</b>	<b>4,092</b>	<b>48,357</b>

	Note	Millions of yen						
		Property, plant and equipment	Tax losses	Fair value losses	Defined benefit obligations	Provisions	Other	Total
<b>Deferred tax assets</b>								
<b>At 1 April 2014 (restated)</b>		4,034	27,863	442	17,123	8,696	6,598	64,756
Exchange differences		146	1,935	(36)	1,552	458	11	4,066
(Charge)/credit to the income statement in the period	9	(1,504)	925	(1)	(1,164)	(358)	211	(1,891)
Charge to assets held for sale		(67)	-	-	-	-	-	(67)
Credit to other comprehensive income for the period		-	-	-	5,237	71	920	6,228
Gross deferred tax assets		2,609	30,723	405	22,748	8,867	7,740	73,092
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		-	(4,506)	(404)	(2,463)	(952)	(2,695)	(11,020)
<b>At 31 March 2015</b>		<b>2,609</b>	<b>26,217</b>	<b>1</b>	<b>20,285</b>	<b>7,915</b>	<b>5,045</b>	<b>62,072</b>

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.

At 31 March 2016, the Group has tax losses which it is able to carry forward of ¥263,640 million (2015: ¥241,616 million), in respect of which it is recognizing a deferred tax asset of ¥20,987 million (2015: ¥30,723 million).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 19. Deferred income tax continued

A significant part of this deferred tax asset arises in the USA and a deferred tax asset of ¥12,453 million (2015: ¥16,342 million) has been recognized based on management-approved financial forecasts and taking into account the date of expiry of tax losses under US tax laws.

Tax losses in Japan are supported by the management-approved financial forecast. The recognized amount of losses is calculated with reference to the availability of future taxable profits in excess of the profit arising from the reversal of existing timing differences. Following a re-assessment of expectations of future utilization of deferred tax assets recognized in previous years, the Group has written off deferred tax assets in Japan with a value of ¥5,237 million during the year.

A deferred tax asset of ¥2,185 million (2015: ¥6,224 million) has been recognized in respect of tax losses arising in Japan, based on the management-approved financial forecast. Further tax losses of ¥22,186 million (2015: ¥1,147 million) are being carried forward in Japan on which no deferred tax is recognized. The tax losses which are being recognized are subject to time expiry between FY2017 and FY2025.

A further ¥1,575 million (2015: ¥2,136 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 ¥103,751 million (2015: ¥89,869 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 no deferred tax asset is being recognized.

A deferred tax asset of ¥4,774 million (2015: ¥6,021 million), in respect of tax losses arising in other territories, is being recognized in full, based on management-approved financial forecasts.

In addition to tax losses in Japan and the UK on which no deferred tax asset is being recognized, the Group also considered it appropriate not to recognize a deferred tax asset in respect of other tax losses of ¥61,256 million (2015: ¥50,655 million), with ¥19,917 million subject to time expiry under local tax laws. The balance of unrecognized tax losses of ¥41,339 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 ¥11,887 million (2015: ¥14,769 million) is being recognized, the UK, where a deferred tax asset of ¥56 million (2015: ¥459 million) is being recognized and in Germany, where a deferred tax asset of ¥4,753 million is being recognized (2015: ¥5,744 million). In addition in the UK there is a further asset of ¥908 million (2015: ¥1,015 million) which is not being recognized in respect of retirement benefit obligations.

The Group also has other assets which on which no deferred tax is recognized amounting to ¥10,864 million (2015: ¥9,995 million).

						Millions of yen
	Note	Property, plant and equipment	Fair value gains	Provisions	Other	Total
<b>Deferred tax liabilities</b>						
<b>At 1 April 2015</b>		<b>16,295</b>	<b>14,321</b>	<b>84</b>	<b>1,020</b>	<b>31,720</b>
Exchange differences		(828)	(383)	(18)	(195)	(1,424)
(Credit)/charge to the income statement in the period	9	(2,817)	(2,765)	210	(325)	(5,697)
(Credit)/charge to other comprehensive income for the period		–	3	–	(20)	(17)
Gross deferred tax liabilities		<b>12,650</b>	<b>11,176</b>	<b>276</b>	<b>480</b>	<b>24,582</b>
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		(5,577)	(1,169)	(131)	(384)	(7,261)
<b>At 31 March 2016</b>		<b>7,073</b>	<b>10,007</b>	<b>145</b>	<b>96</b>	<b>17,321</b>

						Millions of yen
	Note	Property, plant and equipment	Fair value gains	Provisions	Other	Total
<b>Deferred tax liabilities</b>						
<b>At 1 April 2014</b>		16,832	17,077	684	1,373	35,966
Exchange differences		(233)	(736)	(5)	(6)	(980)
Credit to the income statement in the period	9	(658)	(2,063)	(666)	(97)	(3,484)
Transfer to assets held for sale		354	–	–	–	354
(Credit)/charge to other comprehensive income for the period		–	43	71	(250)	(136)
Gross deferred tax liabilities		<b>16,295</b>	<b>14,321</b>	<b>84</b>	<b>1,020</b>	<b>31,720</b>
Offset of deferred tax assets and liabilities relating to income taxes levied by the same taxation authority		(8,755)	(1,751)	(9)	(505)	(11,020)
<b>At 31 March 2015</b>		<b>7,540</b>	<b>12,570</b>	<b>75</b>	<b>515</b>	<b>20,700</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 19. Deferred income tax continued

Deferred taxation provided on unremitted earnings of joints ventures and associates at 31 March 2016, was ¥189 million (2015: ¥277 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.

### 20. Inventories

	Millions of yen	
	2016	2015
Raw materials	26,447	29,218
Work-in-progress	18,106	19,388
Finished goods	64,309	65,056
	<b>108,862</b>	113,662

The cost of inventories recognized as an expense and included in cost of sales amounted to ¥363,760 million (2015: ¥356,028 million) and includes the write down of inventories totaling ¥2,885 million (2015: ¥1,748 million) and the reversal of inventory write-downs made in previous periods.

In addition, write-down of inventories totaling ¥941 million (2015: ¥nil million) has been charged to exceptional items, note 6.

The carrying amount of inventories carried at fair value less cost to sell (net realizable value) amount to ¥9,309 million (2015: ¥15,949 million).

The amount of the reversal of inventory write-downs made in previous periods and credited to the income statement in the period amounted to ¥901 million (2015: ¥980 million). The reversal of previous write-downs relates to an increase in the net realizable value at the end of the period.

### 21. Construction work-in-progress

		Millions of yen	
	Note	2016	2015
Contract costs incurred plus recognized profits less recognized losses		1,616	3,260
Less amounts invoiced		(900)	(2,435)
		<b>716</b>	825
<b>Contracts in progress at 31 March</b>			
Amounts due from contract customers included in trade and other receivables	15	1,362	1,772
		<b>1,362</b>	1,772

Advances received from customers for contract work, included in the above summary, amounted to ¥401 million (2015: ¥224 million).

At 31 March 2016 and 2015, there were no amounts included in trade and other receivables arising from construction contracts which are due for settlement after more than 12 months.

There are no material amounts of construction work-in-progress held by customers as retentions.

The Group's income statement included the following results in respect of engineering contracts:

	Millions of yen	
	2016	2015
Contract revenue	4,965	4,811
Contract costs	(4,428)	(3,714)
Gross profit	537	1,097
<b>Profit before tax</b>	<b>25</b>	819

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 22. Cash and cash equivalents

	Millions of yen	
	2016	2015
Cash at bank and in hand	<b>35,258</b>	45,856
Short-term deposits	<b>19,816</b>	21,839
	<b>55,074</b>	67,695

The effective interest rate on the Group's short-term bank deposits was 2.29 percent (2015: 2.25 percent) with an average maturity of 11 days (2015: 9 days).

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

The Group's cash flow statement includes the following:

		Millions of yen	
	Note	2016	2015
Cash and cash equivalents		<b>55,074</b>	67,695
Bank overdrafts	24	<b>(8,912)</b>	(5,355)
		<b>46,162</b>	62,340

### 23. Assets held for sale

	Millions of yen	
	2016	2015
<b>Assets held for sale within a disposal group held for sale</b>		
Property, plant and equipment	<b>1,194</b>	931
Investments in affiliates	–	2,514
Deferred taxation	<b>29</b>	62
	<b>1,223</b>	3,507

At 31 March 2016, assets held within a disposal group mainly comprised of property, plant and equipment within Architectural businesses in Europe and Automotive businesses in Asia, and are expected to be disposed of within 12 months of the balance sheet date.

At 31 March 2015, assets held within a disposal group comprise of an investment which was previously categorized as an investment accounted for using the equity method, and excess property, plant and equipment within the European businesses that were surplus to the Group's requirements. During the year to 31 March 2016, the investment, which had been shown as an asset held for sale during the previous year, was recategorized back to investments accounted for using the equity method. Other excess property, plant and equipment in Architectural Europe was impaired by ¥361 million down to its recoverable amount. This is charged to exceptional items, note 6.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 24. Borrowings

#### a. Borrowings and net debt

		Millions of yen	
	Note	2016	2015
<b>Current</b>			
Bank overdrafts	22	8,912	5,355
Bank borrowings		109,786	80,044
Other long-term loans		20,058	25,582
Finance lease liabilities		75	872
Non-equity non-controlling interest preference shares		258	266
		<b>139,089</b>	112,119
<b>Non-current</b>			
Bank borrowings		269,532	285,304
Other long-term loans		15,158	34,879
Finance lease liabilities		65	148
Non-equity non-controlling interest preference shares		4,564	4,677
		<b>289,319</b>	325,008
<b>Total borrowings</b>		<b>428,408</b>	437,127

Group borrowings include secured liabilities of ¥14,329 million (2015: ¥8,191 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 ¥14,329 million (2015: ¥7,457 million) as a consequence of the finance lease contracts from the sale and leaseback transactions made by the Group in Japan.

#### Summary of net debt

		Millions of yen	
	Note	2016	2015
<b>Financial liabilities</b>			
borrowings		428,408	437,127
derivative financial instruments	17	8,551	5,617
<b>Financial assets</b>			
derivative financial instruments	17	(841)	(957)
Cash and cash equivalents	22	(55,074)	(67,695)
<b>Net debt</b>		<b>381,044</b>	374,092

Net debt includes energy hedges within derivative financial instruments.

#### b. Interest rate exposure

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

	Millions of yen			
	2016			
	Less than one year	One to five years	Over five years	Total
Total borrowings	406,720	17,124	4,564	428,408
Effect of interest rate swaps	(113,444)	113,444	-	-
	<b>293,276</b>	<b>130,568</b>	<b>4,564</b>	<b>428,408</b>
Millions of yen				
2015				
	Less than one year	Less than one year	Less than one year	Less than one year
Total borrowings	389,650	42,800	4,677	437,127
Effect of interest rate swaps	(37,489)	37,489	-	-
	352,161	80,289	4,677	437,127



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 24. Borrowings continued

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

	Interest rate %				
	2016				
	Yen	£	US\$	Euro	Other
Bank overdrafts	–	1.00	–	2.13	1.99
Bank borrowings	2.60	–	3.44	2.98	18.23
Other long-term loans	1.37	–	–	–	–
Finance lease obligations	4.75	–	–	–	–

	Interest rate %				
	2015				
	Yen	£	US\$	Euro	Other
Bank overdrafts	–	1.00	1.00	2.36	1.06
Bank borrowings	2.65	–	2.97	3.25	12.75
Other long-term loans	1.45	–	–	–	–
Finance lease obligations	4.17	–	–	–	4.06

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.

#### c. Fair values of borrowings

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

	Millions of yen			
	2016		2015	
	Carrying amounts	Fair values	Carrying amounts	Fair values
Bank borrowings	269,532	254,623	285,304	268,841
Other long-term loans	15,158	14,086	34,879	33,449
Finance lease obligations	65	65	148	148
Non-equity non-controlling interest preference shares	4,564	4,564	4,677	4,677
	<b>289,319</b>	<b>273,338</b>	325,008	307,115

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 18.

#### d. Currency of borrowings

The Group's total borrowings are denominated in the following currencies:

	Millions of yen	
	2016	2015
Japanese yen	303,095	310,135
Euro	73,699	85,176
Sterling	9,311	1,002
Polish zloty	14,983	12,719
US dollar	13,791	19,854
Swedish krona	1,082	1,270
Other currencies	12,447	6,971
	<b>428,408</b>	437,127

#### e. Maturity profile of committed borrowings

The Group has the following undrawn borrowing facilities:

	Millions of yen	
	2016	2015
<b>Floating rate</b>		
maturing within one year	31,600	–
maturing after one year	18,047	19,371

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 24. Borrowings continued

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

	Millions of yen	
	2016	2015
Within one year	139,089	112,119
One to two years	93,639	135,880
Two to three years	140,195	107,634
Three to four years	46,299	56,065
Four to five years	4,622	20,752
After five years	4,564	4,677
	<b>428,408</b>	<b>437,127</b>

### f. Finance leases

The finance lease liabilities are analyzed as follows:

	Millions of yen	
	2016	2015
<b>Finance lease liabilities - minimum lease payments</b>		
not later than one year	75	872
later than one year and not later than five years	65	148
<b>Present value of finance lease liabilities</b>	<b>140</b>	<b>1,020</b>

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

	Millions of yen	
	2016	2015
Not later than one year	75	872
Later than one year and not later than five years	65	148
	<b>140</b>	<b>1,020</b>

The fair value of the Group's non-current finance lease liabilities equates to book value.

It is the Group's policy to lease certain of its plant and equipment and intangible assets under finance leases. Interest rates are fixed at the contract date. The majority of the Group's leases are subject to fixed interest rates and all leases are on a fixed repayment basis.

### 25. Trade and other payables

	Note	Millions of yen	
		2016	2015
Trade payables		79,207	88,865
Amounts owed to related parties (trading)	37	3,272	4,272
Loans from related parties		49	109
Social security and other taxes		5,863	5,029
Other payables		19,627	23,082
Accruals		13,675	12,934
		<b>121,693</b>	<b>134,291</b>
Current		120,979	133,550
Non-current		714	741
		<b>121,693</b>	<b>134,291</b>

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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. 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, together with phased retirement (Altersteilzeit) and long service arrangements in Germany.

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 80% 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.

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 975 employees, 3,041 deferred members and 10,509 pensioners as at 31 March 2016. 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 seven member nominated directors and seven employer nominated directors. Of the employer nominated directors, two are independent and five 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 2014, the Group has agreed a funding plan which requires annual deficit contributions of £25 million (¥4,525 million at FY2016 exchange rates) payable up to and including 2018.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Pensions and other post-employment benefits continued

In 2015 the Group re-assessed its policy towards the recognition of retirement benefit scheme assets and liabilities in light of ongoing debate by the IFRS foundation in respect of IFRIC 14 and IAS 19. The Group previously had a policy of imposing a nil-value asset ceiling on the recognition of pension assets arising at its main UK pension scheme on the basis that the trustee has the discretionary ability to take actions that could reduce or extinguish the surplus. The Group has also then had a policy of recognizing a further liability with respect to the funding requirements of this scheme. Consistent with the latest proposals made by the IFRS foundation, the Group has revised its policy with respect to the application of an asset ceiling. 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. Given these circumstances, a nil-value asset ceiling is no longer applied by the Group. Consequently the Group now recognizes a pension asset with respect to this scheme and no longer recognizes an additional liability with respect to further funding contributions. The accounting impact of this change was applied retrospectively in accordance with IAS 8. The Group therefore restated its comparative opening balance sheet as at 1 April 2013, its comparative income statement and statement of comprehensive income for the period to 31 March 2014, and its comparative balance sheet as at 31 March 2014.

The scheme's Statement of Investment Principles sets out the investment objectives and asset allocation policy adopted by the Trustee. This policy is linked to a 'de-risking' plan that was agreed with the Group as part of the 2011 valuation. Under this plan the amount of return-seeking assets as a proportion of the total is expected to reduce as the funding position improves. The current benchmark is 21% return-seeking 79% liability matching assets.

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. 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 Co., Ltd. The latest valuation for this plan was carried out as at 31 March 2015, and showed a surplus of ¥2,328 million. The investment strategy is determined by the Company and the current strategic allocation is approximately 22% equity, 33% bonds and 45% 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	
	2016	2015
Recognized in non-current (assets):		
Pension and early-retirement benefit schemes in surplus	<b>(18,837)</b>	(9,754)
Recognized in Pension and other long-term benefit obligations:		
Pension and early-retirement benefit schemes in deficit	<b>49,619</b>	56,898
Post-retirement healthcare benefits	<b>25,341</b>	32,866
Long service arrangements	<b>151</b>	160
Total recognized in Pension and other long-term benefit obligations	<b>75,111</b>	89,924
<b>Net liability in the balance sheet</b>	<b>56,274</b>	80,170

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

	Millions of yen						
	2016			2015			
	Note	Operating profit	Finance costs	SoCI*	Operating profit	Finance costs	SoCI*
Pension and early-retirement benefits		<b>(3,666)</b>	<b>(410)</b>	<b>15,986</b>	(3,108)	(1,062)	(9,042)
Post-retirement healthcare benefits		<b>(71)</b>	<b>(1,038)</b>	<b>5,158</b>	(66)	(934)	(6,749)
Long service arrangements		<b>(14)</b>	<b>(1)</b>	<b>4</b>	(18)	(3)	-
Deferred income and other taxes**	19	-	-	<b>(8,945)</b>	-	-	2,592
<b>At 31 March</b>		<b>(3,751)</b>	<b>(1,449)</b>	<b>12,203</b>	(3,192)	(1,999)	(13,199)

\* Statement of comprehensive income

\*\* Of the deferred income and other taxes, a charge of ¥2,882 million (2015: a credit of ¥5,237 million) is included within deferred tax (note 19). Other taxes of ¥6,063 million (2015: ¥2,645 million) are included as a charge against the pension asset.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Pensions and other post-employment benefits continued

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

	Millions of yen				
	2016				Post-retirement healthcare
	Pension and early-retirement benefits				
Japan	UK	Rest of world	Total	Total	
Present value of the funded benefit obligation	34,054	247,693	32,174	313,921	–
Fair value of assets of the plans	(31,722)	(276,359)	(24,884)	(332,965)	–
Deficit/(surplus) in the funded plans	2,332	(28,666)	7,290	(19,044)	–
Present value of the unfunded benefit obligation	–	4,556	35,127	39,683	25,341
<b>Net liability/(asset) in the balance sheet</b>	<b>2,332</b>	<b>(24,110)</b>	<b>42,417</b>	<b>20,639</b>	<b>25,341</b>
Taxes relating to refund of pension fund surplus	–	10,143	–	10,143	–
<b>Net liability/(asset) in the balance sheet after tax on refund</b>	<b>2,332</b>	<b>(13,967)</b>	<b>42,417</b>	<b>30,782</b>	<b>25,341</b>
Included in non-current assets	–	(18,837)	–	(18,837)	–
Included in pension and other long-term benefit obligations	2,332	4,870	42,417	49,619	25,341

	Millions of yen				
	2015				Post-retirement healthcare
	Pension and early-retirement benefits				
Japan	UK	Rest of world	Total	Total	
Present value of the funded benefit obligation	33,197	294,222	40,121	367,540	–
Fair value of assets of the plans	(32,088)	(307,814)	(31,156)	(371,058)	–
Deficit/(surplus) in the funded plans	1,109	(13,592)	8,965	(3,518)	–
Present value of the unfunded benefit obligation	–	5,553	39,857	45,410	32,866
<b>Net liability/(asset) in the balance sheet</b>	<b>1,109</b>	<b>(8,039)</b>	<b>48,822</b>	<b>41,892</b>	<b>32,866</b>
Taxes relating to refund of pension fund surplus	–	5,252	–	5,252	–
<b>Net liability/(asset) in the balance sheet after tax on refund</b>	<b>1,109</b>	<b>(2,787)</b>	<b>48,822</b>	<b>47,144</b>	<b>32,866</b>
Included in non-current assets	–	(9,754)	–	(9,754)	–
Included in pension and other long-term benefit obligations	1,109	6,967	48,822	56,898	32,866

The weighted average duration of the pension obligations across all plans was 13 years as at 31 March 2016.

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

	Millions of yen				
	2016				Post-retirement healthcare
	Pension and early-retirement benefits				
Japan	UK	Rest of world	Total	Total	
Current service cost	(1,251)	(1,831)	(482)	(3,564)	(71)
Past service cost	52	–	(40)	12	–
Settlements and terminations losses	–	(19)	145	126	–
Administration expenses	(13)	(20)	(207)	(240)	–
Operating profit charge	(1,212)	(1,870)	(584)	(3,666)	(71)
Net interest on the net defined benefit liability	(4)	393	(799)	(410)	(1,038)
Finance costs - charge/(credit)	(4)	393	(799)	(410)	(1,038)
<b>Total income statement charge</b>	<b>(1,216)</b>	<b>(1,477)</b>	<b>(1,383)</b>	<b>(4,076)</b>	<b>(1,109)</b>

	Millions of yen				
	2015				Post-retirement healthcare
	Pension and early-retirement benefits				
Japan	UK	Rest of world	Total	Total	
Current service cost	(1,176)	(1,140)	(387)	(2,703)	(66)
Past service cost	–	–	(23)	(23)	–
Settlements and terminations losses	–	(145)	–	(145)	–
Administration expenses	(13)	(20)	(204)	(237)	–
Operating profit charge	(1,189)	(1,305)	(614)	(3,108)	(66)
Net interest on the net defined benefit liability	(6)	229	(1,285)	(1,062)	(934)
Finance costs - charge/(credit)	(6)	229	(1,285)	(1,062)	(934)
<b>Total income statement charge</b>	<b>(1,195)</b>	<b>(1,076)</b>	<b>(1,899)</b>	<b>(4,170)</b>	<b>(1,000)</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Pensions and other post-employment benefits continued

Including charges with respect to long service arrangements, of the total charge to operating profit of ¥3,751 million (2015: ¥3,192 million), a charge of ¥1,615 million (2015: ¥1,336 million) is included in cost of sales, a charge of ¥102 million (2015: ¥60 million) is included within distribution costs, a charge of ¥2,015 million (2015: ¥1,651 million) is included within administrative expenses, and a charge of ¥19 million (2015: charge of ¥145 million) is included within exceptional items.

The actual return on the various plan assets was a gain of ¥5,479 million (2015: gain of ¥62,317 million). The Group expects to contribute ¥9,334 million to pension plans during the next financial period and ¥1,708 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				
					2016
	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	(281)	(4,058)	(1,461)	(5,800)	325
Experience gains/(losses) arising on schemes' liabilities	401	243	883	1,527	2,426
Changes in the financial assumptions underlying the present value of the schemes' liabilities	(1,486)	15,661	3,125	17,300	1,477
Changes in the demographic assumptions underlying the present value of the schemes' liabilities	11	1,994	954	2,959	930
	(1,355)	13,840	3,501	15,986	5,158

	Millions of yen				
					2015
	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	1,945	46,617	1,513	50,075	26
Experience gains/(losses) arising on schemes' liabilities	(17)	(6,334)	(45)	(6,396)	1,109
Changes in the financial assumptions underlying the present value of the schemes' liabilities	(1,580)	(35,237)	(9,826)	(46,643)	(5,750)
Changes in the demographic assumptions underlying the present value of the schemes' liabilities	–	(3,307)	(2,771)	(6,078)	(2,134)
	348	1,739	(11,129)	(9,042)	(6,749)



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Pensions and other post-employment benefits continued

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

	Pension and early-retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of world	Total	Total
	Millions of yen				
<b>At 31 March 2014</b>	<b>31,741</b>	<b>246,759</b>	<b>67,764</b>	<b>346,264</b>	<b>22,660</b>
Current service cost	1,176	1,140	387	2,703	66
Interest cost on the schemes' liabilities	430	10,421	2,427	13,278	934
Members' contributions	-	548	-	548	-
Plan amendments	-	-	23	23	-
Settlements and terminations	-	145	-	145	-
Actuarial losses	1,597	44,878	12,642	59,117	6,775
Benefits paid	(1,747)	(14,458)	(5,156)	(21,361)	(1,731)
Exchange differences	-	10,342	1,891	12,233	4,162
<b>At 31 March 2015</b>	<b>33,197</b>	<b>299,775</b>	<b>79,978</b>	<b>412,950</b>	<b>32,866</b>
Current service cost	1,251	1,831	482	3,564	71
Interest cost on the schemes' liabilities	291	9,216	1,857	11,364	1,038
Members' contributions	-	155	-	155	-
Plan amendments	(52)	-	40	(12)	-
Settlements and terminations	-	19	(2,089)	(2,070)	-
Actuarial losses	1,074	(17,898)	(4,962)	(21,786)	(4,833)
Benefits paid	(1,707)	(14,567)	(4,954)	(21,228)	(2,010)
Exchange differences	-	(26,282)	(3,051)	(29,333)	(1,791)
<b>At 31 March 2016</b>	<b>34,054</b>	<b>252,249</b>	<b>67,301</b>	<b>353,604</b>	<b>25,341</b>

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

	Pension and early-retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of world	Total	Total
	Millions of yen				
<b>At 31 March 2014</b>	<b>30,129</b>	<b>247,721</b>	<b>25,718</b>	<b>303,568</b>	-
Members' contributions	-	548	-	548	-
Settlements and terminations	-	145	-	145	-
Return on plan assets (excluding amount included in interest income)	1,945	46,617	1,513	50,075	26
Benefits paid	(1,747)	(14,458)	(5,156)	(21,361)	(1,731)
Expenses paid	(13)	(20)	(204)	(237)	-
Employer's contributions	1,350	6,190	3,929	11,469	1,705
Interest income on assets	424	10,650	1,142	12,216	-
Exchange differences	-	10,421	4,214	14,635	-
<b>At 31 March 2015</b>	<b>32,088</b>	<b>307,814</b>	<b>31,156</b>	<b>371,058</b>	-
Members' contributions	-	155	-	155	-
Settlements and terminations	-	19	(1,944)	(1,925)	-
Return on plan assets (excluding amount included in interest income)	(281)	(4,058)	(1,461)	(5,800)	325
Benefits paid	(1,707)	(14,567)	(4,954)	(21,228)	(2,010)
Expenses paid	(13)	(20)	(207)	(240)	-
Employer's contributions	1,348	6,550	2,973	10,871	1,685
Interest income on assets	287	9,609	1,058	10,954	-
Exchange differences	-	(29,143)	(1,737)	(30,880)	-
<b>At 31 March 2016</b>	<b>31,722</b>	<b>276,359</b>	<b>24,884</b>	<b>332,965</b>	-

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Pensions and other post-employment benefits continued

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

	Pension and early-retirement benefits				Post-retirement healthcare
	Japan	UK	Rest of world	Total	Total
	Millions of yen				
<b>At 31 March 2014</b>	<b>(1,612)</b>	<b>962</b>	<b>(42,046)</b>	<b>(42,696)</b>	<b>(22,660)</b>
Total charge recognized in the income statement	(1,195)	(1,076)	(1,899)	(4,170)	(1,000)
Total credit/(charge) recognized in other comprehensive income	348	1,739	(11,129)	(9,042)	(6,749)
Employer's contributions	1,350	6,190	3,929	11,469	1,705
One-off employer contributions for financing terminations	-	145	-	145	-
Exchange differences	-	79	2,323	2,402	(4,162)
<b>At 31 March 2015</b>	<b>(1,109)</b>	<b>8,039</b>	<b>(48,822)</b>	<b>(41,892)</b>	<b>(32,866)</b>
Total charge recognized in the income statement	(1,216)	(1,477)	(1,383)	(4,076)	(1,109)
Total credit/(charge) recognized in other comprehensive income	(1,355)	13,840	3,501	15,986	5,158
Employer's contributions	1,348	6,550	2,973	10,871	1,685
One-off employer contributions for financing terminations	-	19	-	19	-
Exchange differences	-	(2,861)	1,314	(1,547)	1,791
<b>At 31 March 2016</b>	<b>(2,332)</b>	<b>24,110</b>	<b>(42,417)</b>	<b>(20,639)</b>	<b>(25,341)</b>

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

	2016			2015		
	Japan	UK	Rest of world	Japan	UK	Rest of world
Discount rate	<b>0.50%</b>	<b>3.40%</b>	<b>2.60%</b>	0.90%	3.10%	2.40%
Future salary increases*	<b>2.20%</b>	-	<b>2.00%</b>	2.20%	-	2.10%
Future pension increases	-	<b>0.80%</b>	<b>1.40%</b>	-	0.70%	1.50%
Consumer Price inflation	<b>0.25%</b>	<b>1.80%</b>	<b>1.70%</b>	0.25%	2.00%	1.80%
Long-term increase in healthcare costs	-	<b>3.70%</b>	<b>4.50%</b>	-	3.70%	5.00%

\* 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 65 percent of the Group's total Defined Benefit Obligation) at 31 March 2016 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 2015 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 2016
	Years
Expected future lifetime of a current pensioner aged 60	
- Men	<b>26.6</b>
- Women	<b>28.8</b>
Expected future lifetime, at age 60, of a future pensioner aged 60 in 20 years time	
- Men	<b>28.3</b>
- Women	<b>30.8</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Pensions and other post-employment benefits continued

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

	Millions of yen					
	2016					
	Japan		UK		Rest of world	
	Quoted	Unquoted	Quoted	Unquoted	Quoted	Unquoted
Domestic government bonds	8,577	–	171,795	–	228	–
Domestic corporate bonds	–	853	46,724	–	21,177	–
Overseas bonds	3,459	1,777	–	–	81	–
Domestic equities	5,515	–	4,858	–	2,127	–
Overseas equities	1,824	–	43,637	5,715	1,019	–
Property	–	–	297	5,394	–	–
Cash	–	800	48	1,336	121	–
Other	–	8,917	–	(3,445)*	131	–
	19,375	12,347	267,359	9,000	24,884	–

\* Note: this is a negative asset in respect of the longevity swap transaction carried out during 2012.

	Millions of yen					
	2015					
	Japan		UK		Rest of world	
	Quoted	Unquoted	Quoted	Unquoted	Quoted	Unquoted
Domestic government bonds	8,323	–	152,944	9,630	242	–
Domestic corporate bonds	–	1,000	52,784	–	26,669	–
Overseas bonds	2,029	1,764	–	–	114	–
Domestic equities	5,495	–	4,965	–	2,547	–
Overseas equities	2,244	–	43,304	5,910	1,150	–
Property	–	–	330	9,292	–	–
Cash	992	–	33	31,310	336	–
Other	–	10,241	–	(2,688)*	98	–
	19,083	13,005	254,360	53,454	31,156	–

\* Note: this is a negative asset in respect of the longevity swap transaction carried out during 2012.

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 on scheme liabilities (%)	
		Japan	UK
Discount rate	Increase/decrease by 0.5%	Decrease/increase by 5.2% / 5.7%	Decrease/increase by 6.8% / 7.7%
Inflation rate	Increase/decrease by 0.5%	n/a	Increase/decrease by 3.4% / 3.0%
Mortality	Increase life expectancy by one year	n/a	Increase by 3.6%

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 ¥801 million and a decrease in the interest and service costs of ¥32 million. A one percent increase in healthcare cost trend rates would result in an increase in the benefit obligation of ¥235 million and an increase in the interest and service costs of ¥11 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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 27. Provisions

	Millions of yen						
	Warranty	Redundancy and Restructuring	Bonus	Environmental	Claims and litigation	Other	Total
<b>At 1 April 2015</b>	<b>429</b>	<b>3,582</b>	<b>4,908</b>	<b>7,568</b>	<b>6,756</b>	<b>7,092</b>	<b>30,335</b>
Exchange differences	(19)	(178)	(28)	(378)	(812)	(257)	(1,672)
Charged to the income statement							
Charged to provisions	92	3,541	6,509	272	6,651	764	17,829
Effect of discounting	–	–	–	240	–	–	240
Released to the income statement in the period	–	(258)	(450)	(111)	(211)	(325)	(1,355)
Utilized in the period	(57)	(3,063)	(7,269)	(243)	(1,790)	(262)	(12,684)
<b>At 31 March 2016</b>	<b>445</b>	<b>3,624</b>	<b>3,670</b>	<b>7,348</b>	<b>10,594</b>	<b>7,012</b>	<b>32,693</b>
Current	239	2,148	3,609	460	6,770	2,955	16,181
Non-Current	206	1,476	61	6,888	3,824	4,057	16,512
	<b>445</b>	<b>3,624</b>	<b>3,670</b>	<b>7,348</b>	<b>10,594</b>	<b>7,012</b>	<b>32,693</b>

	Millions of yen						
	Warranty	Redundancy and Restructuring	Bonus	Environmental	Claims and litigation	Other	Total
<b>At 1 April 2014</b>	<b>462</b>	<b>7,287</b>	<b>6,736</b>	<b>6,460</b>	<b>6,842</b>	<b>7,869</b>	<b>35,656</b>
Exchange differences	(19)	(158)	54	784	(101)	(23)	537
Charged to the income statement							
Charged to provisions	64	3,019	8,324	549	3,003	565	15,524
Effect of discounting	–	5	–	134	–	–	139
Released to the income statement in the period	(29)	(627)	(903)	(159)	(476)	(918)	(3,112)
Utilized in the period	(49)	(5,944)	(9,303)	(200)	(2,512)	(401)	(18,409)
<b>At 31 March 2015</b>	<b>429</b>	<b>3,582</b>	<b>4,908</b>	<b>7,568</b>	<b>6,756</b>	<b>7,092</b>	<b>30,335</b>
Current	233	1,646	4,549	336	2,715	3,030	12,509
Non-Current	196	1,936	359	7,232	4,041	4,062	17,826
	<b>429</b>	<b>3,582</b>	<b>4,908</b>	<b>7,568</b>	<b>6,756</b>	<b>7,092</b>	<b>30,335</b>

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 less than three years.

Redundancy and restructuring provisions relate to provisions set up in Architectural amounting to ¥2,613 million (2015: ¥2,458 million), Automotive ¥433 million (2015: ¥656 million), Technical Glass ¥572 million (2015: ¥389 million) and Other Operations ¥6 million (2015: ¥79 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 2016, ¥1,028 million (2015: ¥797 million) of this provision was recorded in Architectural, ¥81 million (2015: ¥81 million) was recorded in Automotive, ¥338 million (2015: ¥329 million) was recorded in Technical Glass and ¥5,901 million (2015: ¥6,361 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. Also included in this category are claims from certain Automotive customers following the European Commission's decision announced on 12 November 2008, to impose a fine on the Group for alleged breaches of European competition law. Following an increase in litigation provisions during FY2016, the Group no longer believes that it has any further material contingent liabilities for such claims.

Other provisions relate principally to immaterial pension provisions of ¥3,779 million (2015: ¥3,711 million), cumulative leave provisions of ¥2,934 million (2015: ¥3,009 million) and onerous lease and rental provisions of ¥86 million (2015: ¥163 million).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 28. Deferred income

	Millions of yen	
	2016	2015
Deferred income	<b>8,068</b>	8,145
Government grants	<b>5,043</b>	4,983
	<b>13,111</b>	13,128
Current	<b>2,989</b>	3,345
Non-current	<b>10,122</b>	9,783
	<b>13,111</b>	13,128
	Millions of yen	
	Note	2016
<b>At 1 April</b>		<b>13,128</b>
Exchange differences		<b>(931)</b>
Deferred income receivable		<b>4,257</b>
Released to income statement	2	<b>(3,343)</b>
<b>At 31 March</b>		<b>13,111</b>

Deferred income comprises of customer contributions to automotive tooling costs ¥7,822 million (2015: ¥7,784 million) and other deferred income of ¥246 million (2015: ¥361 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, Italy, Germany 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.

### 29. Share based payments

The Group operates a number of equity settled, share-based payment plans, under which the entity receives services from Directors, 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. The value of the charge is adjusted to reflect expected and actual levels of vesting options, except where the failure to vest is as a result of not meeting a market condition. 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	2016
Total expenses arising from share-based payment transactions	7	<b>71</b>
		81

There have been no cancellations or modifications to any of the plans during 2016 or 2015.

Each share option entitles the recipient to acquire one thousand 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:

	2016		2015	
	Weighted average exercise price Yen/share	Options ('000 shares)	Weighted average exercise price Yen/share	Options ('000 shares)
<b>At 1 April</b>	<b>74</b>	<b>5,901</b>	107	5,834
Granted	<b>1</b>	<b>952</b>	1	898
Exercised	<b>1</b>	<b>(254)</b>	1	(376)
Expired	<b>466</b>	<b>(495)</b>	418	(455)
<b>At 31 March</b>	<b>34</b>	<b>6,104</b>	74	5,901

Out of the 6,104 outstanding options (2015: 5,901 options), 2,076 options (2015: 1,763 options) were exercisable. Options exercised in 2016 resulted in 254,000 shares (2015: 376,000 shares) being transferred at a price of 1 yen each (2015: 1 yen each). The related weighted average share price at the time of exercise was 113 yen (2015: 122 yen) per share.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 29. Share based payments continued

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

Stock option	Expiry date	Exercise price in yen/share	2016	2015
			Shares '000	Shares '000
2005 Stock Options (i)	28 June 2015	466	–	495
2006 Stock Options (i)	28 June 2016	578	<b>345</b>	345
2007 Stock Options (ii)	28 September 2037	1	<b>45</b>	54
2008 Stock Options (ii)	27 September 2038	1	<b>152</b>	178
2009 Stock Options (ii)	30 September 2039	1	<b>311</b>	350
2010 Stock Options (ii)	30 September 2040	1	<b>213</b>	303
2011 Stock Options (ii)	14 October 2041	1	<b>402</b>	492
2012 Stock Options (ii)	28 September 2042	1	<b>1,344</b>	1,344
2013 Stock Options (ii)	15 October 2043	1	<b>1,442</b>	1,442
2014 Stock Options (ii)	30 September 2044	1	<b>898</b>	898
2015 Stock Options (ii)	30 September 2045	1	<b>952</b>	–
			<b>6,104</b>	5,901

#### Conditions for vesting of stock options

(i) Those who hold these stock options must remain employees from the grant date of the option to the vesting date in order to be able to exercise the options except for holders' mandatory retirement, end of tenure or for other due reasons.

(ii) 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	2015 plan	2014 plan
Share price at grant date (yen)		<b>101</b>	121
Exercise price (yen)		<b>1</b>	1
Expected volatility of the share price	i	<b>46.6%</b>	47.3%
Expected remaining life of the option	ii	<b>8 years</b>	8 years
Expected dividend	iii	<b>3.6yen/share</b>	4.3yen/share
Risk-free interest rate	iv	<b>0.17%</b>	0.36%

#### Notes:

- The volatility of the share price for the 2015 plan is estimated by taking into account the actual share prices for eight years (from 2 October 2007 to 30 September 2015 (2014 plan: eight years (from 2 October 2006 to 30 September 2014))).
- 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, an Executive Officer, Senior Corporate Officer or a Corporate Officer had ended.
- Expected dividends for the period ended 31 March 2016 is based on the actual dividends paid in the eight year period between 31 March 2008 and 31 March 2016 (2014 plan: based on the actual dividends paid in the eight year period between 31 March 2007 and 31 March 2015).
- The risk-free interest rate represents the yield on Government bonds for the period that corresponds to the expected remaining life of each option.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 30. Called up share capital

	Number of shares			
	2016		2015	
Authorized	1,775,000,000		1,775,000,000	
Ordinary shares of no par value each	903,550,999		903,550,999	
Ordinary shares held as treasury stock	194,949		415,309	

	Millions of yen			
	2016		2015	
	Number of shares	Value	Number of shares	Value
Issued and fully paid ordinary shares				
At 1 April and 31 March	903,550,999	116,449	903,550,999	116,449

### 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. As of 31 March 2016, no changes are made to this objective.

### 31. Capital surplus

	Note	Millions of yen	
		2016	2015
<b>At 1 April</b>		<b>127,511</b>	127,511
Issuance and purchase of treasury stock		(36)	(57)
Transfer from retained earnings to capital surplus	32	36	57
<b>At 31 March</b>		<b>127,511</b>	127,511

### 32. Retained earnings

	Note	Millions of yen	
		2016	2015
<b>At 1 April</b>		<b>(25,082)</b>	(11,773)
Profit/(loss) for the period		(49,838)	1,668
Retirement benefit obligations	26	21,148	(15,791)
Deferred taxation on retirement benefit obligations	19, 26	(8,945)	2,592
Share of comprehensive income of joint ventures and associates		(749)	(1,721)
Transfer from retained earnings to capital surplus	31	(36)	(57)
<b>At 31 March</b>		<b>(63,502)</b>	(25,082)
Retained earnings (translation adjustment at the IFRS transition date)		(68,048)	(68,048)
<b>Total retained earnings at 31 March</b>		<b>(131,550)</b>	(93,130)

Nippon Sheet Glass Co., Ltd 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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 33. Other reserves

							Millions of yen
	Note	Hedging reserve	Fair value reserve	Exchange translation reserve	Treasury stock	Stock subscription rights	Total
<b>At 1 April 2015</b>		<b>(4,862)</b>	<b>1,240</b>	<b>28,056</b>	<b>(150)</b>	<b>632</b>	<b>24,916</b>
Currency translation differences		–	–	(33,069)	–	–	(33,069)
Loss on net investment hedges	17	–	–	(3,128)	–	–	(3,128)
Cash flow hedges							
fair value loss in the period		(4,732)	–	–	–	–	(4,732)
transferred to income statement		1,619	–	–	–	–	1,619
deferred tax on fair value loss in the period	19	113	–	–	–	–	113
Available-for-sale investments							
fair value gains in the period	16	–	4,880	–	–	–	4,880
deferred tax on fair value gains in the period	19	–	(3)	–	–	–	(3)
Purchase of treasury stock		–	–	–	(4)	–	(4)
Share based payments		–	–	–	89	18	107
<b>At 31 March 2016</b>		<b>(7,862)</b>	<b>6,117</b>	<b>(8,141)</b>	<b>(65)</b>	<b>650</b>	<b>(9,301)</b>

							Millions of yen
	Note	Hedging reserve	Fair value reserve	Exchange translation reserve	Treasury stock	Stock subscription rights	Total
<b>At 1 April 2014</b>		(2,568)	445	21,611	(285)	632	19,835
Currency translation differences		–	–	(4,721)	–	–	(4,721)
Gain on net investment hedges	17	–	–	11,166	–	–	11,166
Cash flow hedges							
fair value loss in the period		(3,418)	–	–	–	–	(3,418)
transferred to income statement		(137)	–	–	–	–	(137)
deferred tax on fair value loss in the period	19	1,261	–	–	–	–	1,261
Available-for-sale investments							
fair value gains in the period	16	–	929	–	–	–	929
deferred tax on fair value gains in the period	19	–	(134)	–	–	–	(134)
Purchase of treasury stock		–	–	–	(4)	–	(4)
Disposal of treasury stock		–	–	–	1	–	1
Share based payments		–	–	–	138	–	138
<b>At 31 March 2015</b>		<b>(4,862)</b>	<b>1,240</b>	<b>28,056</b>	<b>(150)</b>	<b>632</b>	<b>24,916</b>

#### 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.

#### Fair value reserve

This reserve records fair value changes on available-for-sale investments.

#### 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.

Of the net fair value gains of cash flow hedges transferred to the income statement of ¥1,619 million (2015: losses of ¥137 million), ¥128 million is credited to finance income (2015: ¥103 million), ¥28 million is charged to finance expenses (2015: ¥nil million), ¥82 million is charged (2015: ¥1 million) to other expenses, and ¥1,601 million is credited (2015: charges of ¥239 million) to cost of sales.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 34. Cash flow from operating activities

	Note	Millions of yen	
		2016	2015
Profit/(loss) for the period from continuing operations		<b>(47,500)</b>	2,893
Adjustments for			
taxation	9	<b>10,061</b>	1,914
depreciation	12	<b>30,477</b>	30,778
amortization	11	<b>10,472</b>	10,935
impairments		<b>24,943</b>	3,544
reversal of impairment of non-current assets	12	<b>(41)</b>	(1,506)
profit on sale of property, plant and equipment		<b>(258)</b>	(5,216)
profit on sale of subsidiaries, joint ventures, associates and businesses		-	(26)
gain on reclassification of investments	6	-	(13,349)
deemed disposal of share of associate	6	<b>(96)</b>	649
movements in grants and deferred income	28	<b>914</b>	493
finance income	8	<b>(1,624)</b>	(2,201)
finance expense	8	<b>19,848</b>	20,145
share of (profit)/loss from joint ventures and associates		<b>3,435</b>	(413)
other		<b>(446)</b>	(1,449)
Operating cash flows before movement in provisions and working capital		<b>50,185</b>	47,191
Decrease in provisions/retirement benefit obligations		<b>(5,050)</b>	(16,134)
Changes in working capital:			
inventories		<b>(3,890)</b>	(2,973)
construction work-in-progress		<b>66</b>	154
trade and other receivables		<b>3,554</b>	11,610
trade and other payables		<b>(2,584)</b>	5,087
Net change in working capital		<b>(2,854)</b>	13,878
<b>At 31 March</b>		<b>42,281</b>	44,935

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					
	2016					
	Property, plant and equipment	Joint ventures and associates	Available for sale investments	Assets held for sale	Subsidiary and other business undertakings	Total
Net book amount	<b>350</b>	-	<b>82</b>	<b>282</b>	-	<b>714</b>
Profit on sale	<b>258</b>	-	<b>46</b>	-	-	<b>304</b>
<b>Proceeds from sale</b>	<b>608</b>	-	<b>128</b>	<b>282</b>	-	<b>1,018</b>

	Millions of yen					
	2015					
	Property, plant and equipment	Joint ventures and associates	Available for sale investments	Assets held for sale	Subsidiary and other business undertakings	Total
Net book amount	1,013	162	182	2,920	118	4,395
Profit on sale	5,216	-	21	475	26	5,738
<b>Proceeds from sale</b>	<b>6,229</b>	<b>162</b>	<b>203</b>	<b>3,395</b>	<b>144</b>	<b>10,133</b>

There were no non-cash transactions in the period ended 31 March 2016 or 31 March 2015.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 35. Earnings per share

#### Basic

Basic earnings per share is calculated by dividing the profit attributable to owners of the parent by the weighted average number of ordinary shares in issue during the period excluding ordinary shares purchased by the company and held as treasury shares.

	Millions of yen	
	2016	2015
Profit/(loss) attributable to owners of the parent	<b>(49,838)</b>	1,668
Weighted average number of shares (thousands)	<b>903,260</b>	902,919
<b>Basic earnings per share (yen)</b>	<b>(55.18)</b>	1.85

#### 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 conversion of share options. A calculation is done 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 compared with the number of shares that would have been issued assuming the exercise of the share options.

	Millions of yen	
	2016	2015
Profit/(loss) attributable to owners of the parent	<b>(49,838)</b>	1,668
Profit/(loss) used to determine diluted earnings per share	<b>(49,838)</b>	1,668
Weighted average number of ordinary shares in issue (thousands)	<b>903,260</b>	902,919
Adjusted for;		
share options (thousands)	-	4,575
Weighted average number of ordinary shares for diluted earnings per share (thousands)	<b>903,260</b>	907,494
<b>Diluted earnings per share (yen)</b>	<b>(55.18)</b>	1.84

Diluted earnings per share for the period ended 31 March 2016 does not include stock options due to the anti-dilutive effect caused by the loss during the period.

There have been no significant transactions involving ordinary shares or potential ordinary shares between the reporting date and the authorization of these financial statements.

### 36. Commitments

#### Capital commitments

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

	Millions of yen	
	2016	2015
Property, plant and equipment	<b>831</b>	4,750

#### Operating lease commitments

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 is disclosed in note 2.

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

	Millions of yen			
	2016		2015	
	Property	Plant and equipment	Property	Plant and equipment
Not later than one year	<b>4,087</b>	<b>1,983</b>	3,266	1,264
Later than one year and not later than five years	<b>10,471</b>	<b>3,830</b>	11,009	3,539
Later than five years	<b>8,620</b>	<b>587</b>	10,409	196
	<b>23,178</b>	<b>6,400</b>	24,684	4,999

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 37. 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 Co., Ltd and its subsidiaries.

#### Sales of goods and services

	Millions of yen	
	2016	2015
<b>Sales of goods</b>		
Joint ventures	565	611
Associates	1,417	1,716
<b>Sales of services</b>		
Joint ventures	9	584
Associates	75	136
	<b>2,066</b>	<b>3,047</b>

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 and the supply of on-line coating technology are provided to joint ventures. In 2016, these amounted to ¥9 million, of which related mainly to Cebrace (2015: ¥584 million of which related to SP Glass Holdings BV).

#### Purchase of goods and services

	Millions of yen	
	2016	2015
<b>Purchase of goods</b>		
Joint ventures	8,535	10,245
Associates	1,157	1,332
<b>Purchase of services</b>		
Joint ventures	185	-
Associates	3,237	3,368
	<b>13,114</b>	<b>14,945</b>

Goods are purchased from joint ventures by Nippon Sheet Glass Co., Ltd'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.

#### Technical assistance and license agreements to

	Millions of yen	
	2016	2015
Joint ventures	120	305

The Group has technical assistance agreements and license agreements with related parties. These agreements cover income received in respect of the use of technology and intellectual property used in the manufacture of float and automotive glass.

In addition, there is income in respect of royalties on patents, the provision of technical support and the use by the related party of know-how.

Royalties and fees are calculated as a percentage of the sales value or on the number of pieces produced (piece rates) depending upon the nature of the license and the normal commercial practice in that area. Agreements with related parties are made on commercial terms similar or identical to those with other licensees.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 37. Related party transactions continued

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

		Millions of yen	
	Note	2016	2015
<b>Receivables from related parties</b>	15		
Joint ventures		<b>1,791</b>	1,904
Associates		<b>115</b>	237
		<b>1,906</b>	2,141
<b>Payables to related parties</b>	25		
Joint ventures		<b>2,361</b>	3,304
Associates		<b>911</b>	968
		<b>3,272</b>	4,272

In relation to the receivables from related parties there are no provisions against their non-recovery either in 2016 or 2015. Similarly, there were no receivable balances from related parties, joint ventures or associates written off during the period.

#### Loans to related parties

		Millions of yen			
		2016	2015	2016	2015
	Note		Joint ventures	Associates	
<b>At 1 April</b>		<b>9,005</b>	7,906	<b>152</b>	189
Exchange differences		<b>(304)</b>	595	<b>(8)</b>	(4)
Loan repayments received		<b>(54)</b>	–	<b>(16)</b>	(38)
Interest charged		<b>537</b>	504	<b>4</b>	5
<b>At 31 March</b>	15	<b>9,184</b>	9,005	<b>132</b>	152

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 2016 or 2015.

At 31 March 2016 and 31 March 2015, 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 7.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 38. Group information

The consolidated financial statements of the Group include 219 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 14.

Name	Proportion of issued ordinary shares held	Country of operation and incorporation	Principal activity
<b>Japan</b>			
NSG Building Products Co., Ltd.	100%	Japan	Architectural
Thanxs Corporation Co., Ltd.	92.5%	Japan	Architectural
NSG Win-Tec Co., Ltd.	99.3%	Japan	Architectural
<b>Europe</b>			
Pilkington United Kingdom Ltd.	100%	UK	Architectural
Pilkington Automotive Ltd.	100%	UK	Automotive
Pilkington Technology Management Ltd.	100%	UK	Architectural and Automotive
NGF Europe Ltd.	100%	UK	Technical Glass
Pilkington Deutschland AG	96.3%	Germany	Architectural
Pilkington Automotive Deutschland GmbH	100%	Germany	Automotive
Pilkington Austria GmbH	100%	Austria	Architectural
Pilkington Norge AS	100%	Norway	Architectural
Pilkington Automotive Finland OY	100%	Finland	Automotive
Pilkington IGP Sp. zo.o.	100%	Poland	Architectural
Pilkington Automotive Poland Sp. zo.o.	100%	Poland	Automotive
Pilkington Polska Sp. zo.o.	100%	Poland	Architectural
Pilkington Italia SpA	100%	Italy	Architectural and Automotive
<b>North America</b>			
Pilkington North America Inc.	100%	USA	Architectural and Automotive
L-N Safety Glass SA de CV	100%	Mexico	Automotive
<b>Rest of the World</b>			
Vidrieria Argentina S.A.	51%	Argentina	Architectural
Vidrios Lirquen S.A.*	51.6%	Chile	Architectural
Pilkington Automotive Argentina S.A.	100%	Argentina	Automotive
Pilkington Brasil Ltda.	100%	Brazil	Architectural and Automotive
Guilin Pilkington Safety Glass Co., Ltd.	100%	China	Automotive
Suzhou NSG Electronics Co., Ltd.	100%	China	Technical Glass
NSG Hong Kong Co., Ltd.	100%	Hong Kong	Technical Glass
Malaysian Sheet Glass Sdn. Bhd.	100%	Malaysia	Architectural and Automotive
Vietnam Float Glass Co., Ltd.	55%	Vietnam	Architectural
NSG Vietnam Glass Industries Ltd.	100%	Vietnam	Architectural and Technical
<b>Holding and financing companies</b>			
NSG Holding (Europe) Ltd.	100%	UK	Holding company
NSG UK Enterprises Ltd.	100%	UK	Holding company
Pilkington Group Ltd.	100%	UK	Holding company

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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 38. Group information continued

#### Parent company

The parent company of the Group, Nippon Sheet Glass Co., Ltd 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 Co., Ltd, 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.

The cash and cash equivalent balances held by the Group's subsidiaries which are not generally available for use elsewhere amounted to ¥3,632 million (2015: ¥4,828 million).

### 39. 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	
	2016	2015
<b>Accumulated balances of material non-controlling interests</b>		
Vidrieria Argentina S.A.	3,315	4,261
Vidrios Lirquen S.A.	3,067	3,525
Others	2,520	2,476
Total	8,902	10,262
<b>Profit/(loss) for the period allocated to material non-controlling interests</b>		
Vidrieria Argentina S.A.	1,209	742
Vidrios Lirquen S.A.	592	121
Others	537	362
Total	2,338	1,225

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			
	2016		2015	
	Vidrieria Argentina S.A.	Vidrios Lirquen S.A.	Vidrieria Argentina S.A.	Vidrios Lirquen S.A.
Revenue	21,942	7,077	18,476	7,036
Profit for the period from continuing operations	2,468	803	1,515	164
Total comprehensive income	370	593	1,643	(130)
Dividends paid to non-controlling interests	-	(542)	-	(633)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 39. Non-controlling interests continued

#### Summarized statements of financial position

	Millions of yen			
	2016		2015	
	Vidrieria Argentina S.A	Vidrios Lirquen S.A	Vidrieria Argentina S.A	Vidrios Lirquen S.A
Current assets	7,242	2,458	10,587	2,821
Non-current assets	4,023	3,616	5,463	4,438
Current liabilities	(4,032)	(1,133)	(6,689)	(1,516)
Non-current liabilities	(467)	(780)	(666)	(960)
Total equity	6,766	4,161	8,695	4,783
Attributable to owners of the parent	3,451	1,094	4,434	1,258
Attributable to non-controlling interests	3,315	3,067	4,261	3,525

#### Summarized cash flow statements

	Millions of yen			
	2016		2015	
	Vidrieria Argentina S.A	Vidrios Lirquen S.A	Vidrieria Argentina S.A	Vidrios Lirquen S.A
Cash flows from operating activities	2,199	639	2,453	320
Cash flows from investing activities	(1,653)	(124)	(2,608)	(104)
Cash flows from financing activities	121	(542)	(70)	(633)
Increase/(decrease) in cash and cash equivalents (net of bank overdrafts)	667	(27)	(225)	(417)
Cash and cash equivalents (net of bank overdrafts) at the beginning of the period	1,836	941	1,946	1,331
Effect of foreign exchange rates	(1,018)	(121)	115	27
Cash and cash equivalents (net of bank overdrafts) at the end of the period	1,485	793	1,836	941

### 40. Post-balance sheet events

#### Sale of non-current assets

On 13 May 2016, the Group has announced its intention to sell and lease-back land at Kyoto City, Kyoto Prefecture, Japan, and land and buildings at Sungai Buloh, Malaysia. Both transactions represent the Group's intention to undertake transactions that it considers to be balance sheet enhancing. The details of these proposed transactions are set out below.

##### Land at Kyoto City, Kyoto Prefecture, Japan

Buyer:	Sumitomo Mitsui Finance and Leasing Company, Limited
Current usage of land:	Automotive glass processing plant
Date of transaction:	29 June 2016
Sale proceeds:	¥3,396 million

##### Land and buildings at Sungai Buloh, Malaysia

Buyer:	Fuyo General (Blue) Sdn. Bhd
Current usage of land:	Automotive glass processing plant
Date of transaction:	30 June 2016 (phase I) and not later than the end of August 2016 (phase II)
Sale proceeds:	Approximately ¥6,000 million

#### Share consolidation and change of the number of shares in a unit of shares

Nippon Sheet Glass Co., Ltd. ("The Company") resolved, at the meeting of the board of directors held on 20 May, 2016, to submit the matter of the share consolidation to the 150th ordinary general meeting of shareholders that was convened on 29 June, 2016 (the "Ordinary General Meeting of Shareholders"). The Company also resolved to change the number of shares constituting one unit of shares on condition that the proposal for the share consolidation will be approved at the Ordinary General Meeting of Shareholders. The proposal for the share consolidation has been approved at the Ordinary General Meeting of Shareholders. Details are described as below.

##### 1. Reason for share consolidation and change in share unit

For the greater convenience of investors and other market participants, all Japanese securities exchanges are promoting an "Action Plan for Consolidating Trading Units", under which trading units of common shares (number of shares in a unit of shares) for domestically listed companies are uniformly set at 100 shares. In light of the intent of this action plan, the Company decided to change the number of shares in a unit of shares from 1,000 shares to 100 shares as of 1 October, 2016. Also, in the changing the number of shares in a unit of shares from 1,000 shares to 100 shares, in order to maintain price level of a trading unit and the number of voting rights of shareholders following the change of unit of shares, the Company decided to carry out a share consolidation of the Company shares under which every 10 shares will be consolidated into 1 share.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 40. Post-balance sheet events continued

#### 2. Particulars of share consolidation

##### (1) Class of shares to be consolidated

Common shares

##### (2) Consolidation ratio

On 1 October, 2016, shares held by shareholders recorded in the latest register of shareholders as of 30 September, 2016 will be consolidated at the ratio of 10 shares to 1 share.

##### (3) Number of shares reduced through consolidation

Outstanding shares before consolidation (as of 31 March, 2016)	903,550,999 shares
Number of shares reduced through consolidation	813,195,900 shares
Outstanding shares after consolidation	90,355,099 shares

(Note) "Number of shares reduced through consolidation" and "Outstanding shares after consolidation" are theoretical values calculated based on the outstanding shares before consolidation, and on the share consolidation ratio.

#### 3. Treatment of fractional shares

If any fractional shares arise as a result of the share consolidation, pursuant to the Company Act, the Company will sell all such fractional shares and distribute the proceeds to shareholders having fractional shares in proportion to their respective fractions.

#### 4. Number of authorized shares as of effective date of share consolidation

In response to the decrease in outstanding shares due to the share consolidation, the Company will decrease the number of authorized shares in proportion to the consolidation ratio (1 share for every 10 shares) as of the effective date of the share consolidation (1 October, 2016).

Number of authorized shares before change	Number of authorized shares after change (as of 1 October, 2016)
1,775,000,000 shares	177,500,000 shares

#### 5. Particulars of change of the number of shares in a unit of shares

The Company will change the number of shares in a unit of shares from 1,000 shares to 100 shares as of 1 October, 2016.

#### 6. Effective date

Effective date of share consolidation	1 October, 2016
Effective date of change of the number of authorized shares	1 October, 2016
Effective date of change of the number of shares in a unit of shares	1 October, 2016

#### 7. Impact on per share information

Assuming that the share consolidation was performed at the beginning of FY2015, per share information for FY2016 and FY2015 are as follows.

	FY2016	FY2015
Total shareholders' equity per share (yen)	1,141.40	1,945.95
Earnings per share - basic (yen)	(551.75)	18.47
Earnings per share - diluted (yen)	(551.75)	18.38



<b>Company name</b>	Nippon Sheet Glass Co., Ltd.
<b>Head office</b>	5-27, Mita 3-chome, Minato-ku, Tokyo 108-6321, Japan Telephone: +81-3-5443-9500
<b>Established</b>	22 November 1918
<b>Number of permanent employees (consolidated)</b>	27,463
<b>Number of shares</b>	Authorized: 1,775,000,000 Issued: 903,550,999
<b>Number of shareholders</b>	74,089
<b>Paid-in capital</b>	¥116,449 million
<b>Stock listing</b>	Tokyo (Code: 5202)
<b>Independent auditors</b>	Ernst & Young ShinNihon LLC
<b>Transfer agent</b>	Sumitomo Mitsui Trust Bank, Limited 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

## FORWARD-LOOKING STATEMENTS

The projections contained in this document are based on information currently available to us and certain assumptions that we consider to be reasonable. Hence the actual results may differ. The major factors that may affect the results are the economic environment in major markets (such as Europe, Japan, the U.S. and Asia), product supply/demand shifts, and currency exchange fluctuations.

## FURTHER INFORMATION

The following information is available from our corporate website: [www.nsg.com](http://www.nsg.com)

- Shareholder information
- Global operations and workforce

In addition to this report, we produce a regular flow of publications intended to provide current and potential investors with as much information about the Group, the industries in which we operate and the organization, strategy, targets and progress of the Group. All of this information is available from our website.

