

NSG
GROUP



NSG Group

FY2020 Quarter 3 Results

(from 1 April 2019 to 31 December 2019)

Nippon Sheet Glass Company, Limited
30 January 2020

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Agenda



1. FY2020 Quarter 3 Financial Results
2. FY2020 Quarter 3 Business Update
3. Revision of FY2020 Full-year Forecast
4. Key Actions Update
5. Summary

FY2020 Quarter 3 Results Highlights



Affected by decline in vehicle production as well as an increase in architectural glass supply, mainly in Europe

Revenue	JPY 425.8 bn (7)%	Headwinds in the core markets, in addition to the translational impact of foreign exchange. Year-on-year decrease of 3% at constant exchange rates
Trading profit	JPY 19.4 bn (29)%	Automotive affected by further volume reduction in Europe, and decline in Japan in Q3; and Architectural by increasingly challenging market conditions, especially in Europe, with lower asset utilization. Improvements in solar energy glass volumes
Profit attributable to owners of the parent	JPY 1.2 bn (88)%	Lower operating profit and non-reoccurrence of an one-off gain recognized by a JV in the previous year
Free cash flow	JPY (49.3) bn	Additional impact of scheduled strategic investments and working capital movements

30 January 2020 | FY2020 Quarter 3 Results Presentation

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Slide 5 is the highlights of FY2020 third quarter results.

The Group experienced increasingly difficult trading conditions during the third quarter, with a further slow-down in vehicle production and increasing supplies of architectural glass, particularly in Europe.

Revenues declined by seven percent to 425.8 billion yen, as the Group faced headwinds in the Group's core markets, in addition to the translational impact of foreign exchange movements. Revenues would have fallen by three percent at constant exchange rates.

The trading profit declined by 29 percent to 19.4 billion yen. In Automotive, profits were affected by continuing lower volumes in Europe as well as a decline of demand in Japan in the third quarter due to the sales tax increase. Architectural profits were affected by increasingly challenging conditions, especially in Europe where capacity utilization worsened. On the other hand, solar volumes improved.

Profit attributable to owners of the parent was 1.2 billion yen, due to the non-recurrence of a one-off gain recognized by a joint venture in the previous year, together with the reduction in trading profit.

Free cash flow recorded an outflow of 49.3 billion yen with lower profit as well as strategic investments and the movement in working capital.

Consolidated Income Statement



¥ bn	FY2019 Q3	FY2020 Q3	Change
Revenue	459.5	425.8	(33.7)
Trading profit	27.2	19.4	(7.8)
Amortization *	(1.5)	(1.4)	0.1
Operating profit	25.7	18.0	(7.7)
Exceptional items	(3.3)	(4.4)	(1.1)
Finance expenses (net)	(10.2)	(9.5)	0.7
Share of JVs and associates	4.9	1.2	(3.7)
Profit before taxation	17.1	5.3	(11.8)
Profit for the period	11.4	1.9	(9.5)
Profit attributable to owners of the parent	10.5	1.2	(9.3)
EBITDA	46.7	43.2	(3.5)

*: Amortization arising from the acquisition of Pilkington plc only

Slide 6 is the Group's consolidated income statement.

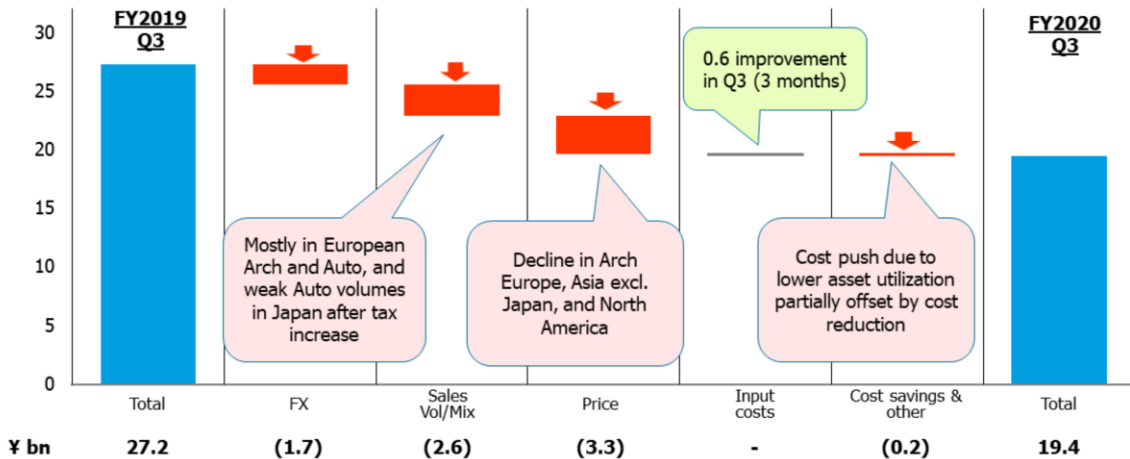
Revenue, trading profit and profit attributable to owners of the parent are as explained in the previous slide.

The exceptional loss at third quarter was 4.4 billion yen. In the three-month period to the end of December, the Group recognized exceptional losses incurred mainly from restructuring in Automotive Europe. For further details, please refer to slide 25 in the appendices at the back of this document.

Net finance expenses decreased by 0.7 billion yen, despite an increase of interest costs due to the adoption of IFRS16 "Leases" from this financial year.

Change Analysis – Trading profit

Impacted by foreign exchange movement and volume decline in challenging market conditions, exacerbated by severe price declines in Q3



Foreign currency movements had a negative 1.7 billion yen impact. Volume/Mix were mostly due to volume declines in architectural and automotive glass in Europe. In the third quarter, a slowdown in car registration in Japan after the consumption tax increase had an additional impact. Prices movements were negative in Architectural Europe, South East Asia and North America, where increases in glass supply are intensifying price pressure. Input costs had a positive 0.6 billion yen variance during the third quarter, helped by lower energy prices, especially in Europe. In the 'cost savings and other' column, negative impacts such as lower asset utilization have offset the benefits from the Group's cost reduction efforts and resulted in a negative variance of 0.2 billion yen.

Key Performance Indicators



Net debt increased due to IFRS16, strategic investments and working capital movements

	<u>31 December</u> <u>2018</u>	<u>31 December</u> <u>2019</u>	<u>31 March</u> <u>2019</u>
Net Debt (¥ bn)	336.8	411.4 ^{*1}	317.7
Net Debt / EBITDA	5.3x	6.4x	4.9x
Net Debt / Equity Ratio	2.6x	3.5x	2.4x
Shareholders' Equity Ratio	15.9%	12.9%	16.2%
	<u>FY2019</u> <u>Q3</u>	<u>FY2020</u> <u>Q3</u>	<u>FY2019</u>
Operating Return ^{*2} on Sales	5.9%	4.6%	6.3%

*1: Includes net debt arising from adoption of IFRS16 of JPY 30.4 billion

*2: Trading profit

Net debt increased by 93.7 billion yen from 31 March 2019 to 411.4 billion yen, as result of the adoption of IFRS16 'Leases', capital expenditures on strategic investments and working capital movements.

The Net debt/EBITDA ratio was affected by the increase in net debt.

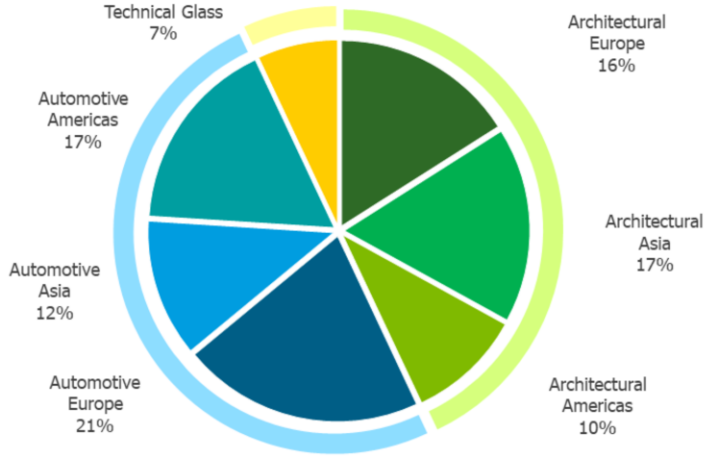
With the translational impact of foreign currency movements and the adoption of IFRS16, the shareholders' equity ratio decreased from 16.2 percent at 31 March 2019 to 12.9 percent but showed a moderate improvement from the end of the second quarter. Operating return on sales was below the previous year.

External Revenue – Group Businesses



Diversified geographical coverage

¥ 425.8 billion

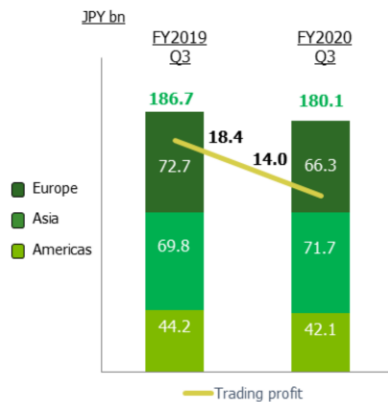


FY2020 Quarter 3

37 percent of the Group’s sales are in Europe, 36 percent in Asia including Japan and 27 percent in Americas.

Architectural – FY2019 Q3 vs FY2020 Q3

Affected by foreign exchange movements, increasingly difficult market conditions and lower asset utilization. Robust solar energy glass volumes



Revenue: Mostly forex movement, exacerbated by market deterioration in Q3

Profit: More than half decline in Europe

Europe (Revenue ▼, Profit ▼)

- Revenues affected by forex and lower volumes, together with price decline in Q3, driven by new market capacity
- Further profit decline due to lower sales and asset utilization

Asia (Revenue ▲, Profit ▼)

- Higher revenues with increased solar energy glass shipment. Improved profit in Japan offset by reduction in South East Asia in challenging markets due to excess capacity

Americas (Revenue ▼, Profit ▼)

- Flat revenues & lower profit in NA with higher solar glass volumes offset by lower prices due to increased glass supply
- Local currency results improved in SA despite uncertainty in underlying economic environment

Revenues in the Architectural Glass business decreased by 4 percent to 180.1 billion yen, due to the weakened European and South American currencies, which was exacerbated by increasingly difficult trading conditions in the third quarter. Profits decreased by 4.4 billion yen to 14.0 billion yen, more than half of which was related to worsened conditions in European.

In Europe, revenues were lower than the previous year due to lower volumes together with the significant fall in prices in the third quarter as a result of recent capacity additions in the region. Profits fell from the previous year, affected by the reduction in revenues and lower asset utilization.

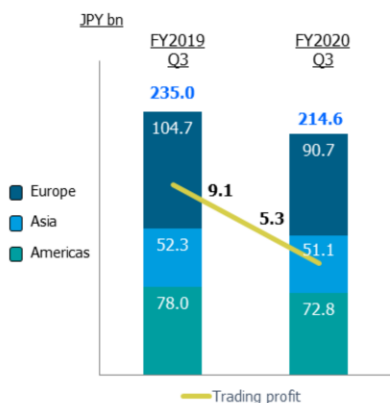
In Asia, revenue increased with robust solar energy glass volumes. Profits declined year on year, as architectural glass markets in South East Asia were affected by lower prices caused by increases in glass supply, while, profitability in Japan improved.

In North America, volumes of solar energy glass were robust as in Asia. Profits, however, reduced as the domestic business was affected by lower prices because of increased supply in the market.

In South America, local currency results improved despite the uncertainty in underlying economic environment.

Automotive – FY2019 Q3 vs FY2020 Q3

Significantly affected by slowdown in new car production in European markets



Revenue: affected by forex movements and volume reduction, mainly in Europe

Profit: reduced mostly in Europe, and in Japan in Q3

Europe (Revenue ▼, Profit ▼)

- Results affected by reduction in volumes with Q3 in particular impacted by production cuts by vehicle manufacturers, mainly to re-balance inventories.

Asia (Revenue ▼, Profit ▼)

- In Japan, solid sale volumes in H1, followed by reduction after the consumption tax hike. Profit affected by increased raw glass costs and volume decline in Q3

Americas (Revenue ▼, Profit ▲)

- Improved profit with better manufacturing efficiency in North America despite slight decline in revenue
- Profitability in South America similar to the previous year, with Brazil improving

Revenues in the Automotive Glass business decreased by 9 percent to 214.6 billion yen and profits decreased by 3.8 billion yen to 5.3 billion yen, as the results were affected mainly by the reduction of new car production in Europe, in addition to the translational effects of foreign currency movements.

In Europe, the results were affected by a reduction in volumes. While new-car registrations in the region were relatively stable, car production decreased in line with vehicle manufacturers' inventory adjustments.

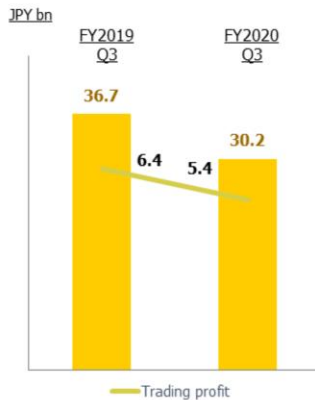
In Asia, both revenues and profits decreased. In Japan, volumes were robust during the first half of the year in the run-up to the consumption tax hike, but revenues decreased afterwards. Profits were affected by the reduced sales volume in the third quarter in addition to increased cost of raw glass.

As in the Architectural businesses, the results of the Americas were affected by the translational impact of foreign currency movements. Revenues decreased by 7 percent mainly due to devaluation of the Argentinian Peso. Revenues would have fallen by 2 percent at constant exchange rates.

Profits improved in North America, driven by manufacturing efficiency gains. Profitability in South America was similar to the previous year, while the performance in Brazil showed a continued improvement.

Technical Glass – FY2019 Q3 vs FY2020 Q3

Demand decline for lenses and glass cord while further improvement in fine glass



Technical Glass (Revenue ▼, Profit ▼)

- Improved fine glass profit with continued cost reduction efforts and better sales mix
- Decline in revenues and profit of printer lenses and glass cord used in engine timing belts due to weaker market conditions
- Stable battery separators results

While some of the businesses such as lenses and glass cord were affected by difficult market conditions, the fine glass business recorded a further improvement in profitability. Technical Glass revenues decreased by 6.5 billion yen to 30.2 billion yen and profits decreased by 1.0 billion yen to 5.4 billion yen.

Fine Glass's results benefitted from a lower cost base following continued cost reduction efforts, along with improvements in sales mix.

Profits of printer lenses and glass cord used in engine timing belts declined. Glass cord was affected by reductions in car production in Europe and China.

Battery separator results remained stable.

Revision of Full-year Forecast



Revisions made reflecting worsened business environment in Q3, which is expected to continue into Q4

¥ bn	FY2019 Actual	FY2020 Forecast (Original)	FY2020 Forecast (Revised at Q2)	FY2020 Revised Forecast (Latest)	Change
Revenue	612.8	620.0	570.0	560.0	(10.0)
Trading profit	38.8	37.0	31.0	23.0	(8.0)
Amortization *	(1.9)	(2.0)	(2.0)	(2.0)	-
Operating profit	36.9	35.0	29.0	21.0	(8.0)
Exceptional items	(7.1)	(6.0)	(7.0)	(7.0)	-
Finance expenses (net)	(13.3)	(14.0)	(14.0)	(13.0)	1.0
Share of JVs and associates	6.2	4.0	2.0	2.0	-
Profit before taxation	22.7	19.0	10.0	3.0	(7.0)
Profit for the period	14.4	12.0	4.0	(2.0)	(6.0)
Profit attributable to owners of the parent	13.3	11.0	3.0	(3.0)	(6.0)

*: Amortization arising from the acquisition of Pilkington plc only

As presented in the previous slides, the Group's third quarter results were affected by increasingly challenging trading conditions, which are expected to continue during the remainder of the year. Based on such assumptions, the Group has regrettably decided to make another revision to its full-year forecast, as shown on the slide.

Forecast of revenues now stands at 560.0 billion yen, which is 10.0 billion yen less than the forecast issued at the announcement of the second quarter results.

Trading profit has been reduced by 8.0 billion yen to 21.0 billion yen and profit attributable is reduced by 6.0 billion yen to a loss of 3.0 billion yen.

Revision of Full-year Forecast



Key contributing factors: worsening market conditions in Europe and Asia and resulting decline in asset utilization

Breakdown of JPY 8 billion revision to trading profit forecast

Business	Profit	Factors
Architectural	(3)	<ul style="list-style-type: none">Market deterioration in Europe and South East Asia. Lower asset utilization due to impact from new floats
Automotive	(4)	<ul style="list-style-type: none">Europe contributing to about half of decline, followed by JapanSales volume reduction and lower asset utilization in Europe due to production cuts by vehicle manufacturersSignificant decline in Japan volumes from Q3 following consumption tax increase
Technical	(1)	<ul style="list-style-type: none">Vehicle production decline in Europe and China impacting glass cord demand

This is the breakdown of the JPY 8 billion revision to the trading profit forecast. 3.0 billion out of the total of 8.0 billion yen revision to trading profit is related to the Architectural business. Volumes and prices have come under increased pressure with abundant supplies of glass, particularly in Europe and South East Asia, which in turn is affecting the Group's asset utilization. 4.0 billion yen is attributable to the Automotive business. About half is in relation to Europe, followed by Japan, reflecting a further slowdown in the market. Lower production by European car manufacturers and weak car demand after the consumption tax increase in Japan are expected to continue. The remaining 1.0 billion is regarding Technical Glass. The vehicle production decline in Europe and China is expected to impact glass cord demand.

Key Actions Update: Profitability Improvement



Continued identification and execution of fundamental improvement actions including cost reduction

- Automotive Europe: continued restructuring and production line consolidation mainly in Italy
- Architectural Europe counter actions against increasingly challenging market conditions: planned supply adjustment with hot hold, earlier or longer repair for multiple float lines
- Architectural Japan: profitability improvement project under progress according to plan, including the consolidation of downstream operations, processing line closures, headcount reduction and price increases, aiming for profit improvement in FY2021
- Automotive North America: ongoing efficiency improvement
- Group-wide OCS (operational cost saving) programs and additional spend cuts underway towards the end of FY2020
- Additional measures to benefit FY2021 and onward under consideration. Any material financial impact such as incurring exceptional cost would be announced timely

With a significant decline in business performance, turning around European businesses is the Group's priority.

In Automotive Europe, the Group has been rationalizing the operations by restructuring and consolidating production lines mainly in Italy. The initiative has generated benefits but further improvement measures will be taken going forward.

In Architectural Glass Europe, capacity adjustment plans are being developed including hot holds, earlier and longer repairs for multiple float lines. These actions do not lead to immediate profitability improvement but in the longer term, ensuring a good demand and supply balance is beneficial.

In other regions, the Architectural business in Japan has been taking such actions as the consolidation of downstream operations, headcount reduction, and price increases as planned to improve profitability in FY2021 and onward. The Group does not assume that market conditions will improve readily and focuses on what can be controlled internally to increase profitability.

In North America, measures to improve manufacturing efficiency have been underpinning profitability improvement.

In addition to the ongoing operating cost saving actions, a new Group-wide initiative to cut discretionary spending has been launched.

The Group remains focused on driving the VA (value-added) shift, as an important pillar of profitability improvement and is taking actions such as reinforcing the marketing function.

In response to a significant change in the business, the Group is also reviewing additional measures which could improve profitability in the coming years. Going forward, should there be any material impact such as incurring exceptional cost, we will disclose it in a timely manner.

Key Actions Update: Investment for Growth



Remaining committed to strategic investments and new business development, aimed for supporting growth in FY2021 and onward

- Strategic investment projects for solar energy glass and in South America are progressing as planned
 - Capacity expansion for solar energy glass
 - The second line in Vietnam was lit up on 19 January and is planned to start production in February
 - The greenfield plant in the USA is slated for starting up in the second half of FY2021
 - New capacity in South America (Argentina) is being built to begin operations during the second half of FY2021 (latest assumption)
- Multiple projects under development by Business Innovation Center (BIC)



Vietnam Glass Industries and the light-up ceremony

The two strategic investment projects to expand capacities in the areas of solar energy glass, and also an emerging market project in South America, are progressing steadily. The second solar energy glass float line in Vietnam had been lit up recently on 19 January and is planned to begin operation in February. The new solar energy glass float line in North America is under construction and expected to begin production later in FY2021.

The construction work on the new float line in South America is underway, which is now expected to come onstream in the second half of FY2021.

Further, multiple projects are being promoted by the Business Innovation Center to accelerate new business development.

Summary



FY2020 quarter 3 financial results

- Revenues declined due to foreign exchange movements and challenging conditions in core markets
- Profit fell due to: further volume reduction in Europe, and decline in Japan in Q3, in Automotive; and more difficult market conditions and asset utilization especially in Europe in Architectural
- Solar energy glass volumes and South American businesses remained solid

Revision of full-year forecast reflecting further slowdown in core markets, continuing into Q4

- Architectural: market deterioration in Europe and South East Asia. Lower asset utilization due to impact from new floats
- Automotive: sales volume reduction and lower asset utilization in Europe due to production cuts by vehicle manufacturers; and significant decline in Japan volumes from Q3 after consumption tax hike
- Technical: vehicle production decline in Europe and China impacting glass cord demand
- Focus on attaining positive underlying free cash flow, excluding the strategic capital expenditure

Profitability improvement measures and investment for growth

- Continued identification and execution of fundamental improvement actions including cost reduction
- Drive for strategic investment projects and new business development for future remains unchanged

The Group's third quarter results reflected increasingly difficult trading conditions. Anticipating these conditions to continue, the Group revised its full-year forecast further. While capital expenditure related to the two strategic investment projects is to increase in the remainder of the year, the Group is aiming to achieve a positive underlying free cash flow, excluding strategic investments.

Despite the headwinds in the markets, the Group remains committed to execute profitability improvement and growth measures, in order to turn around and increase profitability going forward.

Notice



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 and competitive environment in major markets, product supply and demand shifts, currency exchange and interest rate fluctuations, changes in supply of raw materials and fuel and changes and laws and regulations, but not limited.

Nippon Sheet Glass Company, Limited

Appendices



- Revenue – by Business & Regions
- Trading Profit – by Business & Regions
- Revenue & Trading Profit – Quarterly Trend
- Consolidated Balance Sheet
- Consolidated Cash Flow
- Exceptional items
- Foreign exchange rates
- Depreciation & Amortization, CAPEX, R&D Expenses

Revenue – by Business & Regions



JPY bn	3rd Quarter (Oct - Dec: 3 months)			3rd Quarter (Cumulative: 9 months)		
	FY2019	FY2020	Change	FY2019	FY2020	Change
Architectural	65.0	60.4	(4.6)	186.7	180.1	(6.6)
Europe	23.1	21.0	(2.1)	72.7	66.3	(6.4)
Asia	26.3	24.7	(1.6)	69.8	71.7	1.9
Americas	15.6	14.7	(0.9)	44.2	42.1	(2.1)
Automotive	74.2	66.4	(7.8)	235.0	214.6	(20.4)
Europe	30.7	27.8	(2.9)	104.7	90.7	(14.0)
Asia	18.9	16.5	(2.4)	52.3	51.1	(1.2)
Americas	24.6	22.1	(2.5)	78.0	72.8	(5.2)
Technical Glass	11.7	10.0	(1.7)	36.7	30.2	(6.5)
Europe	1.7	1.6	(0.1)	5.8	5.1	(0.7)
Asia	9.6	8.1	(1.5)	29.7	24.0	(5.7)
Americas	0.4	0.3	(0.1)	1.2	1.1	(0.1)
Other	0.5	0.4	(0.1)	1.1	0.9	(0.2)
Total	151.4	137.2	(14.2)	459.5	425.8	(33.7)

Trading Profit – by Business & Regions

JPY bn	3rd Quarter (Oct-Dec: 3 months)			3rd Quarter (Cumulative: 9 months)		
	FY2019	FY2020	Change	FY2019	FY2020	Change
Architectural	6.5	4.2	(2.3)	18.4	14.0	(4.4)
Automotive	1.7	0.1	(1.6)	9.1	5.3	(3.8)
Technical Glass	2.0	1.9	(0.1)	6.4	5.4	(1.0)
Other	(1.8)	(2.6)	(0.8)	(6.7)	(5.3)	1.4
Total	8.4	3.6	(4.8)	27.2	19.4	(7.8)
Europe	3.0	0.9	(2.1)	12.5	6.6	(5.9)
Asia	5.4	3.7	(1.7)	14.4	11.0	(3.4)
Americas	1.8	1.6	(0.2)	7.0	7.1	0.1
Other	(1.8)	(2.6)	(0.8)	(6.7)	(5.3)	1.4
Total	8.4	3.6	(4.8)	27.2	19.4	(7.8)

Revenue & Trading Profit – Quarterly Trend



Architectural



Automotive



Technical Glass



Consolidated Balance Sheet



JPY bn	31 March 2019	31 December 2019	Change
Assets	761.9	809.2	47.3
Non-current assets	516.3	562.2	45.9
Goodwill & intangible assets	161.1	156.7	(4.4)
Property, plant and equipment	241.5	295.5	54.0
Other	113.7	110.0	(3.7)
Current assets	245.6	247.0	1.4
Cash & cash equivalents	52.4	45.9	(6.5)
Other	193.2	201.1	7.9
Liabilities	629.4	692.9	63.5
Current liabilities	193.0	184.5	(8.5)
Financial liabilities	42.2	59.4	17.2
Other	150.8	125.1	(25.7)
Non-current liabilities	436.4	508.4	72.0
Financial liabilities	329.3	398.8	69.5
Other	107.1	109.6	2.5
Equity	132.5	116.3	(16.2)
Shareholders' equity	123.8	104.3	(19.5)
Non-controlling interests	8.7	12.0	3.3
Total liabilities and equity	761.9	809.2	47.3

Consolidated Cash Flow Summary



JPY bn	FY2019 3rd Quarter	FY2020 3rd Quarter	Change
Profit for the period	11.4	1.9	(9.5)
Depreciation and amortization	21.0	25.8	4.8
Gain on sale of a subsidiary	-	(1.0)	(1.0)
Share of profit from JVs and associates	(4.9)	(1.2)	3.7
Tax paid	(4.4)	(4.4)	-
Others	(1.7)	(2.6)	(0.9)
Net operating cash flows before movement in working capital	21.4	18.5	(2.9)
Net change in working capital	(18.6)	(23.1)	(4.5)
Net cash flows from operating activities	2.8	(4.6)	(7.4)
Purchase of property, plant and equipment			
- Strategic projects	-	(28.9)	(28.9)
- Other	(19.3)	(16.1)	3.2
Disposal proceeds	0.3	2.2	1.9
Others	(2.1)	(1.9)	0.2
Net cash flows from investing activities	(21.1)	(44.7)	(23.6)
Free cash flow	(18.3)	(49.3)	(31.0)

Exceptional items



JPY bn

	<u>FY2019</u> <u>3rd Quarter</u>	<u>FY2020</u> <u>3rd Quarter</u>
Gain on disposal of a subsidiary	-	1.0
Exchange gain on business closure	0.7	-
Restructuring costs, including employee termination payments	(2.0)	(3.8)
Suspension of facilities	(0.4)	(1.3)
Net impairment of non-current assets	(0.1)	(0.1)
Retirement benefit obligations - past service cost	(1.4)	-
Other	(0.1)	(0.2)
	<u>(3.3)</u>	<u>(4.4)</u>

Foreign exchange rates



Average rates used

	FY2018				FY2019				FY2020			Forecast
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
GBP	142	144	146	147	149	147	146	146	141	137	138	137
EUR	122	126	128	130	131	130	129	129	124	121	121	122
USD	111	112	111	111	110	111	111	111	109	109	109	109
BRR	34.6	35.0	34.8	34.4	30.4	29.3	29.3	29.4	28.0	27.6	27.2	-
ARS	7.06	6.74	6.65	6.30	4.70	-	-	-	-	-	-	-

FX Sensitivity

Increase (decrease) if the value of the yen increases by 1% (all other things being equal):

(JPY bn)	FY2018	FY2019
Equity	(3.5)	(3.3)
Profit for the period	(0.1)	(0.2)

Closing rates used

	FY2018				FY2019				FY2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
GBP	146	151	152	150	145	148	141	144	137	133	144
EUR	128	132	136	132	128	132	127	124	123	118	122
USD	112	113	113	106	111	113	111	111	108	108	109
BRR	34.0	35.4	33.9	32.1	28.6	28.2	28.5	28.3	28.3	26.0	27.1
ARS	6.81	6.42	6.03	5.30	3.94	2.84	2.93	2.53	2.53	1.88	1.82

Oil prices (Brent)

FY2020 Forecast **US\$ 63 per barrel**

Depreciation & Amortization, CAPEX, R&D Expenditures



(JPY bn)	FY2019 3rd Quarter	FY2020 3rd Quarter
Depreciation and amortization	21.0	25.8
Capital expenditures (including intangibles)		
Ordinary	17.6	17.2
Strategic projects and other	-	28.9
Total	17.6	46.1
R&D expenditures		
Architectural	2.0	2.0
Automotive	2.4	1.9
Technical Glass	0.6	0.7
Other	2.2	2.3
Total	7.2	6.9

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