

NSG

GROUP

NSG Group

FY2020 Quarter 2 Results

(from 1 April 2019 to 30 September 2019)

Nippon Sheet Glass Company, Limited
31 October 2019

Shigeki Mori

Chief Executive Officer

Kenichi Morooka

Chief Financial Officer

Clemens Miller

Chief Operating Officer

Agenda

1. FY2020 Quarter 2 Financial Results
2. FY2020 Quarter 2 Business Update
3. Revision of FY2020 Full-year Forecast
4. FY2020 Policy: Shift to “VA + Growth” Update
5. Summary

FY2020 Quarter 2 Results Highlights

Impact of foreign exchange movements and increasingly difficult market conditions during Q2

Revenue	JPY 288.6 bn (6)%	Affected by translational impact of foreign exchange. Year-on-year decrease of 2% at constant exchange rates
Trading profit	JPY 15.8 bn (16)%	Profitability affected by the decrease in European car production volumes and increasingly difficult conditions during Q2 in certain architectural markets
Profit attributable to owners of the parent	JPY 1.9 bn (79)%	Lower operating profit and non-reoccurrence of an one-off gain recognized by a JV in the previous year
Free cash flow	JPY (28.8) bn	Resulting from scheduled strategic investments* and seasonal working capital movements

* Strategic investments: Please refer to Slide 19

Consolidated Income Statement

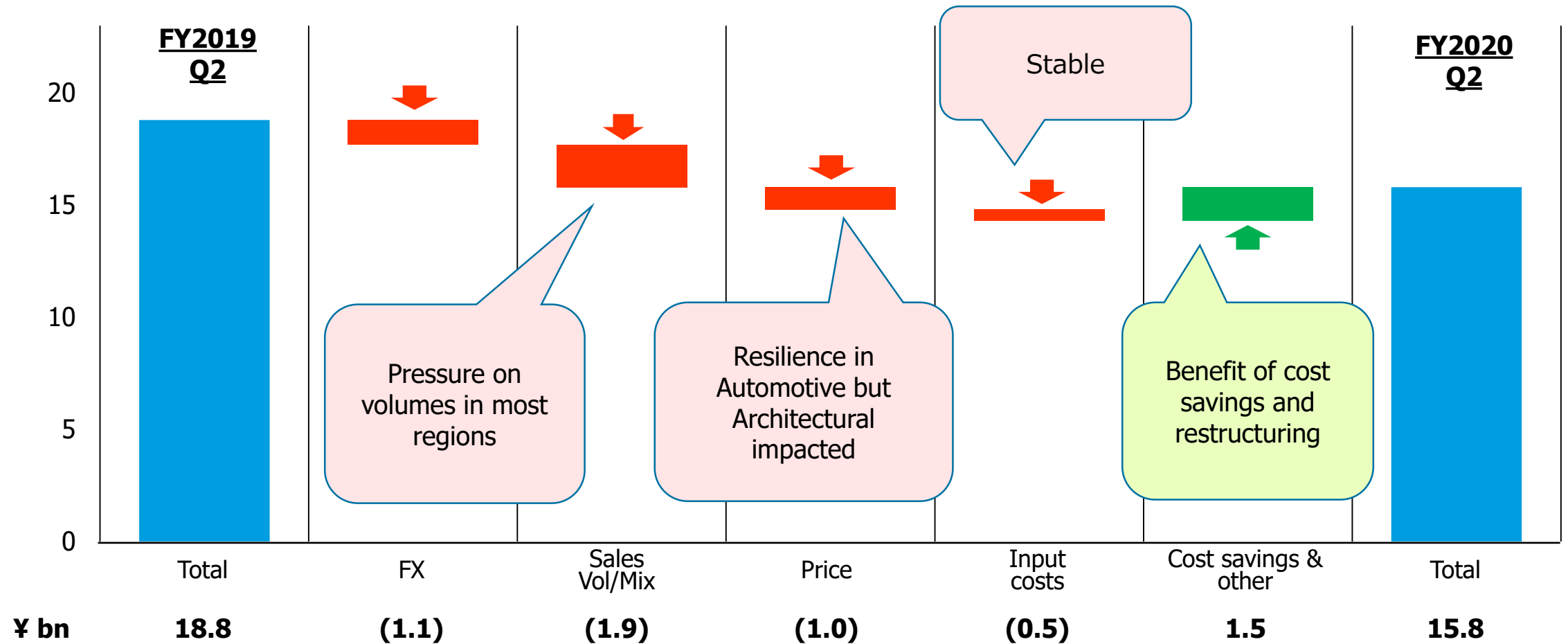
Results affected by difficult market conditions

	<u>FY2019</u> <u>Q2</u>	<u>FY2020</u> <u>Q2</u>	<u>Change</u>
¥ bn			
Revenue	308.1	288.6	(19.5)
Trading profit	18.8	15.8	(3.0)
Amortization *	(1.0)	(0.9)	0.1
Operating profit	17.9	14.9	(3.0)
Exceptional items	(1.2)	(2.2)	(1.0)
Finance expenses (net)	(6.7)	(6.3)	0.4
Share of JVs and associates	3.8	0.8	(3.0)
Profit before taxation	13.7	7.2	(6.5)
Profit for the period	10.0	2.4	(7.6)
Profit attributable to owners of the parent	9.3	1.9	(7.4)
EBITDA	32.0	31.7	(0.3)

*: Amortization arising from the acquisition of Pilkington plc only

Change Analysis – Trading profit

Improvements in cost base partly offset impact of foreign exchange movements and difficult market conditions



Key Performance Indicators

Net debt increased as result of IFRS16 and strategic investments

	<u>30 September</u> <u>2018</u>	<u>30 September</u> <u>2019</u>	<u>31 March</u> <u>2019</u>
Net Debt (¥ bn)	320.1	388.1^{*1}	317.7
Net Debt / EBITDA	5.1x	5.6x	4.9x
Net Debt / Equity Ratio	2.2x	3.8x	2.4x
Shareholders' Equity Ratio	17.8%	11.9%	16.2%
	<u>FY2019</u> <u>Q2</u>	<u>FY2020</u> <u>Q2</u>	<u>FY2019</u>
Operating Return ^{*2} on Sales	6.1%	5.5%	6.3%

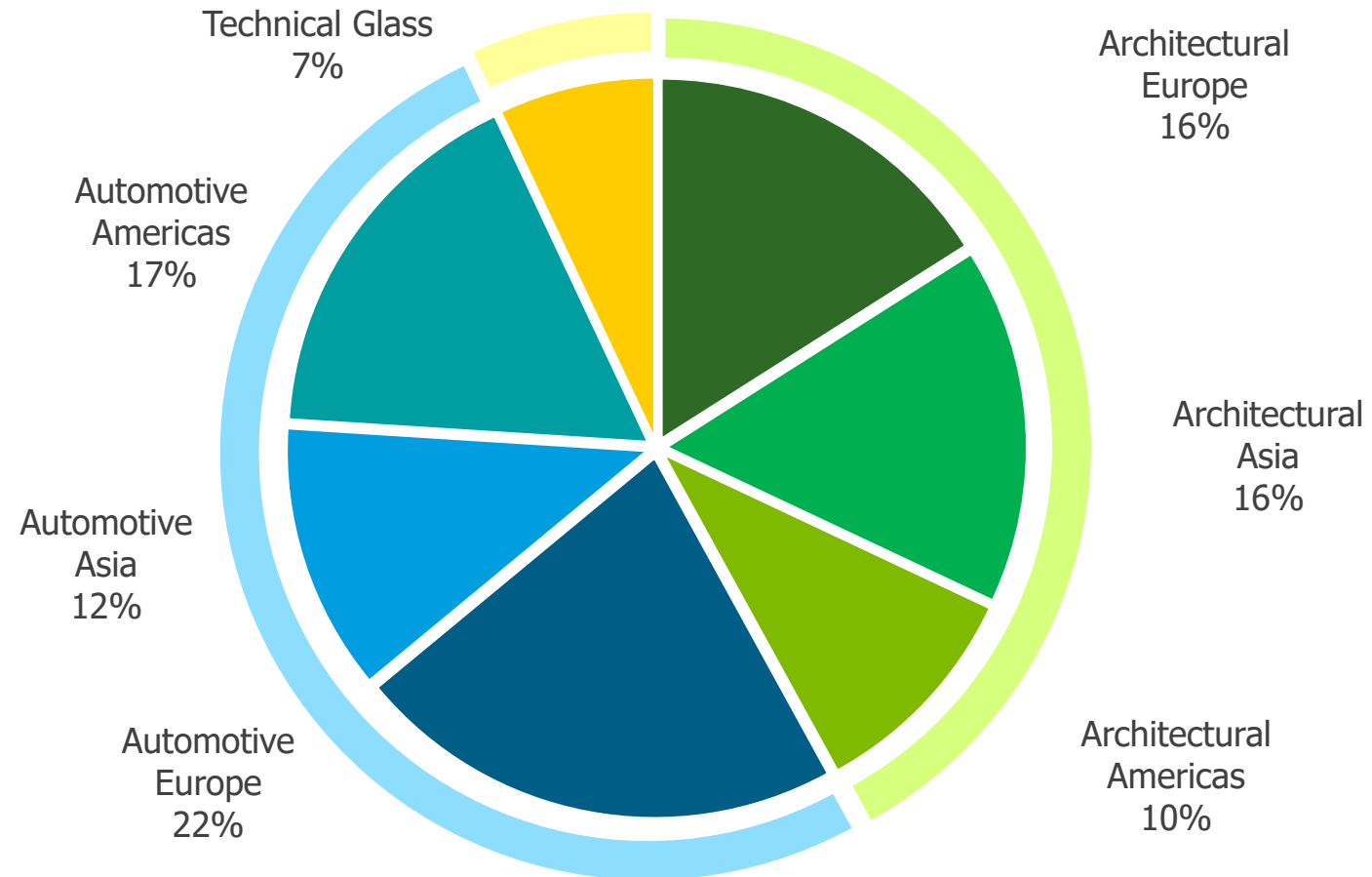
*1: Includes net debt arising from adoption of IFRS16 of JPY 31.0 billion

*2: Trading profit

External Revenue – Group Businesses

Diversified geographical coverage

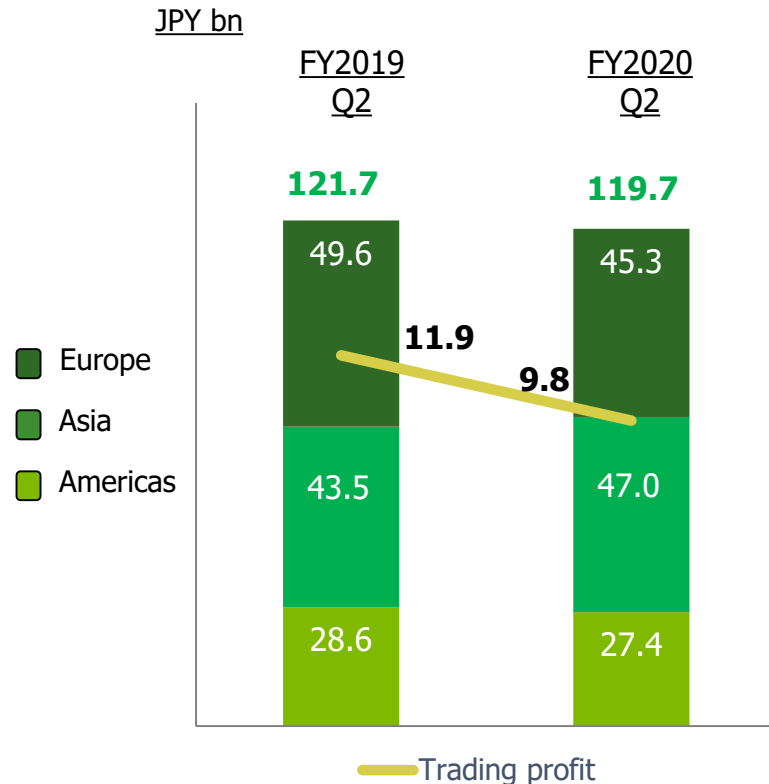
¥ 288.6 billion



FY2020 Quarter 2

Architectural – FY2019 Q2 vs FY2020 Q2

Affected by foreign exchange translations and increasingly difficult conditions during the quarter in certain markets. Robust solar energy glass volumes



Europe (Revenue ▼, Profit ▼)

- Revenues affected by lower volumes, in addition to the impact of foreign exchange translations

Asia (Revenue ▲, Profit ▼)

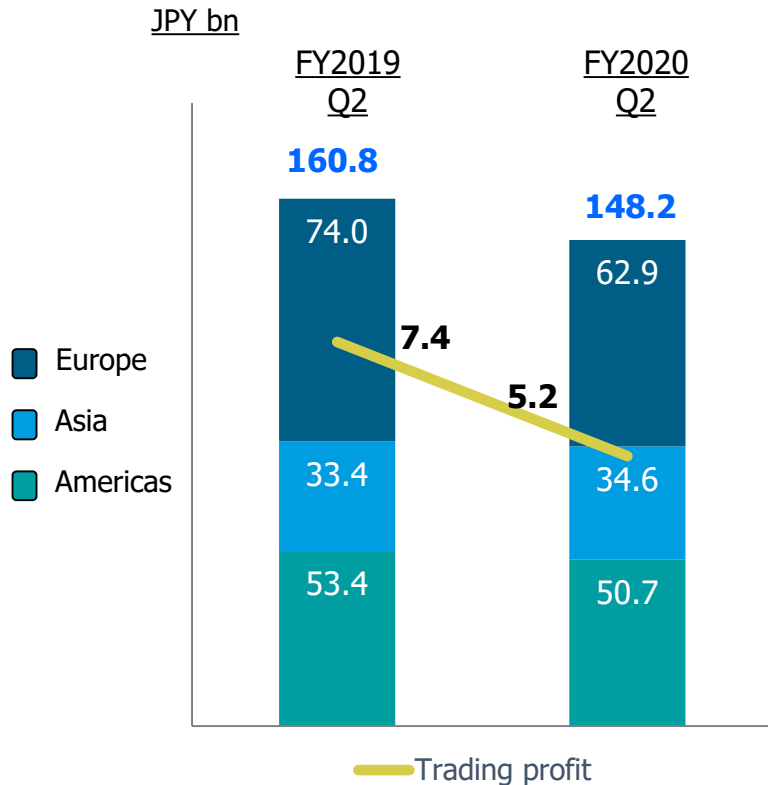
- Increased dispatches of solar energy glass
- Despite one-off inventory valuation adjustment in Q2, profitability improved in Japan

Americas (Revenue ▼, Profit ▼)

- Increased flat glass supply caused erosion of domestic market prices in North America
- Local currency results improved in South America despite uncertainty in underlying economic environment
- Improved solar energy glass volumes

Automotive – FY2019 Q2 vs FY2020 Q2

Slowdown in new car production in European markets



Europe (Revenue ▼, Profit ▼)

- Results affected by reduction in volumes

Asia (Revenue ▲, Profit ▼)

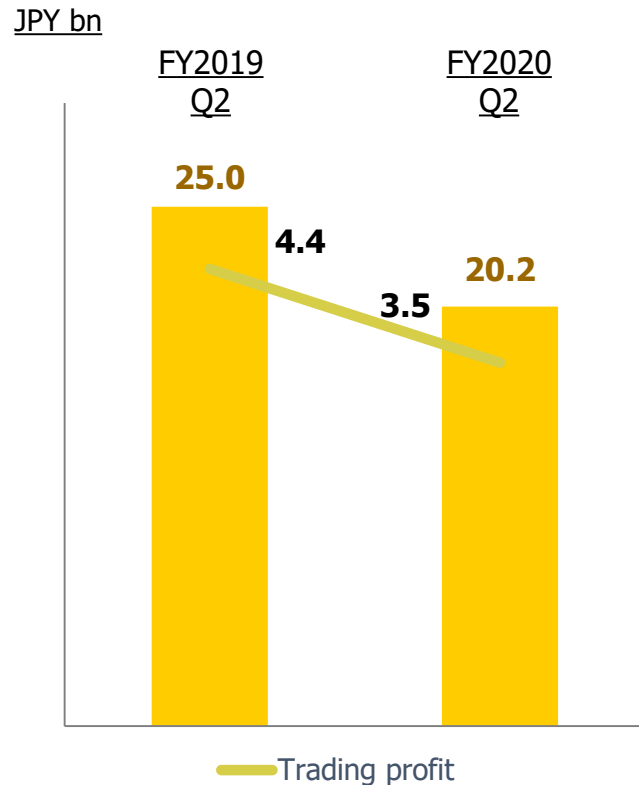
- Revenue increased with higher volume in Japan, while profitability affected by increased raw glass costs

Americas (Revenue ▼, Profit ▲)

- OE profit improvements driven by manufacturing efficiency gains in North America. AGR ahead of the previous year.
- Profitability in South America was similar to the previous year

Technical Glass – FY2019 Q2 vs FY2020 Q2

Parts of business affected by difficult market conditions



Technical Glass (Revenue ▼, Profit ▼)

- Fine Glass results reflect continued cost reduction efforts and better sales mix
- Revenues of printer lenses and glass cord used in engine timing belts declined due to weaker market conditions
- Battery separators results remained solid

Revision of Full-year Forecast

Based on latest business expectations

	<u>FY2019 Actual</u>	<u>FY2020 Forecast (Original)</u>	<u>FY2020 Revised Forecast</u>	<u>Change</u>
¥ bn				
Revenue	612.8	620.0	570.0	(50.0)
Trading profit	38.8	37.0	31.0	(6.0)
Amortization *	(1.9)	(2.0)	(2.0)	-
Operating profit	36.9	35.0	29.0	(6.0)
Exceptional items	(7.1)	(6.0)	(7.0)	(1.0)
Finance expenses (net)	(13.3)	(14.0)	(14.0)	-
Share of JVs and associates	6.2	4.0	2.0	(2.0)
Profit before taxation	22.7	19.0	10.0	(9.0)
Profit for the period	14.4	12.0	4.0	(8.0)
Profit attributable to owners of the parent	13.3	11.0	3.0	(8.0)

*: Amortization arising from the acquisition of Pilkington plc only

Summary

FY2020 Quarter 2 Financial Results

- Affected by the translational impact of foreign currency movements and a decrease in European car production volumes, as well as increasingly difficult conditions during the quarter in certain architectural markets

Outlook for the remainder of FY2020

- Revised FY2020 full-year forecast to reflects expectations that markets will continue to be difficult
- Architectural
 - Europe and North America affected by increased glass supply
 - Growth in solar energy glass
- Automotive and some areas of Technical Glass
 - Affected by reduction of car production in Europe and China
- Focus on attaining positive underlying free cash flow, excluding the strategic capital expenditure projects

FY2020 Policy: Shift to “VA + Growth”

Actions Taken to Drive Shift to “VA + Growth”

While affected by market, actions are being taken aiming to return to profit growth

FY2020 Actions based on growth phase

Core Business

Profitability enhancement

- VA shift acceleration to targeted 50%
- Productivity and cost structure
- Improvement of underperforming businesses

Growth Business

Developing growth opportunity

- Strategic investment projects
- Enhancing marketing capability
- Increasing and refocusing R&D
- New product launches

New Business

New Business Development

- More resources to Business Innovation Center, moving to execution phase

H1 Key Actions

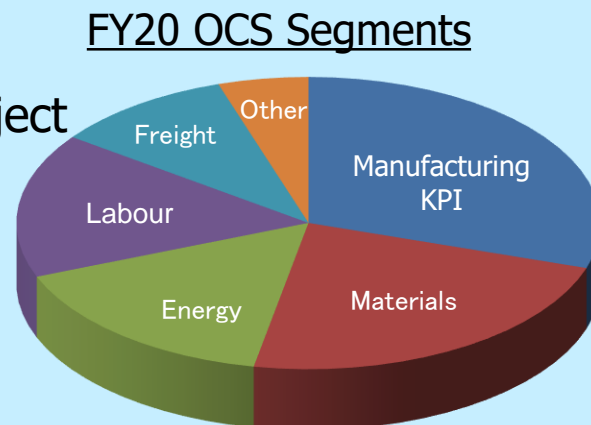
- Productivity improvement & cost reduction
- Improving underlying profitability
- Strategic investment projects
 - Solar energy glass capacity increase (US, Vietnam)
 - Emerging market capacity increase (Argentina)
- New product & business development for growth
- Enhancing enterprise value – ESG

Cost Savings & Efficiency Improvement Actions

Profitability improvement with Group-wide cost reduction programs and efficiency improvement in focused businesses

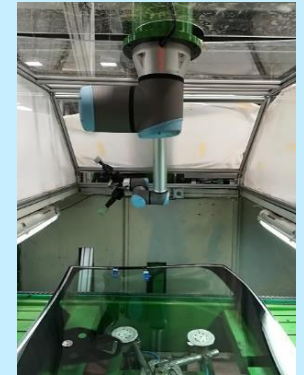
OCS (Operational Cost Saving Programs)

- Continuous profit improvement activities, targeting more than JPY10 bn annual savings; progressing on schedule
- In addition to manufacturing KPI, materials, energy and labor, extended to CO2 reduction
- Warehouse & logistics global project launched



Automotive Business Efficiency improvement

- Tertiary operation VA shift
 - VAA%* improvement
 - Automation with robots & cobots
- A highly capable, flexible line for backlights in Europe
- Successful introduction of new complex models and products
- Significant efforts in place to efficiently align production with reduced demand



* VAA%: Value-added activity%; started in FY2018

Profitability Improvement in Focus Businesses

Materializing benefits of structural reform and continuous efficiency improvement

Architectural Glass Japan

- Against the backdrop of future market decline in Japan, a structural reform project to ensure business sustainability is underway
- The multi-year project aims profitability improvement of more than JPY3bn
- Key actions being taken:
 - Processing site consolidation
 - Distribution network optimization
 - Restructuring
 - Processing line closures
 - Cost reduction, incl. logistics
- Robust VA shift drive continues
- Further price increases from 1 Oct

Automotive Glass North America

- Profitability improvement with better cost base achieved through line consolidation and automation
- Enhanced WS capability using the Group's APBL technology
- VA shift, leveraging the growth in SUV market

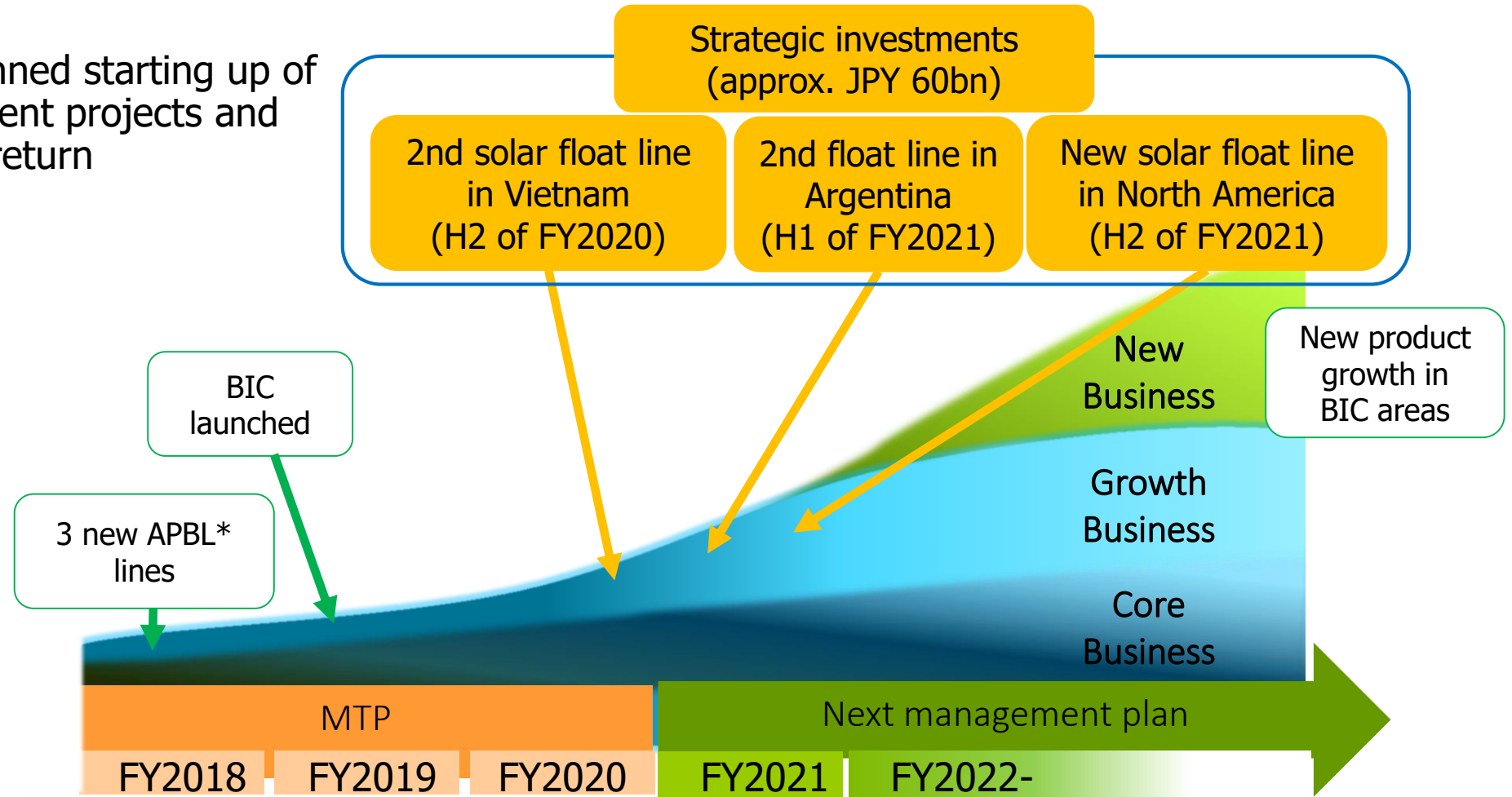


Toyota RAV4 Courtesy of TMNA

Investments for Growth

Selective investments in growing businesses where the Group has its strengths

- Ensuring the planned starting up of strategic investment projects and aiming for early return



* APBL : Advanced Press Bending for Laminated

Strategic Investment – Solar Energy Glass

Capacity Expansion to support business development in growing solar market

Solar demand remains robust with increasing shift to renewable energy

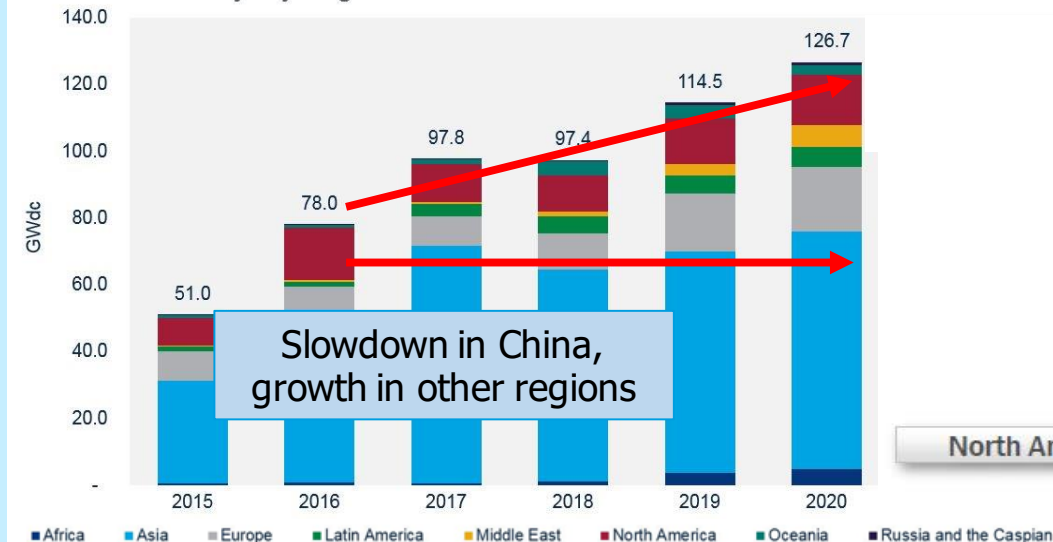
- Market growth trajectory to resume following slowdown in 2018
- Notable increases in Europe & Middle East, Stable demand in North America
- Gradual decline in China with reduced FiT

Strategic investment projects: progressing as planned

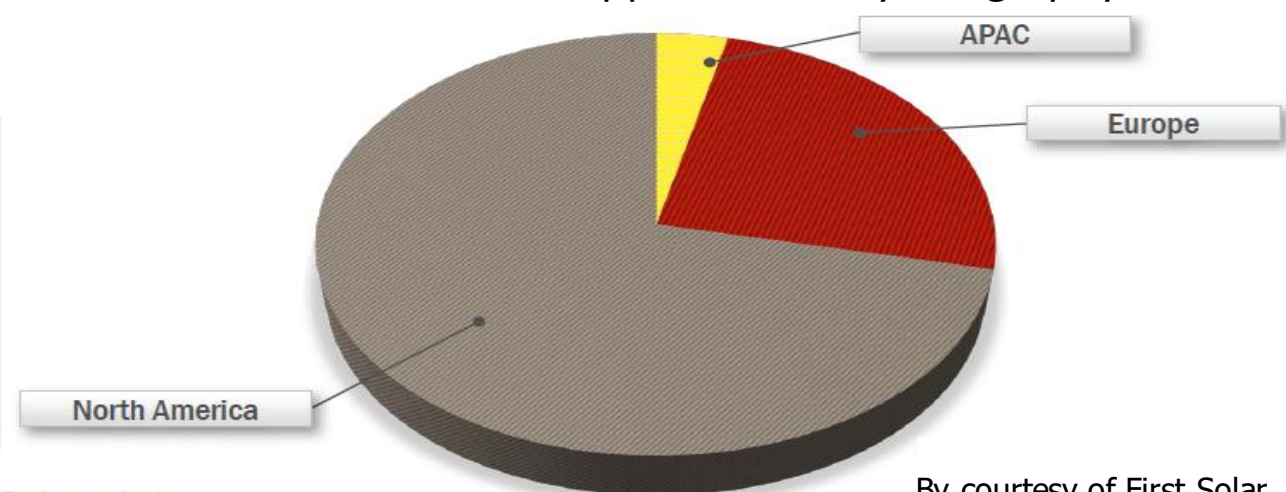
- Vietnam: to start production in FY2020 Q4
- US: to start production in FY2021 H2



Annual PV demand by major region



Potential Opportunities by Geography



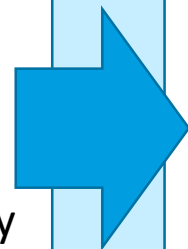
By courtesy of First Solar

Strategic Investment – Emerging Markets

2nd float line is under construction in Argentina to support growing markets

- Political and economic uncertainty is affecting the market but domestic demand is still higher than supply
- VASA, subsidiary and jointly held with Saint-Gobain, is the only flat glass manufacturer with 8 decades of experience in Argentina
- Solid market position and customer base. Stable business management, adept at managing country-specific risks

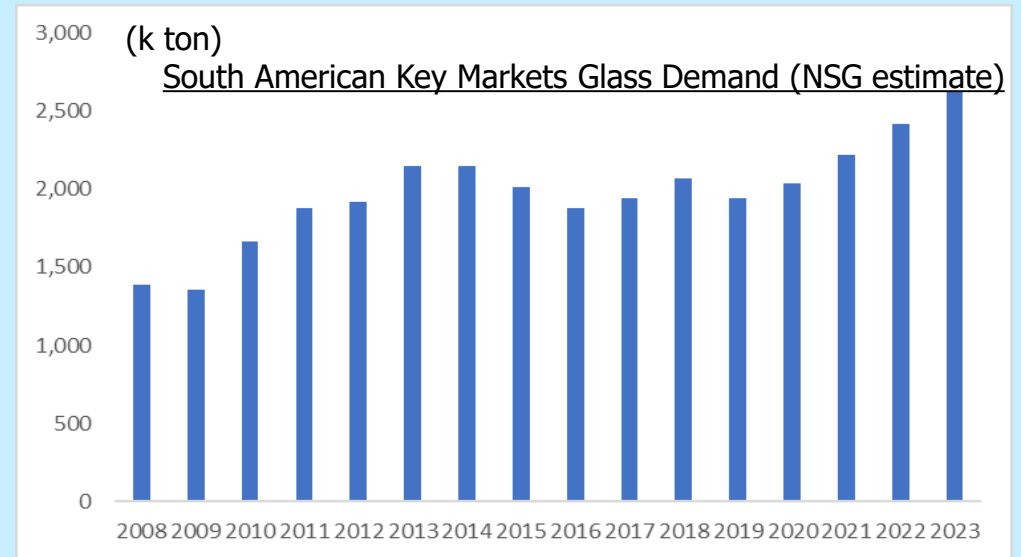
Inflation
Volatile currency
Capital control
Political uncertainty



Dynamic pricing policy
Conservative FX
management
Well-experienced
management team

No change to growth potential of South America, incl. Argentina
* NSG estimate 2016

Per capita glass consumption	KG
Argentina	5
Brazil	8
Poland	>20
N America, W Europe	10~15



CASE-Aligned VA Products for Growth

More VA awards in pipeline to improve business performance, leveraging the Group's technical strengths

-  Environment
-  Connectivity
-  Safety & Security

-  Comfort & Convenience
-  style



Preparing for Mid to Long-term Growth

Developing products and services, looking ahead for future trends

BIC organization is expanding, driving a shift in corporate culture

- **PicoGene™**: Trial sales began in Japan. Innovative characteristics recognized by academia and at trade shows
Start of global sales slated for May 2020
- One year from the launch, more than 100 people working including newly hired engineers in relevant fields
- **What's new to accelerate business and product development**
 - Shift in focus from products to matching them to applications -> Clear end markets
 - While ownership retained, more open collaboration -> Access to external resources

Accelerating the new product and business development in the four focus areas

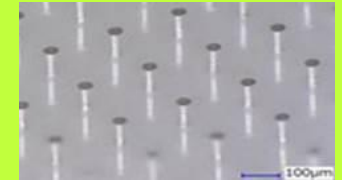
Life Science

Focus on food/water safety, environment, academia



IoT, Cloud

Focus on high-speed data transmission, sensors, filters



Energy Management

Improve conversion efficiency with functional materials



Industry 4.0

Improve sensor capability with fine glass applications



Environmental Contribution Opportunities for NSG Products

Wide range of solutions to support the evolution of society, including smart buildings, ZEB & ZEH and electric vehicles

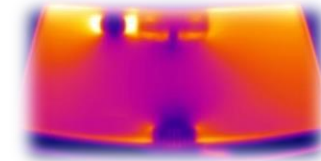
Low e and vacuum glass for solar control and heat insulation



Transparent BIPV joint development



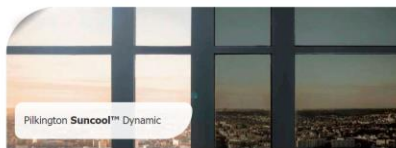
Heated WS to save energy



Online-coated glass for dynamic windows



Electrochromic window by View Inc.



Thermochromic glass to control light

Lower environmental impact



SMART



Comfort

Automotive low e glass to reduce air conditioner usage



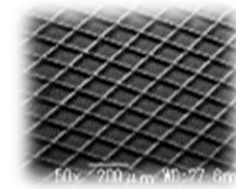
Glass for solar farms to supply renewable energy to buildings



Power storage



Sensors for automation



Enhancing Enterprise Value – ESG

Continued focus on ESG

Governance: foundation for sustainable development and mid- to long-term enhancement of enterprise value

- With the fifth Independent External Director, a majority of the Board consists of Independent Directors (5/9)
- Actions planned by the Board to focus more on critical strategic agenda, following the fourth effectiveness evaluation
- Enhancement of executive compensation disclosure

Environment: Contribution with products and manufacturing process improvement

- In addition to environmental contributions from NSG products, work is underway to reduce GHG emission from manufacturing processes
- SBT Initiative targets approved in October 2019
21% reduction by 2030 vs 2018
fuel energy conversion, manufacturing process, increased usage of renewable energy (e.g. solar installation at a UK site)



Society: Responsible company

- Inclusion & Diversity initiative to invigorate the organization
 - Focus on diversity in nationality and gender and disabled hires

Summary

FY2020 Q2

- Affected by the translational impact of foreign currency movements and a decrease in European car production volumes, as well as increasingly difficult conditions during the quarter in certain architectural markets

H2 Outlook: Full-year forecast revised reflecting difficult business conditions

- Architectural
 - Europe and North America affected by increased glass supply
 - Growth in solar energy glass
- Automotive and some areas of Technical Glass
 - Affected by reduction of car production in Europe and China
- Focus on attaining positive underlying free cash flow, excluding the strategic capital expenditure projects

Key step-change actions progressing, aiming to return to profit growth

- Continued efficiency improvement, cost reduction and focused business improvement to enhance profitability
- Execution of strategic investments and acceleration of new product & business development for future growth

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

FY2020 Q2 Results

- Revenue & Trading Profit – by Business & Regions
- Revenue & Trading Profit – Quarterly Trend
- Consolidated Balance Sheet
- Consolidated Cash Flow
- Exceptional items
- Exchange Rates
- Impact of IFRS16 “Leases”
- News Releases (May 2019 to October 2019)

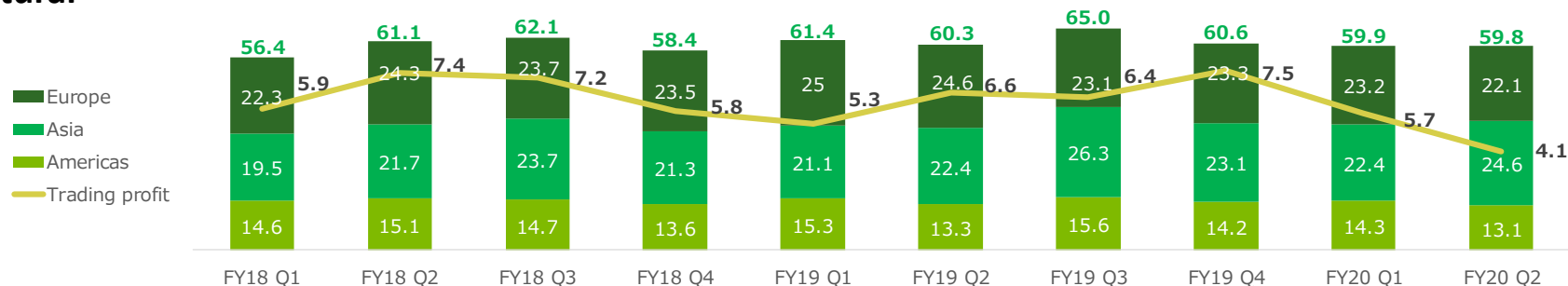
Revenue & Trading Profit – by Business & Regions

Revenue	<u>2nd Quarter (Apr - Sep: 6 months)</u>		
JPY bn	<u>FY2019</u>	<u>FY2020</u>	<u>Change</u>
Architectural	121.7	119.7	(2.0)
Europe	49.6	45.3	(4.3)
Asia	43.5	47	3.5
Americas	28.6	27.4	(1.2)
Automotive	160.8	148.2	(12.6)
Europe	74.0	62.9	(11.1)
Asia	33.4	34.6	1.2
Americas	53.4	50.7	(2.7)
Technical Glass	25	20.2	(4.8)
Europe	4.1	3.5	(0.6)
Asia	20.1	15.9	(4.2)
Americas	0.8	0.8	0.0
Other	0.6	0.5	(0.1)
Total	308.1	288.6	(19.5)

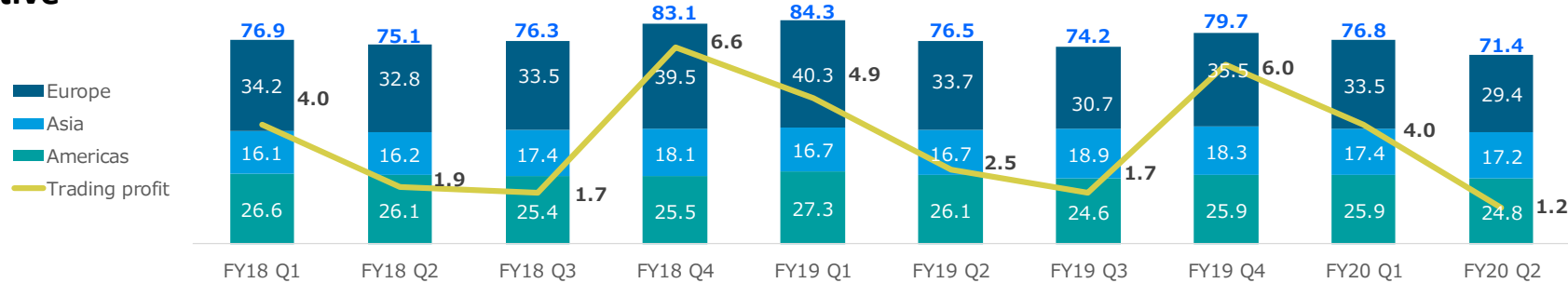
Trading profit	<u>2nd Quarter (Apr - Sep: 6 months)</u>		
JPY bn	<u>FY2019</u>	<u>FY2020</u>	<u>Change</u>
Architectural	11.9	9.8	(2.1)
Automotive	7.4	5.2	(2.2)
Technical Glass	4.4	3.5	(0.9)
Other	(4.9)	(2.7)	2.2
Total	18.8	15.8	(3.0)
Europe	9.5	5.7	(3.8)
Asia	9.0	7.3	(1.7)
Americas	5.2	5.5	0.3
Other	(4.9)	(2.7)	2.2
Total	18.8	15.8	(3.0)

Revenue & Trading Profit – Quarterly Trend

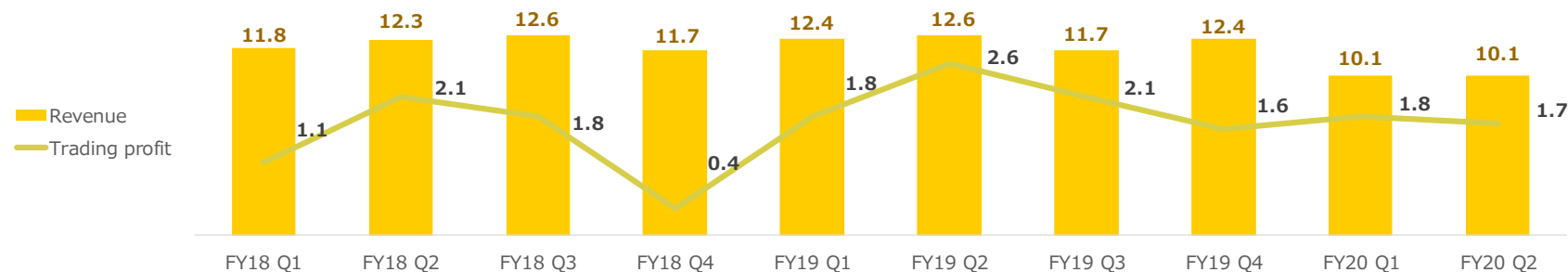
Architectural



Automotive



Technical Glass



Consolidated Balance Sheet

JPY bn	<u>31 March</u> <u>2019</u>	<u>30 Sep</u> <u>2019</u>	<u>Change</u>
Assets	761.9	776.7	14.8
Non-current assets	516.3	536.6	20.3
Goodwill & intangible assets	161.1	151.7	(9.4)
Property, plant and equipment	241.5	281.4	39.9
Other	113.7	103.5	(10.2)
Current assets	245.6	240.1	(5.5)
Cash & cash equivalents	52.4	44.8	(7.6)
Other	193.2	195.3	2.1
Liabilities	629.4	674.6	45.2
Current liabilities	193.0	193.4	0.4
Financial liabilities	42.2	59.2	17.0
Other	150.8	134.2	(16.6)
Non-current liabilities	436.4	481.2	44.8
Financial liabilities	329.3	374.5	45.2
Other	107.1	106.7	(0.4)
Equity	132.5	102.1	(30.4)
Shareholders' equity	123.8	92.6	(31.2)
Non-controlling interests	8.7	9.5	0.8
Total liabilities and equity	761.9	776.7	14.8

Consolidated Cash Flow Summary

JPY bn	<u>FY2019</u> <u>2nd Quarter</u>	<u>FY2020</u> <u>2nd Quarter</u>	<u>Change</u>
Profit for the period	10.0	2.4	(7.6)
Depreciation and amortization	14.2	17.2	3.0
Net impairment	(0.2)	0.5	0.7
Gain on disposal of assets	-	(1.0)	(1.0)
Tax paid	(3.4)	(3.5)	(0.1)
Others	(3.8)	(0.7)	3.1
Net operating cash flows before movement in working capital	16.8	14.9	(1.9)
Net change in working capital	(13.7)	(13.5)	0.2
Net cash flows from operating activities	3.1	1.4	(1.7)
Purchase of property, plant and equipment			
- Strategic projects	-	(20.3)	(20.3)
- Other	(11.7)	(10.8)	0.9
Disposal proceeds	0.1	2.2	2.1
Others	(0.7)	(1.3)	(0.6)
Net cash flows from investing activities	(12.3)	(30.2)	(17.9)
Free cash flow	(9.2)	(28.8)	(19.6)

Exceptional items

JPY bn

Gain on disposal of a subsidiary

Restructuring costs, including employee termination payments

Suspension of facilities

Net impairment of non-current assets

Settlement of litigation matters

Other

<u>FY2019</u> <u>2nd Quarter</u>	<u>FY2020</u> <u>2nd Quarter</u>
-	1.0
(1.3)	(1.7)
-	(1.2)
0.2	(0.2)
0.1	(0.1)
(0.2)	-

Foreign exchange rates

Average rates used

	FY2018				FY2019				FY2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Forecast
GBP	142	144	146	147	149	147	146	146	141	137	135
USD	111	112	111	111	110	111	111	111	109	109	109
EUR	122	126	128	130	131	130	129	129	124	121	122
BRR	34.6	35.0	34.8	34.4	30.4	29.3	29.3	29.4	28.0	27.6	-
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
GBP	146	151	152	150	145	148	141	144	137	133
USD	112	113	113	106	111	113	111	111	108	108
EUR	128	132	136	132	128	132	127	124	123	118
BRR	34.0	35.4	33.9	32.1	28.6	28.2	28.5	28.3	28.3	26.0
ARS	6.81	6.42	6.03	5.30	3.94	2.84	2.93	2.53	2.53	1.88

Oil prices (Brent)

FY2020 Forecast **US\$ 67 per barrel**

Impact of IFRS16 “Leases”

	Impact
Income statement (Annual/Estimate)	
EBITDA	Increase of JPY 9.0bn
Depreciation	Increase of JPY 8.0bn
Operating profit	Increase of JPY 1.0bn
Finance expenses	Increase of JPY 1.0bn
Profit before taxation	Negligible
Balance Sheet (Opening balance adjustment)	
Property, plant and equipment	Increase of JPY 34.2bn
Lease liabilities	Increase of JPY 34.2bn

News Releases — May 2019 to October 2019

21 May 2019	NSG Group and Ubiquitous Energy to Jointly Develop Transparent Solar windows
30 May 2019	Pilkington Automotive scoops Jaguar Land Rover's Supplier Excellence Award
14 Jun 2019	NSG Glass selected for ISUZU ERGADUO, Japan's first hybrid joint bus
8 July 2019	Solar installation to power NSG Group's European Technical Centre
30 Sep 2019	NSG Group Publishes the 2019 Integrated Report
9 Oct 2019	SBT Initiative Approves NSG's Target for Greenhouse Gas Reduction
10 Oct 2019	NSG PAIRMULTI EA® and SE® selected by Kitakyushu City as No. 1 Eco Premium Product

NSG

GROUP