



FINANCIAL CONFERENCE

Consolidated Business Results and Forecast



November 5, 2019
NSK Ltd.

Cautionary Statements with Respect to Forward-Looking Statements

Statements made in this report with respect to plans, strategies and future performance that are not historical fact are forward-looking statements. NSK cautions that a number of factors could cause actual results to differ materially from those discussed in the forward-looking statements.

Note : This document is an English translation of material written initially in Japanese.

The Japanese original should be considered the primary version

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- 1. Consolidated Business Results
for the Six Months Ended September 30, 2019**
- 2. Consolidated Business Forecast
for the Year Ending March 31, 2020**
- 3. Business Environment and
Status of Initiatives by business segment

(Supplementary Information)**

1. Consolidated Business Results for the Six Months Ended September 30, 2019

Summary of Consolidated Business Results for the Six Months Ended September 30, 2019

Business Environment

- ✓ Uncertainty and stagnation of world economy persisted due to the prolonged US-China trade friction.
- ✓ Demand decrease in both the industrial machinery and automotive businesses continued.
- ✓ Exchange rate : further appreciation of the yen, primarily in CNY and EURO.

Summary of Business Results

✓ Consolidated Business Results for FY2019: 1H (Apr.-Sep.)		YOY
Sales :	¥ 434.8 billion	(-¥ 74.8 billion / -14.7%)
Segment Income* :	¥ 16.7 billion	(-¥ 29.7 billion / -63.9%)
Operating Income :	¥ 15.8 billion	(-¥ 29.2 billion / -64.9%)
(O.I. %)	(3.6%)	(-5.2p)
Net Income Attributable to Owners of the Parent :	¥ 11.8 billion	(-¥ 19.1 billion / -61.8%)

*Segment Income : Operating income before deduction of other operating expenses

- ✓ Decreased in both sales and operating income year-on-year mainly due to volume decline.
- ✓ Interim dividend :¥20/per share
(same amount as the interim dividend in FY18; as planned.)

Summary of Consolidated Business Results for the Six Months Ended September 30, 2019

(Billions of yen)	FY2018	FY2019			
	1 st half <Actual>	1 st half <Actual>	Increase/ Decrease YOY	Difference YOY	1 st half <FCST>
Sales	509.6	434.8	-74.8	-14.7%	464.0
Operating income	45.0	15.8	-29.2	-64.9%	25.0
<%>	<8.8%>	<3.6%>			<5.4%>
Income before income taxes	45.1	15.6	-29.6	-65.5%	25.0
Net income attributable to owners of the parent	30.9	11.8	-19.1	-61.8%	19.0
(Ex. rate: 1USD=)	110.27	108.63	-1.64	-1.5%	110
(" 1EUR=)	129.84	121.41	-8.43	-6.5%	125
(" 1CNY=)	16.75	15.68	-1.07	-6.4%	16.5

***Reference** *Segment Income : Operating income before deduction of other operating expenses

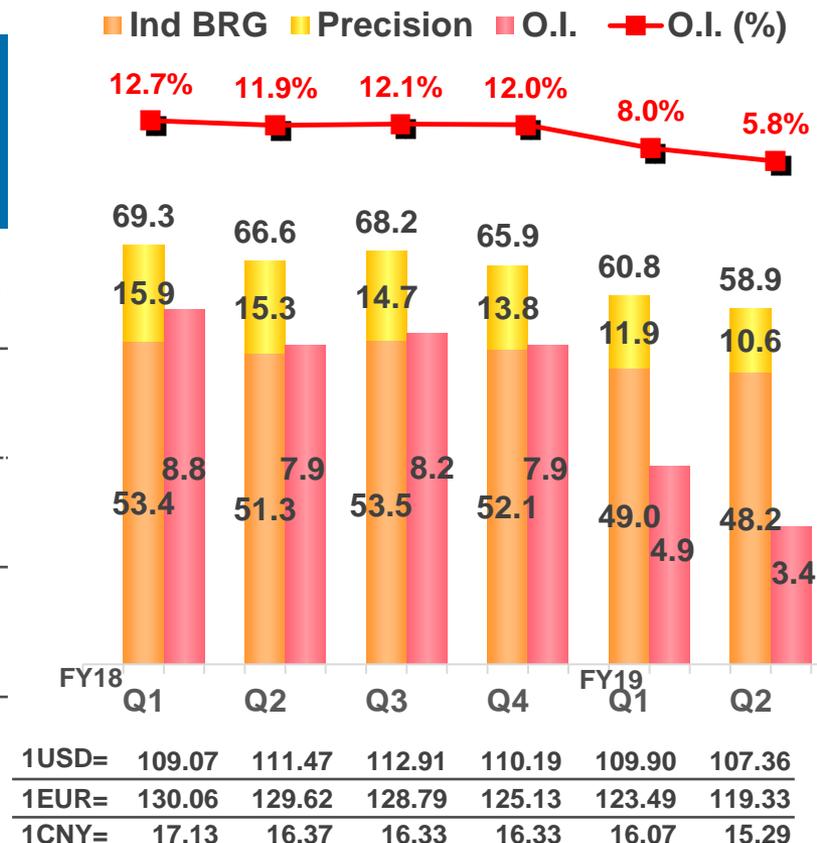
Segment income	46.4	16.7	-29.7	-63.9%	26.5
<%>	<9.1%>	<3.8%>			<5.7%>

Major Indexes

ROE	11.4%	4.5%			
Net D/E ratio (times)	0.23	0.28			
Inventory turnover (times)	6.8	5.5			

Business Results: Industrial Machinery Business

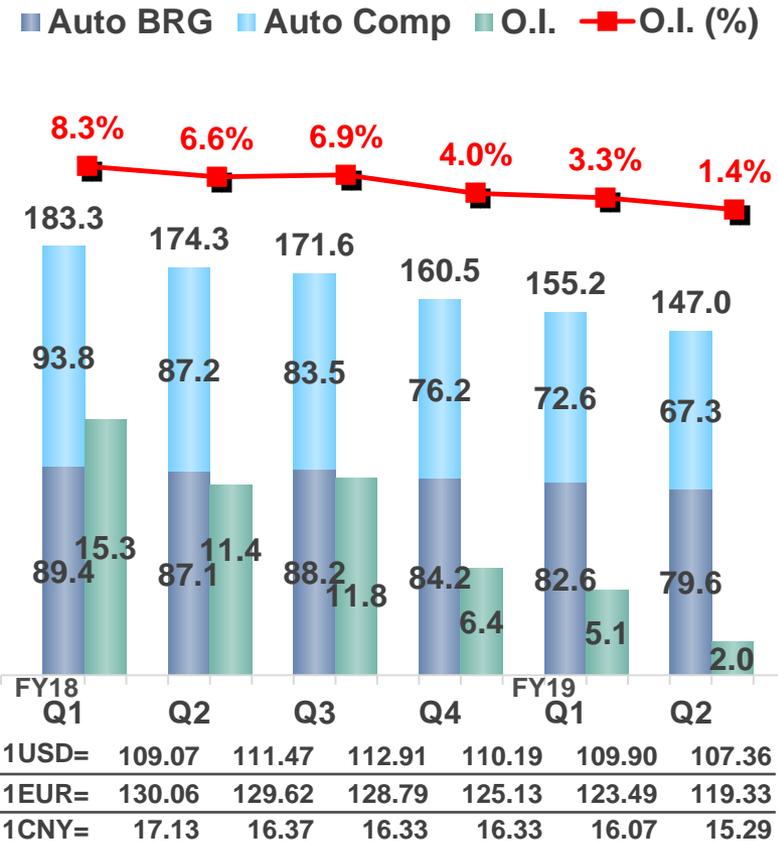
(Billions of yen)	FY2018 1st half <Actual>	FY2019 1st half <Actual>	Increase/ Decrease YOY	Difference YOY	FY2019 1st half <FCST>
Sales	135.9	119.7	-16.2	-11.9%	129.0
Industrial Machinery Bearings	104.7	97.2	-7.5	-7.2%	103.0
Precision Machinery and Parts	31.2	22.5	-8.7	-27.9%	26.0
Operating Income <%>	16.7 <12.3%>	8.3 <6.9%>	-8.4	-50.3%	12.0 <9.3%>
(Ex. rate:1USD=)	110.27	108.63	-1.64	-1.5%	110
(" 1EUR=)	129.84	121.41	-8.43	-6.5%	125
(" 1CNY=)	16.75	15.68	-1.07	-6.4%	16.5



- ✓ Bearings: sales decreased due to sluggish sectors including capital goods (machine tools, robots) and consumer goods (home appliances), while infrastructure-related (wind turbines, railcars) remained robust.
- ✓ Precision: Strongly affected by stagnation in sectors such as semiconductors and machine tools as well as customer inventory adjustment.
- ✓ Operating income decreased due to volume decline and product mix.

Business Results: Automotive Business

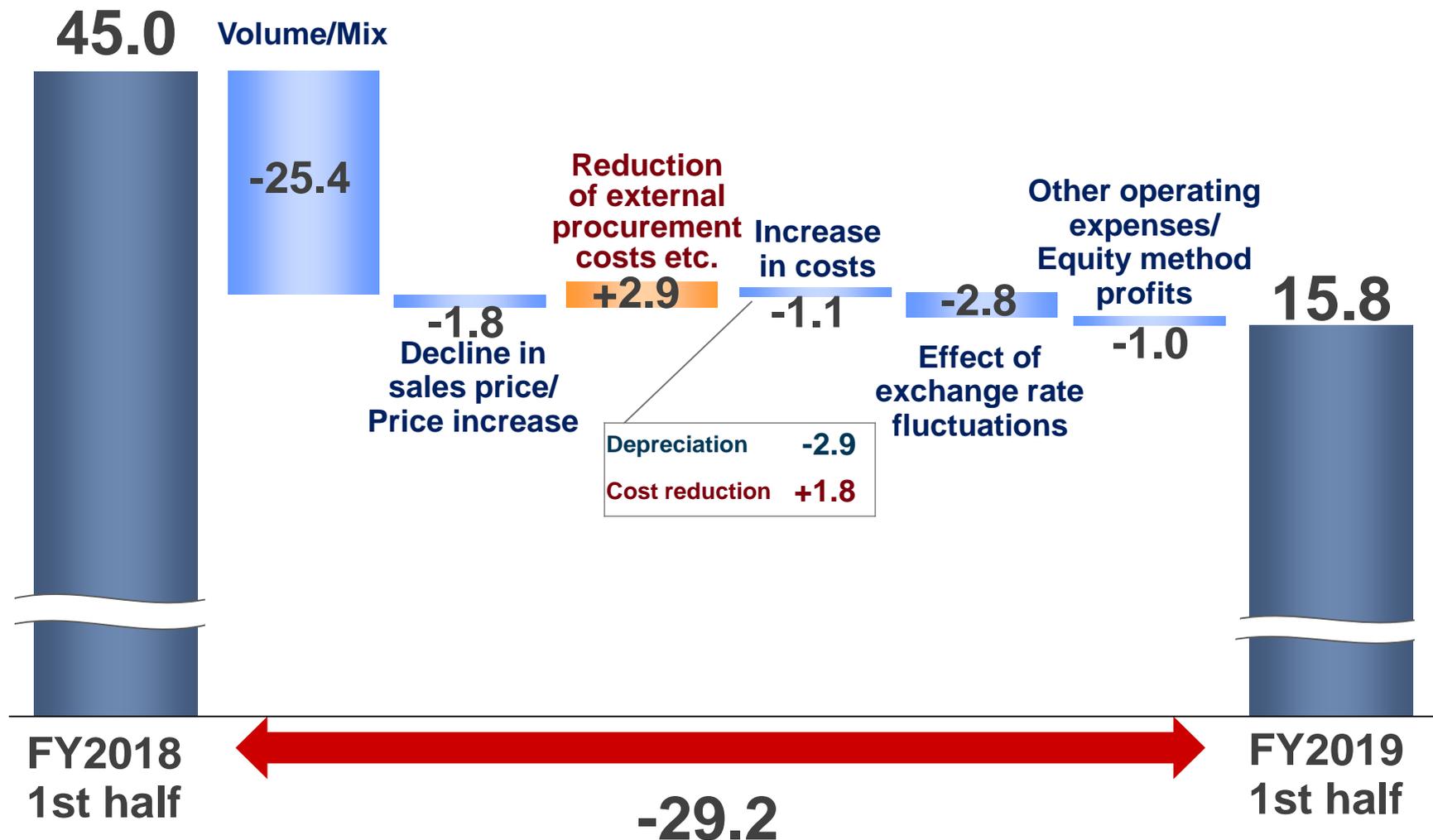
	FY2018 1 st half <Actual>	FY2019 1 st half <Actual>	Increase/ Decrease YOY	Difference YOY	FY2019 1 st half <FCST>
Sales	357.6	302.2	-55.4	-15.5%	321.0
Automotive Bearings	176.5	162.2	-14.3	-8.1%	172.0
Automotive Components	181.1	139.9	-41.1	-22.7%	149.0
Operating Income <%>	26.7 <7.5%>	7.1 <2.3%>	-19.6	-73.6%	13.0 <4.0%>
(Ex. rate:1USD=)	110.27	108.63	-1.64	-1.5%	110
(" 1EUR=)	129.84	121.41	-8.43	-6.5%	125
(" 1CNY=)	16.75	15.68	-1.07	-6.4%	16.5



- ✓ Vehicle production volume declined: -12% in China, -20% in India YOY.
- ✓ Automotive components: Volume decrease in AT-related products toward China. EOP in steering business.
- ✓ Operating income decreased, largely affected by volume decline despite the reduction of labor cost.

Operating Income: Factors Behind Change (FY2018 1st half ⇒ FY2019 1st half)

(Billions of yen)



2. Consolidated Business Forecast for the Year Ending March 31, 2020

Summary of Consolidated Business Forecast for the Year Ending March 31, 2020

Forecasted Business Environment

- ✓ Delay in economic recovery.
- ✓ Industrial Machinery: Demand adjustment in machine tools, electrical, and semiconductors expected to be sustained.
- ✓ Automotive: Global production volume to fall below 90 million. Decrease primarily in China and India.

Business Forecast

- ✓ Revision to original business forecast

		vs. May forecast
Sales :	¥ 860.0 billion	(-¥ 85.0 billion / -9.0%)
Operating Income :	¥ 32.0 billion	(-¥ 31.0 billion / -49.2%)
(O.I. %)	(3.7%)	
Net Income Attributable to Owners of the Parent :	¥ 21.0 billion	(-¥ 24.0 billion / -53.3%)

- ✓ 2nd half: Reviewed exchange rate assumptions: USD=¥108 (originally ¥110), EUR=¥120 (originally ¥125), CNY=¥15.3 (originally ¥16.5)
- ✓ FY19 full-year dividend (forecast) remains unchanged at ¥40 per share (Interim: ¥20, 2nd half: ¥20).

Summary of Consolidated Business Forecast for the Year Ending March 31, 2020

(Billions of yen)	FY2018	FY2019					
	Full year <Actual>	1 st half <Actual>	2 nd half <Revised FCST>	Full year <Revised FCST>	Increase/ Decrease YOY	Difference YOY	Full year <May FCST>
Sales	991.4	434.8	425.2	860.0	-131.4	-13.3%	945.0
Operating income <%>	79.3 <8.0%>	15.8 <3.6%>	16.2 <3.8%>	32.0 <3.7%>	-47.3	-59.6%	63.0 <6.7%>
Income before income taxes	79.2	15.6	15.9	31.5	-47.7	-60.2%	62.5
Net income attributable to owners of the parent	55.8	11.8	9.2	21.0	-34.8	-62.4%	45.0
(Ex. rate: 1USD=)	110.91	108.63	108.00	108.32	-2.59	-2.3%	110
(" 1EUR=)	128.40	121.41	120.00	120.71	-7.69	-6.0%	125
(" 1CNY=)	16.54	15.68	15.30	15.49	-1.05	-6.3%	16.5
Segment income	83.3	16.7	18.3	35.0	-48.3	-58.0%	66.0
<%>	<8.4%>	<3.8%>	<4.3%>	<4.1%>			<7.0%>

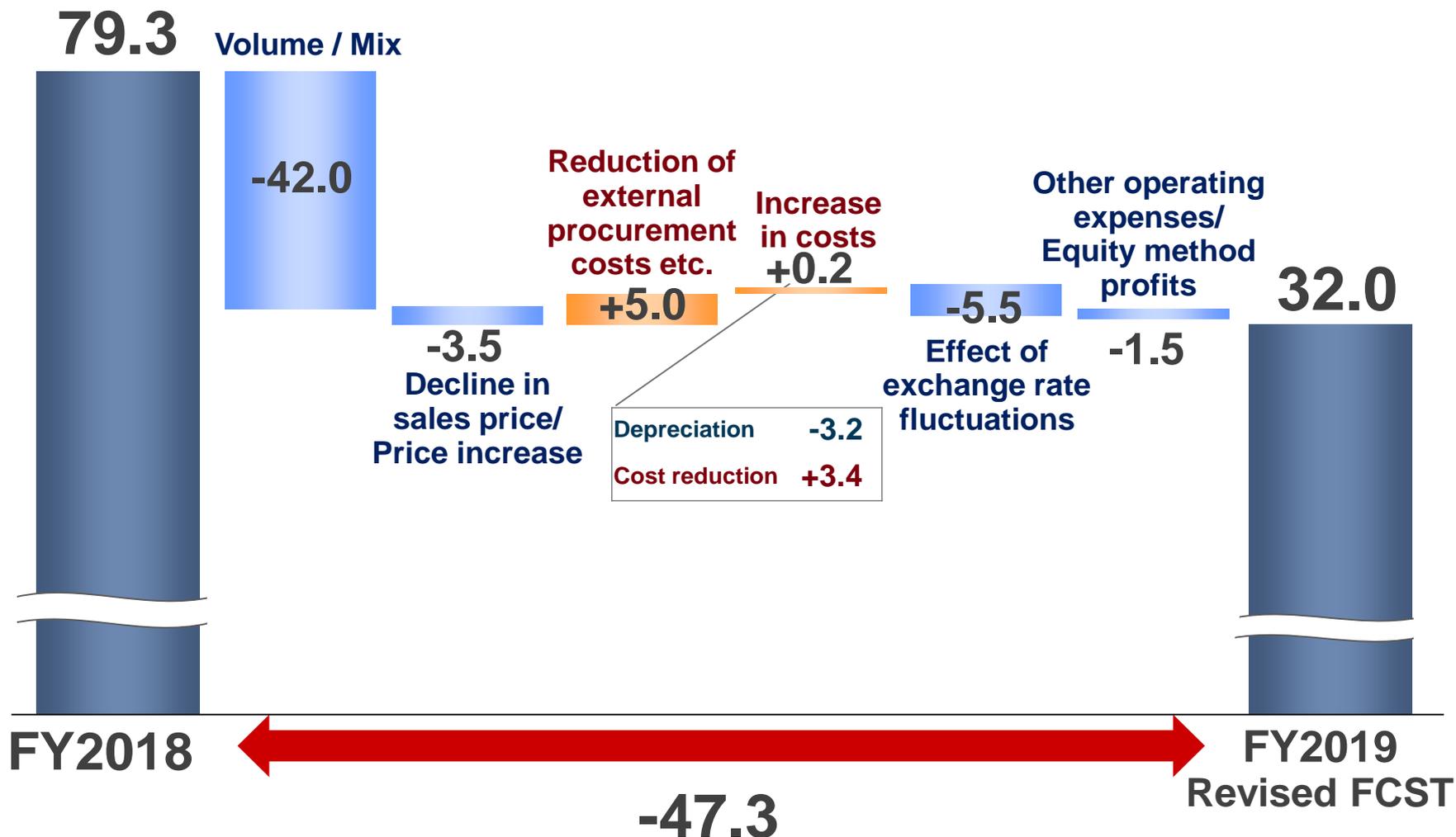
Segment Income : Operating income before deduction of other operating expenses

Forecast by Business Segment

(Billions of yen)		FY2018	FY2019					Full year <May FCST>
		Full year <Actual>	1 st half <Actual>	2 nd half <Revised FCST>	Full year <Revised FCST>	Increase/ Decrease YOY	Difference YOY	
Total	Sales	991.4	434.8	425.2	860.0	-131.4	-13.3%	945.0
	Operating income	79.3	15.8	16.2	32.0	-47.3	-59.6%	63.0
	<%>	8.0%	3.6%	3.8%	3.7%			6.7%
Industrial Machinery Business	Sales	270.0	119.7	119.3	239.0	-31.0	-11.5%	265.0
	Industrial Machinery Bearings	210.3	97.2	98.3	195.5	-14.8	-7.0%	210.0
	Precision Machinery and Parts	59.7	22.5	21.0	43.5	-16.2	-27.2%	55.0
	Operating income	32.9	8.3	8.7	17.0	-15.9	-48.3%	29.0
	<%>	12.2%	6.9%	7.3%	7.1%			10.9%
Automotive Business	Sales	689.7	302.2	292.3	594.5	-95.2	-13.8%	650.0
	Automotive Bearings	348.9	162.2	162.8	325.0	-23.9	-6.9%	352.5
	Automotive Components	340.8	139.9	129.6	269.5	-71.3	-20.9%	297.5
	Operating income	44.9	7.1	8.4	15.5	-29.4	-65.5%	33.0
	<%>	6.5%	2.3%	2.9%	2.6%			5.1%
Others	Sales	62.9	25.5	26.5	52.0	-10.9	-17.4%	59.0
	Operating income	5.6	1.2	1.3	2.5	-3.1	-55.4%	4.0
	<%>	8.9%	4.8%	4.9%	4.8%			6.8%
Eliminations (sales)		-31.2	-12.5	-13.0	-25.5	+5.7		-29.0
Other operating expenses / Adjustments		-4.2	-0.8	-2.2	-3.0	+1.2		-3.0

Operating Income: Factors Behind Change (FY2018 ⇒ FY2019 Revised Forecast)

(Billions of yen)



Exit strategies toward FY 2020 onward

Implement measures toward sluggish demand and maximize profit at the time of volume recovery.

-Short-term measures and structural enhancement:

- ✓ Fixed cost reduction.
- ✓ Management focusing on productivity.
- ✓ Continuing inventory reduction, primarily in works-in-progress.
- ✓ Capital expenditure:
For renewal and labor-saving only. Freezing of expansion investment.
- ✓ Maximization of order receipt opportunities.

3 . Business Environment and Status of Initiatives by business segment

Industrial Machinery Business

-Business Environment-

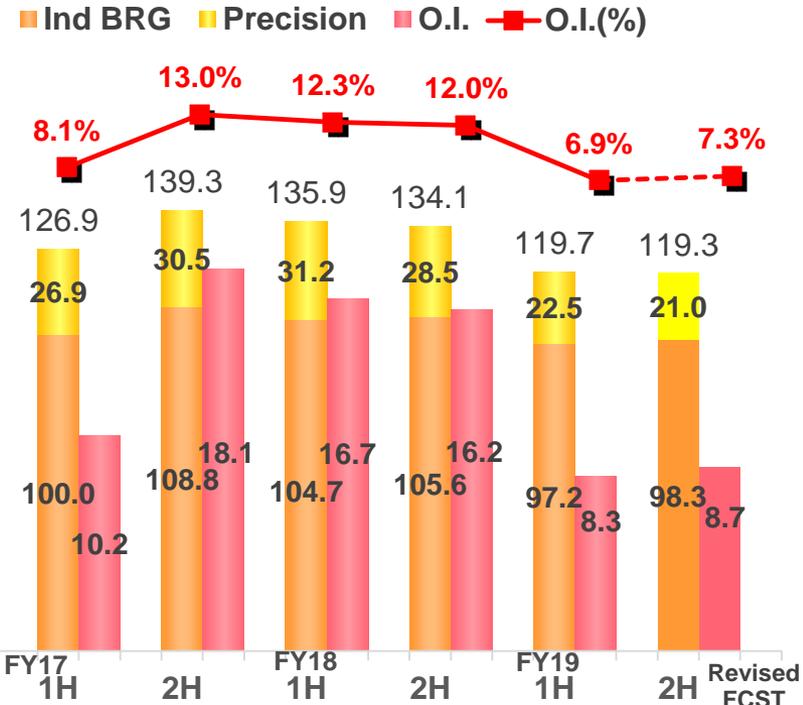
[Demand trend by Sector] ↑ Increase, → Unchanged, ↓ Decrease

Sector		Actual	20/3 2H Forecast		Forecast	
		20/3 1H vs. 19/3 2H	20/3 2H vs. 20/3 1H		21/3 1H vs. 20/3 2H	
			As of May 2019	As of Oct. 2019		
Capital goods	Precision Equipment	Machine Tools	↓ ↓	↑ ↑	↓	→
		Semiconductors	↓ ↓	↑ ↑	→	↑
		Robotics	↓ ↓	↑	↓	→
		Injection Molding	↓	↑ ↑	↓	→
	Motors	↓	↑	→	↑	
	Fluid Machinery	↓	↑	→	↑	
	Steel Plant Facilities	→	→	→	↓	
	Agricultural Machinery	↓	→	→	→	
Infrastructure	Wind Turbines	→	↑	↑ ↑	→	
	Railcars	↑	→	↑ ↑	→	
	Mining / Construction Machinery	↓	→	↓	→	
Consumer goods	Home Appliances	→	→	↓	↑	
Aftermarket		→	→	→	→	

Down from May Forecast

Up from May Forecast

Sales / Operating Income



Demand recovery delay.
Infrastructure: robust

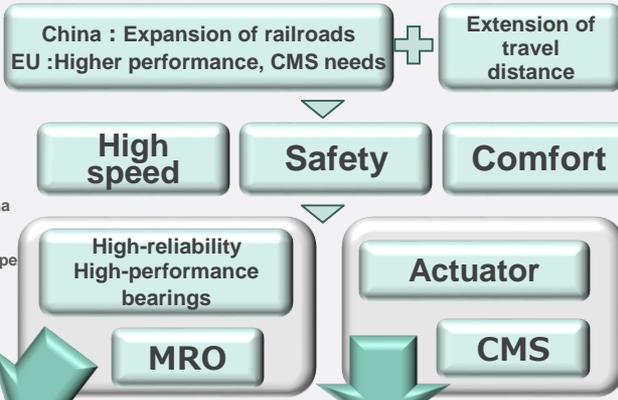
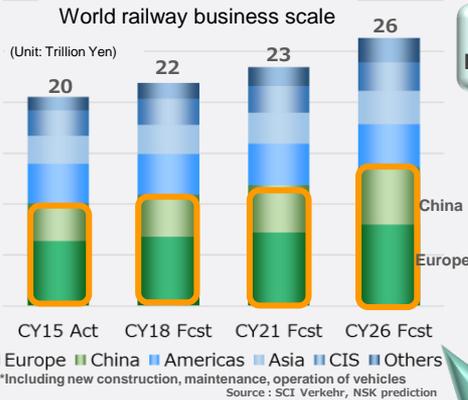
Product mix worsened.
High Fixed cost.

- Sales initiatives: Capture demand in robust sectors and aftermarket proactively.
- Fixed cost measures: Maximize operation and human resources structures. (transfer personnel across plants)
- Stick to CF: Reduce inventory, curb capital expenditure.
- Measure against exchange rate:
Local procurement (Non-Japan),
Global procurement(Japan)

Industrial Machinery Business

-Initiative status-

Capture Demand in Growth Sectors : Railcars



✓ NSK's strengths

High-reliability, engineering analysis capability, track record in Asia

✓ Expansion in the global market

EU

- **OEM business**
receipt of first order.
- **MRO business**
- SNCF bearing for axle shaft **receipt order.**

China

- **CRRC**
-Entry into high-speed railway.
-Expand market share in subway business.

✓ Accelerate initiatives

- Actuator :**
Vibration control
- CMS :** -Early detection of abnormalities.
-Predictive maintenance.
- Further expansion in Japan.
 - Building achievements overseas.



NSK vibration control actuator (left: Actuator, right: Driver)

Extend NSK presence multidirectionally

GAM sales expansion strategy (Global Aftermarket)

Paper

Effects to global paper market

Sales expansion 3

Effects to paper market of NA region
->**Receipt of order** from one customer
Sales activity for another customer underway

Sales expansion 2

Global demand of same customer

Sales expansion 1

Expand our share in major US paper manufacturer

Improve brand power

Enhance inventory

Order Receipt

<NSK's strengths>

- High-reliability products(severe usage environment [high temperature environments].)
- Engineering support, service response.
- >Reduce end-user maintenance costs.

Other sectors

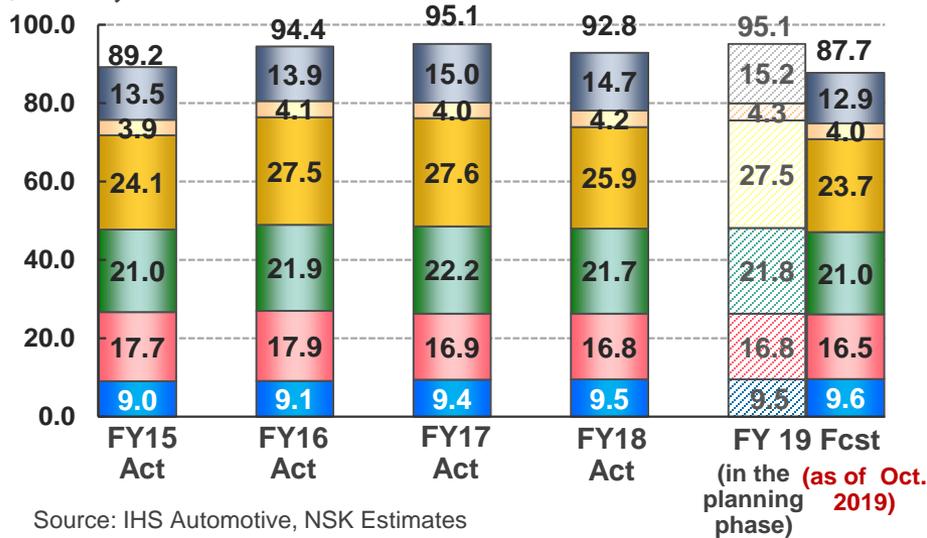
Heavy industry etc.

Automotive Business -Business Environment-

Global Vehicle Production Volume

■ Japan ■ North America ■ Europe ■ China ■ ASEAN6 ■ Others

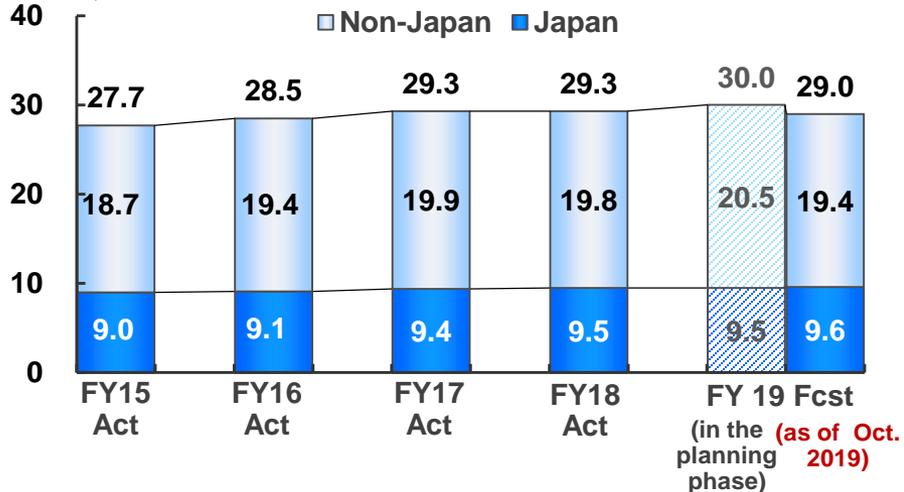
(unit : M)



Source: IHS Automotive, NSK Estimates

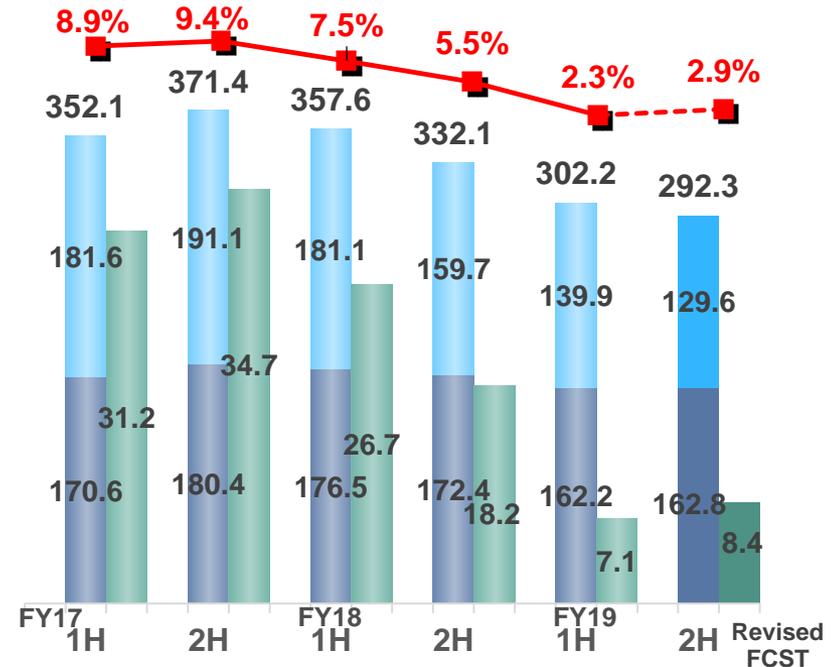
Production Volume by Japanese Automakers

(unit : M)



Sales / Operating Income

■ Auto BRG ■ Auto Comp ■ O.I. ■ O.I.(%)



Economic environment deterioration.
Auto market slowdown.

High fixed cost.
Decrease in EPS.

- Leverage human resources for productivity improvement activities.
- Build solid supply chain (dual source)
Prepare for trade/exchange rate risks.
- Curb capital expenditure.
- Continue development activities toward regrowth in EPS business.

Automotive Business

-Initiative Status-

Response to electrification

Further expansion in electric-powered vehicles.
FY30 forecast: electric-powered vehicles ratio 57%(+4ppt)

EV

Development in Seamless 2-speed e-axle concept.



Traction Reducer + Ultrahigh speed motor.
Compact, light-weight, Noise reduction

*Traction Reducer: Response to **prototype requests** for 2 customers are **underway**

Two-speed transmission

Torque sensor + electric shift actuator + FP/SP

Increase acceleration and maximum speed, extend drive distance, shock-free gear changing

HEV

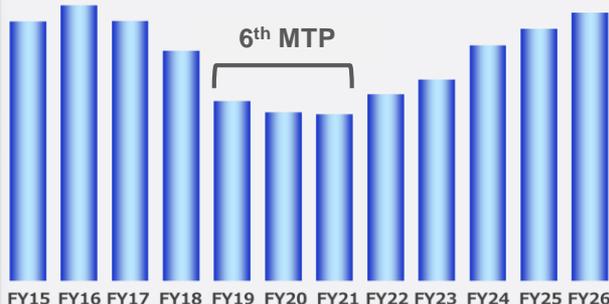
Response to diversified powertrain.

Increased variation in bearing used.

-> Sure to capture business opportunities.

Growth in Steering & Actuator Business

Actualize regrowth scenario in the 7th MTP



Steering & Actuator Sales

EPS

➤ **Cooperation agreement with VW Group Components**

- Establish a project team.
- Joint development of new EPS products.

Enhance engineering skill

Expand the lineup

Share management resources

Speed up development

Roll-out to other OEMs.

➤ Continue EPS sales activities.

• Column-type EPS : Enhance competitiveness by leveraging core assets.

• Rack-type EPS : Changes in customer development schedule.

BS

➤ **Ball screws for brake booster :Steady sales activities**

- International standard on Advanced Emergency Braking System was formed (June 2019).
- Shorten braking start time from detection -> improve superiority in ball-screw type.

Demand expansion

Highly responsive

NSK's Contribution to the Environment

Maximize the environmental contribution through products and minimize the environmental impact from business activities



- Reduction in CO2 emissions. Target : - 60% by 2050 (vs. 2017)
- Products that contribute to the environment by offsetting CO2 emissions.
- Effective use of resources : achieve 99% recycling rate at global plants.

Added environment to NSK's core values

Common value standard to take top priority in management decision-making and actions.

Safety

Quality

Compliance

Environment

Shift to organizational structure under the direct control of the CEO

President and CEO

Global environment conservation committee
The highest decision-making body for environmental management.

CO2 emissions reduction through business activities

1. Innovation in manufacturing engineering

- Smart factory.
- Introduction of new-heat treatment technology.



Heat treatment facility

2. Promotion of energy-saving and fuel conversion

- Upgrade to high-efficient facilities.
- Change heat source for air conditioning.



Heat pump chiller

3. Utilization of renewable energy

- Install photovoltaic equipment.
- Promote the purchase of renewable energy (water, wind).



Steering plant in Thailand

CO2 emissions reduction through products

Contribution through products

- Calculation on the amount of contribution.
 - Formulate guidelines Improvement in base performance of products.
 - + Contribution to energy diversification applications.
- Promote development of environmentally friendly products.
 - NSK Eco-Efficiency Indicators (Neco)

(Supplementary Information)

Sales & Operating Income Results by Business Segment

(Billions of yen)		FY2018 1 st half <Actual>	FY2019 1 st half <Actual>	Increase/ Decrease YOY	Difference YOY	FY2019 1 st half <FCST>
Total	Sales	509.6	434.8	-74.8	-14.7%	464.0
	Operating income	45.0	15.8	-29.2	-64.9%	25.0
	<%>	8.8%	3.6%			5.4%
Industrial Machinery Business	Sales	135.9	119.7	-16.2	-11.9%	129.0
	Industrial Machinery Bearings	104.7	97.2	-7.5	-7.2%	103.0
	Precision Machinery and Parts	31.2	22.5	-8.7	-27.9%	26.0
	Operating income	16.7	8.3	-8.4	-50.3%	12.0
	<%>	12.3%	6.9%			9.3%
Automotive Business	Sales	357.6	302.2	-55.4	-15.5%	321.0
	Automotive Bearings	176.5	162.2	-14.3	-8.1%	172.0
	Automotive Components	181.1	139.9	-41.1	-22.7%	149.0
	Operating income	26.7	7.1	-19.6	-73.6%	13.0
	<%>	7.5%	2.3%			4.0%
Others	Sales	30.3	25.5	-4.9	-16.1%	28.0
	Operating income	2.8	1.2	-1.6	-57.3%	1.5
	<%>	9.3%	4.8%			5.4%
Eliminations (sales)		-14.2	-12.5	+1.7		-14.0
Other operating expenses / Adjustments		-1.3	-0.8	+0.5		-1.5

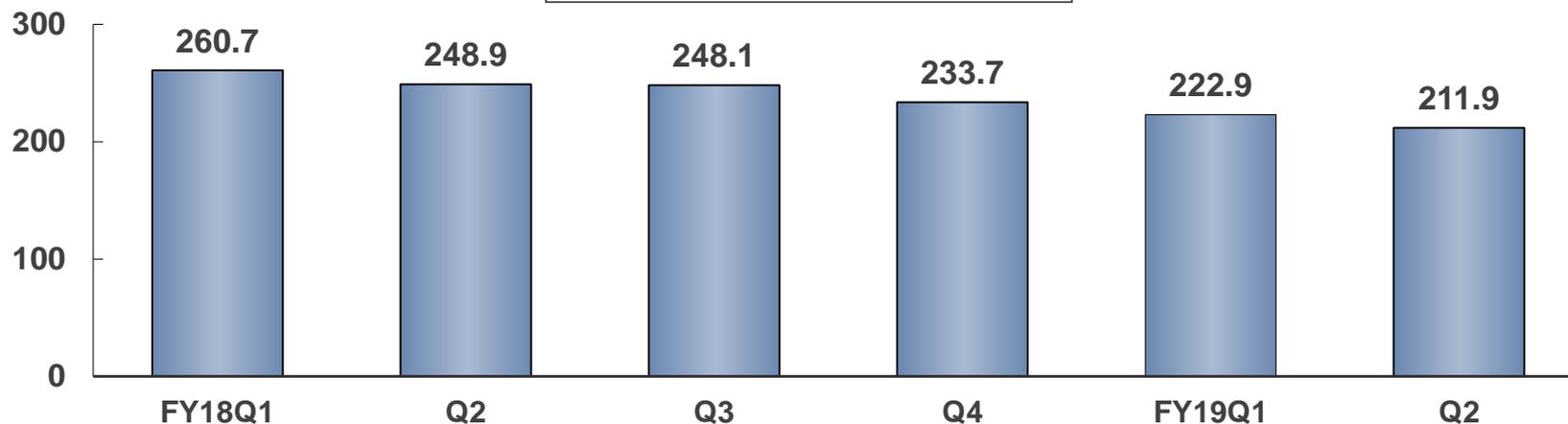
(Supplementary Information)
Business Forecast by Customer Location

(Billions of yen)	FY2018			FY2019					
	1 st half <Actual>	2 nd half <Actual>	Full year <Actual>	1 st half <Actual>	2 nd half <Revised FCST>	Full year <Revised FCST>	Increase/ Decrease YOY	Difference YOY	Full year <May FCST>
Sales	509.6	481.8	991.4	434.8	425.2	860.0	-131.4	-13.3%	945.0
Japan	186.9	180.7	367.5	161.7	161.3	323.0	-44.5	-12.1%	356.0
Non-Japan <Non-Japan ratio>	322.7 <63.3%>	301.1 <62.5%>	623.8 <62.9%>	273.1 <62.8%>	263.9 <62.1%>	537.0 <62.4%>	-86.8	-13.9%	589.0 <62.3%>
The Americas	79.5	78.1	157.6	74.3	70.7	145.0	-12.6	-8.0%	151.5
Europe	64.7	65.4	130.1	56.9	56.1	113.0	-17.1	-13.2%	121.5
China	105.9	89.1	195.0	80.2	77.3	157.5	-37.5	-19.2%	176.5
Other Asia	72.6	68.5	141.1	61.6	59.9	121.5	-19.6	-13.9%	139.5
(Ex. rate: 1USD=)	110.27	111.55	110.91	108.63	108.00	108.32	-2.59	-2.3%	110
(" 1EUR=)	129.84	126.96	128.40	121.41	120.00	120.71	-7.69	-6.0%	125
(" 1CNY=)	16.75	16.33	16.54	15.68	15.30	15.49	-1.05	-6.3%	16.5

(Supplementary Information) Quarterly Business Performance

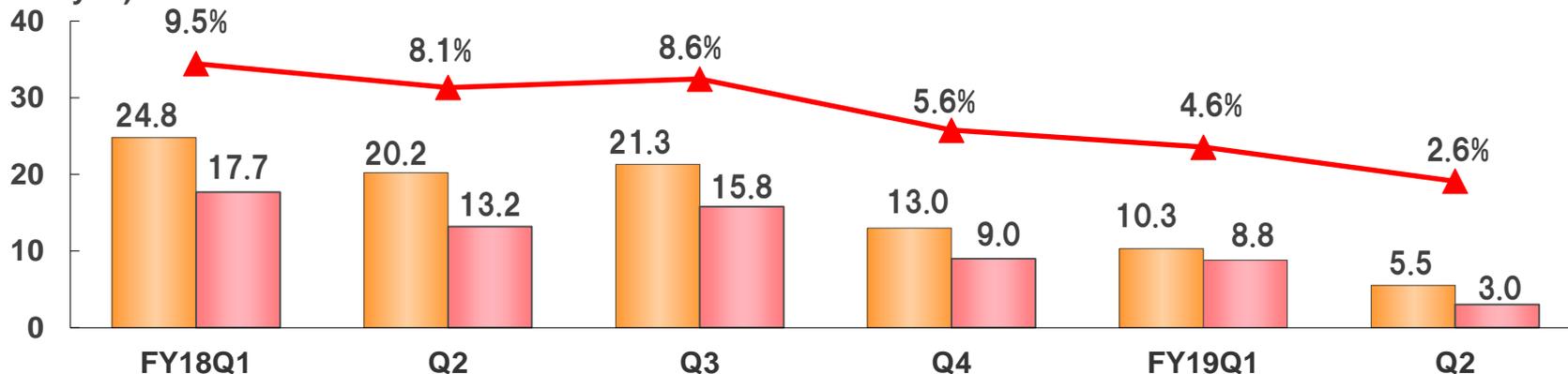
(Billions of yen)

Sales



Operating income Net income attributable to owners of the parent Operating income margin

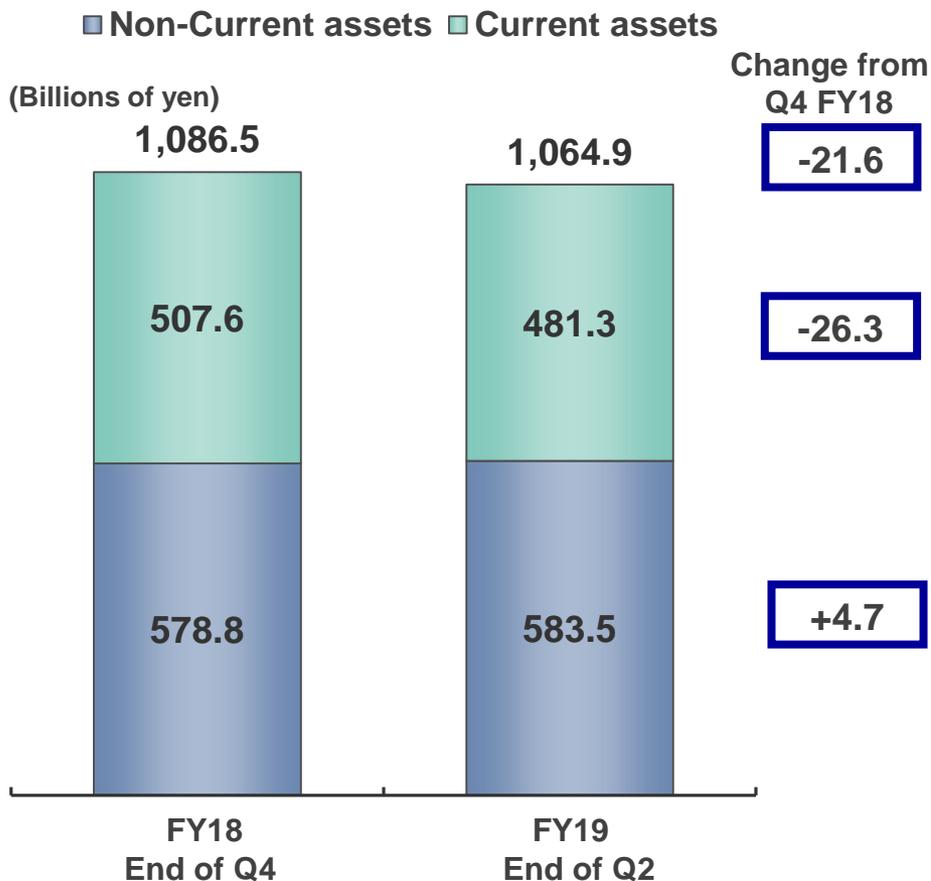
(Billions of yen)



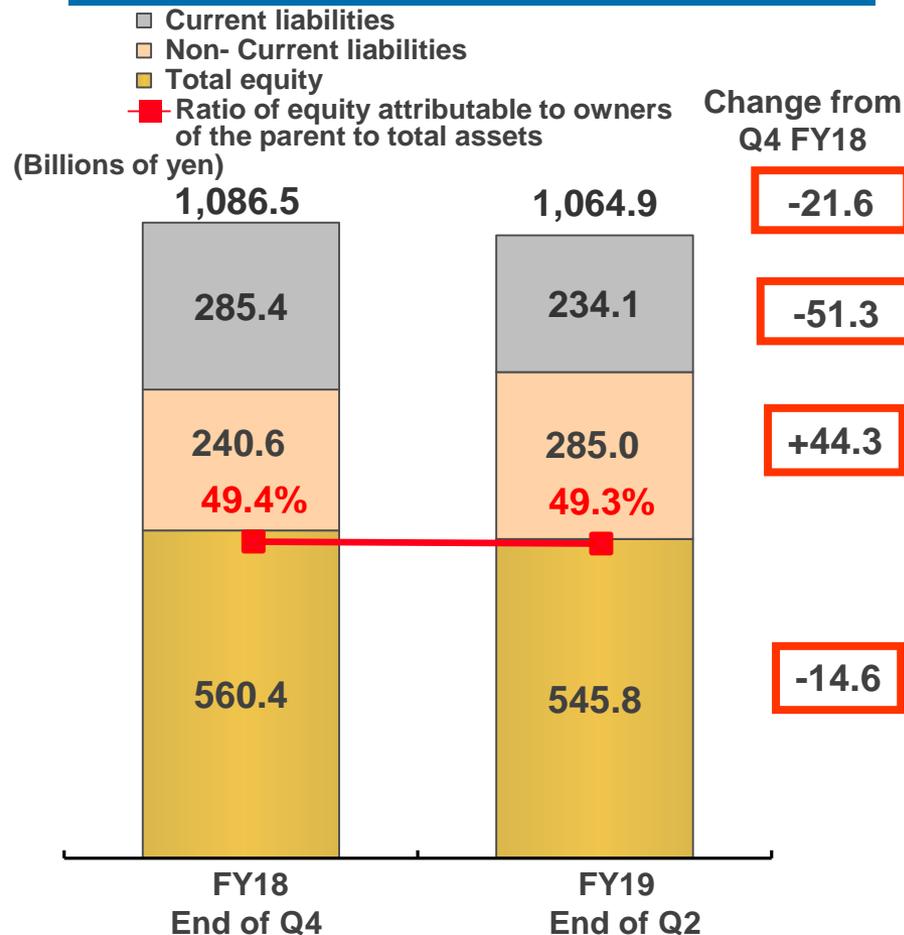
1USD=	109.07	111.47	112.91	110.19	109.90	107.36
1EUR=	130.06	129.62	128.79	125.13	123.49	119.33
1CNY=	17.13	16.37	16.33	16.33	16.07	15.29

(Supplementary Information) Consolidated Balance Sheet

Assets

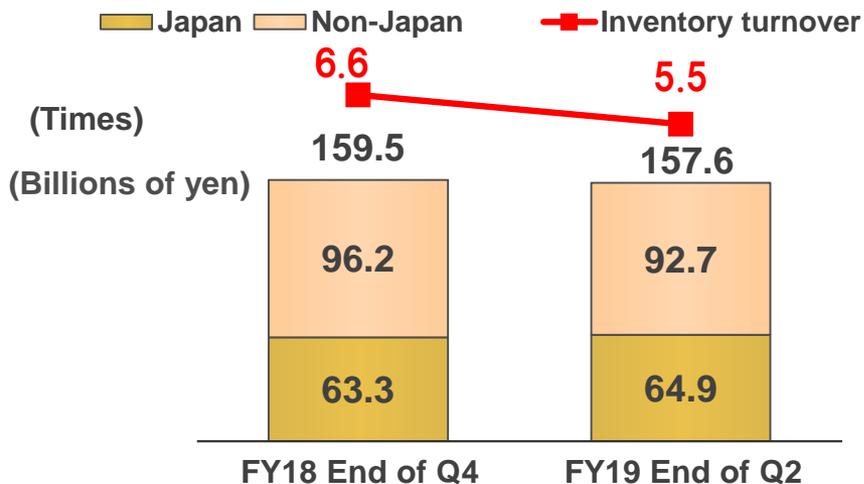


Liabilities / Total equity

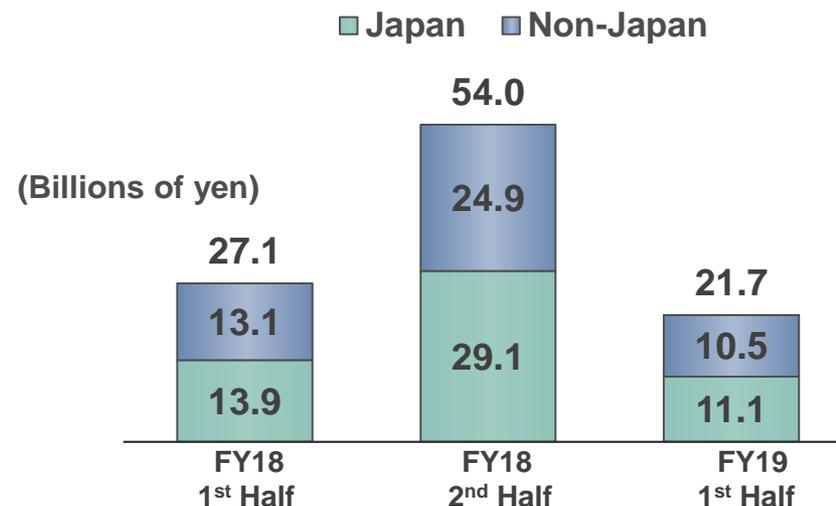


Ex. Rate	FY18 End of Q4	FY19 End of Q2
1USD=	111.01	107.96
1EUR=	124.56	118.04
1CNY=	16.48	15.14

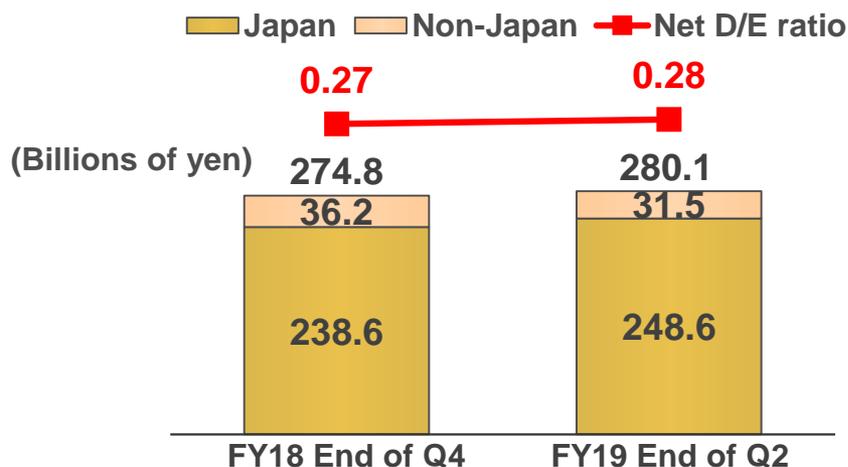
Inventories



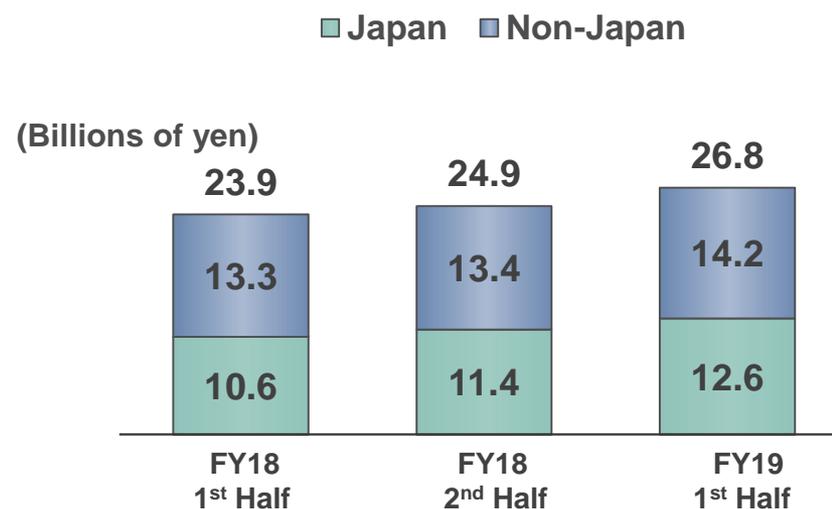
Capital Expenditure



Interest-bearing debt



Depreciation and Amortisation



(Supplementary Information) Capital Expenditure, Depreciation and Amortisation, R&D Expenses

(Billions of yen)	FY2018 1 st half <Actual>	FY2019 1 st half <Actual>	FY2019 Full year <FCST>	6 th MTP FY2019-FY2021 <Original Plan>
Capital Expenditure	81.1	21.7	60.0	180.0
Depreciation and Amortisation	48.8	26.8	52.0	160.0
R&D Expenses (on a statutory basis)	19.0	9.2	19.0	—
R&D Expenses (on a managerial basis)	32.4	15.9	32.0	vs. Sales 3 – 4%

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