

## **FY2016 Financial Results (Ended March 20, 2017)**

## **FY2017 Financial Forecasts (Ending February 28, 2018)**

**YASKAWA ELECTRIC CORPORATION (TSE6506)**

April 20, 2017

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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.

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# Business Overview

## Motion Control (M)

[Core products]

- AC servo motors and controllers
- Linear servo motors
- AC drives
- Power conditioners
- Motor drive systems for EV etc.



AC servo motor  
"Z-7" series



General purpose  
AC drive  
"Zero series"



PV inverter for  
photovoltaic power  
generation



Motor drive system  
for EV

## Robotics (R)

[Core products]

- Industrial Robots
  - Arc and spot welding robots, Painting robots
  - FPD glass sheet transfer robots, New generation robots, Handling robots,
- Semiconductor wafer transfer robots
- Biomedical robots
- Cooperative robots etc.



New miniature robot  
MOTOMAN-GP8



Collaborative Robot HC10

Robot system for  
preprocessing operations

## System Engineering (S)

[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 etc.



Large-scale wind  
turbine and converter



Continuous-casting machine



Electrical instrumentation  
systems for water  
and sewerage

## Other

[Core products]

- IT-related services
- Logistics, etc.

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# **1. FY2016 Financial Results (Ended March 20, 2017)**

# FY2016 Financial Results (Highlights)

- Sales and income declined year on year because of the strong yen.

	<b><u>FY2016 Results</u></b>	FY2016 Forecasts	FY2015 Results	<b><u>Changes</u></b>	
				<b><u>Amounts</u></b>	<b><u>%</u></b>
<b>Net sales</b>	<b><u>¥ 394.9bn.</u></b>	¥ 395.0bn.	¥ 411.3bn.	<b><u>-¥ 16.4bn.</u></b>	<b><u>-4.0%</u></b>
<b>Operating income</b>	<b><u>¥ 30.4bn.</u></b>	¥ 31.0bn.	¥ 36.7bn.	<b><u>-¥ 6.3bn.</u></b>	<b><u>-17.2%</u></b>
<b>Ordinary income</b>	<b><u>¥ 32.0bn.</u></b>	¥ 31.5bn.	¥ 35.8bn.	<b><u>-¥ 3.9bn.</u></b>	<b><u>-10.8%</u></b>
<b>Profit attributable to owners of parent</b>	<b><u>¥ 20.4bn.</u></b>	¥ 20.0bn.	¥ 22.4bn.	<b><u>-¥ 2.0bn.</u></b>	<b><u>-8.8%</u></b>

Notes: The figures of FY2016 forecasts were announced on January 23, 2017

# FY2016 Financial Results by Business Segment (1)

- Sales and profits in (M) and (R) decreased due to the strong yen.
- Profitability of (S) improved with the sales growth in both existing and new businesses.

(Billions of yen)

	FY2016		FY2016		FY2015		Changes	
	Results	Income ratio	Forecasts	Income ratio	Results	Income ratio	Amounts	%
<b>Net sales</b>	<b>394.9</b>		<b>395.0</b>		<b>411.3</b>		<b>-16.4</b>	<b>-4.0%</b>
(M) Motion Control	183.3		182.0		187.5		-4.3	-2.3%
(R) Robotics	140.0		140.0		154.1		-14.1	-9.1%
(S) System Engineering	48.2		49.5		43.1		+5.1	+11.9%
Other	23.4		23.5		26.6		-3.2	-12.0%
<b>Operating income</b>	<b>30.4</b>	<b>7.7%</b>	<b>31.0</b>	<b>7.8%</b>	<b>36.7</b>	<b>8.9%</b>	<b>-6.3</b>	<b>-17.2%</b>
(M) Motion Control	20.8	11.3%	20.9	11.5%	22.4	12.0%	-1.7	-7.4%
(R) Robotics	10.3	7.3%	11.1	7.9%	15.3	9.9%	-5.1	-33.0%
(S) System Engineering	0.9	1.9%	0.5	1.0%	-0.8	-1.8%	+1.7	-
Other	-0.2	-0.8%	-0.3	-1.3%	0.9	3.2%	-1.0	-
Elimination or Corporate	-1.3	-	-1.2	-	-1.1	-	-0.2	-
<b>Ordinary income</b>	<b>32.0</b>	<b>8.1%</b>	<b>31.5</b>	<b>8.0%</b>	<b>35.8</b>	<b>8.7%</b>	<b>-3.9</b>	<b>-10.8%</b>
<b>Profit attributable to owners of parent</b>	<b>20.4</b>	<b>5.2%</b>	<b>20.0</b>	<b>5.1%</b>	<b>22.4</b>	<b>5.4%</b>	<b>-2.0</b>	<b>-8.8%</b>

Notes: The figures of FY2016 forecasts were announced on January 23, 2017

# FY2016 Financial Results by Business Segment (2)

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## Motion Control

- **AC servo sales were solid because of the continuing robust demand for capital expenditures in the smart phone-related industry in China.**
- **Profitability significantly improved as the effect of local production in China.**
- **Drives business saw sluggish demand in the U.S. oil-related industry, and weak PV inverter sales for the Japanese market.**

## Robotics

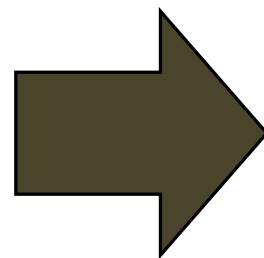
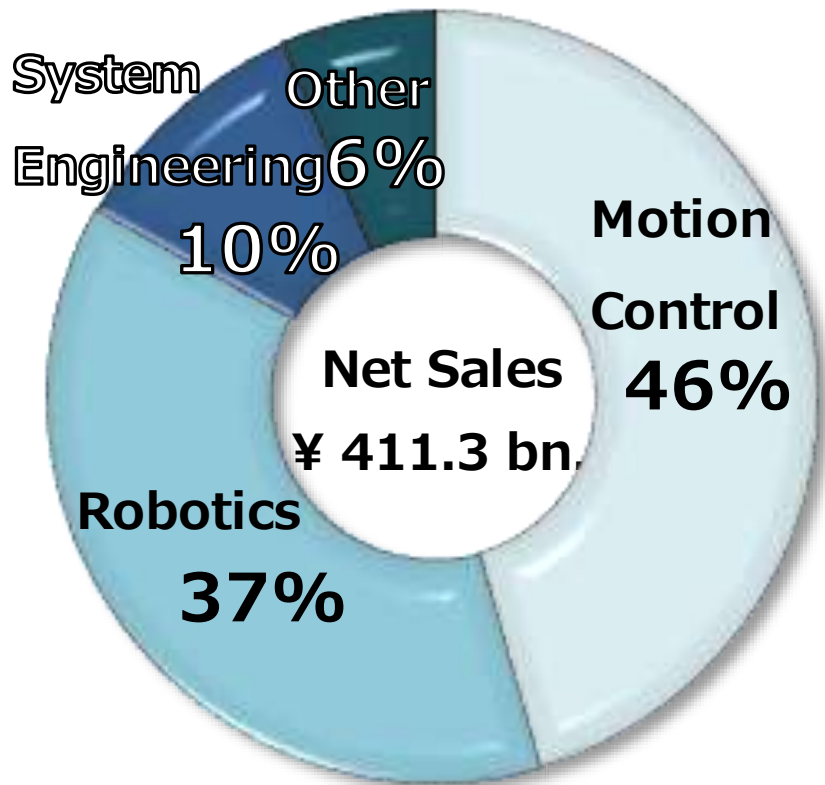
- **Automobile-related business in Japan and Europe were solid.**
  - **Sales for 3C\* markets expanded in China**
  - **Sales and income year on year decreased because of impact of the strong yen.**
- \*computer, communication and consumer

## System Engineering

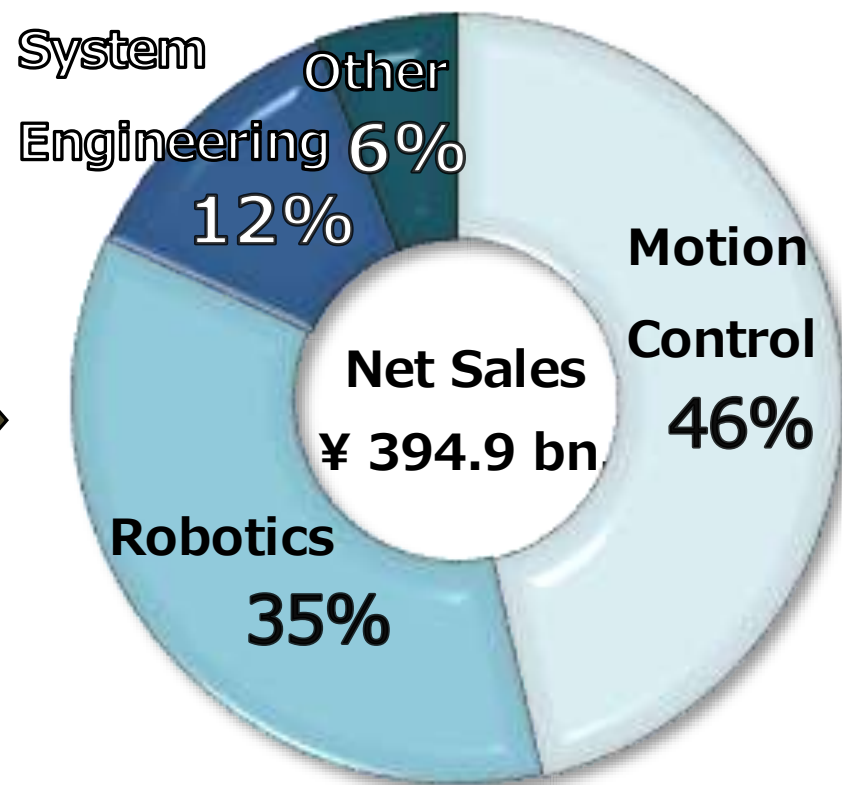
- **The profitability of the steel plant and social system business improved as we captured the demand for facility renovation.**
- **Sales related to large-scale wind turbine increased mainly in Europe and China.**
- **Sales increased from last year, and the segment turned profitable.**

# Sales Breakdown by Business Segment

**FY2015**



**FY2016**





# Sales Breakdown by Destination (1)

- Overseas sales declined because of the strong yen.

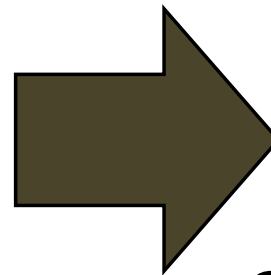
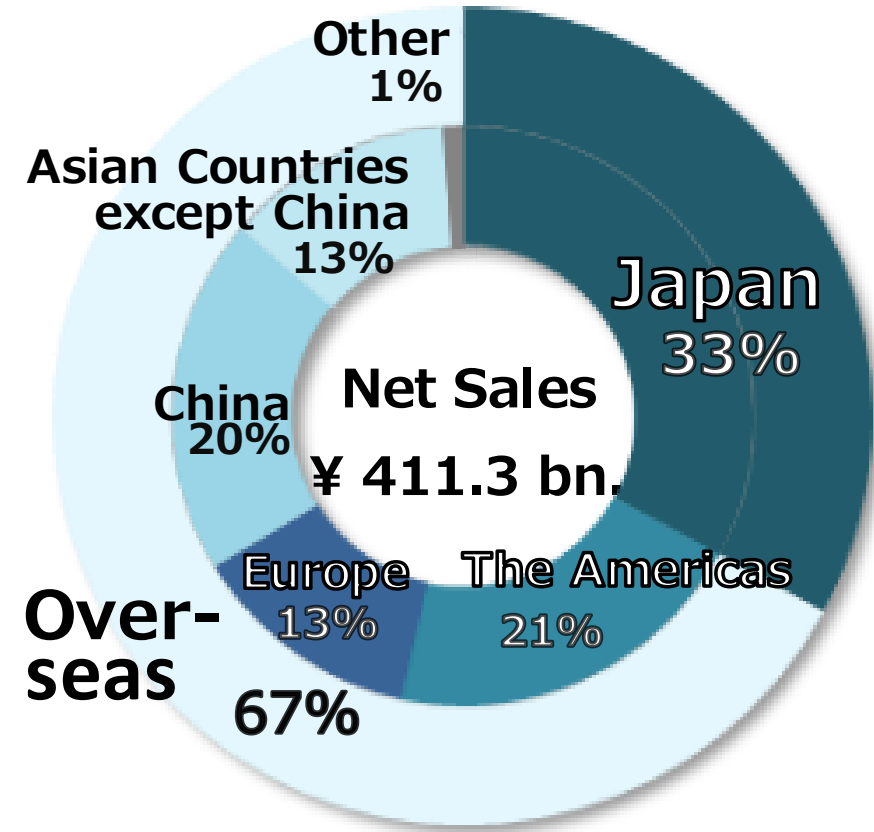
(Billions of yen)

	FY2016	FY2015	Changes	
			Amounts	%
<b>Net sales</b>	<b>394.9</b>	<b>411.3</b>	<b>-16.4</b>	<b>-4.0%</b>
<b>Japan</b>	<b>134.2</b>	<b>135.5</b>	<b>-1.3</b>	<b>-1.0%</b>
<b>Overseas</b>	<b>260.7</b>	<b>275.8</b>	<b>-15.1</b>	<b>-5.5%</b>
<b>The Americas</b>	<b>74.7</b>	<b>85.1</b>	<b>-10.4</b>	<b>-12.2%</b>
<b>Europe</b>	<b>50.7</b>	<b>52.0</b>	<b>-1.3</b>	<b>-2.5%</b>
<b>China</b>	<b>81.2</b>	<b>81.9</b>	<b>-0.7</b>	<b>-0.8%</b>
<b>Asian Countries except China</b>	<b>49.8</b>	<b>52.4</b>	<b>-2.6</b>	<b>-4.9%</b>
<b>Other</b>	<b>4.2</b>	<b>4.4</b>	<b>-0.2</b>	<b>-3.8%</b>

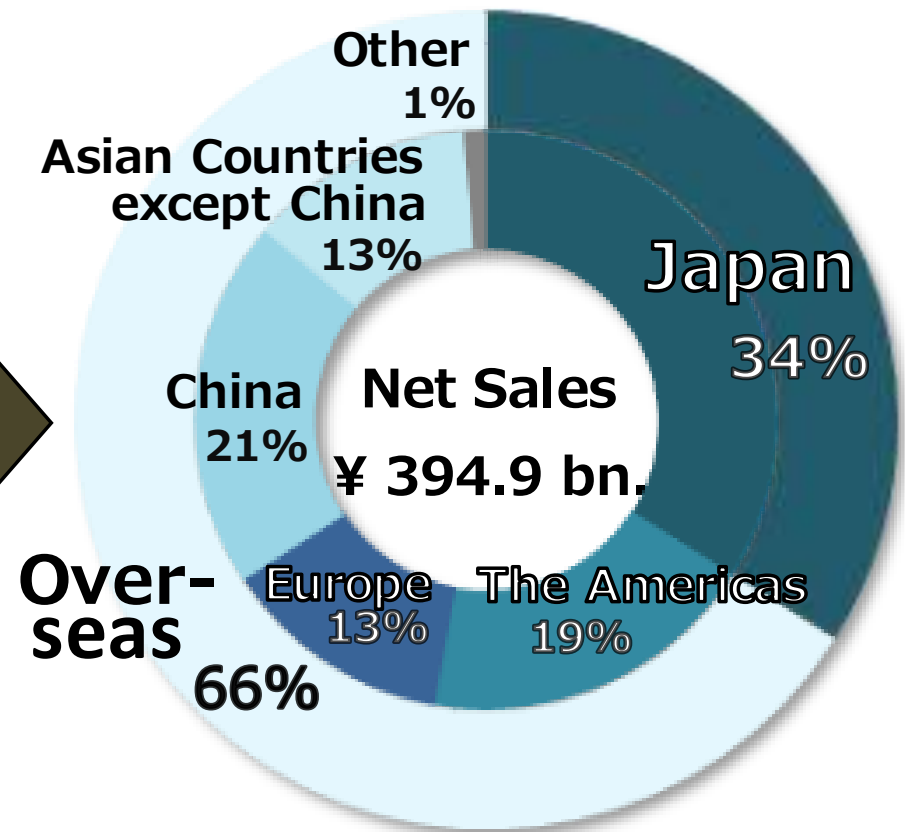
Note: "Other" category includes Australia and South Africa, etc.

# Sales Breakdown by Destination (2)

## FY2015

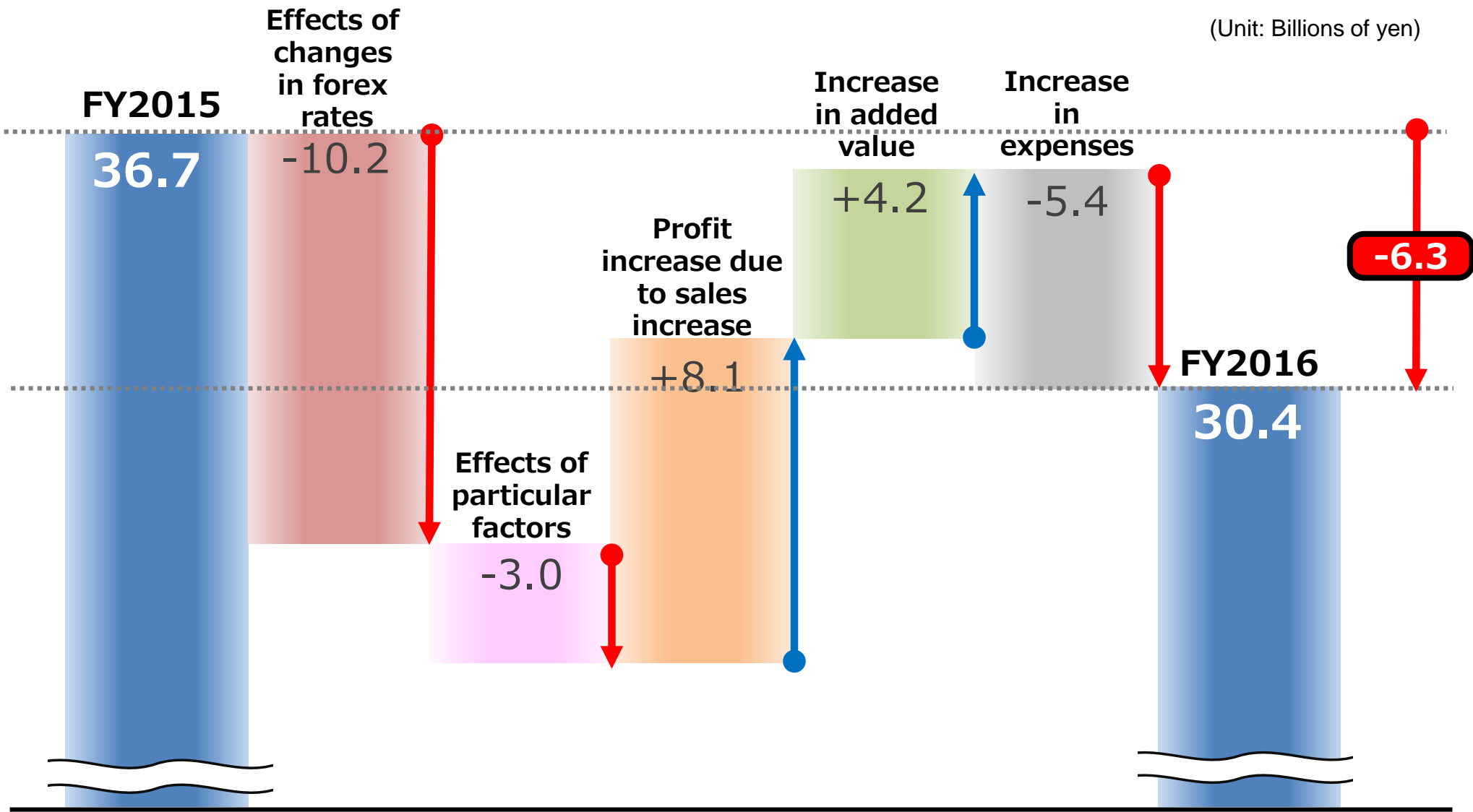


## FY2016



# Breakdown of Changes in Operating Income (FY2015 → FY2016)

(Unit: Billions of yen)



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## **2. Mid-term business plan “Dash 25”**

# Progress in the First Year (FY2016)



## Mid-term business plan "Dash 25"

<b>Forex rates</b>	1USD=121JPY 1EUR=133JPY	1USD=110JPY 1EUR=125JPY	<b>1USD=108JPY</b> <b>1EUR=119JPY</b>	1USD=110JPY 1EUR=115JPY	1USD=110JPY 1EUR=125JPY
<b>Net Sales from New Businesses</b>	<b>20.3</b> Billions yen	<b>19.4</b> Billions yen	<b>20.1</b> Billions yen	<b>25.0</b> Billions yen	<b>40.0</b> Billions yen
<b>ROE</b>	<b>12.8%</b>	<b>9.6%</b>	<b>10.7%</b>	<b>13%</b>	<b>13% or more</b>
<b>Dividend payout Ratio</b>	<b>23.6%</b>	<b>29.6%</b>	<b>26.1%</b>	<b>27%</b>	<b>27% or more</b>

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

# Results and Challenges in the First Year (FY2016)

	Results	Challenges
<p><b><u>Policy 1</u></b></p> <p><b>Maximize results of the previous plan Realize100</b></p>	<p><b>Launch and sales expansion of new products</b></p> <ul style="list-style-type: none"> <li>Enhanced <math>\Sigma</math>-7 series line-up</li> <li>Launched new AC drive and robot products</li> </ul> <p><b>Production and sales capabilities</b></p> <ul style="list-style-type: none"> <li>Promoted local production                             <ul style="list-style-type: none"> <li>→ Establishment of a robot factory in Europe</li> <li>→ Expansion of Shenyang plant</li> </ul> </li> </ul> <p>(Both scheduled for operation in fiscal 2018)</p>	<p><b>Launch and sales expansion of new products</b></p> <ul style="list-style-type: none"> <li>Sales expansion of new AC drive products</li> <li>Sales expansion of new robot products</li> </ul> <p><b>Glocal development</b></p> <ul style="list-style-type: none"> <li>Launch of new PV inverter to the global market</li> </ul>
<p><b><u>Policy 2</u></b></p> <p><b>Build foundation for realizing Vision 2025</b></p>	<p><b>Expansion of core business fields</b></p> <ul style="list-style-type: none"> <li>Enhanced application of AI and developed new products supporting IoT</li> <li>Strengthened system business for painting and sealing applications through alliance with Doolim Robotics of South Korea</li> </ul> <p><b>Challenge to new fields and business models</b></p> <ul style="list-style-type: none"> <li>Started full-fledged of venture investment</li> </ul> <p><b>Automation of food production</b></p> <ul style="list-style-type: none"> <li>Accelerated activities with a new cross-ectoral structure</li> </ul>	<p><b>Expansion of core business fields</b></p> <ul style="list-style-type: none"> <li>Development of robotics markets other than automotive</li> </ul> <p><b>Realization of Yaskawa Industrie 4.0</b></p> <ul style="list-style-type: none"> <li>Establishment of a next-generation plant for experiment</li> </ul> <p><b>Strengthening of components</b></p> <ul style="list-style-type: none"> <li>Development of applications using cobots</li> <li>Sales expansion of clean robots for semiconductor market</li> </ul> <p><b>Development of medical/welfare fields</b></p> <ul style="list-style-type: none"> <li>Establishment of the business model and branding</li> </ul>
<p><b><u>Policy 3</u></b></p> <p><b>Grow clean power into core business</b></p>	<p><b>Large-scale wind generation business</b></p> <ul style="list-style-type: none"> <li>Expanded business by maximizing synergy with the Switch</li> <li>Developed business into the marine field</li> </ul> <p><b>EV business</b></p> <ul style="list-style-type: none"> <li>Established a joint venture with Chery</li> </ul>	<p><b>Large-scale wind generation business</b></p> <ul style="list-style-type: none"> <li>Establishment of the high-volume production system for generators and converters</li> </ul> <p><b>PV inverter business</b></p> <ul style="list-style-type: none"> <li>Sales expansion in emerging nations</li> </ul>

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# 3 . FY2017 Financial Forecasts

# Change in Accounting Period and Description of Forecasts

## Change in accounting period

- Change in accounting period from March 20 to the last day of February starting fiscal 2017
- Transitional fiscal 2017 is from March 21, 2017 to February 28, 2018 (Financial reporting basis)

FY 2017 〈Financial reporting basis〉			
1Q	2Q	3Q	4Q
From March 21 to June 20	From June 21 to September 20	From September 21 to December 20	From December 21 to February 28

## Description of fiscal 2017 forecasts

- Forecast figures based on an assumption that the accounting period remains unchanged are shown for the purpose of apples-to-apples comparison with the results of fiscal 2016.

FY 2017 〈Reference basis〉			
1Q	2Q	3Q	4Q
From March 21 to June 20	From June 21 to September 20	From September 21 to December 20	From December 21 to March 20



# FY2017 Financial Forecasts

- Record sales and profits are forecast due to strong orders

	<b><u>FY2017</u></b>	FY2016	<b><u>Changes</u></b>	
	<b><u>Forecasts</u></b> 〈Reference basis〉	Results	<b><u>Amounts</u></b>	<b><u>%</u></b>
<b>Net sales</b>	<b><u>¥ 430.0bn.</u></b>	¥ 394.9bn.	<u>+¥ 35.1bn.</u>	<u>+8.9%</u>
<b>Operating income</b>	<b><u>¥ 40.0bn.</u></b>	¥ 30.4bn.	<u>+¥ 9.6bn.</u>	<u>+31.5%</u>
<b>Ordinary income</b>	<b><u>¥ 41.0bn.</u></b>	¥ 32.0bn.	<u>+¥ 9.0bn.</u>	<u>+28.3%</u>
<b>Profit attributable to owners of parent</b>	<b><u>¥ 27.0bn.</u></b>	¥ 20.4bn.	<u>+¥ 6.6bn.</u>	<u>+32.4%</u>

# FY2017 Financial Forecasts by Business Segment

- Increase in sales and profits are projected

(Unit: Billions of yen)

		FY2017		FY2016		Changes	
		Forecasts (Reference basis)	Income ratio	Results	Income ratio	Amounts	%
<b>Net sales</b>		<b>430.0</b>		<b>394.9</b>		<b>+35.1</b>	<b>+8.9%</b>
(M)	<b>Motion Control</b>	<b>201.0</b>		<b>183.3</b>		<b>+17.7</b>	<b>+9.7%</b>
(R)	<b>Robotics</b>	<b>157.0</b>		<b>140.0</b>		<b>+17.0</b>	<b>+12.1%</b>
(S)	<b>System Engineering</b>	<b>50.0</b>		<b>48.2</b>		<b>+1.8</b>	<b>+3.7%</b>
	<b>Other</b>	<b>22.0</b>		<b>23.4</b>		<b>-1.4</b>	<b>-5.9%</b>
<b>Operating income</b>		<b>40.0</b>	<b>9.3%</b>	<b>30.4</b>	<b>7.7%</b>	<b>+9.6</b>	<b>+31.5%</b>
(M)	<b>Motion Control</b>	<b>27.1</b>	<b>13.5%</b>	<b>20.8</b>	<b>11.3%</b>	<b>+6.3</b>	<b>+30.6%</b>
(R)	<b>Robotics</b>	<b>13.4</b>	<b>8.5%</b>	<b>10.3</b>	<b>7.3%</b>	<b>+3.1</b>	<b>+30.7%</b>
(S)	<b>System Engineering</b>	<b>1.2</b>	<b>2.4%</b>	<b>0.9</b>	<b>1.9%</b>	<b>+0.3</b>	<b>+34.5%</b>
	<b>Other</b>	<b>-0.3</b>	<b>-1.4%</b>	<b>-0.2</b>	<b>-0.8%</b>	<b>-0.1</b>	<b>-</b>
	<b>Elimination or Corporate</b>	<b>-1.4</b>	<b>-</b>	<b>-1.3</b>	<b>-</b>	<b>-0.1</b>	<b>-</b>
<b>Ordinary income</b>		<b>41.0</b>	<b>9.5%</b>	<b>32.0</b>	<b>8.1%</b>	<b>+9.0</b>	<b>+28.3%</b>
<b>Profit attributable to owners of parent</b>		<b>27.0</b>	<b>6.3%</b>	<b>20.4</b>	<b>5.2%</b>	<b>+6.6</b>	<b>+32.4%</b>

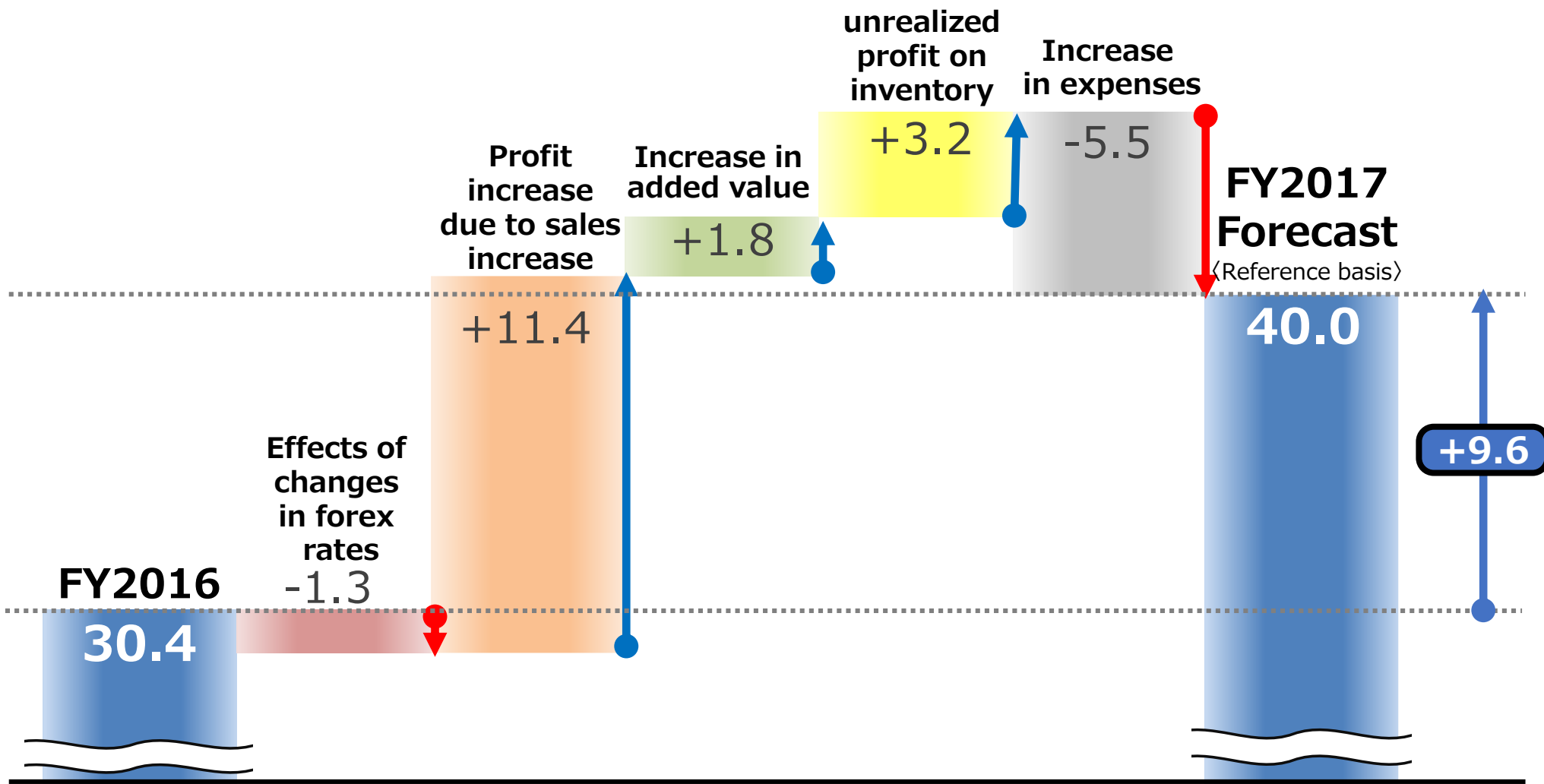
# Impact of change in accounting period

## Impact of change in accounting period from March 20 to the last day of February

FY2017 Financial Forecasts (Unit: Billions of yen)		Before Change			After Change		
		1H Forecasts	2H Forecasts	Full-year Forecasts	2H Forecasts	Full-year Forecasts	Changes
<b>Net Sales</b>		<b>213.5</b>	<b>216.5</b>	<b>430.0</b>	<b>200.5</b>	<b>414.0</b>	<b>-16.0</b>
(M)	Motion Control	101.5	99.5	201.0	96.0	197.5	-3.5
(R)	Robotics	77.0	80.0	157.0	76.5	153.5	-3.5
(S)	System Engineering	24.5	25.5	50.0	17.5	42.0	-8.0
	Other	10.5	11.5	22.0	10.5	21.0	-1.0
<b>Operating Income</b>		<b>19.7</b>	<b>20.3</b>	<b>40.0</b>	<b>17.3</b>	<b>37.0</b>	<b>-3.0</b>
(M)	Motion Control	14.3	12.8	27.1	12.3	26.6	-0.5
(R)	Robotics	6.6	6.8	13.4	6.1	12.7	-0.7
(S)	System Engineering	-0.3	1.5	1.2	-0.2	-0.5	-1.7
	Other	-0.2	-0.1	-0.3	-0.2	-0.4	-0.1
	Elimination or Corporate	-0.7	-0.7	-1.4	-0.7	-1.4	0.0
<b>Ordinary Income</b>		<b>20.2</b>	<b>20.8</b>	<b>41.0</b>	<b>17.8</b>	<b>38.0</b>	<b>-3.0</b>
<b>Profit attributable to owners of parent</b>		<b>13.3</b>	<b>13.7</b>	<b>27.0</b>	<b>11.7</b>	<b>25.0</b>	<b>-2.0</b>

# Breakdown of Changes in Operating Income (FY2016 → FY2017 Forecast)

(Billions of yen)



# Measures for FY2017 (1)

- **Profitability improvement in core businesses**
  - **Sales expansion by concentrating resources on priority markets**
    - ➔ **Expansion of robotics sales to automobile and 3C markets**
      - Sales expansion to automobile by enhancing alliance
      - Expansion of market share in 3C by increasing human resources
    - ➔ **Reinforcement of market strategy with IMM (cross-sectoral) system**
      - Acceleration of business creation in the food sector
      - Enhancement of strategy to capture semiconductor market
  - **Development of new markets and new business fields**
    - ➔ **Expansion of lineup of new AC drive products**
      - Capturing the Chinese market with products specialized for cranes and other applications
    - ➔ **Creation of new applications with cobots and small six-axis robots**
      - Sales expansion to machine builders by utilizing the sales network of AC servo business
  - **Expansion of market share and profitability in the existing business areas**
    - ➔ **Acceleration of the switch to the new models of AC drives and robots**
- **Continuous evolution of development, production and sales capabilities**
  - **Reification of Yaskawa Industrie 4.0 using IoT and AI**
    - ➔ **Finalize concept for Solution Factory enabling the next-generation build-to-order production**



## Measures for FY2017 (2)

### ➤ Expansion of clean power business

- **Order growth for the electric products for large-scale wind turbine**
  - ➔ Continue sales expansion in China and Europe with The Switch
  - ➔ Secure orders for the next-generation volume-production models
- **Global development of PV inverter business**
  - ➔ Launch and sales expansion of new product for the global market
- **Start up of Chery Yaskawa E-Drive System Co., Ltd. in China**
- **Order expansion for marine drive systems**
  - ➔ Sales expansion by creating synergy with Wärtsilä (Finland)



Converter and generator for large-scale wind turbine

### ➤ Promotion of new business

- **Enhance collaboration in the medial, nursing care, and welfare business**
- **Full-fledged implementation of venture investments**



Electric powertrain system for EVs



Information site for venture investment opened.

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# 4. Reference

# Capital Expenditure, R&D Investment, Forex Rates

## ◆ Capital expenditure (Consolidated)

(Unit: Billions of yen)

	FY2015	FY2016	FY2017 Plan
Capital Expenditure	16.8	14.9	20.0
Depreciation and Amortization	13.1	12.1	13.0

## ◆ R&D investment (Consolidated)

(Unit: Billions of yen)

	FY2015	FY2016	FY2017 Plan
R&D investment	16.8	18.0	18.0

## ◆ Forex rates (Consolidated)

(Unit: Yen)

	FY2015			FY2016			FY2017 Forecasts
	1H	2H	Full-year	1H	2H	Full-year	Full-year
U.S. dollar	121.9	119.8	120.8	107.1	109.6	108.4	110.0
Euro	134.3	131.8	133.0	120.0	118.4	119.2	115.0

Note: Average rate during the period



# Financial Indices

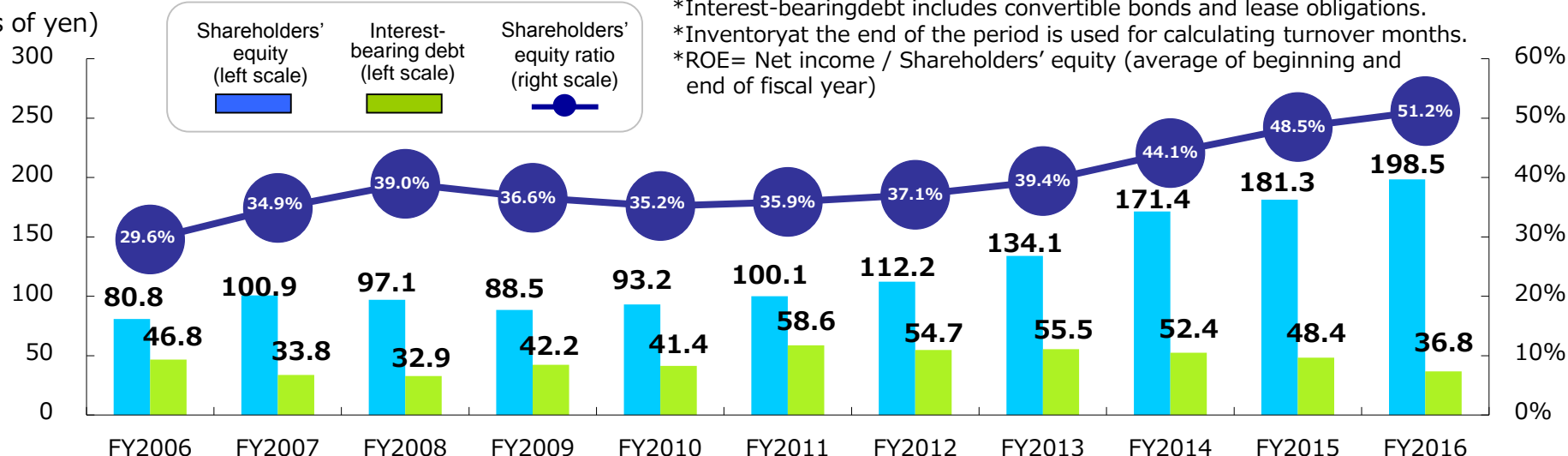
## As of March 20, 2016

➤ Shareholders' equity ratio	48.5%
➤ Shareholders' equity	181.3 billion yen
➤ Interest-bearing debt	48.5 billion yen
➤ D/E ratio	0.27
(Net D/E ratio)	0.09
➤ Inventory	77.5 billion yen
Turnover	2.3 months
➤ ROE	12.8%

## As of March 20, 2017

➤ Shareholders' equity ratio	51.2%
➤ Shareholders' equity	198.5 billion yen
➤ Interest-bearing debt	36.8 billion yen
➤ D/E ratio	0.19
(Net D/E ratio)	0.04
➤ Inventory	79.9 billion yen
Turnover	2.4 months
➤ ROE	10.7%

(Billions of yen)



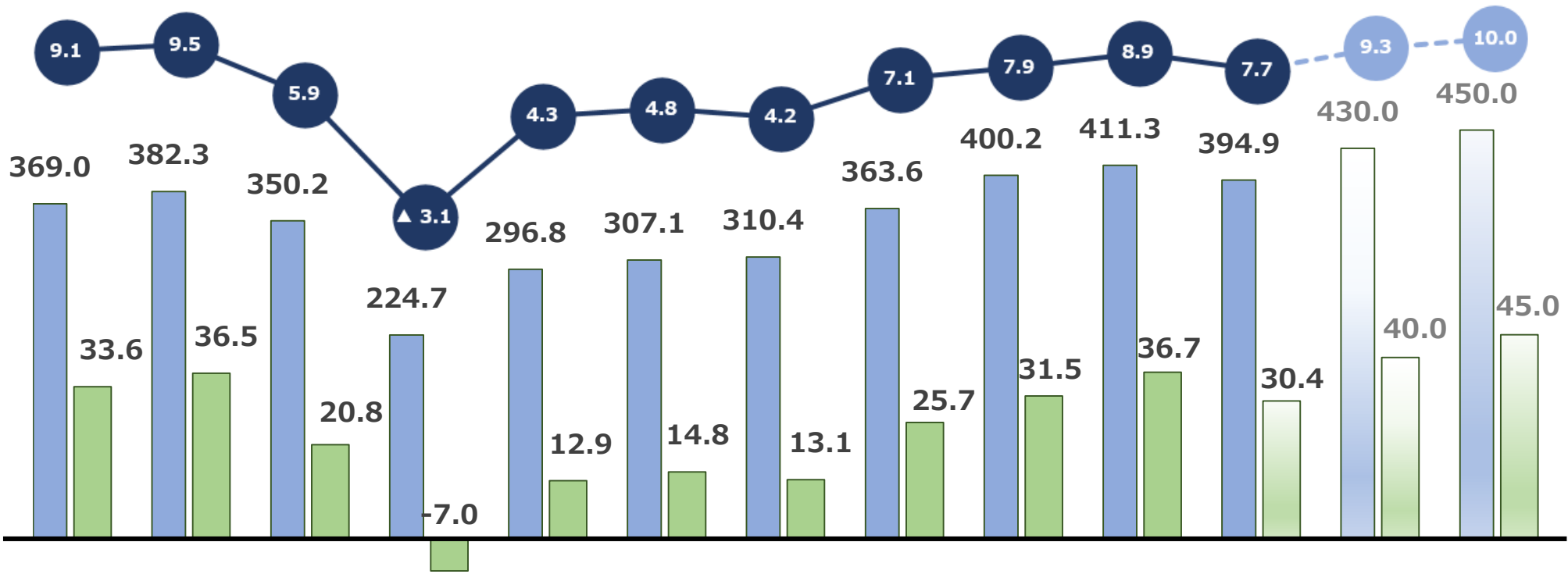
\*Interest-bearing debt includes convertible bonds and lease obligations.  
 \*Inventory at the end of the period is used for calculating turnover months.  
 \*ROE = Net income / Shareholders' equity (average of beginning and end of fiscal year)

Operating CF	15.0	17.7	12.5	4.0	2.5	6.4	24.6	24.0	29.0	32.0	33.8
Investment CF	-6.1	-9.9	-10.7	-6.5	-6.7	-11.9	-18.1	-16.9	-27.9	-22.4	-18.9
Free CF	8.9	7.8	1.8	-2.4	-4.3	-5.5	6.6	7.0	1.1	9.5	14.8

(Billions of yen)

# Net Sales/Operating Income (FY2006-2018 Plan)

■ Net sales (Billions of yen) 
 ■ Operating income (Billions of yen) 
 ● Operating margin (%)

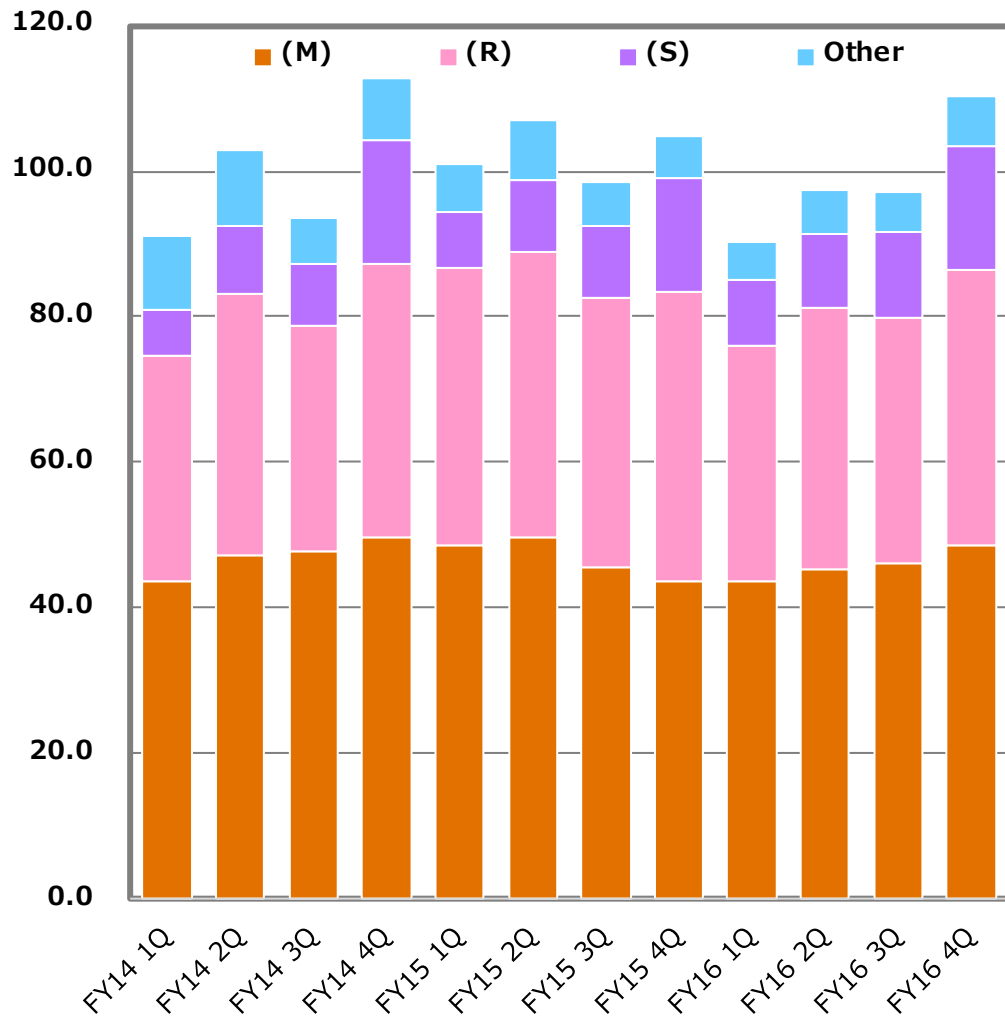


06	07	08	09	10	11	12	13	14	15	16	17	18
Results										Plan		
<b>Dash 100</b>			<b>Challenge 100</b>				<b>Realize 100</b>			<b>Dash 25</b>		
Mid-term Business Plan												

# Quarterly Sales Trends (1)

(Billions of yen)

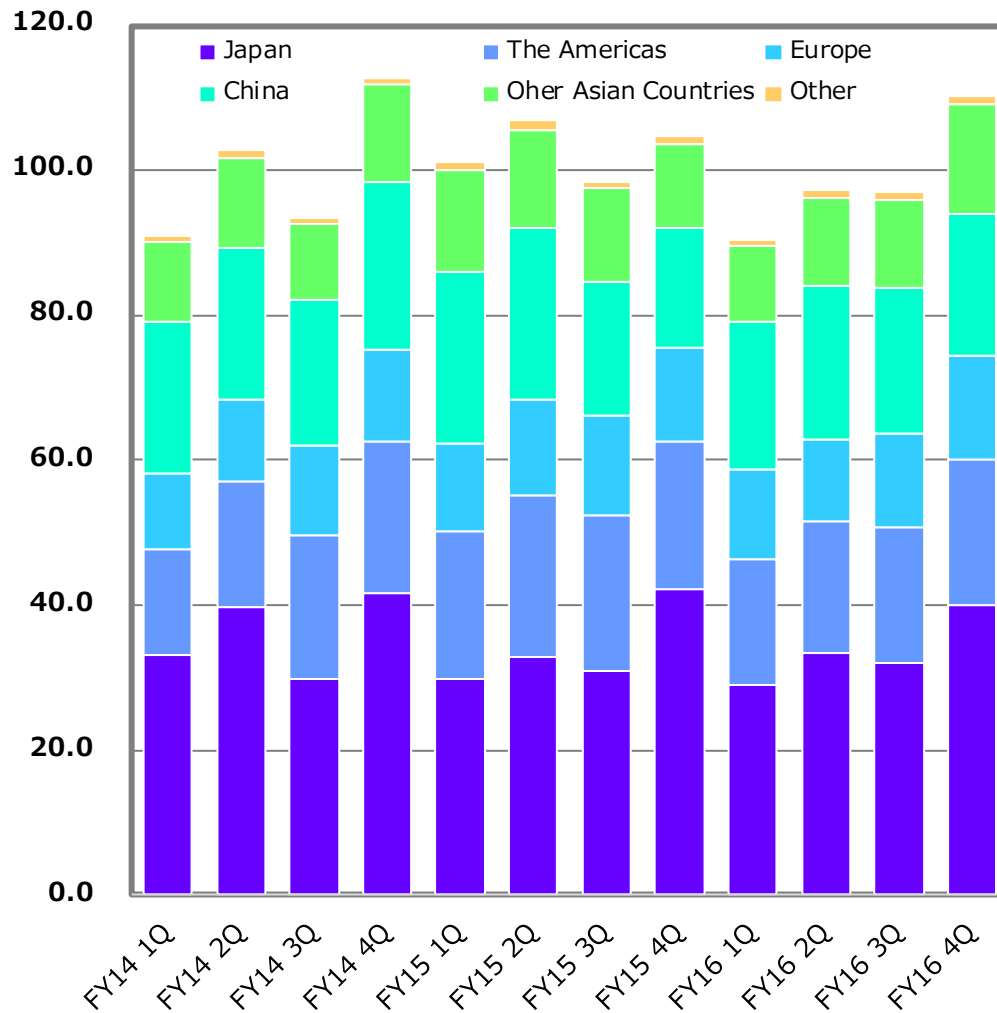
## Business Segment



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

(Billions of yen)

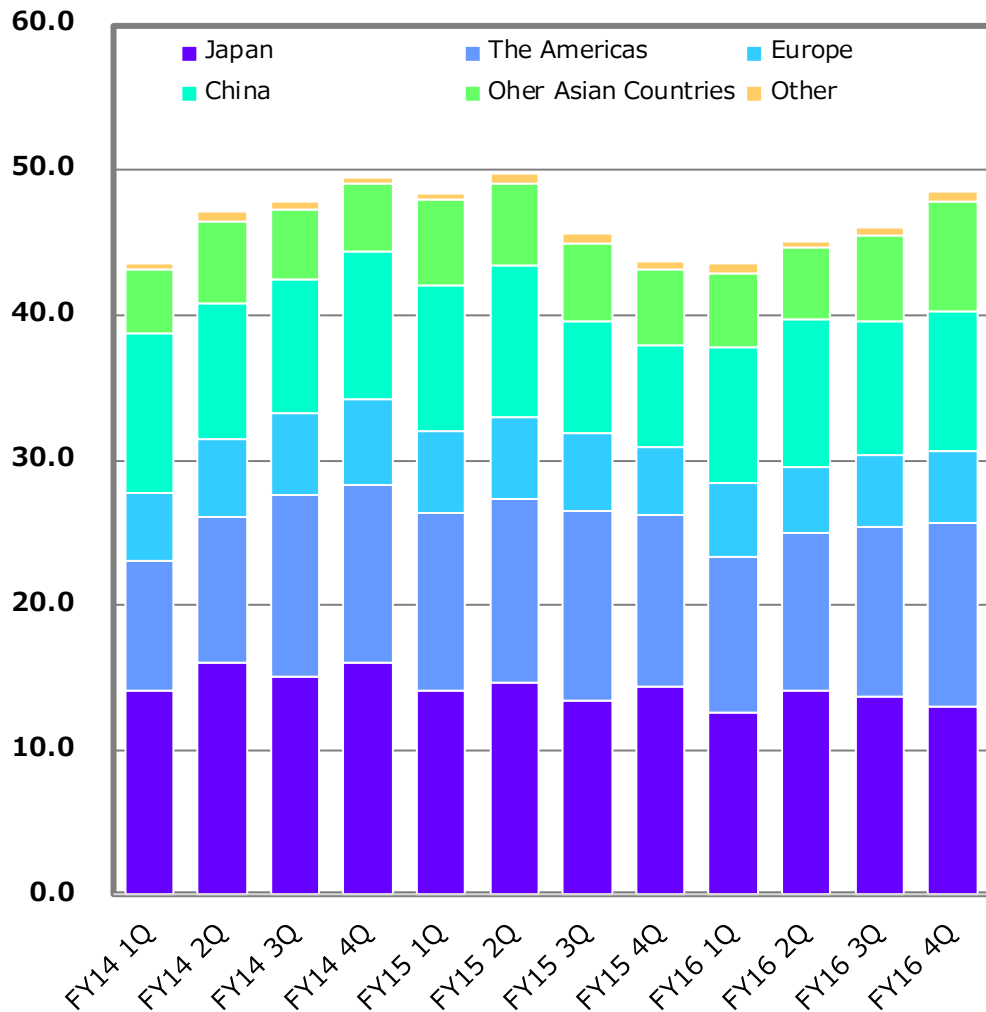
## Destination



# Quarterly Sales Trends (2)

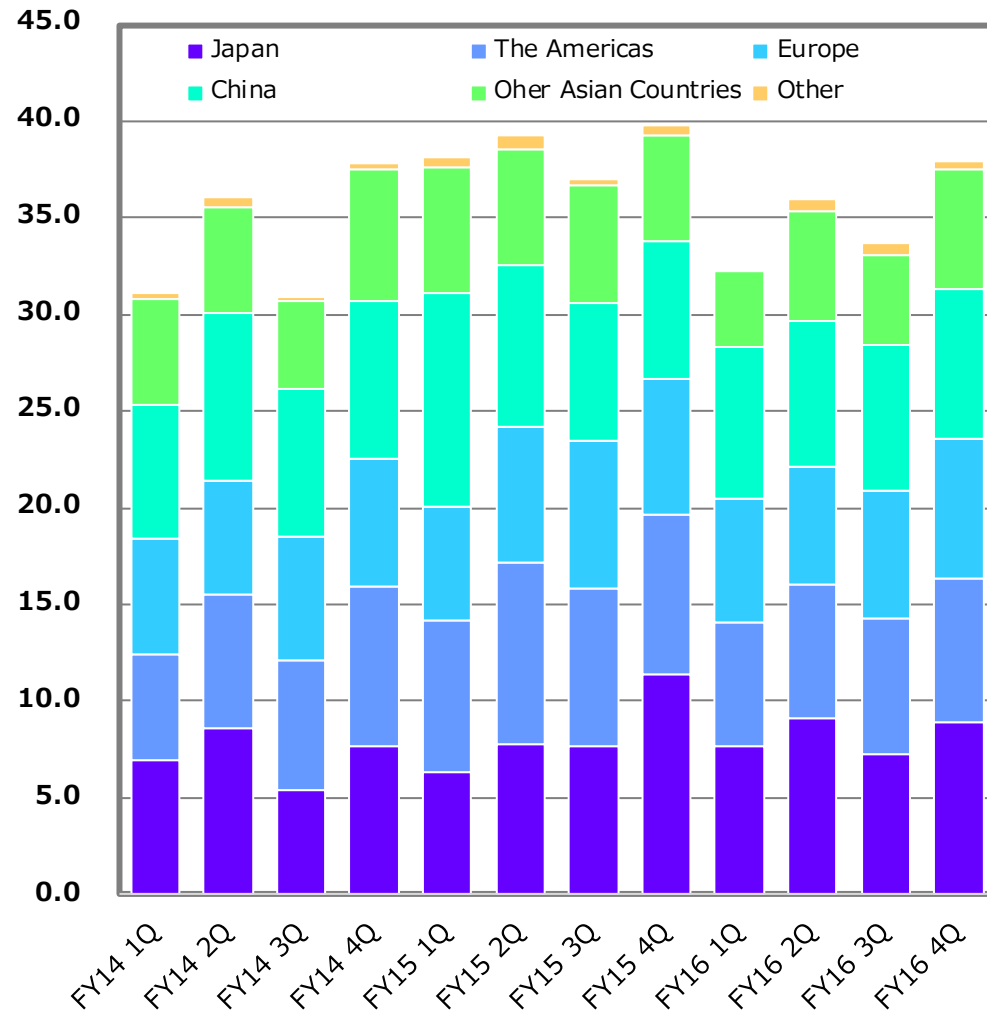
(Billions of yen)

## Motion Control



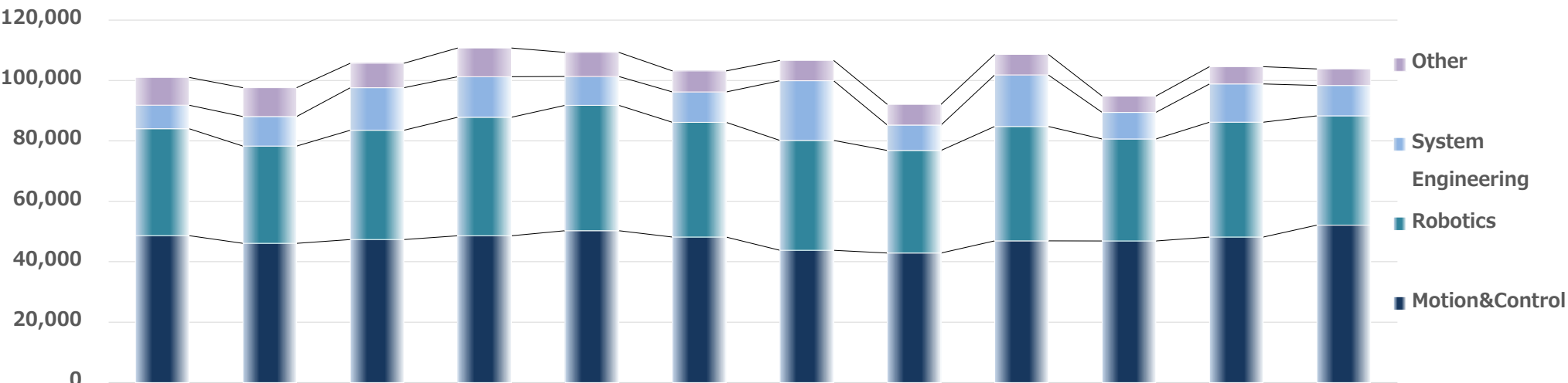
(Billions of yen)

## Robotics



# Quarterly Order Trends

(Millions of Yen)



		FY2014				FY2015				FY2016			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Total	YoY	+11%	+15%	+15%	+30%	+8%	+6%	+1%	▲17%	▲1%	▲8%	▲2%	+13%
	QoQ	+18%	▲3%	+8%	+5%	▲1%	▲6%	+3%	▲14%	+18%	▲13%	+10%	▲1%
YoY	( M )	+11%	+23%	+20%	+22%	+3%	+5%	▲8%	▲12%	▲7%	▲3%	+10%	+22%
	( R )	+22%	+10%	▲2%	+30%	+17%	+18%	+1%	▲14%	▲9%	▲11%	+5%	+7%
	( S )	▲3%	+1%	+58%	+60%	+23%	+3%	+40%	▲37%	+78%	▲13%	▲36%	+19%
QoQ	( M )	+22%	▲5%	+3%	+3%	+3%	▲4%	▲9%	▲2%	+9%	▲0%	+3%	+8%
	( R )	+18%	▲9%	+12%	+9%	+6%	▲8%	▲4%	▲7%	+12%	▲11%	+13%	▲5%
	( S )	▲7%	+26%	+44%	▲5%	▲28%	+5%	+96%	▲57%	+103%	▲48%	+44%	▲21%
Forex rates	U.S. dollar	102.2	102.3	110.0	118.4	120.2	123.5	121.0	118.5	110.8	103.5	104.8	114.5
	Euro	141.0	137.9	139.8	140.0	131.2	137.4	133.9	129.7	124.5	115.6	115.3	121.5

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

# Major Production Bases



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# YASKAWA