

**ADVANTEST®**

# **FY2018** **(Period Ended March 31th, 2019)** **Information Meeting**

April 25th, 2019  
Advantest Corporation

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# NOTE

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## Accounting Standards

- Our results and outlook, described in this presentation, have been prepared in accordance with IFRS.

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- This presentation contains “forward-looking statements” that are based on Advantest’s current expectations, estimates and projections. These statements include, among other things, the discussion of Advantest’s business strategy, outlook and expectations as to market and business developments, production and capacity plans. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “project,” “should” and similar expressions. Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause Advantest’s actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements.

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```
...mirror_mod.mirror_object = ...
operation == "MIRROR_X":
mirror_mod.use_x = True
mirror_mod.use_y = False
mirror_mod.use_z = False
operation == "MIRROR_Y":
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False
operation == "MIRROR_Z":
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True

...selection at the end -add ...
..._ob.select= 1
..._ob.select=1
context.scene.objects.active
["Selected" + str(modifier_...
mirror_ob.select = 0
bpy.context.selected_ob

...OPERATOR CLASSES
```

# Financial Results for FY2018

Atsushi Fujita  
Managing Executive Officer (CFO)

# FY18 Results Highlights

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- In response to increased demand for higher semiconductor performance and enhanced reliability assurance, robust demand for testers continued
- Although the business environment deteriorated in the second half, with semiconductor inventory adjustments appearing, orders set a new record
- Our efforts to strengthen our production and support systems in order to meet high demand have enabled a new sales record
- As a result of measures to improve operational efficiency, net income, ROE and annual dividends also set new records

# FY18 Summary of Results

(¥B)

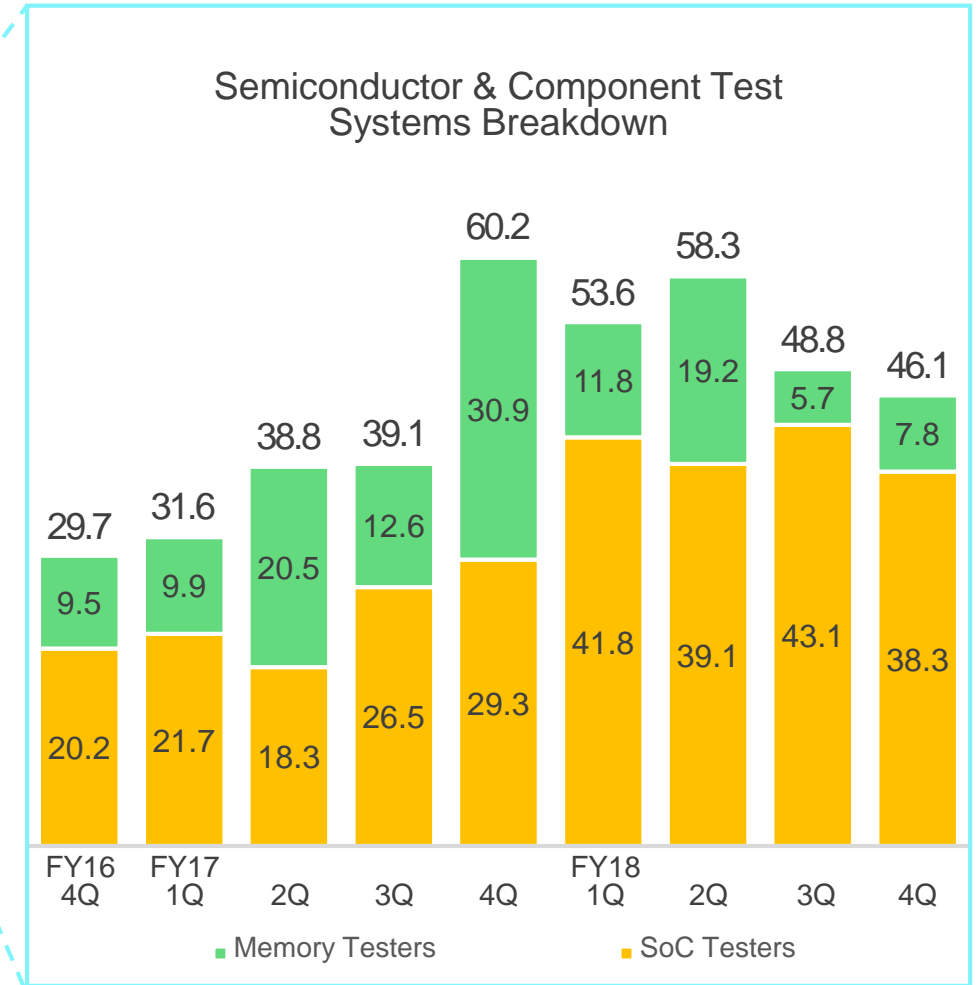
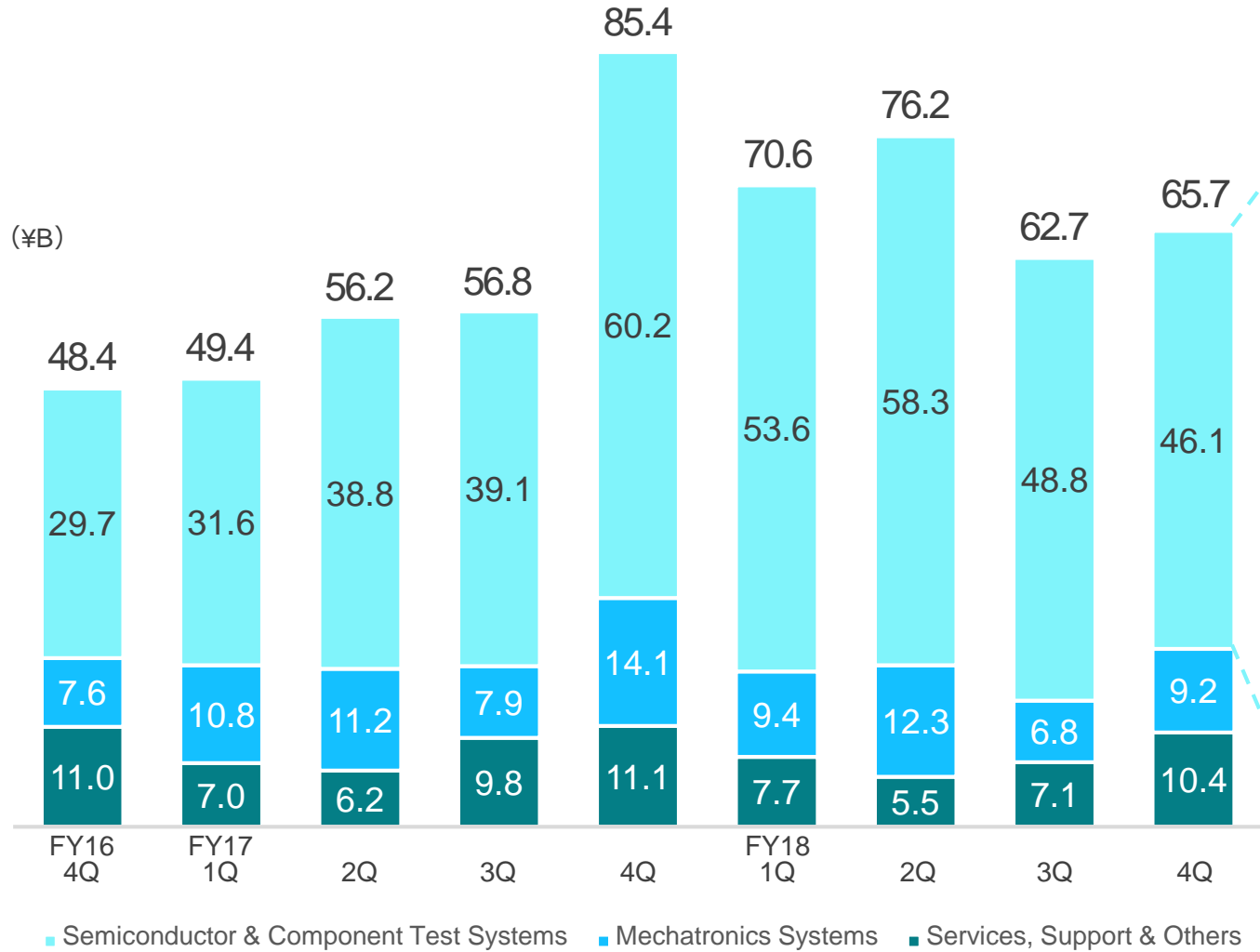
	FY17 Results	Forecast as of Jan. 2019	FY18		
			Results	vs. FY17	
				(Δ)	(%)
Orders	247.8	265.0	275.2	+27.4	+11.1%
Sales	207.2	278.0	282.5	+75.2	+36.3%
Operating Income	24.5	63.0	64.7	+40.2	+2.6x
Operating Margin	11.8%	22.7%	22.9%	+11.1pts	
Income Before Tax	24.3	64.0	66.2	+41.9	+2.7x
Net Income	18.1	54.5	57.0	+38.9	+3.1x
Net Income Margin	8.7%	19.6%	20.2%	+11.5pts	
IFRS15 Backlog adjustment		▲3.0	▲3.0		
Increase in backlog due to acquisition of Astronics SLT business			+2.4		
Backlog	82.8	66.8	74.9	▲7.9	▲9.5%
Exchange Rate	1 US\$	¥111	¥110	¥110	¥1 Appreciation
	1 Euro	¥129	¥130	¥129	-
Dividend per share	¥32	¥88	¥92	up ¥60	

# FY18 4Q Summary of Results

(¥B)

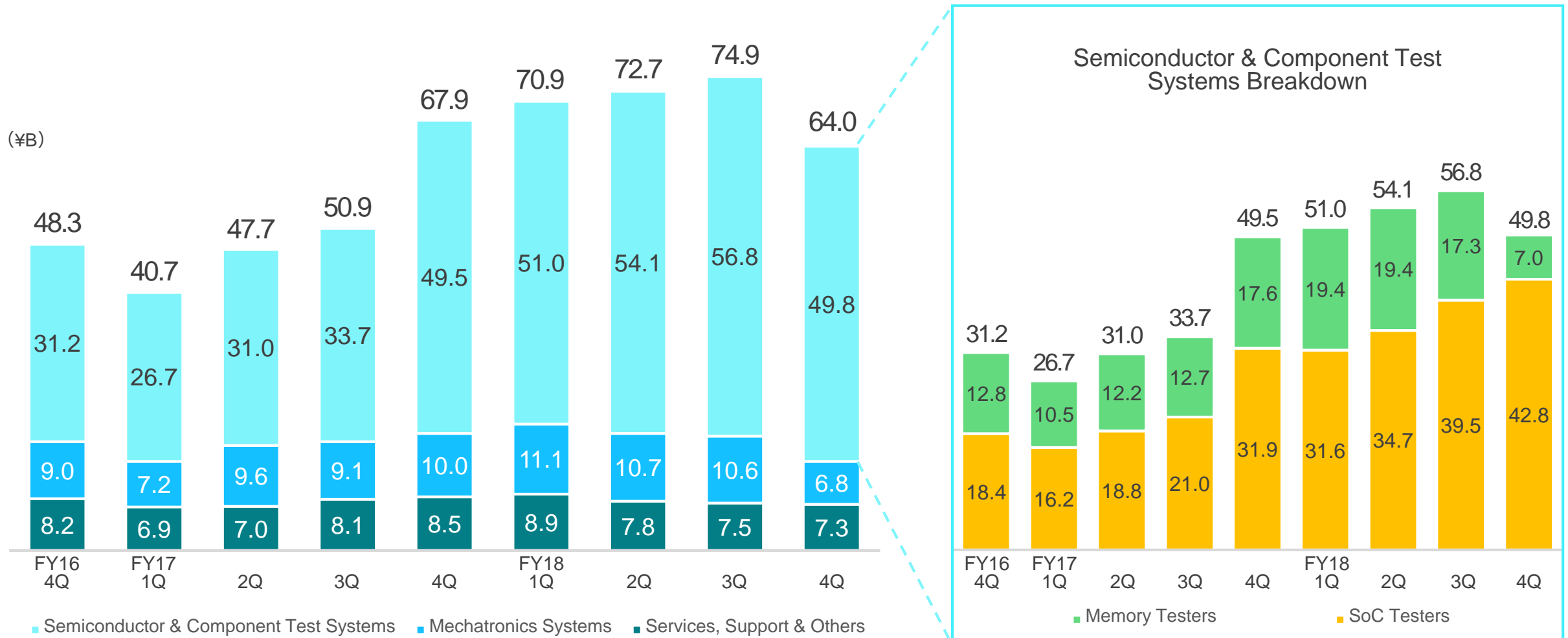
	FY17				FY18							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	QoQ		YoY	
									(Δ)	(%)	(Δ)	(%)
Orders	49.4	56.2	56.8	85.4	70.6	76.2	62.7	65.7	+2.9	+4.7%	▲19.8	▲23.1%
Sales	40.7	47.7	50.9	67.9	70.9	72.7	74.9	64.0	▲11.0	▲14.6%	▲4.0	▲5.9%
Gross Profit	20.6	24.9	23.2	37.9	38.2	38.9	42.5	34.4	▲8.1	▲19.1%	▲3.4	▲9.1%
Gross Margin	50.6%	52.1%	45.8%	55.7%	53.9%	53.6%	56.8%	53.8%	▲3.0pts		▲1.9pts	
Operating Income	2.2	5.2	3.2	13.9	15.8	18.0	20.7	10.2	▲10.5	▲50.8%	▲3.6	▲26.3%
Operating Margin	5.5%	10.9%	6.4%	20.4%	22.3%	24.7%	27.6%	15.9%	▲11.7pts		▲4.5pts	
Income Before Tax	1.6	4.8	3.4	14.5	16.5	18.6	20.6	10.5	▲10.1	▲49.1%	▲4.0	▲27.7%
Net Income	1.0	3.9	2.6	10.6	13.9	16.2	17.9	9.0	▲9.0	▲50.1%	▲1.7	▲15.9%
Net Income Margin	2.4%	8.2%	5.0%	15.6%	19.6%	22.4%	23.9%	14.0%	▲9.9pts		▲1.6pts	
IFRS15 Backlog adjustment					▲3.0							
Increase in backlog due to acquisition of Astronics SLT business								+2.4				
Backlog	50.9	59.4	65.3	82.8	79.5	83.0	70.8	74.9	4.1	+5.8%	▲7.9	▲9.5%
Exchange Rate	1 US\$	¥112	¥111	¥112	¥111	¥108	¥111	¥113	¥111	¥2 Appreciation		-
	1 Euro	¥121	¥128	¥132	¥134	¥131	¥129	¥130	¥126	¥4 Appreciation		¥8 Appreciation

# Quarterly Orders by Segment



Note: Intersegment transactions have been eliminated from totals

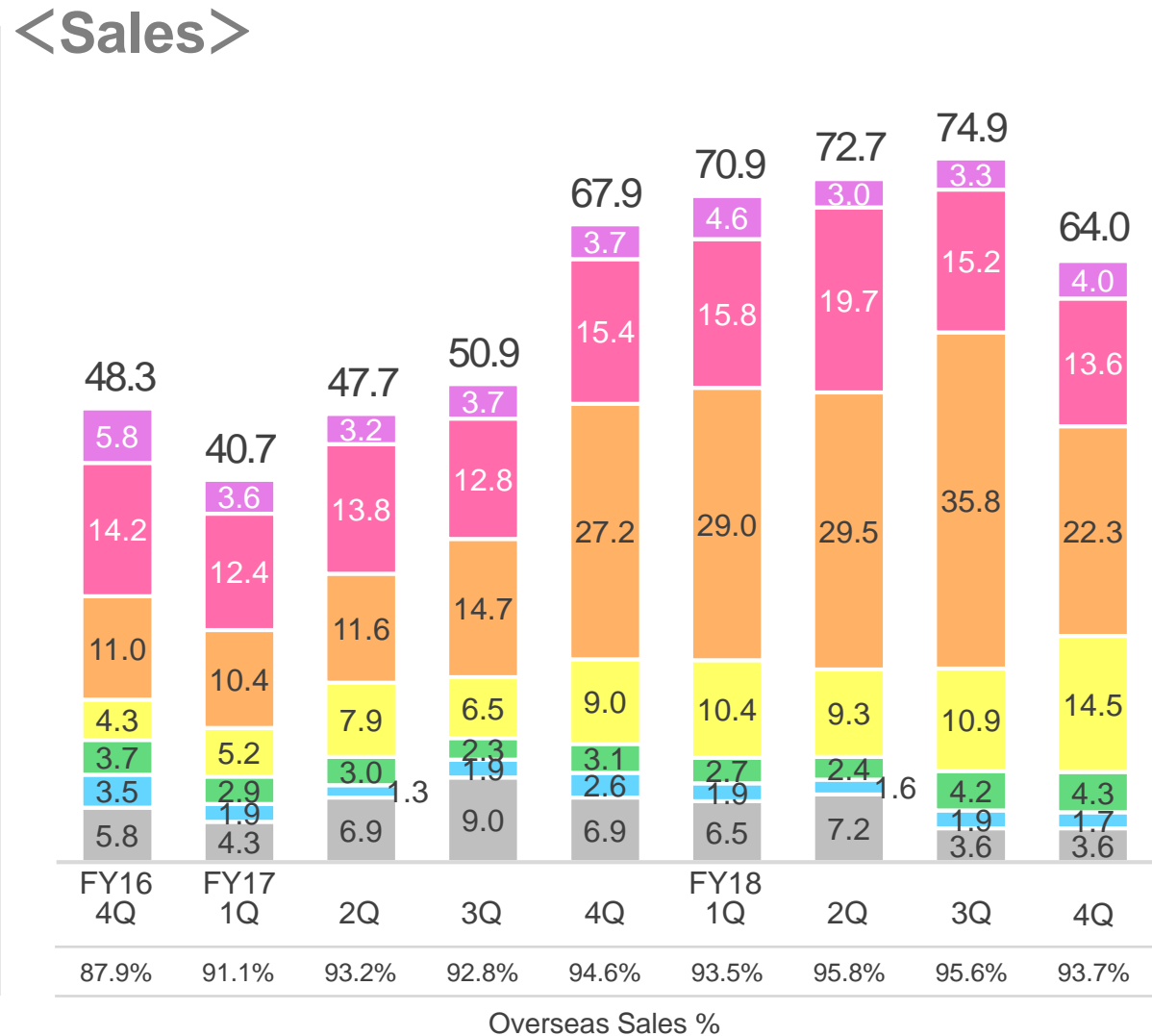
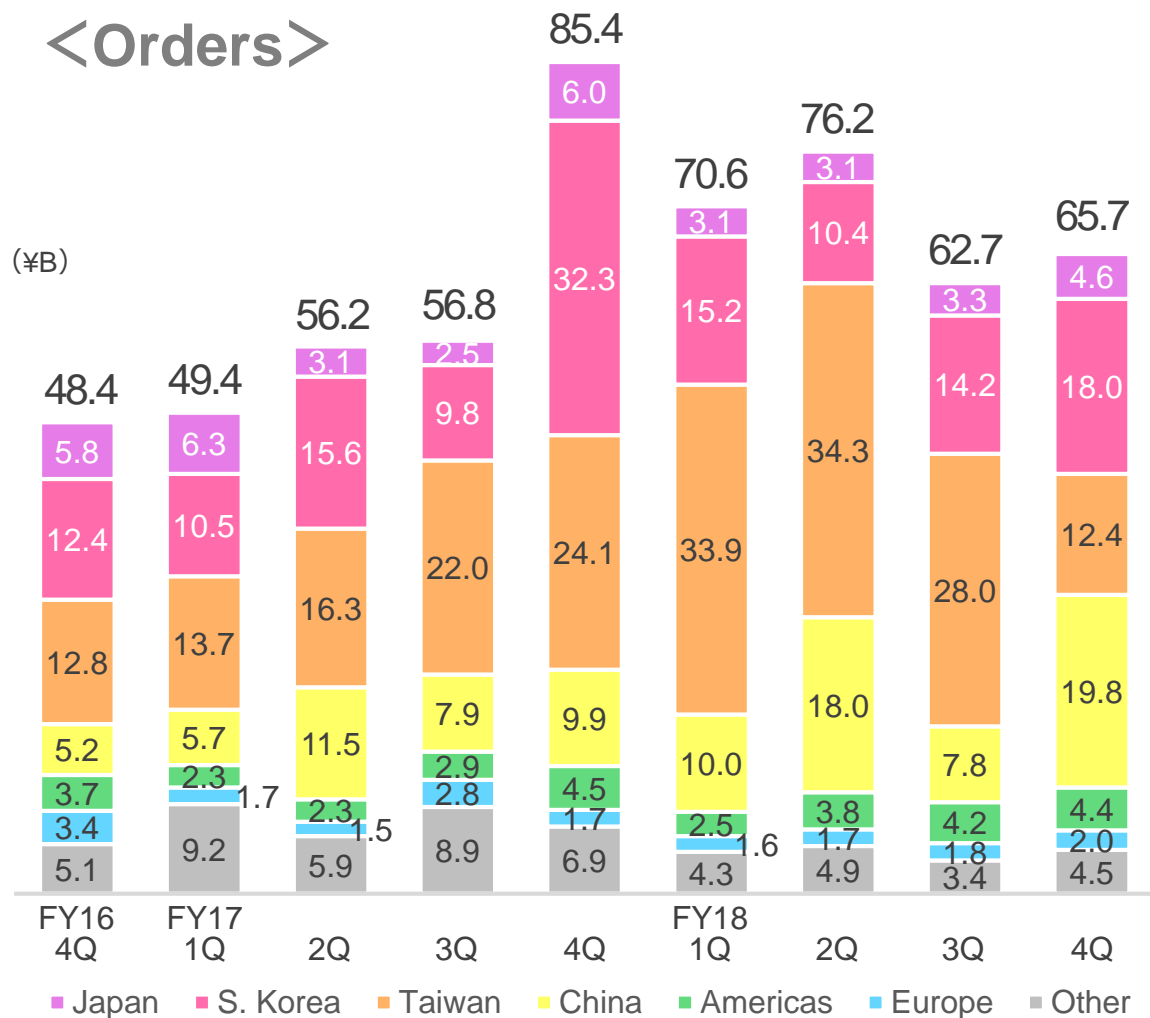
# Quarterly Sales by Segment



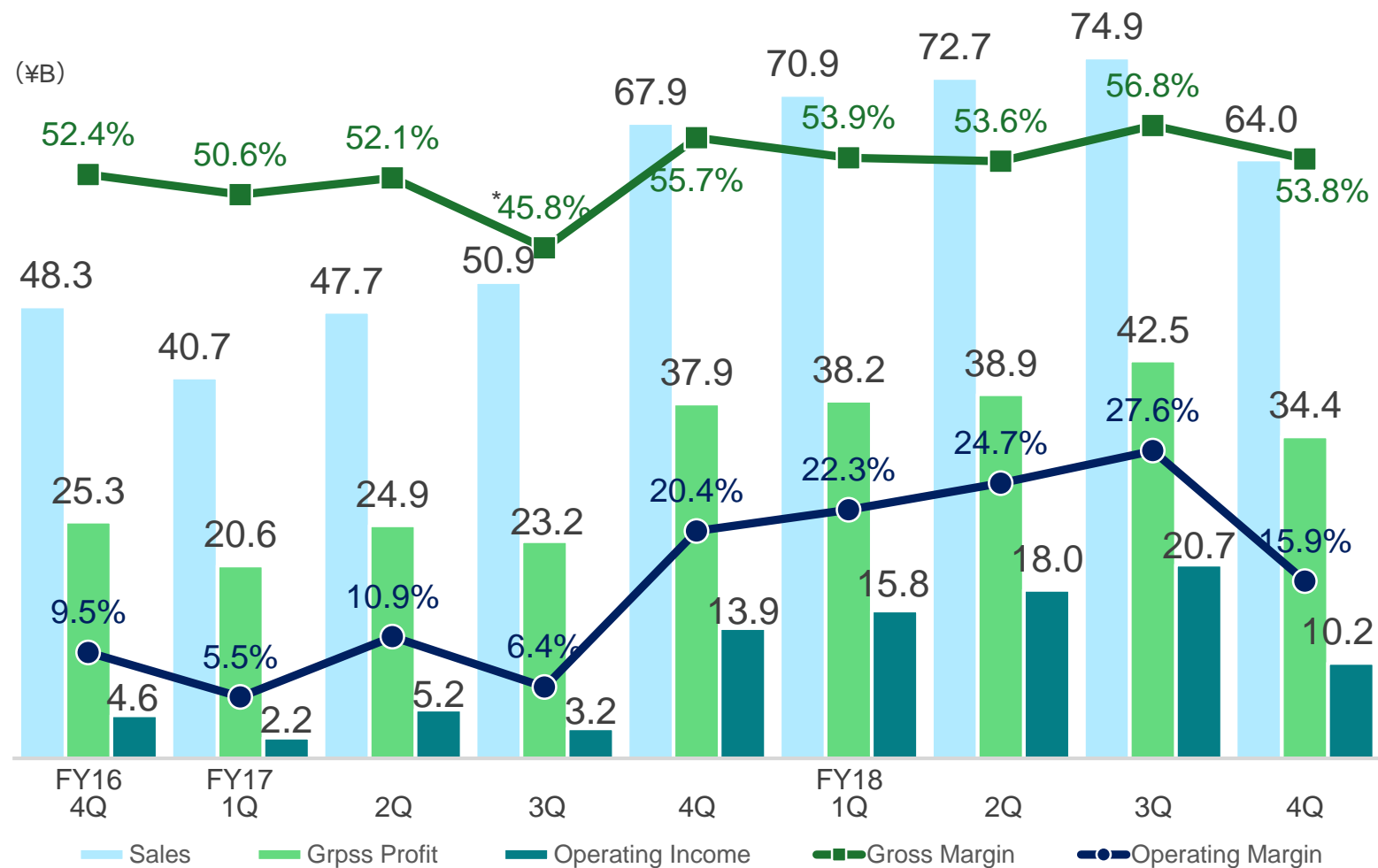
Note: Intersegment transactions have been eliminated from totals



# Quarterly Orders / Sales by Region



# Sales / Gross Profit / Operating Income



	(¥B)	
	FY17	FY18
Sales	207.2	282.5
Gross Profit	106.6	154.0
Gross Margin	51.4%	54.5%
SG&A	82.1	89.3
Operating Income	24.5	64.7
Operating Margin	11.8%	22.9%

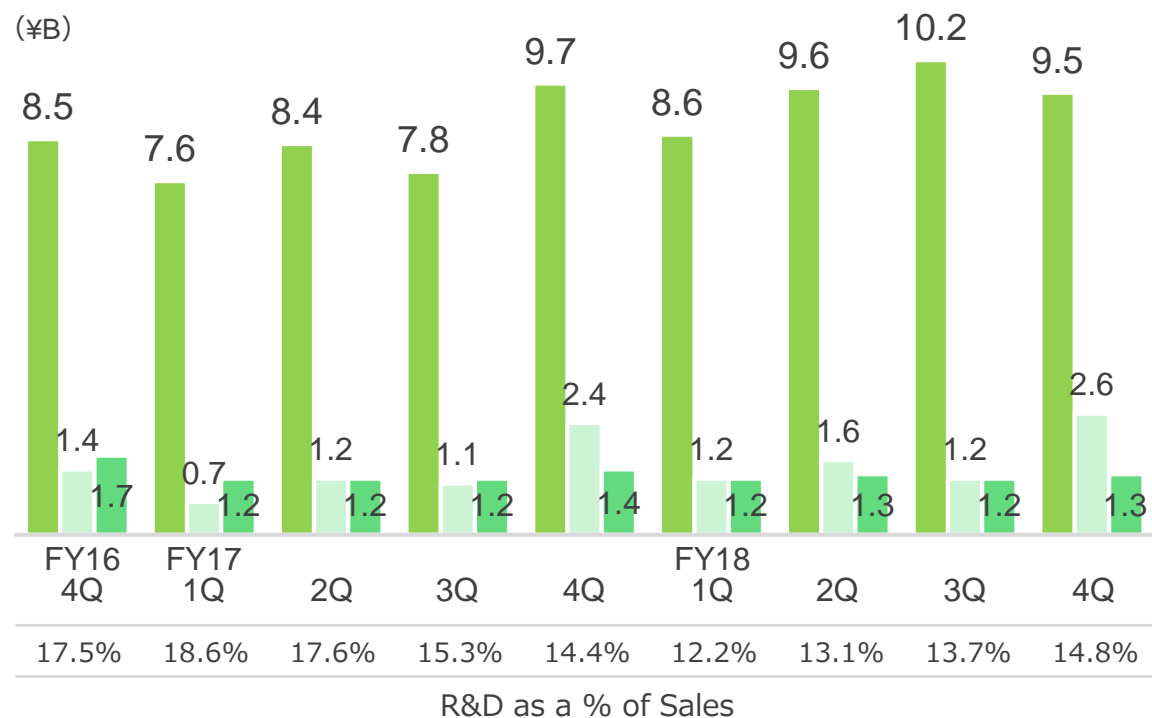
\*In FY17 3Q, a ¥3.3 billion write-down of inventories was recorded in our nanotechnology business. The gross margin in FY17 3Q excluding the effect of the write-down was 52.3%.

# Investments / Cash Flow Condition

## <Investments>

- R&D Expenses
- Capital Expenditure
- Depreciation & Amortization

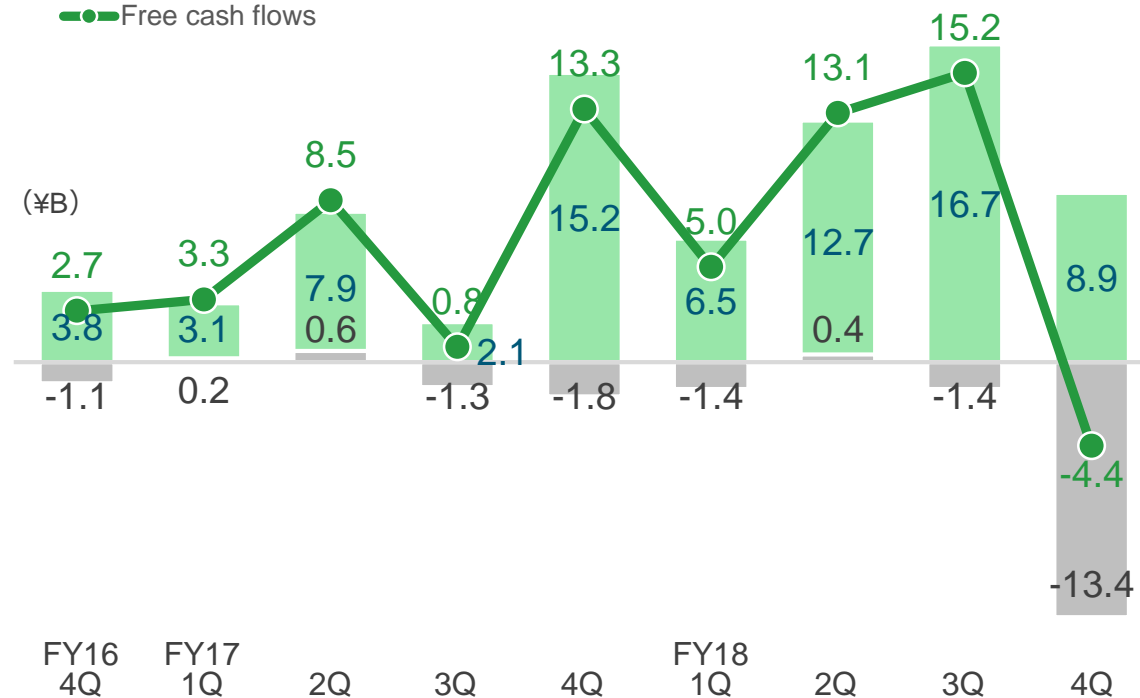
	FY17	FY18
R&D Expenses	33.5	37.9
R&D as a % of Sales	16.2%	13.4%
Capex	5.4	6.6
D&A	5.0	5.0



## <Cash flows>

- Cash flows from operating activities
- Cash flows from investing activities
- Free cash flows

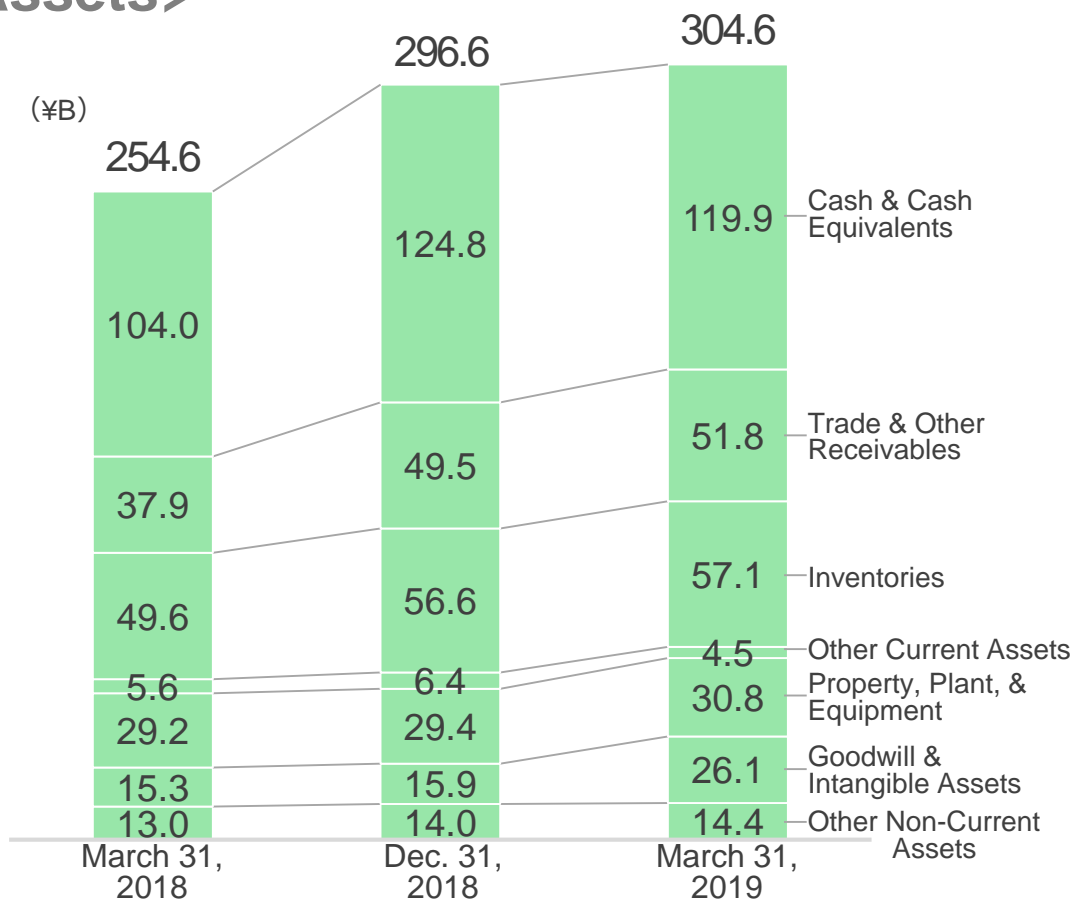
	FY17	FY18
Cash flows from operating activities	28.3	44.8
Cash flows from investing activities	▲2.3	▲15.9
Free cash flows	25.9	28.9



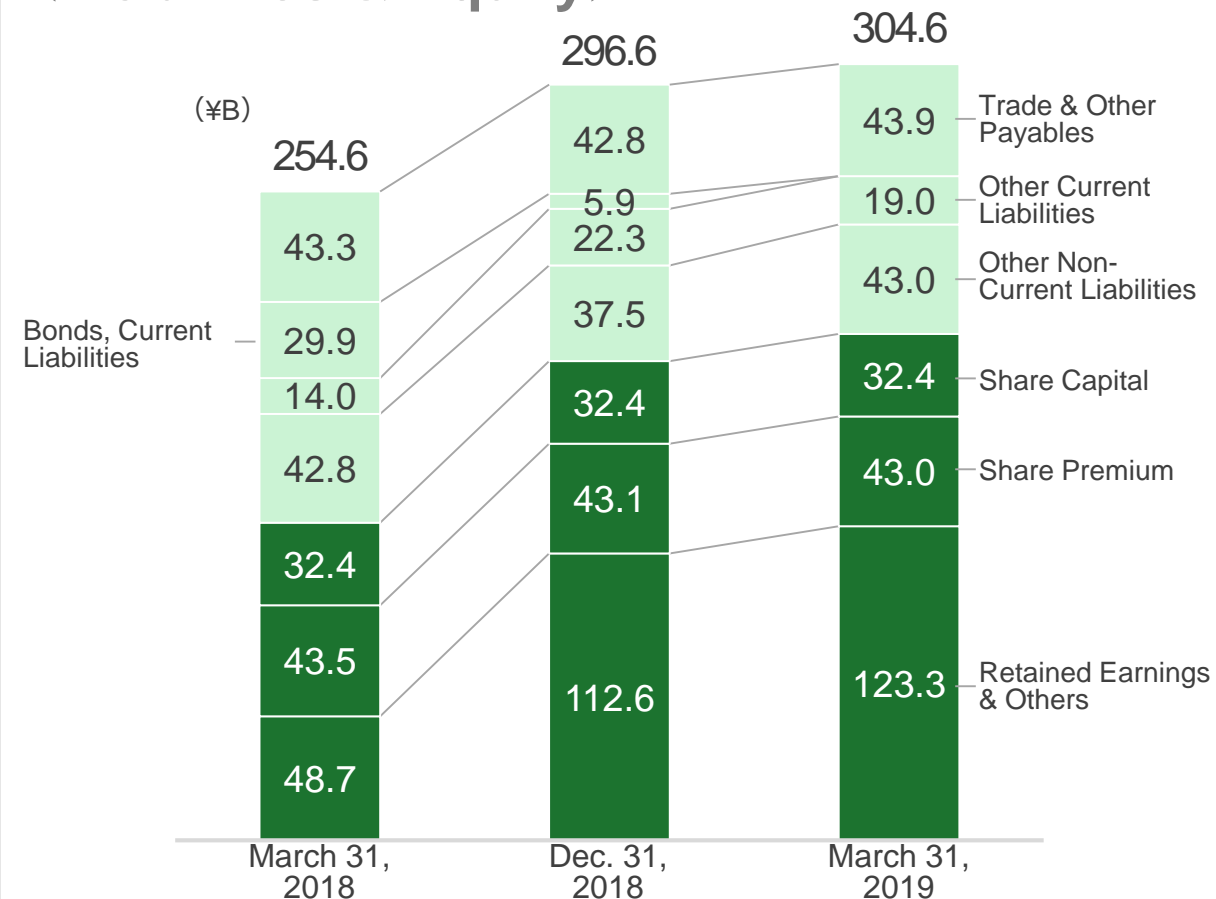
\*Free Cash Flows = Cash flows from operating activities + Cash flows from investing activities

# Financial Position

## <Assets>



## <Liabilities & Equity>



Equity Attributable to Owners of the Parent	124.6	188.1	198.7
Ratio of Equity Attributable to Owners of the Parent	49.0%	63.4%	65.2%



# **FY2019 Outlook & Mid-Term Business Plan Progress Report**

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Yoshiaki Yoshida  
Representative Director, President & CEO

# Tester Market Forecast (as of April 2019)

## CY18 Results

- Amidst advancing semiconductor performance and reliability, many semiconductor manufacturers maintained active tester investment all year long
- Based on market trends, CY18 market size was greater than our January estimates

## CY19 Forecast

- As uncertainty gathers over the global economy, the tester market is also entering a slowdown phase, but is expected to improve in the second half of FY19
- The CY20 tester market will expand again, driven by investment in next-generation advanced semiconductor test capabilities

	CY18 Actual	CY19 Estimates	% Change
SoC Tester Market	Approx. \$2,550M (January estimate: approx. \$2.4B)	Approx. \$2,000M (Unchanged from January estimate)	Down approx. 20% YoY
Memory Tester Market	Approx. \$1,150M (January estimate: approx. \$1.0B)	Approx. \$550-650M (January estimate: approx. \$700-800M)	Down approx. 40-50% YoY

# FY19 Forecast

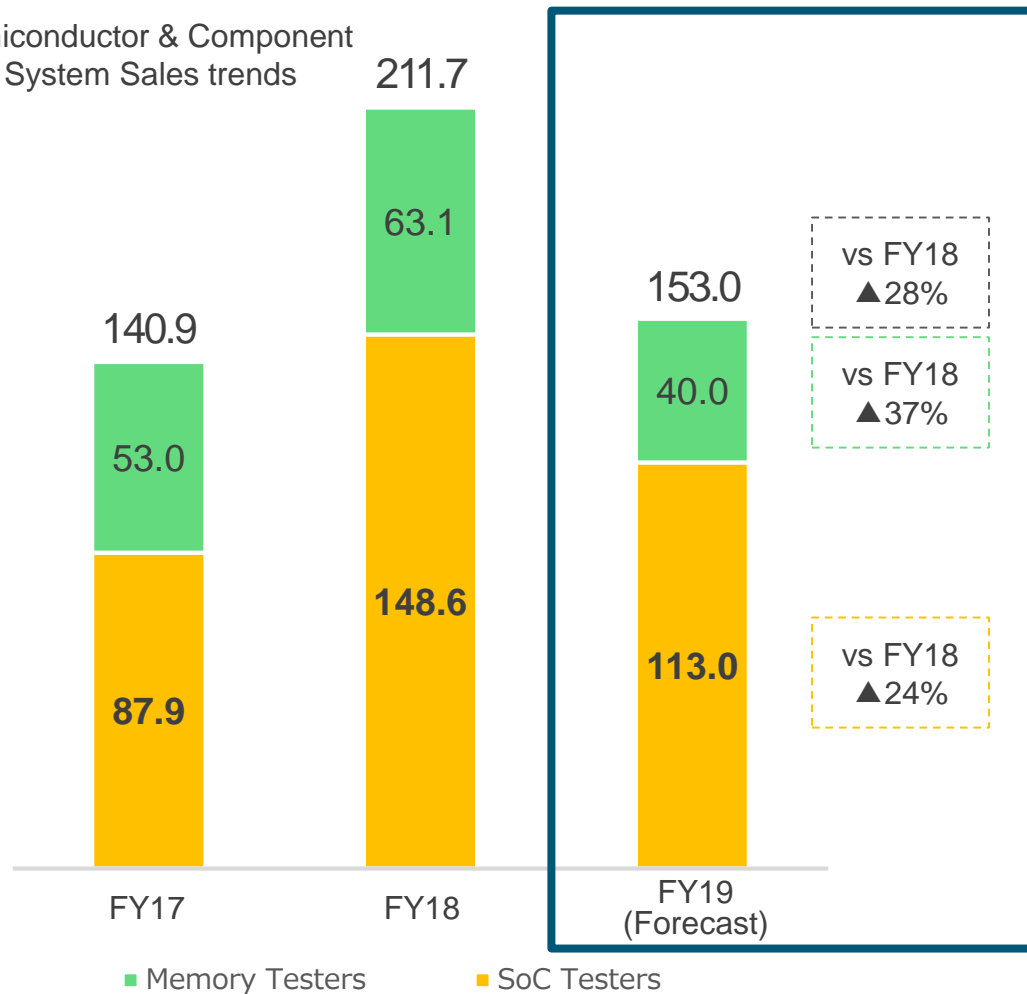
(¥B)

	FY18 Results	Forecast	FY19	
			vs. FY18	
			(Δ)	(%)
Orders	275.2	230.0	▲45.2	▲16.4%
Sales	282.5	230.0	▲52.5	▲18.6%
Operating Income	64.7	30.0	▲34.7	▲53.6%
Operating Margin	22.9%	13.0%	▲9.9pts	
Income Before Tax	66.2	31.0	▲35.2	▲53.2%
Net Income	57.0	26.0	▲31.0	▲54.4%
Net Income Margin	20.2%	11.3%	▲8.9pts	
Backlog	74.9	74.9	-	-
Exchange Rate*	1 US\$	¥110	¥110	-
	1 Euro	¥129	¥130	¥1 Depreciation
ROE	35.3%	12.6%	▲22.7pts	

\*The latest outlook for the impact of exchange rate fluctuations on FY19 operating income: plus 500 million yen for each 1 yen of yen depreciation vs USD, and minus 100 million yen for each 1 yen of yen depreciation vs the euro.

# FY19 Outlook by Segment

Semiconductor & Component Test System Sales trends (¥B)



## Semiconductor & Component Test Systems

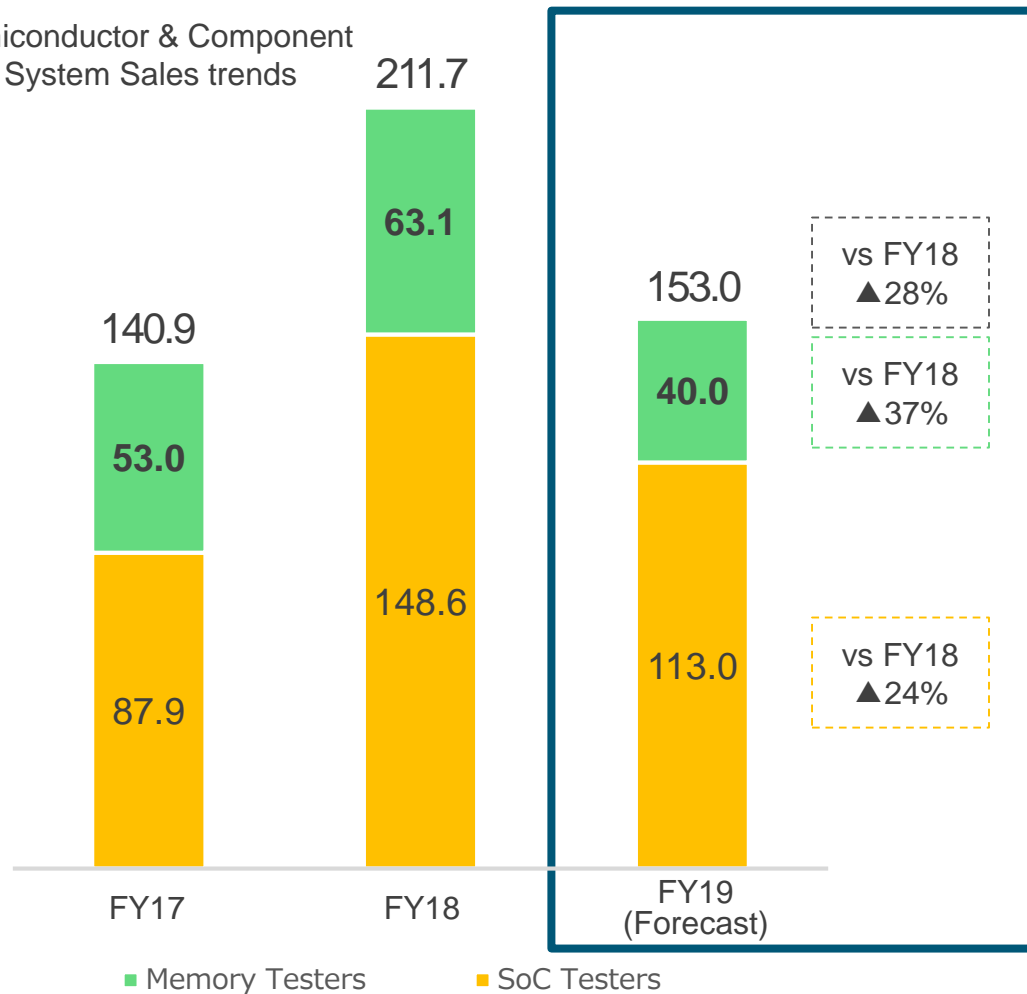
### <SoC Testers>

- Expected to decline vs favorable FY18, but advancing semiconductor performance will support SoC tester demand
- The development of test capacity for semiconductors supporting higher-performance smartphones, such as application processors and image sensors, continues to increase
- The full-scale launch of EUV will also support demand for high-end processor testers
- Meaningful 5G-related demand is expected in CY20 and thereafter



# FY19 Outlook by Segment

Semiconductor & Component  
Test System Sales trends  
(¥B)



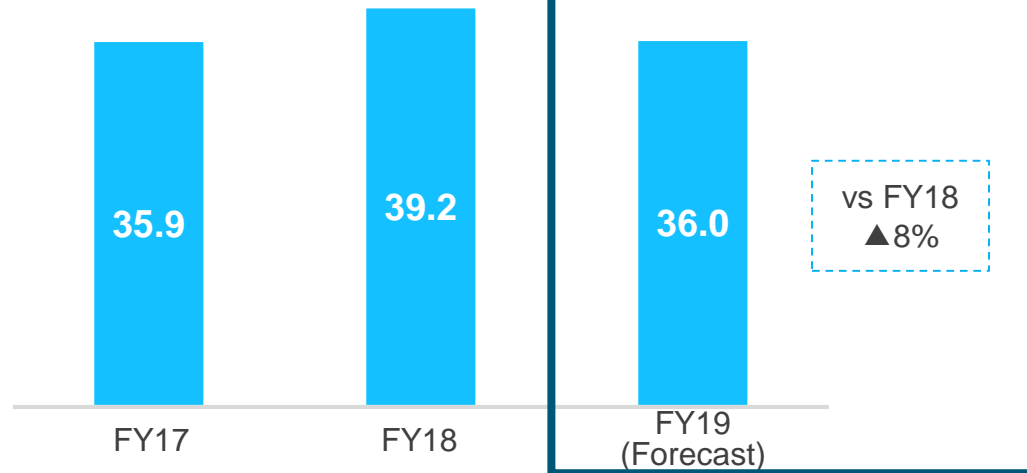
## Semiconductor & Component Test Systems

### <Memory Testers>

- Memory tester demand is being impacted by memory inventory adjustments
- The timing of tester demand recovery depends on the pace of bit demand recovery, but is expected to come in 2H
- In particular, we anticipate a positive trend in DRAM testers related to miniaturization, the shift to DDR5, and demand for high-speed products for HPC
- NVM is expected to be primarily driven by demand related to multi-layer NAND investment

# FY19 Outlook by Segment

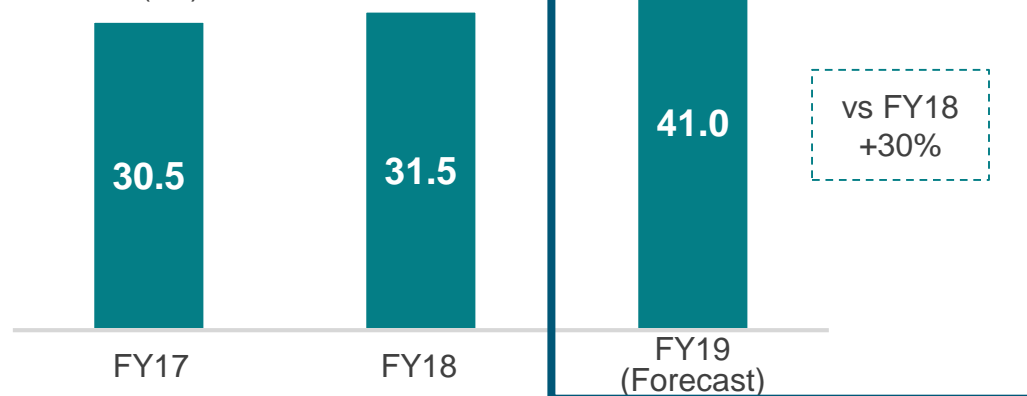
Mechatronics Sales Trends (¥B)



## Mechatronics Systems

- With the slowdown in investment by memory customers, DI products are expected to decline.
- EUV-related demand is expected to boost sales of nanotech products

Services, Support, & Others Sales Trends (¥B)



## Services, Support, & Others

- Customer tester utilization is steady, driving expectations of steady trends in field service income, the core business of this segment
- Segment revenue will increase due to our acquisition of the Astronics SLT business

# Mid/Long-Term Management Policy

## Grand Design (Long-Term Management Policy: FY18-27)

### <Long-Term Management Goals>

¥300B - ¥400B in annual sales

- Improve market share by 1% a year by focusing on growth areas and strengthening partnerships with customers (CY17 results: 36% → CY27 target: 46%)
- Develop new business around our core business area

### <Cost / Profit Structure>

- Balancing sales growth with cost efficiency

	Cost structure model @ ¥300B
Sales	¥300.0B
Cost of Sales	46%
SG&A as % of Sales	32%
(of which R&D expenses)	13%
Operating Margin	22%



## Mid-Term Management Plan (FY18-20)

- Product demand inevitably fluctuates on year, so numerical targets are three-year averages
- Expand our sales and market share by providing outstanding solutions for the next generation of test needs.
- Aggressively invest in R&D and M&A for mid-to long-term sales growth
- While maintaining a consolidated payout ratio of 30%, based on our growth investment outlook, we will consider flexibility in our total shareholder return policy

	Mid-Term Plan (FY18-FY20 Average)	
	Conservative	Base
Yearly tester market growth ratio	0%	4%
Sales	¥230.0B	¥250.0B
Operating Margin	15%	17%
ROE	15%	18%
EPS	¥135	¥170

# Initiatives for Mid/Long-Term Growth

## Important Measures Executed in FY18

- Focused on 5G and customer acquisition
- Realigned internal organization for long-term strategic execution
  - Globally integrated tester development teams
  - Created a team to identify areas for test business expansion, including the use of AI and data analytics
- Acquired the system-level test business of Astronics Inc. as a step toward expanding into adjacent business areas
- Introduced ROIC-based business management and evaluation tools to strengthen our business management system

ATS5034  
System-level test system



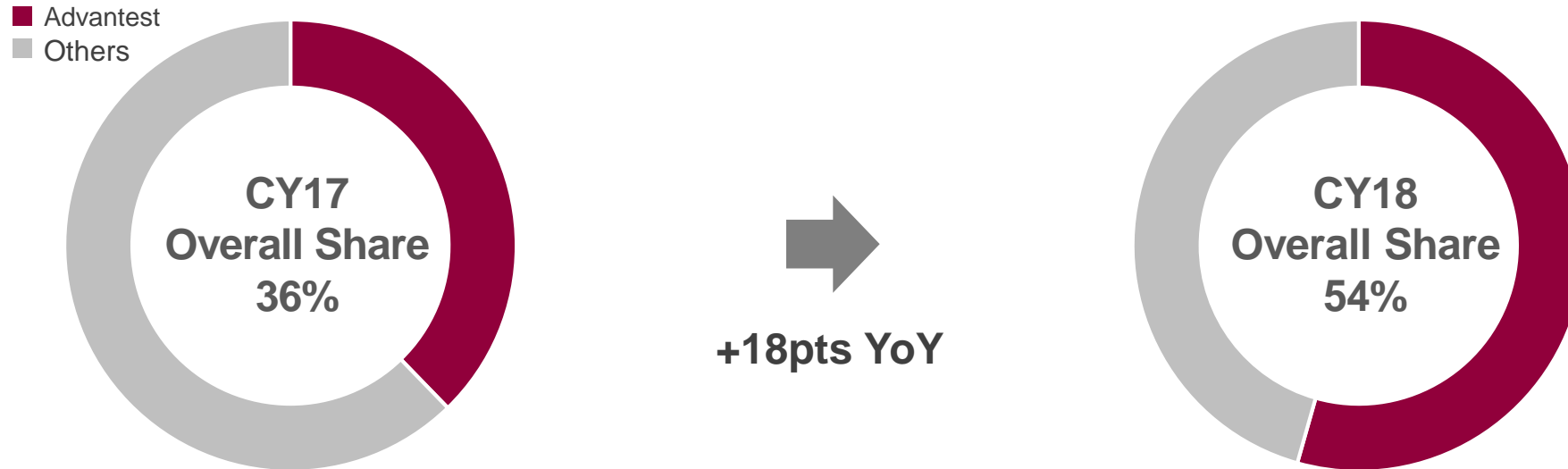
## Important Measures for FY19

- Enhance engagement with most important industry-leading customers
- Maintain and expand market share
- Reinforce personnel and develop human resources for medium-to long-term growth
  - Reinforce R&D engineering staff and marketing / sales / SE / service staff in priority regions
- Improve business efficiency for operational excellence
- Maximize utilization of ROIC in business operations

### <R&D / Capital Investment Outlook>

	FY18 actual	FY19 forecast
R&D Expenses	37.9	37.0
Capex	6.6	10.0
D&A	5.0	6.0

# Market Share Report



**<SoC Testers> CY18 Market Share: 52% (+22pts YoY)**

**<Memory Testers> CY18 Market Share: 58% (+1pt YoY)**

# 5G Will Drive Mid/Long-Term Tester Demand



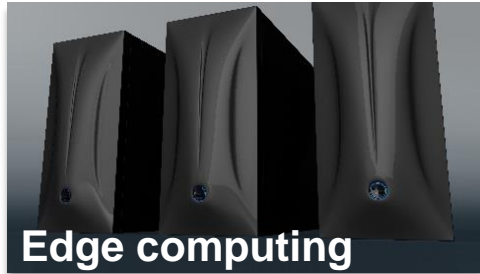
Autonomous  
Smart transportation



Data center



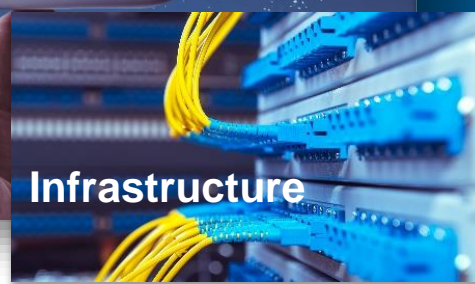
Smart Factory



Edge computing



AI  
Machine learning



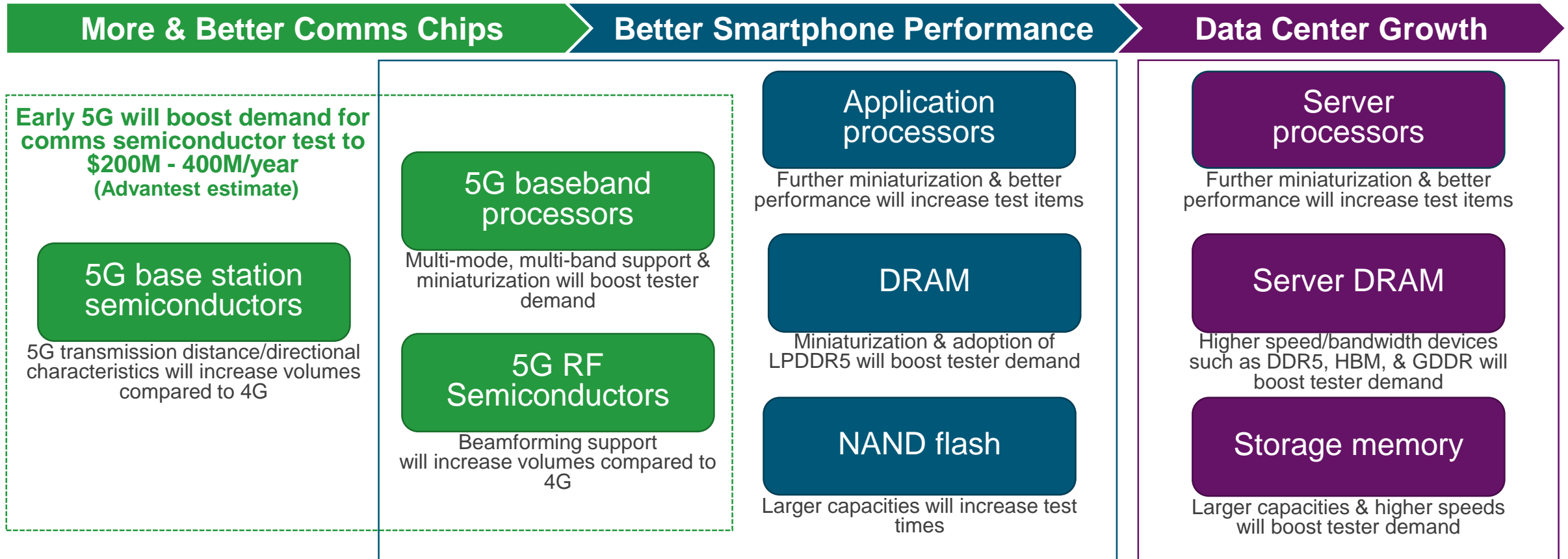
Infrastructure



Smart Home

- 5G is not only a mobile network technology, but a fundamental technology that may redefine our society
- Encourages the progress of the digital transformation in diverse areas; expected to create continuous demand for semiconductors and testers

# Relationship Between Early 5G & Tester Demand



**5G accelerates the shift to higher performance and lower power consumption = test difficulty increases and test gets more complex**

**As new test challenges emerge, customers are making more support requests to Advantest**

# Mid-Term Business Plan: 1<sup>st</sup> Fiscal Year Progress Report

	FY15-17 Average	Mid-Term Plan (FY18-FY20 Average)		FY18 Results
		Conservative	Base	
Sales	¥175.1B	¥230.0B	¥250.0B	¥282.5B
Operating Margin	9%	15%	17%	22.9%
ROE	12%	15%	18%	35.3%
EPS	¥74	¥135	¥170	¥302

- Results exceeded the target for all KPIs in the base scenario of our mid-term management plan (FY18-20) in the first year of the plan, FY18, due to the expansion of the tester market and our significant share gains. We have made strong progress toward achieving our three-year goals
- The market trends that support our medium-to long-term growth, such as evolving semiconductor performance and the increasing importance of test, remain unchanged. While uncertainty in the global economy spreads to the tester market, we expect revenue to decline in FY19, but we expect results to recover in FY20
- We will maintain our mid-term numerical targets and continue to strive to achieve them