

FY2019 Nine Months Financial Results (Ended November 30, 2019)

FY2019 Full-Year Forecasts (Ending February 29, 2020)

Notes:

- **Starting fiscal 2019, Yaskawa reclassified its business segments through organizational changes designed to optimize Group functions. In addition, we have reviewed the management classification and changed the classification of the destination country/region. Accordingly, the figures for fiscal 2018 have been reclassified into the new segment classification and the country/region of destination. (Please refer to P. 17 and 18)**
- The information within this document is made as of the date of writing. Any forward-looking statements are made according to the assumptions of management and are subject to change as a result of risks and uncertainties. YASKAWA Electric Corporation undertakes no obligation to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise.
- Figures in this document are rounded off, and may differ from those in other documents such as financial results.

YASKAWA ELECTRIC CORPORATION

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Business Overview

Motion Control

【Core products】

- AC servo motors and controllers
- Linear servo motors
- AC drives



Robotics

【Core products】

- Industrial robots
 - Arc and spot welding robots, painting robots
 - FPD glass sheet transfer robots, handling robots
- Semiconductor wafer transfer robots
- Biomedical robots
- Collaborative robots



System Engineering

【Core products】

- Electrical systems for steel plants
- Electrical instrumentation systems for water supply plants and sewage treatment facilities
- Large-scale wind power generator and converter
- PV inverters



PV inverter
XGI1000



Electrical
instrumentation
systems for water
and sewerage

Other

- Logistics

1. FY2019 Nine Months Financial Results

(Ended November 30, 2019)

FY2019 Nine Months Financial Results (Highlights)

- Sales and operating income decreased due to the decline in global capital expenditure demand impacted by the prolonged trade friction between the United States and China**

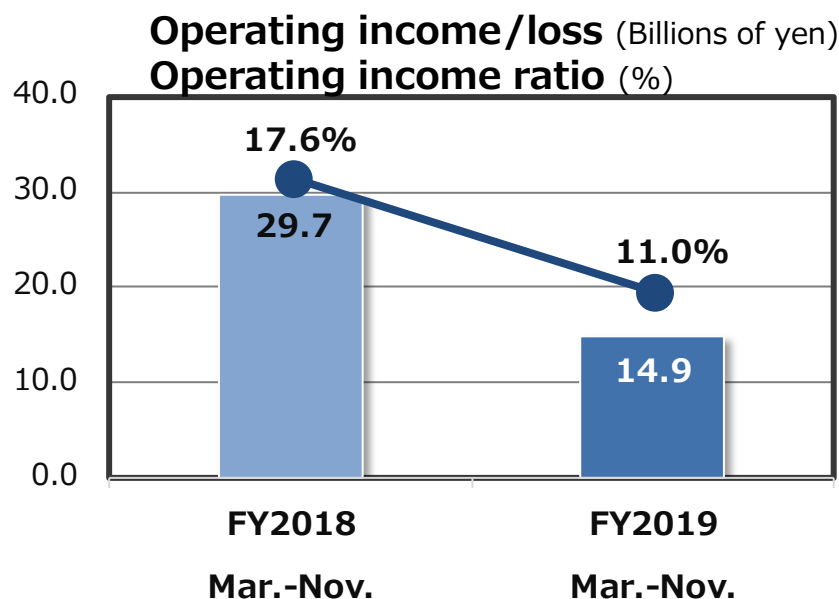
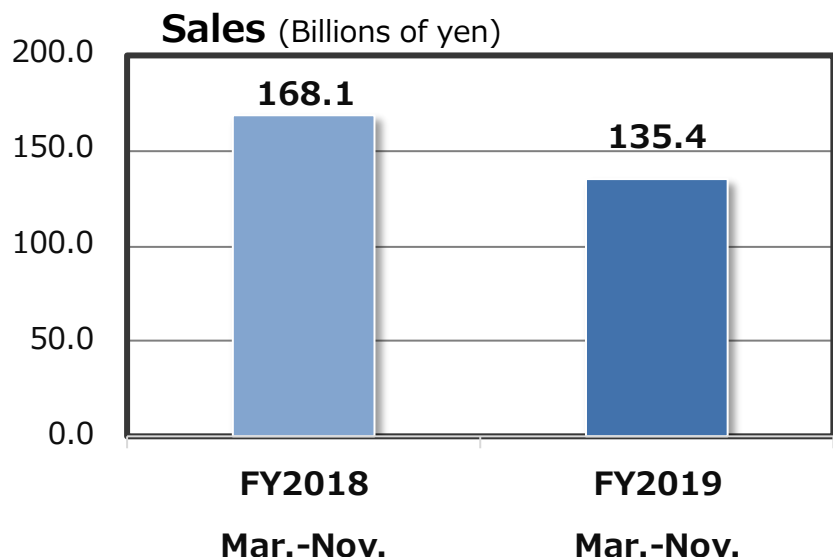
	FY2019	FY2018	Changes	
	Mar.-Nov.	Mar.-Nov.	Amounts	%
Net sales	¥ 309.8bn.	¥ 361.3bn.	-¥ 51.5bn.	-14.3%
Operating income	¥ 16.8bn.	¥ 41.6bn.	-¥ 24.8bn.	-59.7%
Ordinary income	¥ 17.2bn.	¥ 42.8bn.	-¥ 25.6bn.	-59.8%
Profit attributable to owners of parent	¥ 11.1bn.	¥ 37.9bn.	-¥ 26.8bn.	-70.7%

FY2019 Nine Months Financial Results by Business Segment

- Sales and operating income decreased in Motion Control and Robotics
- Sales increased in System Engineering due to new consolidation

	FY2019 Mar.-Nov.		FY2018 Mar.-Nov.		Changes	
	Results	Income ratio	Results	Income ratio	Amounts	%
(Billions of yen)						
Net sales	309.8		361.3		-51.5	-14.3%
Motion Control	135.4		168.1		-32.7	-19.4%
Robotics	116.5		131.8		-15.3	-11.6%
System Engineering	40.6		35.9		+4.7	+13.1%
Other	17.3		25.6		-8.3	-32.3%
Operating income	16.8	5.4%	41.6	11.5%	-24.8	-59.7%
Motion Control	14.9	11.0%	29.7	17.6%	-14.7	-49.7%
Robotics	4.2	3.6%	13.6	10.3%	-9.4	-69.5%
System Engineering	-0.8	-1.9%	-0.6	-1.7%	-0.2	-
Other	-0.1	-0.6%	0.4	1.7%	-0.5	-
Elimination or Corporate	-1.4	-	-1.4	-	+0.0	-
Ordinary income	17.2	5.6%	42.8	11.9%	-25.6	-59.8%
Profit attributable to owners of parent	11.1	3.6%	37.9	10.5%	-26.8	-70.7%

Business Segment Overview: Motion Control



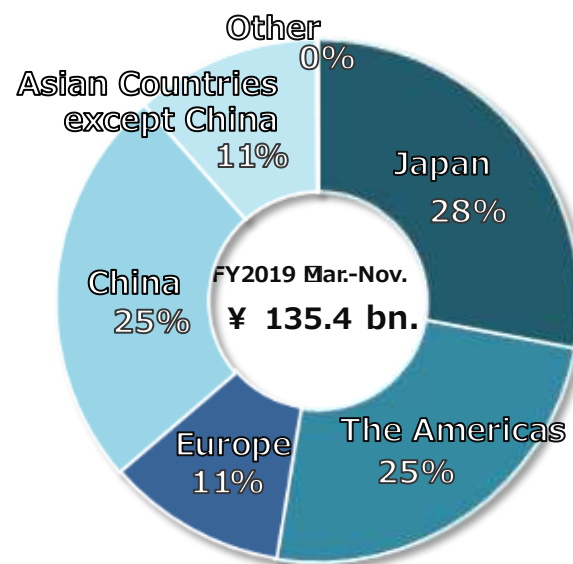
【Sales】

- AC servo: decreased due to economic slowdown in China impacted by the prolonged U.S. - China trade friction, while there were signs of recovery in semiconductor-related demand in the United States
- Drives: Although oil & gas-related demand in the United States was steady, sales were sluggish due to stagnant demand for capital investment in other regions

【Operating income】

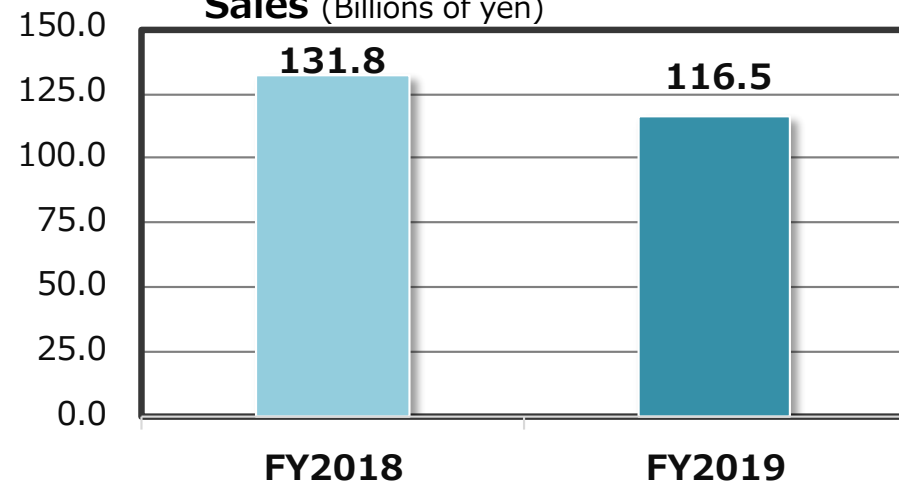
- Decreased due to a decline in capacity utilization as well as reduction in sales of AC servo business impacted by demand decline

Sales breakdown by region



Business Segment Overview: Robotics

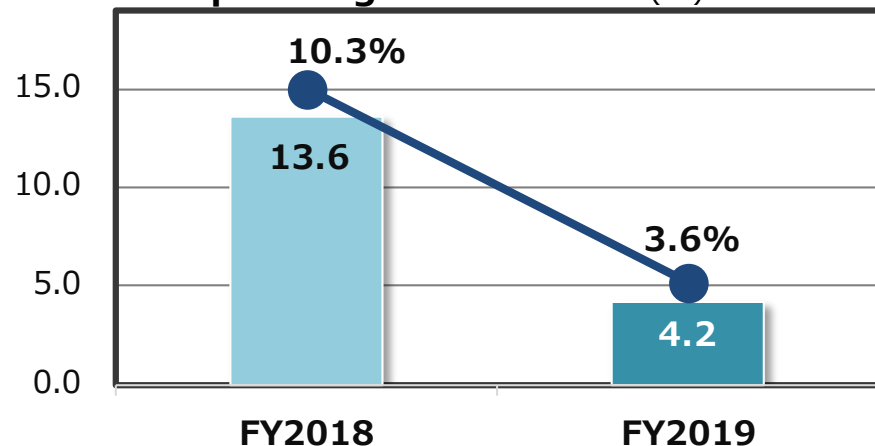
Sales (Billions of yen)



Mar.-Nov.

Mar.-Nov.

Operating income/loss (Billions of yen)
Operating income ratio (%)



Mar.-Nov.

Mar.-Nov.

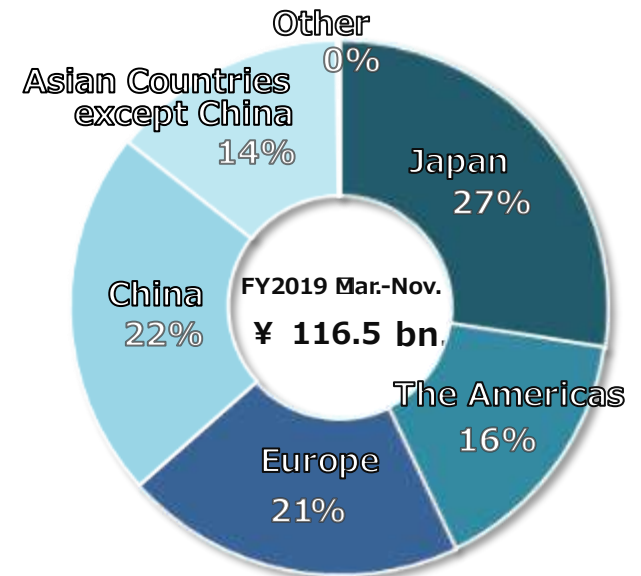
【Sales】

- Sales of automobile-related applications were solid in Japan, while overseas sales were weak due to curbs on capital investment
- Lackluster investment in automation in the general industry sector continued particularly in China, which was greatly affected by the U.S. - China trade friction
- Segment sales declined year-on-year.

【Operating income】

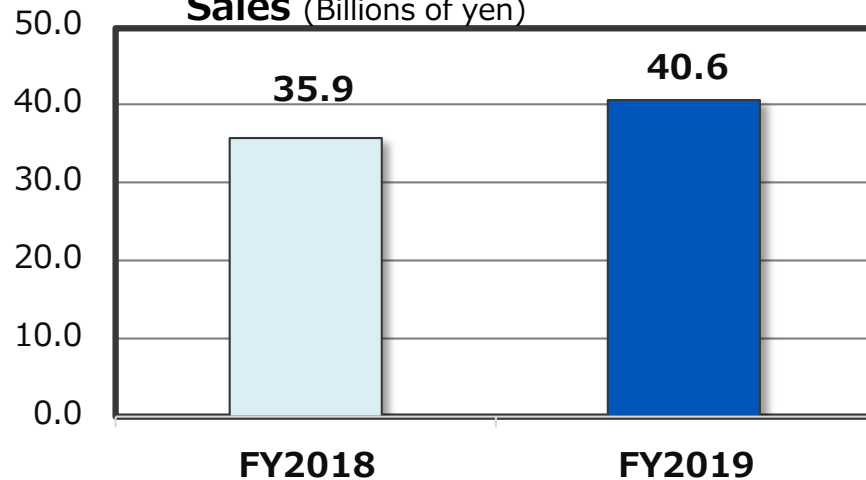
- Decreased due to a reduction in sales and decline in capacity utilization caused by inventory adjustments

Sales breakdown by region



Business Segment Overview: System Engineering

Sales (Billions of yen)



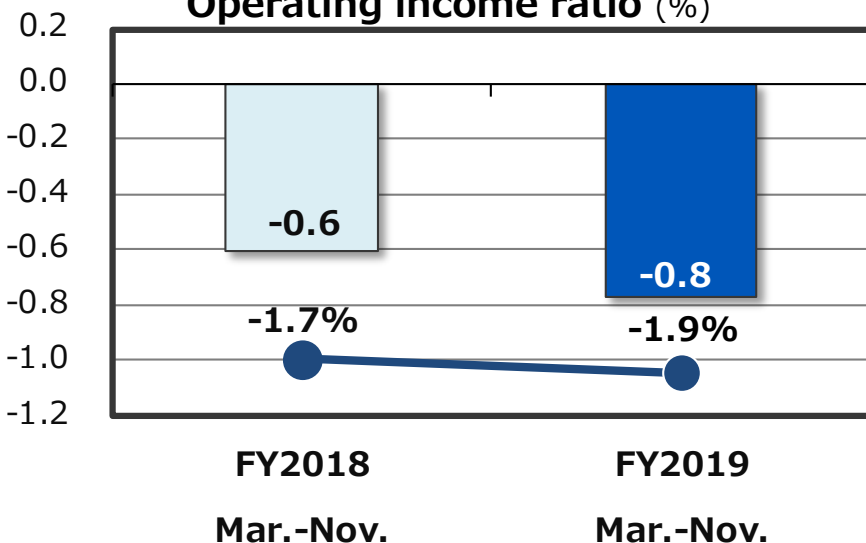
【Sales】

- Sales related to steel plants and water supply and sewage systems in Japan were solid.
- Sales related to environmental energy (electrical equipment for photovoltaic generation and large-scale wind turbines) decreased.
- Segment sales increased partly due to the effect of newly consolidated subsidiaries.

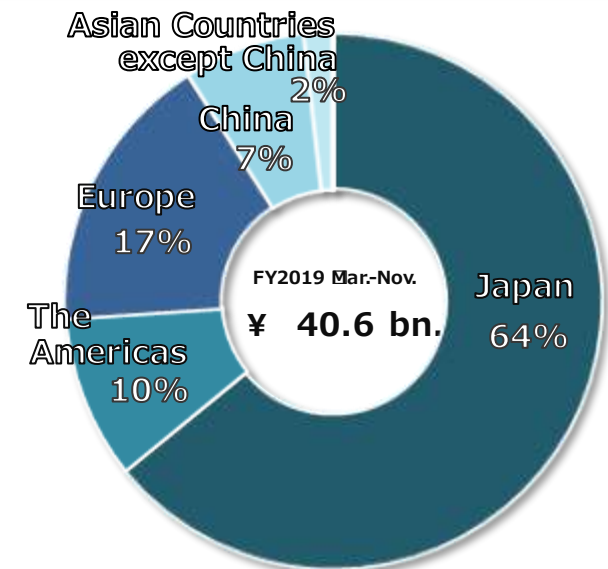
【Operating loss】

- Operating loss slightly increased.

Operating income/loss (Billions of yen)
Operating income ratio (%)

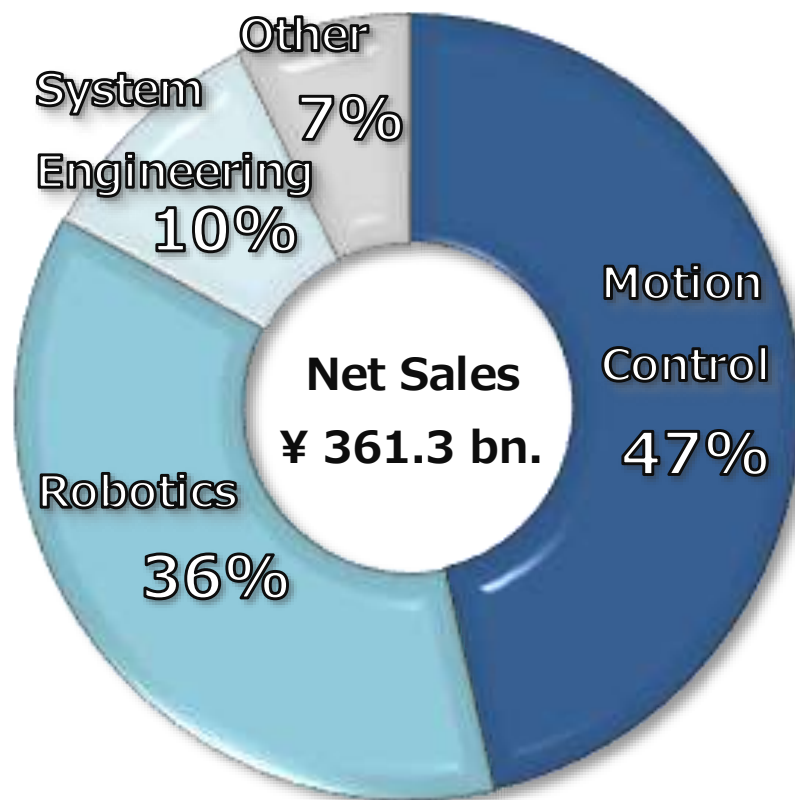


Sales breakdown by region

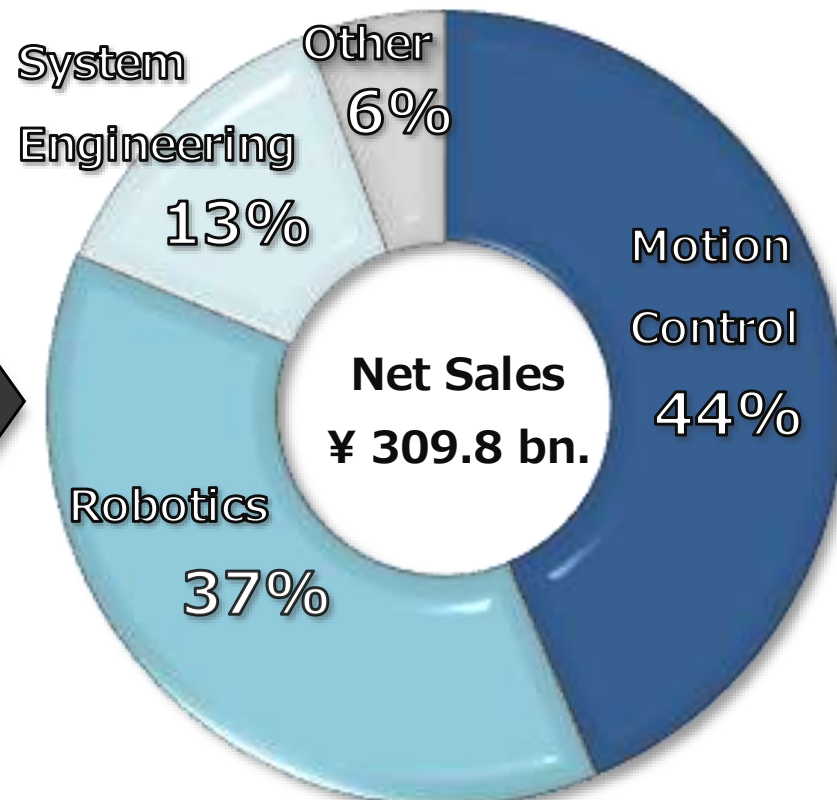


Sales Breakdown by Business Segment

FY2018 Mar.-Nov.



FY2019 Mar.-Nov.



Sales Breakdown by Destination (1)

- Sales declined especially in China and other Asian countries

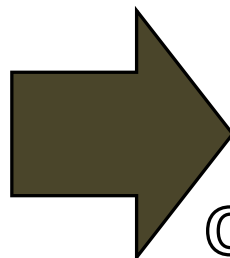
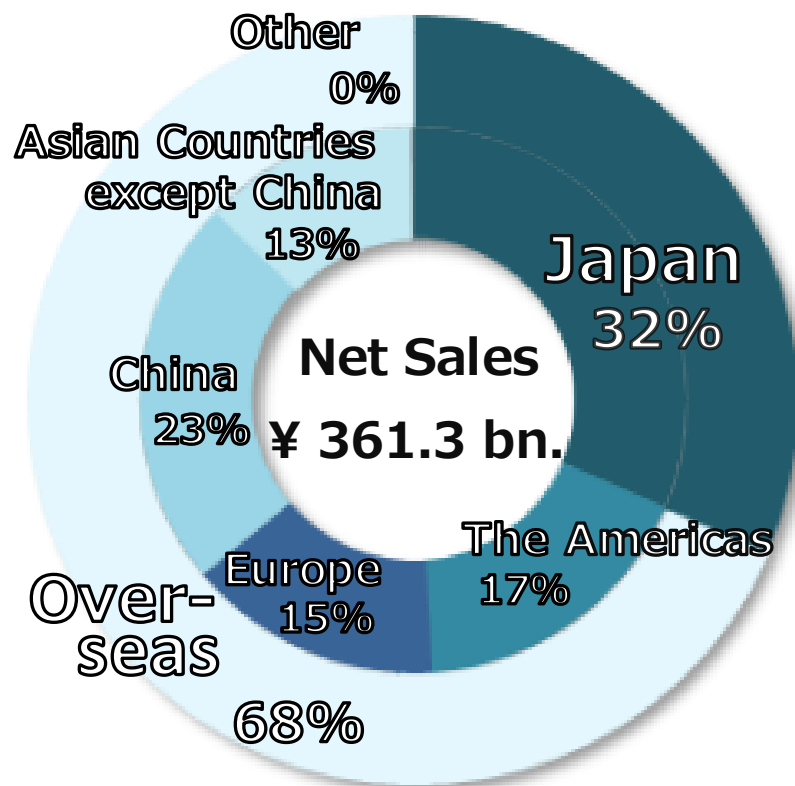
	FY2019 Mar.-Nov.	FY2018 Mar.-Nov.	Changes	
			Amounts	%
Net sales	309.8	361.3	-51.5	-14.3%
Japan	111.4	113.9	-2.5	-2.2%
Overseas	198.4	247.4	-49.1	-19.8%
The Americas	55.5	63.3	-7.8	-12.3%
Europe	45.8	53.8	-7.9	-14.7%
China	64.0	83.8	-19.8	-23.6%
Asian Countries except China	32.7	46.2	-13.5	-29.3%
Other	0.4	0.4	-0.0	-5.1%

Note 1: Europe includes Middle East and Africa.

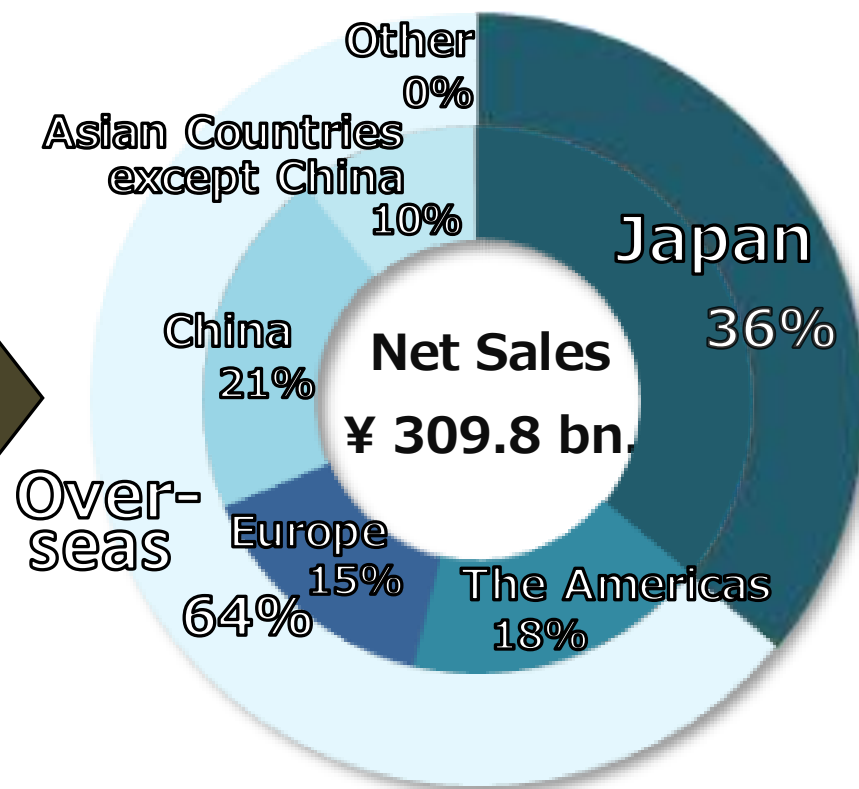
Note 2: The figures for Mar.-Nov. FY 2018 have been reclassified into the new categorization of country/region of destination.

Sales Breakdown by Destination (2)

FY2018 Mar.-Nov.



FY2019 Mar.-Nov.



Note: Europe includes Middle East and Africa.

Breakdown of Changes in Operating Income

(FY2018 Nine Months → FY2019 Nine Months)

(Billions of yen)

FY2018
Mar.-Nov.

41.6

**Effects of
changes
in forex
rates**

-2.3

**Profit
decrease
due to sales
decrease**
-16.0

**Decrease in
added value**
-7.3

**Decrease
in expenses**
+0.8

FY2019
Mar.-Nov.

16.8

-24.8

Initiatives in Fiscal 2019 3Q

➤ Establishing an "i³-Mechatronics" business model

➔ Proposed the latest advanced manufacturing systems utilizing data

- Demonstrated synchronous control of equipment and robots by YRM controller (tentative name) at IIFES exhibition
- Proposed automation of multiproduct variable-quantity production by using digital twin and improving the autonomy and mobility of robots at the International Robot Exhibition



Proposed advanced manufacturing using data at the International Robot Exhibition

➤ New Product Lineup to Accelerate "Robotics" Business Expansion

➔ Responding to changes in the automobile production lines

- Launched a spot welding robot with a long arm to expand the welding area

➔ Contributing to stable supply and safety of food through automation of food production

- Launched a 20kg-payload human collaboration robot with dust-proof and drip-proof specifications
- Launched a plated human collaboration robot that eliminate the risk of paint debris contamination for food application



Long arm model of spot welding robot
MOTOMAN-SP225H-135



Robot for food production
MOTOMAN-HC 10 DTF

➔ Responding to various automation needs expanding in general industries including 3C*

- Launched a SCARA robot optimal for assembly and handling of small parts

➔ Proposed solutions for the semiconductor market anticipated to expand

- Made reference exhibit of the latest semiconductor wafer transfer robot at SEMICON JAPAN.



SCARA robot
MOTOMAN-SG 400

*Digital Communications Equipment (From the acronyms of Computer, Communication and Consumer Electronics)

2. FY2019 Full-Year Financial Forecasts (Ending February 29, 2020)

FY2019 Full-Year Financial Forecasts (Highlights)

- Full-year forecasts announced on Oct. 10, 2019 remain unchanged.

	FY2019 Forecasts	FY2018 Results	Changes	
			Amounts	%
Net sales	¥ 420.0bn.	¥ 474.6bn.	-¥ 54.7bn.	-11.5%
Operating income	¥ 25.0bn.	¥ 49.8bn.	-¥ 24.8bn.	-49.8%
Ordinary income	¥ 26.0bn.	¥ 50.8bn.	-¥ 24.8bn.	-48.9%
Profit attributable to owners of parent	¥ 19.0bn.	¥ 41.2bn.	-¥ 22.2bn.	-53.8%

3 . Reference

Retroactive application of business reclassification to the FY2018 results

Reclassified the PM motor business of Yaskawa Motor Co. Ltd., which used to be included in System Engineering, as Motion Control starting FY2019

FY2018 (After segment revision)								Changes
(Unit: Billions of yen)	1Q	2Q	1H	3Q	4Q	2H	Full-Year	Full-Year
Net sales	128.2	120.0	248.2	113.1	113.3	226.4	474.6	-
Motion Control	61.8	56.0	117.8	50.3	45.2	95.5	213.3	+7.8
Robotics	43.9	44.3	88.2	43.6	46.2	89.8	178.0	-
System Engineering	11.9	11.5	23.5	12.4	15.8	28.2	51.6	-7.8
Other	10.6	8.2	18.8	6.8	6.2	13.0	31.8	-
Operating income	17.2	13.3	30.5	11.1	8.1	19.3	49.8	-
Motion Control	12.4	9.9	22.4	7.3	4.6	11.9	34.2	+0.3
Robotics	5.0	4.2	9.2	4.4	3.7	8.1	17.3	-
System Engineering	-0.4	-0.3	-0.7	0.1	0.3	0.4	-0.3	-0.3
Other	0.6	-0.0	0.6	-0.1	0.0	-0.1	0.4	-
Elimination or Corporate	-0.5	-0.5	-1.0	-0.4	-0.5	-0.9	-2.0	-

Retroactive application of destination change to the FY2018 results

- Beginning in FY 2019, management categories were revised and the classification of destination countries and regions was changed.
- Transferred the results of Middle East and Africa from "Other" to "Europe"
- Transferred the results of Hong Kong from "Asian countries except China" to "China"

FY2018 (After destination change)

(Unit: Billions of yen)	1Q	2Q	1H	3Q	4Q	2H	Full-Year	Changes Full-Year
Net sales	128.2	120.0	248.2	113.1	113.3	226.4	474.6	-
Japan	40.2	38.4	78.6	35.3	40.6	76.0	154.5	-
Overseas	88.0	81.6	169.7	77.8	72.7	150.4	320.1	-
The Americas	19.8	21.2	41.0	22.3	21.6	43.9	84.9	-
Europe	17.2	17.0	34.3	19.5	16.7	36.1	70.4	+3.9
China	34.2	26.6	60.8	23.0	19.7	42.6	103.4	+3.2
Asian Countries except China	16.5	16.7	33.3	12.9	14.7	27.7	60.9	-3.2
Other	0.2	0.1	0.3	0.1	0.1	0.1	0.4	-3.9

Capital Expenditure, R&D Investment, Forex Rates

Capital expenditure, R&D investment

(Unit : Billions of Yen)

	F Y 2 0 1 7	F Y 2 0 1 8	F Y 2 0 1 9 (Plan)
Capital expenditure	19.69	35.65	20.00
Depreciation and Amortization	12.69	14.31	15.00
R&D investment	19.07	20.79	21.00

Forex rates

Note: Average rate during the period

(Unit : Yen)

	F Y 2 0 1 7				F Y 2 0 1 8				F Y 2 0 1 9 (Forecasts)			
	Apr.-Dec.	4Q	2H	Full-Year	Mar.-Nov.	4Q	2H	Full-Year	Mar.-Nov.	4Q	2H	Full-Year
U.S. dollar	111.7	110.7	111.5	111.5	110.4	110.6	111.7	110.5	108.9	105.0	106.6	107.9
Euro	127.1	134.2	133.3	128.8	129.8	125.9	127.8	128.9	121.5	120.0	119.7	121.1
Yuan	16.56	17.16	17.08	16.71	16.65	16.25	16.28	16.56	15.71	15.00	15.14	15.53
Won	0.099	0.103	0.101	0.100	0.100	0.099	0.099	0.100	0.093	0.090	0.091	0.092

Forex sensitivity

(Unit : Billions of Yen)

	Impact of 1% fluctuation (FY2019, full-year)	
	Net sales	Operating income
U.S. dollar	approx. 0.82	approx. 0.15
Euro	approx. 0.64	approx. 0.13
Yuan	approx. 0.81	approx. 0.18
Won	approx. 0.21	approx. 0.12

Financial Indices

As of February 28, 2019

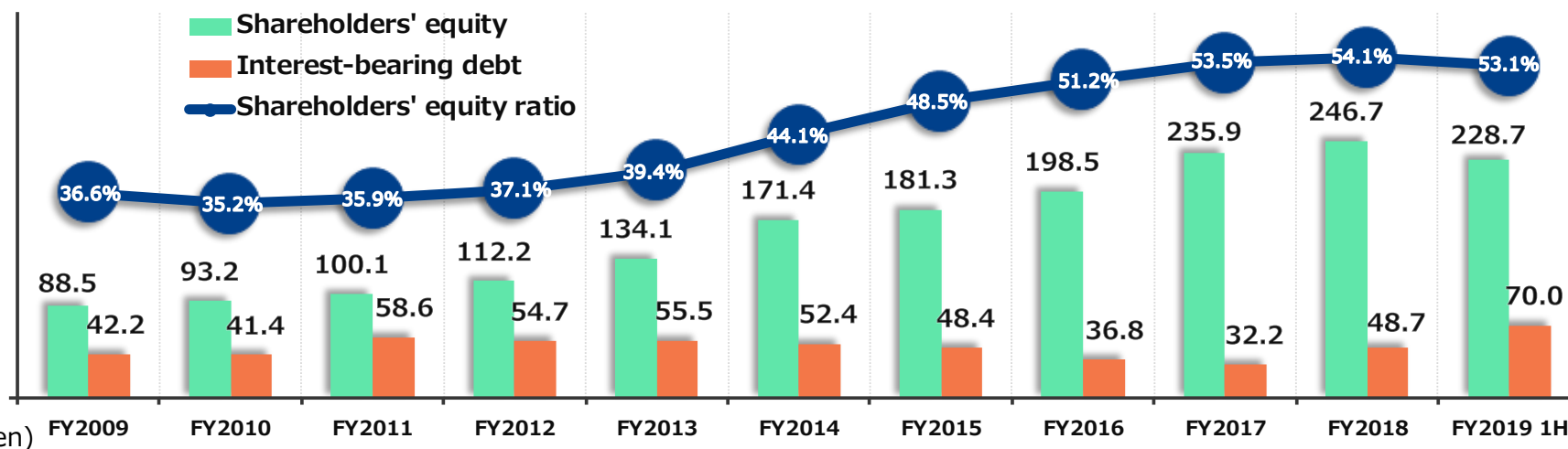
➤ Shareholders' equity ratio	54.1%
➤ Shareholders' equity	246.7 billion yen
➤ Interest-bearing debt	48.7 billion yen
➤ D/E ratio	0.20
(Net D/E ratio)	0.04
➤ Inventory	111.5 billion yen
Turnover	2.8 months
➤ ROE	17.1%
➤ ROIC	17.2%

As of November 30, 2019

➤ Shareholders' equity ratio	50.5%
➤ Shareholders' equity	228.9 billion yen
➤ Interest-bearing debt	83.1 billion yen
➤ D/E ratio	0.36
(Net D/E ratio)	0.17
➤ Inventory	106.5 billion yen
Turnover	3.1 months

*Interest-bearing debt includes lease obligations.
 *Inventory at the end of the period is used for calculating turnover months.
 *ROE= Net income attributable to owners of parent /
 Shareholders' equity (average of beginning and end of fiscal year)
 *ROIC= Net income attributable to owners of parent / Invested capital

(Billions of yen)

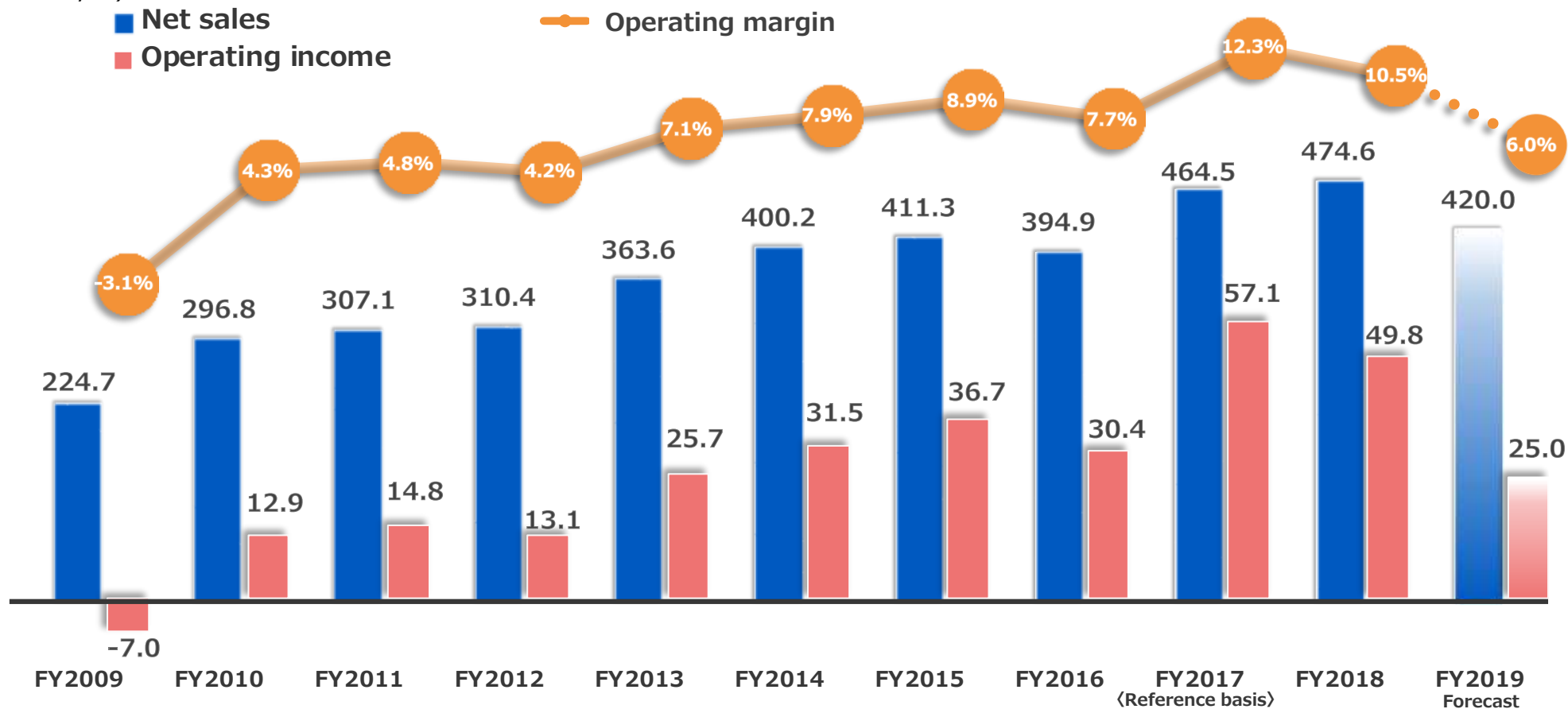


(Billions of yen)

Operating CF	4.0	2.5	6.4	24.6	24.0	29.0	32.0	33.8	46.1	32.8	6.9
Investment CF	- 6.5	- 6.7	- 11.9	- 18.1	- 16.9	- 27.9	- 22.4	- 18.9	- 18.9	- 27.1	- 10.5
Free CF	- 2.4	- 4.3	- 5.5	6.6	7.0	1.1	9.5	14.8	27.2	5.7	- 3.6

Net Sales/Operating Income (FY2009 - FY2019 Forecasts)

(Billions of yen)



Challenge 100

Realize 100

Dash 25

Challenge 25

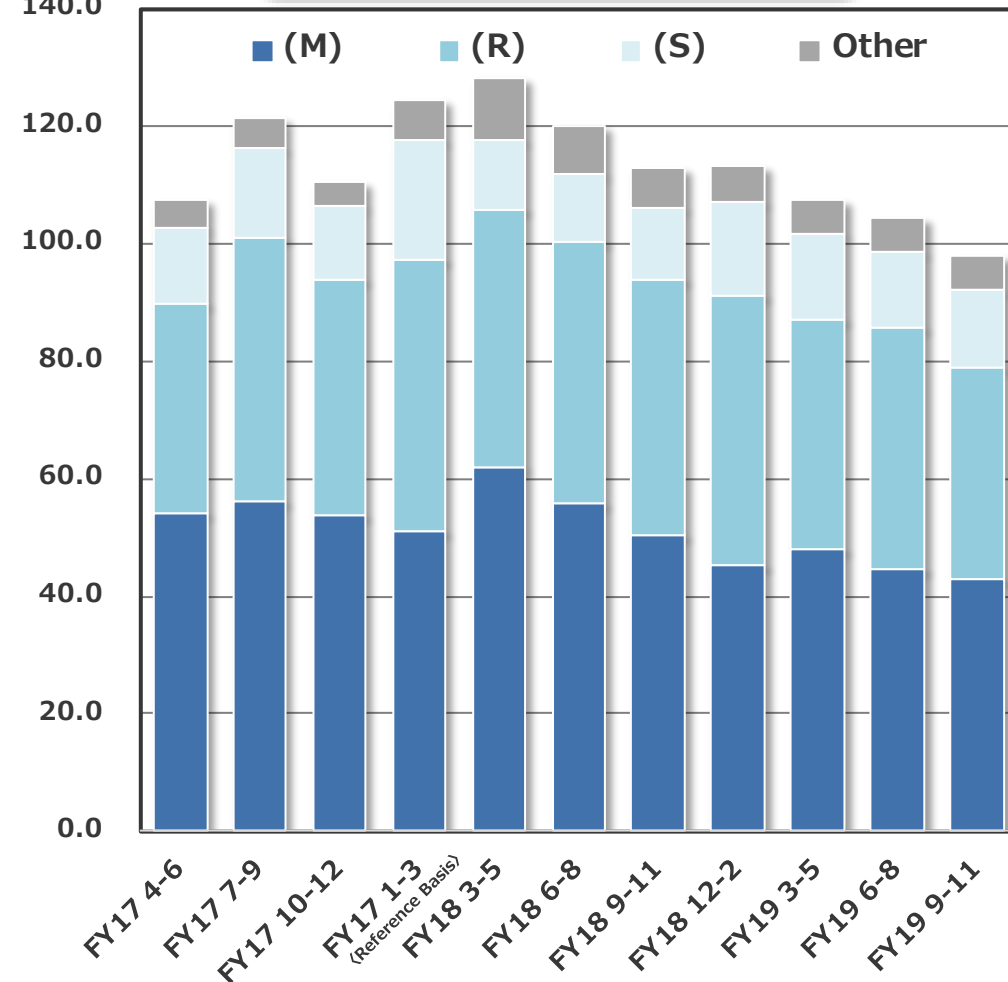
Mid-term business plans

Note: The data for FY2017 are made on a reference basis. (March 21, 2017 - March 20, 2018)

Quarterly Sales Trends (1)

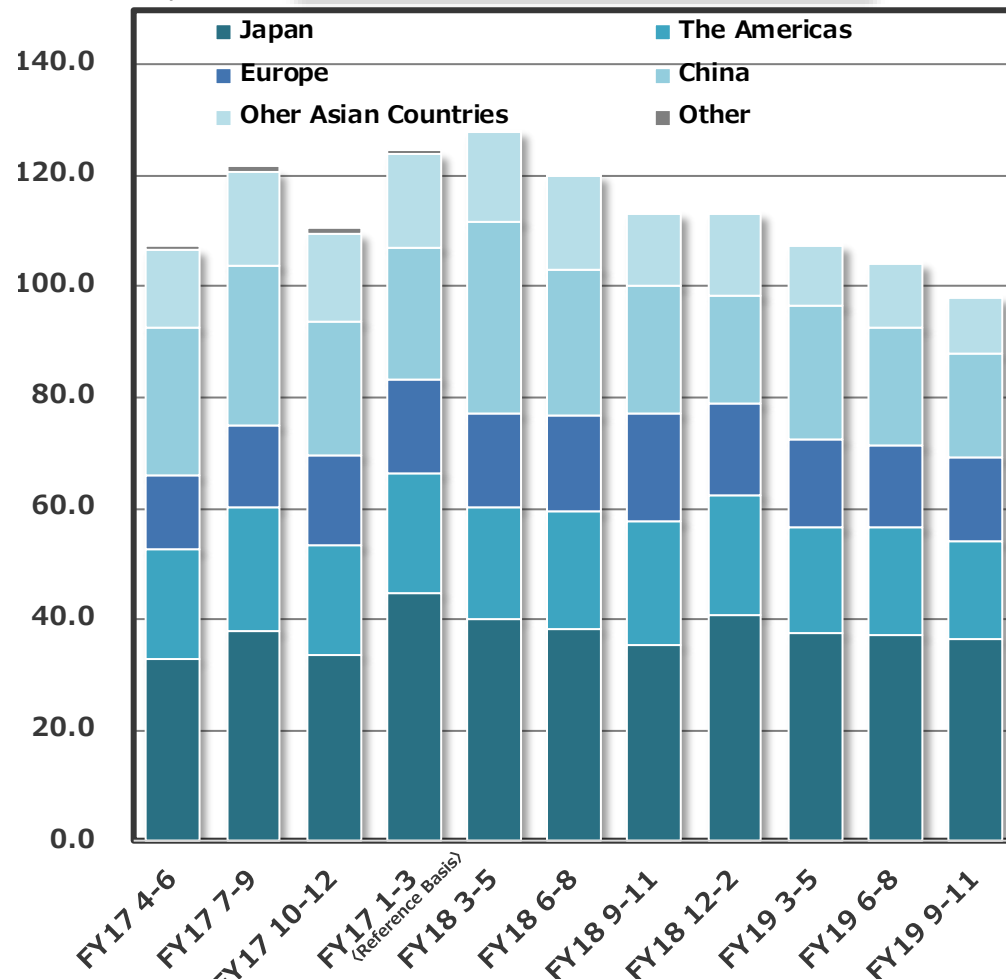
Business segment

(Billions of yen)
140.0



Destination

(Billions of yen)



Note1: The data for FY2017 4Q(1-3) are made on a reference basis. (December 21, 2017 – March 20, 2018)

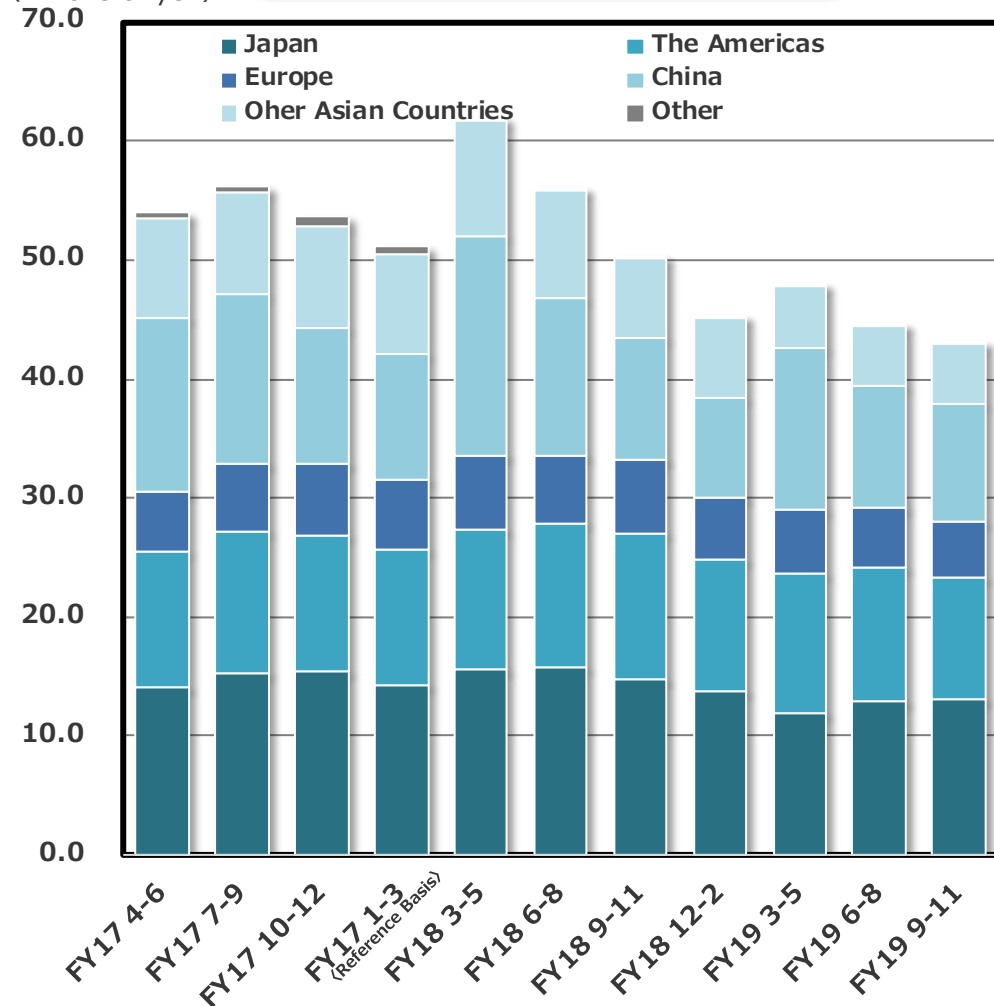
Note2: The FY2017 data are based on the previous segment classification and management classification (destination classification) before revision.

Note3: (M) = Motion Control (R) = Robotics (S) = System Engineering

Quarterly Sales Trends (2)

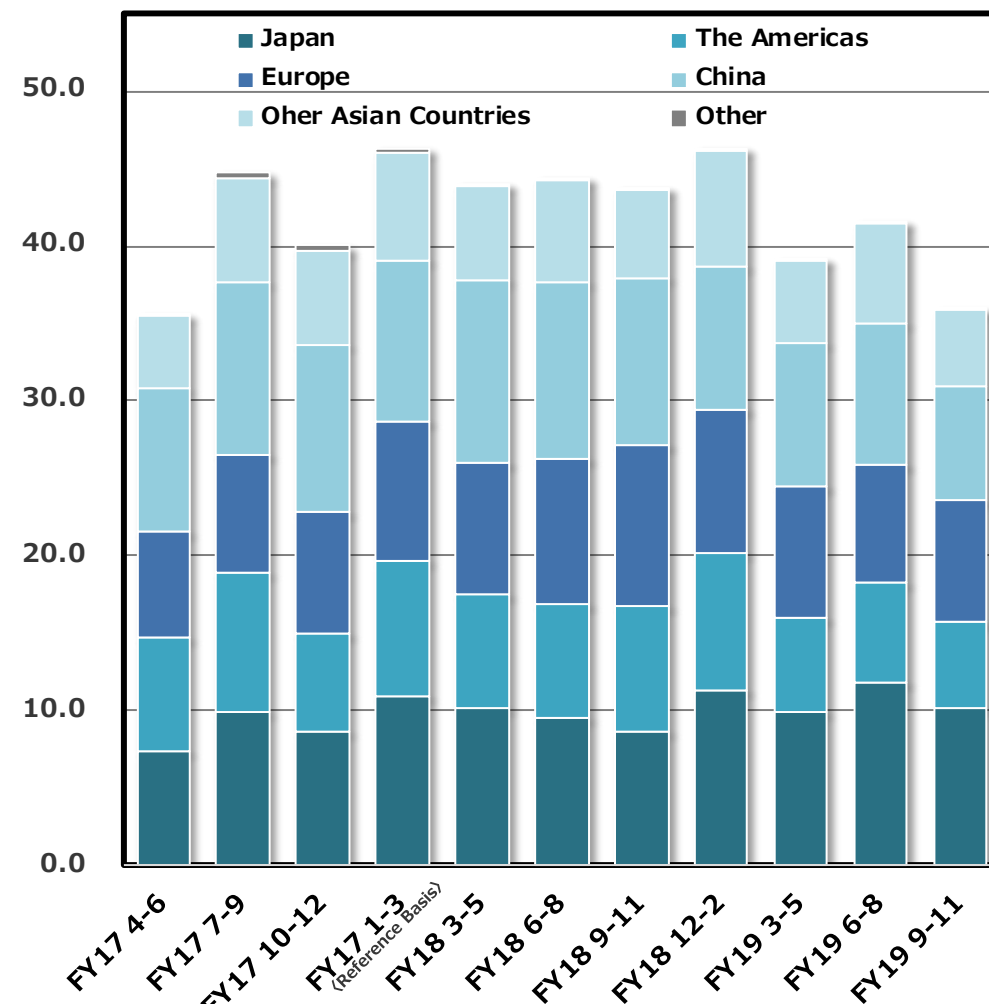
Motion Control

(Billions of yen)



Robotics

(Billions of yen)

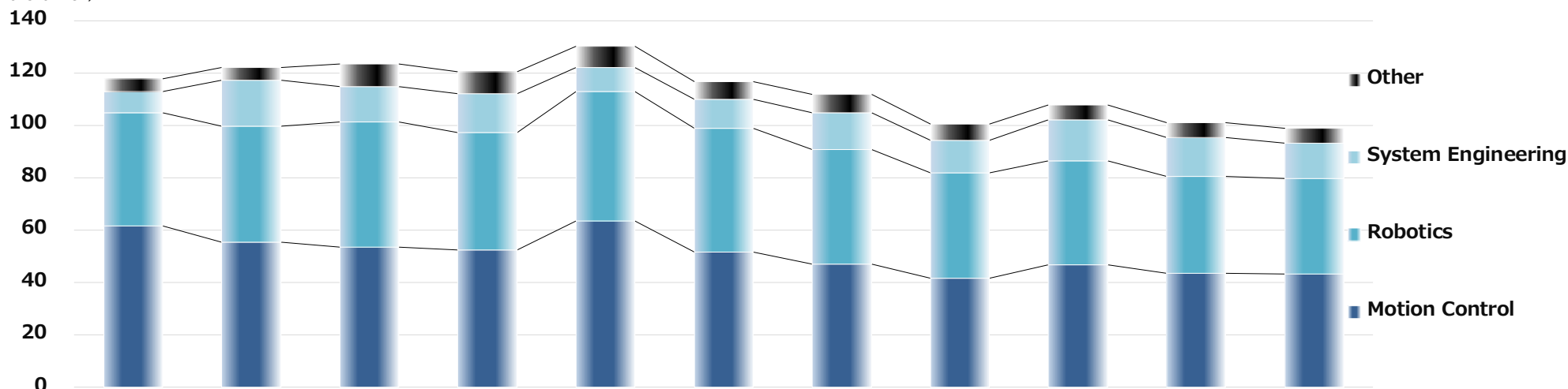


Note1: The data for FY2017 4Q(1-3) are made on a reference basis. (December 21, 2017 – March 20, 2018)

Note2: The FY2017 data are based on the previous segment classification and management classification (destination classification) before revision.

Quarterly Order Trends by Business Segment *Average forex rates during period used

(Billions of Yen)



		FY2017				FY2018				FY2019		
		Apr.-Jun.	Jul.-Sep.	Oct.-Dec.	Jan.-Mar. <small>(Reference basis)</small>	Mar.-May	Jun.-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	Jun.-Aug.	Sep.-Nov.
Total	YoY	+8%	+29%	+18%	+16%	+10%	-4%	-9%	-17%	-17%	-13%	-11%
	QoQ	+13%	+4%	+1%	-2%	+8%	-10%	-4%	-10%	+7%	-6%	-2%
YoY	(M)	+39%	+31%	+17%	+5%	+3%	-7%	-12%	-20%	-26%	-16%	-8%
	(R)	+14%	+31%	+25%	+24%	+15%	+7%	-8%	-10%	-19%	-22%	-17%
	(S)	-59%	+33%	-10%	+24%	+14%	-37%	+4%	-17%	+70%	+34%	-2%
QoQ	(M)	+23%	-10%	-3%	-2%	+21%	-19%	-9%	-11%	+12%	-7%	-0%
	(R)	+19%	+2%	+8%	-6%	+11%	-4%	-7%	-9%	-0%	-7%	-2%
	(S)	-33%	+118%	-23%	+11%	-39%	+20%	+27%	-11%	+26%	-6%	-8%
Forex rates	U.S. dollar	111.9	111.1	112.2	110.7	107.8	110.8	112.7	110.6	111.0	107.6	108.2
	Euro	120.9	127.9	132.4	134.2	130.9	128.9	129.6	125.9	124.7	120.6	119.3

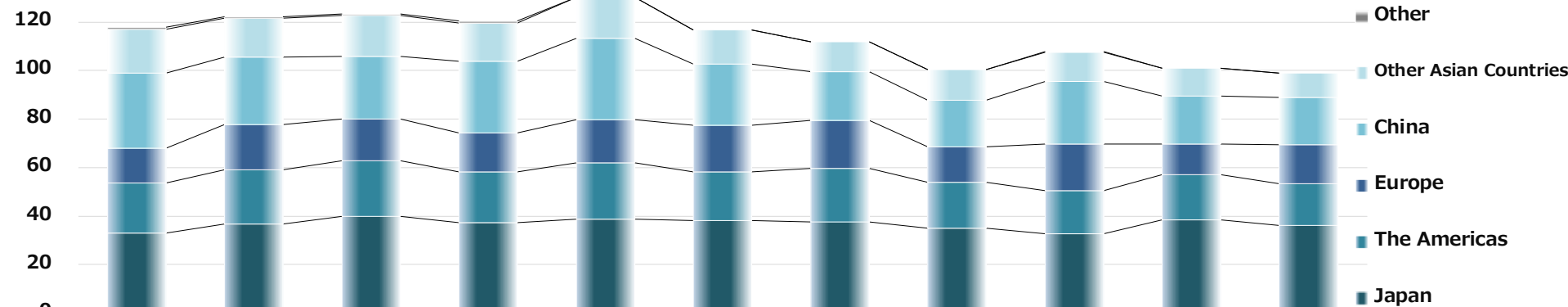
Note1: The data for FY2017 4Q(1-3) are made on a reference basis. (December 21, 2017 – March 20, 2018)

Note2: The FY2017 data are based on the previous segment classification and management classification (destination classification) before revision.

Quarterly Order Trends by Destination *Average forex rates during period used

(Billions of Yen)

140



		FY2017				FY2018				FY2019		
		Apr.-Jun.	Jul.-Sep.	Oct.-Dec.	Jan.-Mar. <small>(Reference basis)</small>	Mar.-May	Jun.-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	Jun.-Aug.	Sep.-Nov
Total	YoY	+8%	+29%	+18%	+16%	+10%	-4%	-9%	-17%	-17%	-13%	-11%
	QoQ	+13%	+4%	+1%	-2%	+8%	-10%	-4%	-10%	+7%	-6%	-2%
YoY	Japan	-15%	+23%	+18%	+12%	+18%	+4%	-6%	-6%	-15%	+1%	-4%
	The Americas	+15%	+9%	+17%	+0%	+11%	-10%	-5%	-10%	-23%	-8%	-21%
	Europe	+2%	+73%	-0%	+25%	+16%	-6%	+11%	-15%	+6%	-33%	-19%
	China	+36%	+34%	+38%	+47%	+8%	-8%	-23%	-35%	-22%	-21%	-3%
	Other Asian Countries	+27%	+40%	+20%	+1%	-6%	-13%	-28%	-21%	-30%	-19%	-18%
QoQ	Japan	-1%	+12%	+9%	-7%	+4%	-2%	-1%	-7%	-7%	+17%	-6%
	The Americas	-1%	+8%	+2%	-8%	+10%	-12%	+8%	-14%	-6%	+5%	-8%
	Europe	+13%	+30%	-9%	-6%	+5%	+5%	+8%	-28%	+30%	-34%	+27%
	China	+53%	-11%	-6%	+15%	+12%	-24%	-21%	-4%	+35%	-23%	-3%
	Other Asian Countries	+15%	-10%	+5%	-7%	+7%	-17%	-13%	+3%	-5%	-4%	-12%

Major Production Bases



YASKAWA