

# FY2018 1<sup>st</sup> Quarter Financial Results (Three Months Ended May 31, 2018)

#### Notes:

- The Company changed its accounting period in fiscal 2017 from March 20 to the last day of February. As a result of this change, the period for the first quarter of the fiscal year ending February 2019 (From March 1, 2018 to May 31, 2018) is different from that of the first quarter of the previous fiscal year (From March 21, 2017 to June 20, 2017). Therefore, the year-on-year changes of the 1Q results in this material are shown as <reference>.
- 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 (TSE6506)

#### Contents

# 1. FY2018 1Q Financial Results

- FY2018 1Q Financial Results (Highlights, By Business Segment)
- Business Segment Overview
   (Motion Control, Robotics, System Engineering)
- Sales Breakdown by Business Segment
   (FY2017 Apr.-Jun. → FY2018 Mar.-May)
- Sales Breakdown by Destination
   (FY2017 Apr.-Jun. → FY2018 Mar.-May)
- Breakdown of Changes in Operating Income (FY2017 Apr.-Jun. → FY2018 Mar.-May)
- Measures for FY2018 1Q

# 2. FY2018 1H, Full-Year Forecasts

- FY2018 1H Financial Forecasts (Highlights, By Business Segment)
- Breakdown of Changes in Operating Income (FY2017 Apr.-Sep. → FY2018 Mar.-Aug. Forecasts)
- FY2018 Full-Year Financial Forecasts (By Business Segment)

#### 3. Reference

- Capital Expenditure, R&D Investment, Forex Rates
- Financial Indices
- Net Sales/Operating Income
- Quarterly Sales Trends
- Quarterly Order Trends
- Major Production Bases

#### **Business Overview**

#### **Motion Control**

#### [Core products]

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

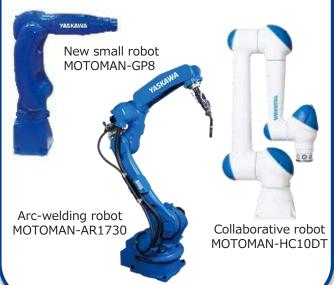




#### **Robotics**

#### [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



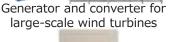
#### **System Engineering**

#### [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



Continuous-casting machine





PV inverter for photovoltaic power generation



Electrical instrumentation systems for water and sewerage

#### **Other**

#### [Core products]

- EV drive system
- Logistics

# 1. FY2018 1Q Financial Results (Three Months Ended May 31, 2018)

# FY2018 1Q(Mar.-May) Financial Results (Highlights)

 Sales and income significantly increased due to strong demand (Sales and profits marked record high as 1Q results)

	FY2018	FY2017	Changes	Reference
	MarMay	AprJun.	Amounts	%
Net sales	¥ 128.2bn.	¥ 107.5bn.	+¥ 20.7bn.	+19.3%
Operating income	¥ 17.2bn.	¥ 13.2bn.	+¥ 4.0bn.	+30.0%
Ordinary income	¥ 16.8bn.	¥ 12.6bn.	+¥ 4.2bn.	+33.4%
Profit attributable	_			
to owners of parent	¥ 15.7bn.	¥ 9.8bn.	+¥ 5.9bn.	+60.4%

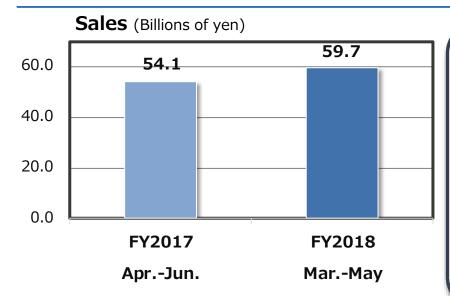
# FY2018 1Q(Mar.-May) Financial Results by Business Segment

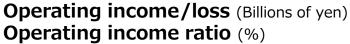
- Sales of all segments increased by capturing the favorable demand in the growing markets
- Profitability significantly increased especially in (R) and (M)

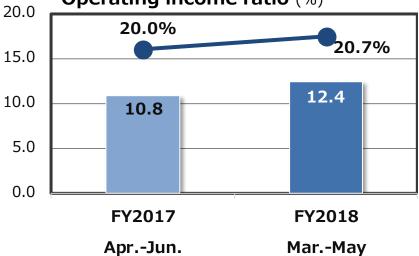
	FY2018 N	MarMay	FY2017 A	AprJun.	Changes (Reference)	
(Billions of yen)	Results	Income ratio	Results	Income ratio	Amounts	%
Net sales	128.2		107.5		+20.7	+19.3%
<b>Motion Control</b>	59.7		54.1		+5.6	+10.4%
Robotics	43.9		35.7		+8.2	+23.1%
System Engineering	14.0		12.9		+1.1	+8.3%
Other	10.6	10.6			+5.8	+121.0%
Operating income	17.2	13.4%	13.2	12.3%	+4.0	+30.0%
<b>Motion Control</b>	12.4	20.7%	10.8	20.0%	+1.6	+14.3%
Robotics	5.0	11.4%	3.5	9.9%	+1.5	+41.8%
System Engineering	-0.3	-2.3%	-0.7	-5.2%	+0.4	-
Other	0.6	5.7%	-0.1	-1.3%	+0.7	-
Elimination or Corporate	-0.5	-	-0.4	-	-0.1	-
Ordinary income	16.8	13.1%	12.6	11.7%	+4.2	+33.4%
<b>Profit</b> attributable to owners of parent	15.7	12.3%	9.8	9.1%	+5.9	+60.4%
	Note: (M) =	Motion Contr	ol (R) =Ro	botics		

Note: (M) = Motion Control (R) = Robotics

## Business Segment Overview: Motion Control







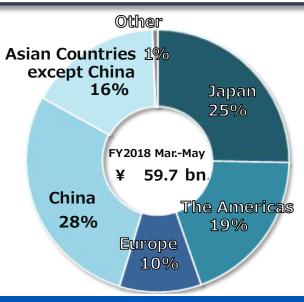
#### (Sales)

- <AC servo & controller business>
- •On the back of progress in automation of production, there was strong demand for semiconductor for data centers and for electronic components for vehicles, which led to strong results.
- <Drives business>
- Recoveries in the environment-responsive demand in China and steady U.S. oil&gas-related demand led to solid performance.

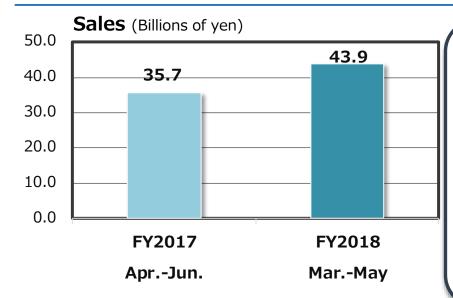
#### [Operating income]

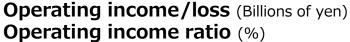
 Profitability remained high level due to expansion of overseas sales and local production, especially in China.

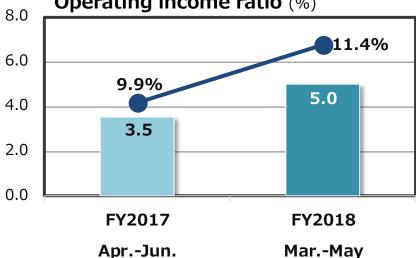
# Sales breakdown by region



# **Business Segment Overview: Robotics**





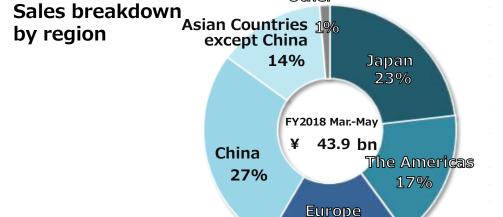


#### (Sales)

- Automotive-related sales were strong globally, especially in Japan and Europe.
- Sales for general industries increased especially in China, on the back of robust demand for production automation.

#### [Operating income]

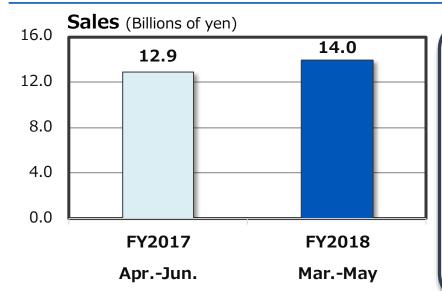
•Productivity improved because of the growth in the sales volume, which led to increase in profit.



Other

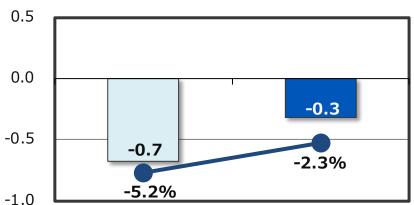
19%

# Business Segment Overview: System Engineering



Operating income/loss (Billions of yen)
Operating income ratio (%)
FY2017 FY2018

Apr.-Jun. Mar.-May



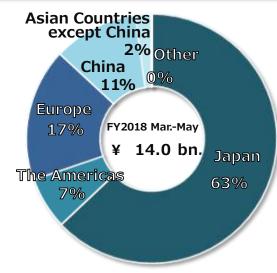
#### [Sales]

- •Sales of the steel plant and social system businesses were solid, even though there was some effect from the issue in the progress of projects in Japan.
- •As for the clean power business, sales related to large-scale wind turbines grew in Europe, while the PV inverter sales were sluggish.

#### [Operating income]

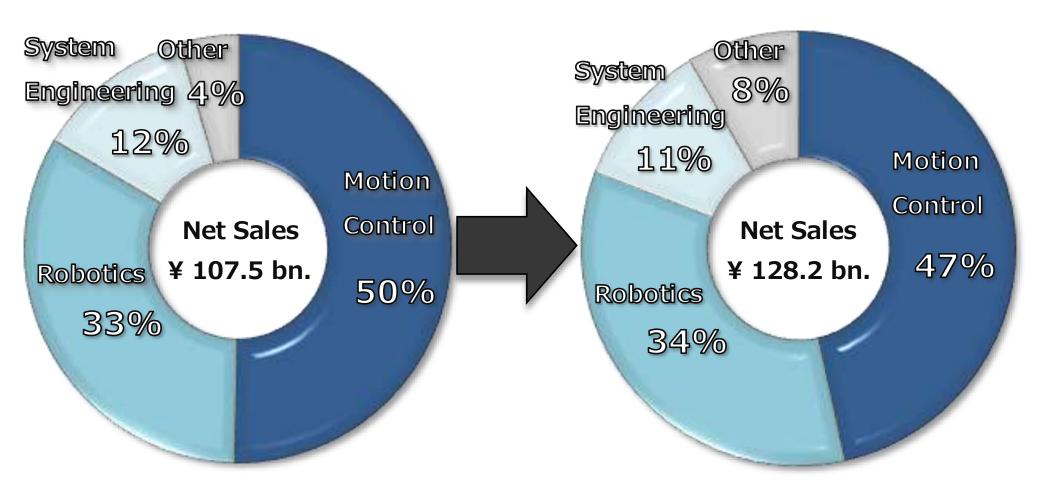
• Profitability saw a slight improvement due to the positive effect from the change of accounting period.

# Sales breakdown by region



# FY2017 Apr.-Jun.

# FY2018 Mar.-May



# Sales Breakdown by Destination (1) (FY2017 Apr.-Jun. → FY2018 Mar.-May)

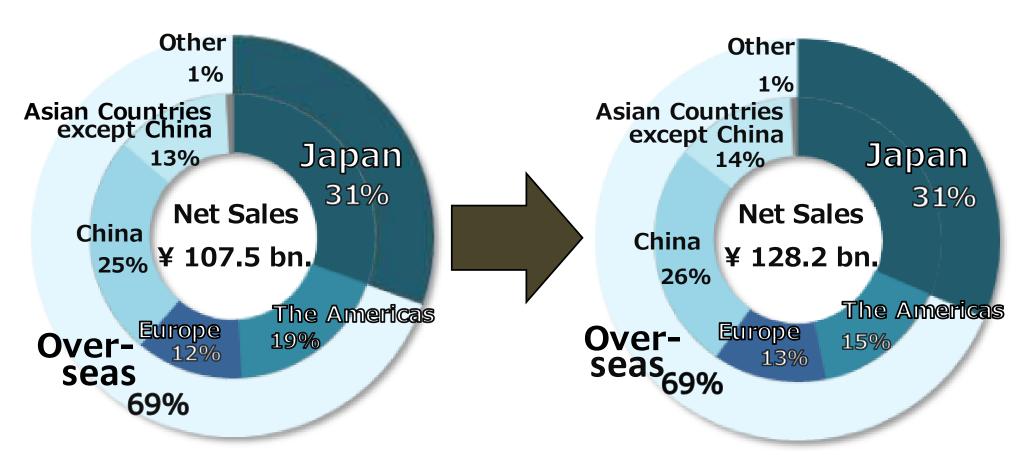
Sales substantially increased globally.

	FY2018	FY2017	Change	S (Reference)
(Billions of yen)	MarMay	AprJun.	Amounts	%
Net sales	128.2	107.5	+20.7	+19.3%
Japan	40.2	32.8	+7.4	+22.5%
Overseas	88.0	74.7	+13.3	+17.9%
The Americas	19.8	20.0	-0.1	-0.7%
Europe	16.6	13.1	+3.5	+26.8%
China	33.1	26.9	+6.3	+23.3%
Asian Countries except China	17.6	13.9	+3.7	+26.6%
Other	0.9	0.9	+0.0	+3.0%

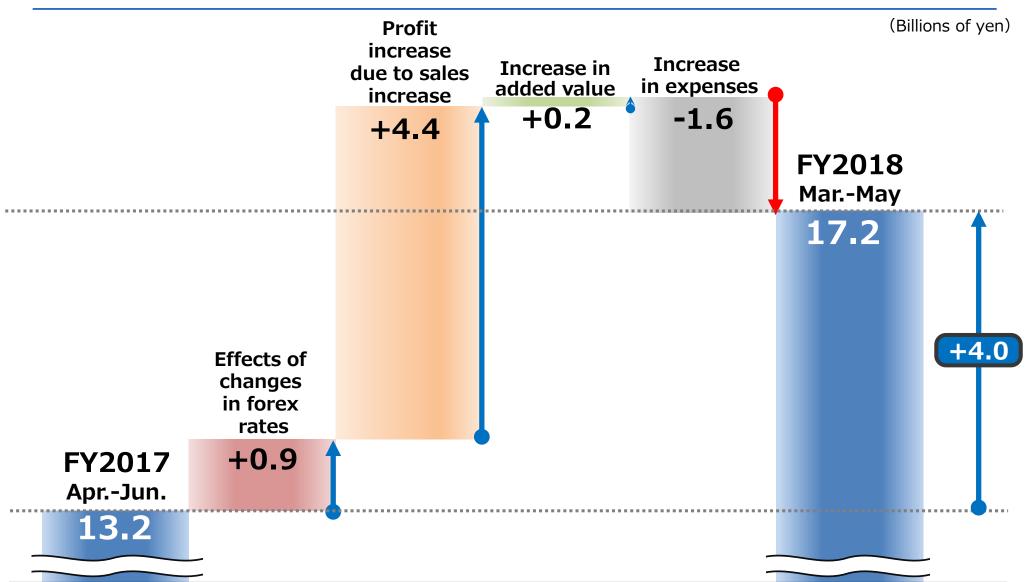
Note: Other includes Australia and South Africa, etc.



# FY2018 Mar.-May



# Breakdown of Changes in Operating Income (FY2017 Apr.-Jun. → FY2018 Mar.-May)



## Measures for FY2018 1Q

#### Profitability improvement in core businesses

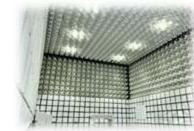
- → Release of software tool "YASKAWA Cockpit"(June 2018)
  - A key tool for the realization of "i<sup>3</sup>-Mechatronics" concept
  - Enables visualization and diagnosis of statuses at the manufacturing floor, and diagnosis of malfunction
- **→** Launch of matrix converter "U1000" that conforms to Marine Classification Standards (May 2018)
  - Eliminates harmonic effect to marine generators, which makes it possible to use smaller control consoles



Matrix converter "U1000" that conforms to Marine Classification Standards

### Continuous evolution of capabilities in development, production and sales

- **→** Establishment of "AI Cube" a subsidiary for the development of AI solutions (March 2018)
  - Accelerate development of AI technology utilizing big data generated at the manufacturing floor
- **→ Establishment of the test facility for EMC\*** (March 2018)
  - Accumulation of test data and knowhow by conducting in-house EMC tests
  - \*Abbreviation for Electromagnetic Compatibility. A characteristic that does not affect peripheral equipment with noise, or tolerability to electromagnetic interference
- → Completion of No.3 robot plant in Changzhou, China (June 2018)
  - Production capacity increased from 1,000 to 1,500 (units per month)
- → Acquisition of Suematsu Kyuki Co., Ltd. as a subsidiary (March 2018)
  - Enhance solution provision by rebuilding sales structure



Interior of EMC test facility located at the headquarters



No.3 robot plant in Changzhou

# 2. FY2018/1H Financial Forecasts (Six Months Ending August 31, 2018) Full-Year Financial Forecasts (Year Ending February 28, 2019)

# FY2018 1H(Mar.-Aug.) Financial Forecasts (Highlights)

 Record high sales and profits are forecasted based on the strong demand

	FY2018 1H	FY2017 1H	Changes	Reference
	(MarAug.) Forecasts	(AprSep.) Results	Amounts	%
Net sales	¥ 258.5bn.	¥ 229.1bn.	+¥ 29.3bn.	+12.8%
Operating income	¥ 33.3bn.	¥ 27.8bn.	+¥ 5.5bn.	+19.8%
Ordinary income	¥ 33.8bn.	¥ 27.5bn.	+¥ 6.3bn.	+23.1%
Profit attributable to owners of parent	¥ 26.5bn.	¥ 21.1bn.	+¥ 5.4bn.	+25.6%

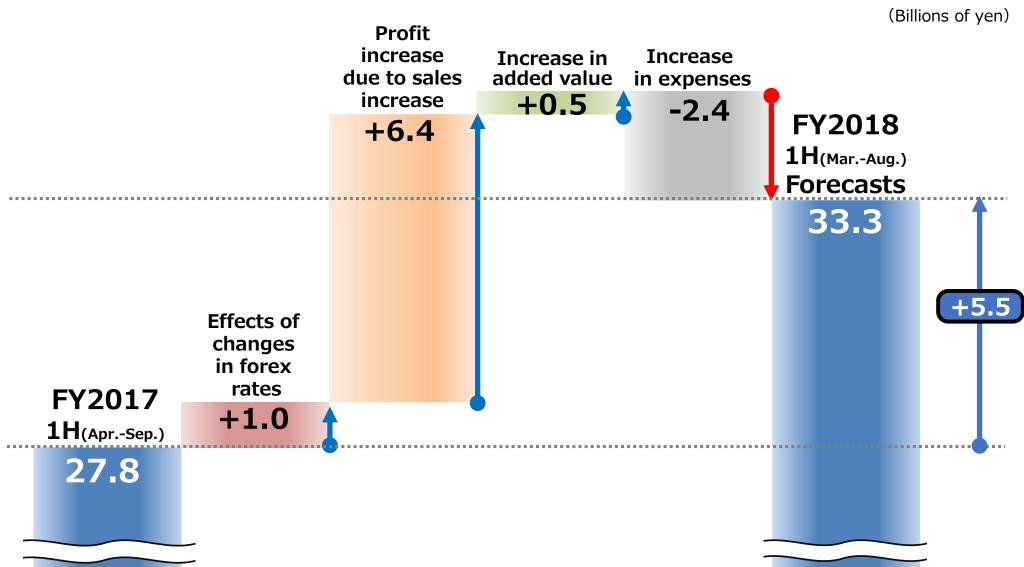
# FY2018 1H(Mar.-Aug.) Financial Forecasts by Business Segment

• Growth in sales and profits are forecasted especially in Motion Control and Robotics

	FY201	L8 1H	FY201	.7 1H	Changes	(Reference)
	(MarAug.)	Income	(AprSep.)	Income	Amounts	%
(Billions of yen)	Forecasts	ratio	Results	ratio	Amounts	70
Net sales	258.5		229.1		+29.3	+12.8%
<b>Motion Control</b>	118.3		110.4		+8.0	+7.2%
Robotics	92.7		80.4		+12.3	+15.2%
<b>System Engineering</b>	28.5		28.2		+0.3	+1.2%
Other	18.9		10.1		+8.8	+86.8%
Operating income	33.3	12.9%	27.8	12.1%	+5.5	+19.8%
<b>Motion Control</b>	23.9	20.2%	21.8	19.7%	+2.1	+9.5%
Robotics	10.5	11.3%	8.6	10.6%	+1.9	+22.3%
<b>System Engineering</b>	-0.5	-1.8%	-1.8	-6.3%	+1.3	-
Other	0.6	3.4%	-0.1	-0.5%	+0.7	-
Elimination or Corporate	-1.1	-	-0.7	_	-0.4	-
Ordinary income	33.8	13.1%	27.5	12.0%	+6.3	+23.1%
Profit attributable to owners of parent	26.5	10.3%	21.1	9.2%	+5.4	+25.6%

# Breakdown of Changes in Operating Income

(FY2017 Apr.-Sep.  $\rightarrow$  FY2018 Mar.-Aug. Forecasts)



# [Reference] FY2018 Full-year Financial Forecasts by Business Segment

 Initial forecasts for the entire consolidated sales and income remain unchanged, but segment forecast figures are revised

	FY2	018	FY2	018	Change from	FY2017		Changes	
	Forecasts	Income	Previous	Income	previous	Results	Income	Amounts	%
Not as I as (Billions of yen)	Torcases	ratio	forecasts	ratio	forecasts	〈Reference basis〉	ratio	7111041165	,,,
Net sales (Billions of yell)	510.0		510.0		<b>-</b>	464.5		+45.5	+9.8%
<b>Motion Control</b>	229.5		231.5		-2.0	215.2		+14.2	+6.6%
Robotics	185.9		183.2		+2.7	166.8		+19.1	+11.4%
System Engineering	58.7		60.5		-1.8	61.3		-2.6	-4.3%
Other	35.9	35.9	34.8		+1.2	21.1		+14.8	+69.9%
Operating income	65.5	12.8%	65.5	12.8%	-	57.1	12.3%	+8.4	+14.7%
<b>Motion Control</b>	45.2	19.7%	45.8	19.8%	-0.5	42.3	19.6%	+3.0	+7.0%
Robotics	21.7	11.7%	21.1	11.5%	+0.6	18.5	11.1%	+3.2	+17.5%
System Engineering	-0.2	-0.3%	0.0	0.0%	-0.2	-2.1	-3.4%	+1.9	-
Other	0.9	2.5%	0.7	1.9%	+0.2	-0.2	-0.7%	+1.1	-
Elimination or Corporate	-2.1	-	-2.1	-	-0.1	-1.4	-	-0.8	-
Ordinary income	67.0	13.1%	67.0	13.1%	-	58.3	12.6%	+8.7	+14.9%
Profit attributable to owners of parent	50.0	9.8%	50.0	9.8%	-	41.7	9.0%	+8.3	+19.8%

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

# 3. Reference

## Capital Expenditure, R&D Investment, Forex Rates

#### Capital expenditure

(Unit: Billions of yen)

	F Y 2 0 1 6	FY2017	F Y 2 0 1 8 (Plan)
Capital expenditure	14.9	19.7	30.0
Depreciation and Amortization	12.1	12.7	14.0

#### **R&D** investment

(Unit: Billions of yen)

	F Y 2 0 1 6	F Y 2 0 1 7	F Y 2 0 1 8 (Plan)
R&D investment	18.0	19.1	21.0

#### **Forex rates**

(Unit: Yen)

	F Y 2 0 1 6		F Y 2 0 1 7			FY2018 (Forecasts)					
	AprJun.	1H	Full-Year	AprJun.	1H	Full-Year	Mar May	Jun Aug.	1H	2H	Full- Year
U.S. doller	110.8	107.1	108.4	111.9	111.5	111.4	107.8	105.0	106.4	105.0	105.7
Euro	124.5	120.0	119.2	120.9	124.4	128.8	130.9	130.0	130.4	130.0	130.2

Note: Average rate during the period

#### Financial Indices

#### As of February 28, 2018

➤ Shareholders' equity ratio 53.5% ➤ Shareholders' equity 235.9 billion yen ➤ Interest-bearing debt 32.2 billion yen ➤D/E ratio 0.14 (Net D/E ratio) -0.04**▶**Inventory 100.1 billion yen Turnover 2.7 months **≻**ROE 18.3%



#### As of May 31, 2018

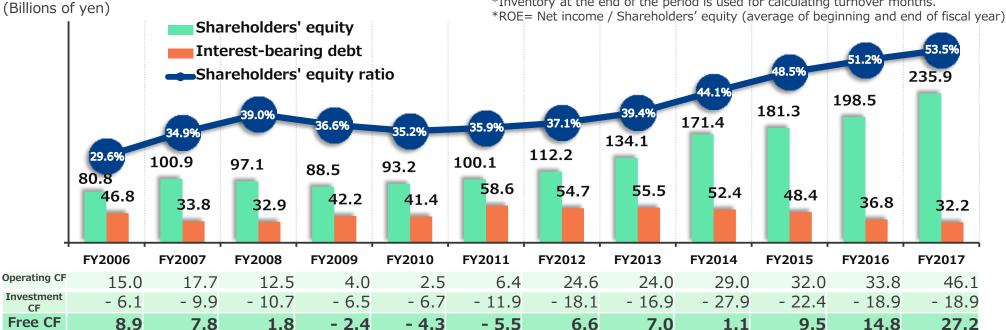
- >Shareholders' equity ratio
- ➤ Shareholders' equity
- ➤ Interest-bearing debt
- ➤D/E ratio (Net D/E ratio)
- **▶**Inventory Turnover

- 232.6 billion yen
  - 45.0 billion yen
    - 0.19
      - -0.02

50.3%

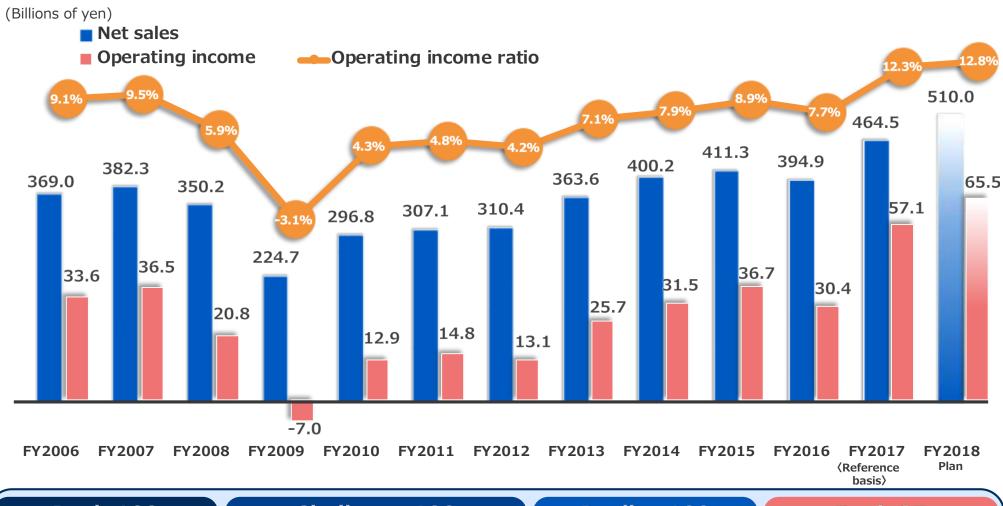
- 103.9 billion yen 2.4 months

\*Inventory at the end of the period is used for calculating turnover months.



<sup>\*</sup>Interest-bearing debt includes lease obligations.

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



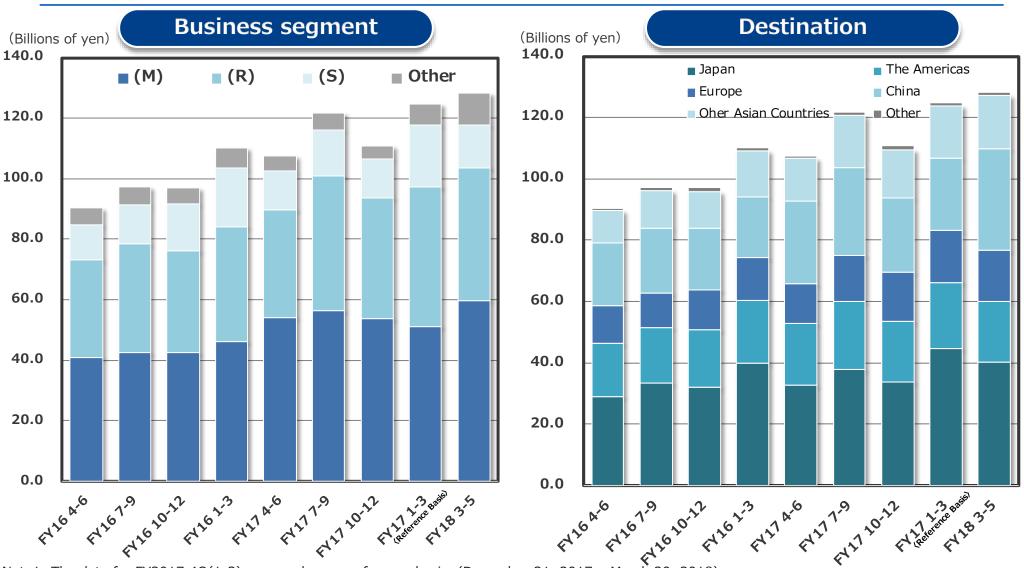
Dash 100 Challenge 100 Realize 100 Dash 25

Mid-term business plans

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



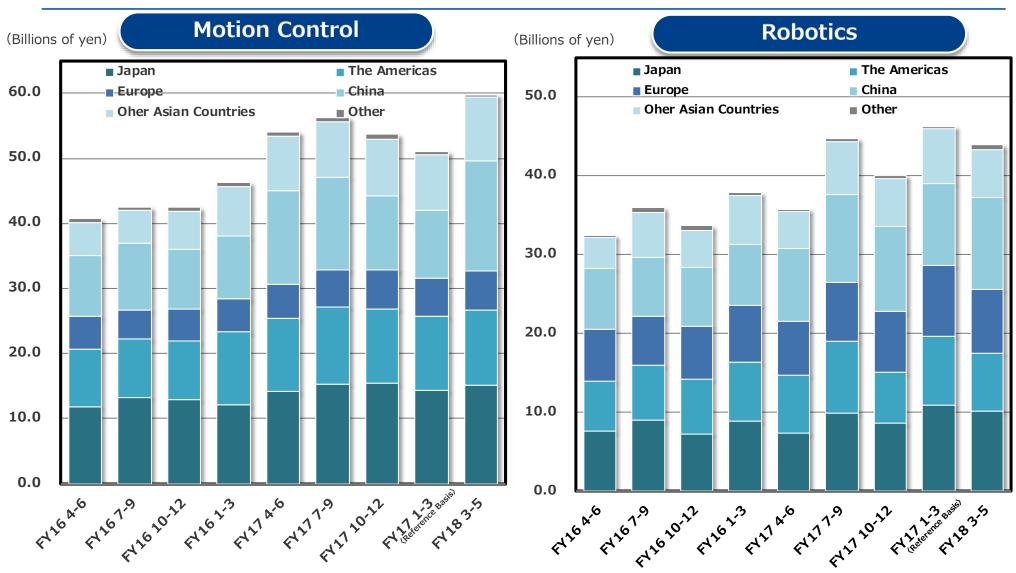
# Quarterly Sales Trends (1)



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

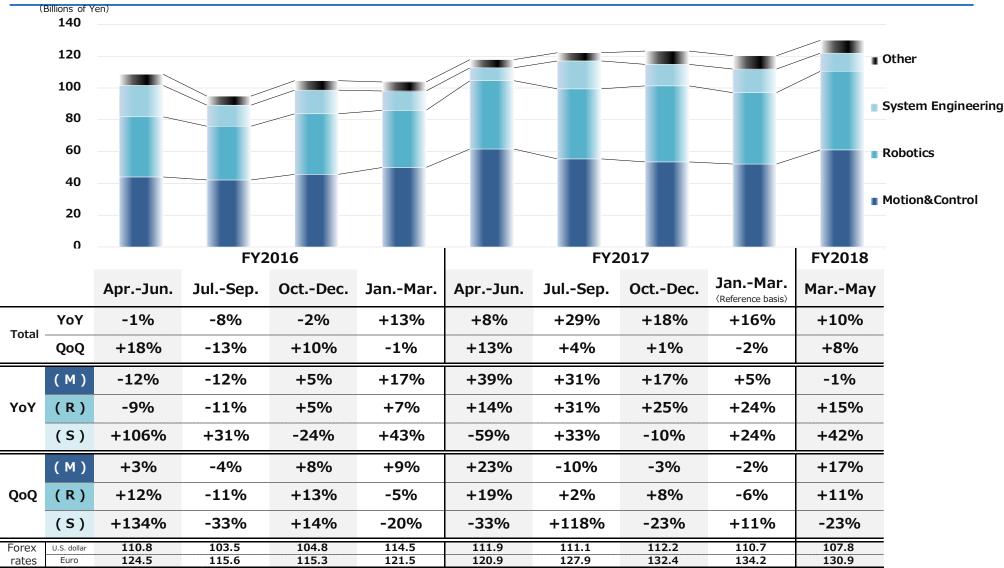
Note2: (M) = Motion Control (R) = Robotics (S) = System Engineering

# Quarterly Sales Trends (2)



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

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

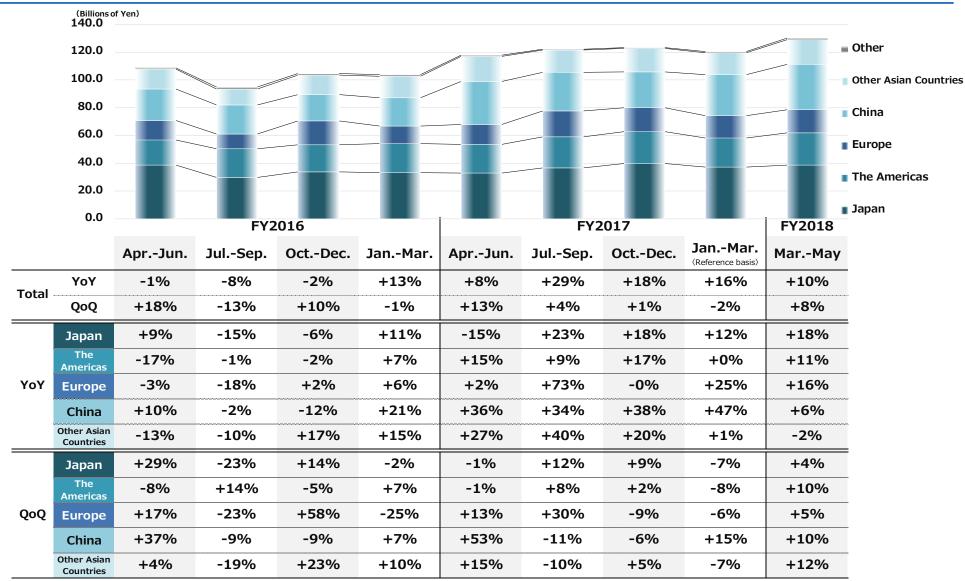


Note1: (M) = Motion Control (R) = Robotics (S) = System Engineering

Note2: The data for FY2017 4Q(Jan.-Mar.) are made on a reference basis. (December 21, 2017 – March 20, 2018)



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



Note: The data for FY2017 4Q(Jan.-Mar.) are made on a reference basis. (December 21, 2017 - March 20, 2018)



# Major Production Bases



YASKAWA Electric UK Ltd. Scotland

YASKAWA Europe GmbH Robotics Div. Germany



YASKAWA (China) Robotics Co., Ltd China



YASKAWA Electric (Shenyang) Co., Ltd China

YASKAWA Nordic AB Sweden

YASKAWA SHOUGANG ROBOT CO.,LTD. China

YASKAWA Europe Robotics d.o.o Slovenia

YASKAWA Robotics India Ltd.

India





Shanghai Yaskawa Drive Co., Ltd. China



Yaskawa Electric Corp. [Production bases in Japan] Yahata-nishi Plant (Yaskawa Robot Center)

- -Yahata-higashi Plant
- -Yukuhashi Plant (Drive Center) System Engineering Center)
- -Iruma Plant (Solution Center)
- -Nakama Plant



YASKAWA America, Inc. Drives&Motion Div. U.S.



YASKAWA Canada, Inc. Canada



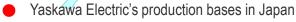
YASKAWA Motoman Mexico, S.A. de C.V. Mexico



YASKAWA Elétrico do Brasil Ltda. Motoman Robotica do Brasil

U.S.

Brazil



Major overseas production bases

# **YASKAWA**