

Consolidated Financial Results for the First Half of FY2018

NTN

November 5, 2018
NTN Corporation



I . Outline

II . Financial Results for First Half and Forecast for FY2018

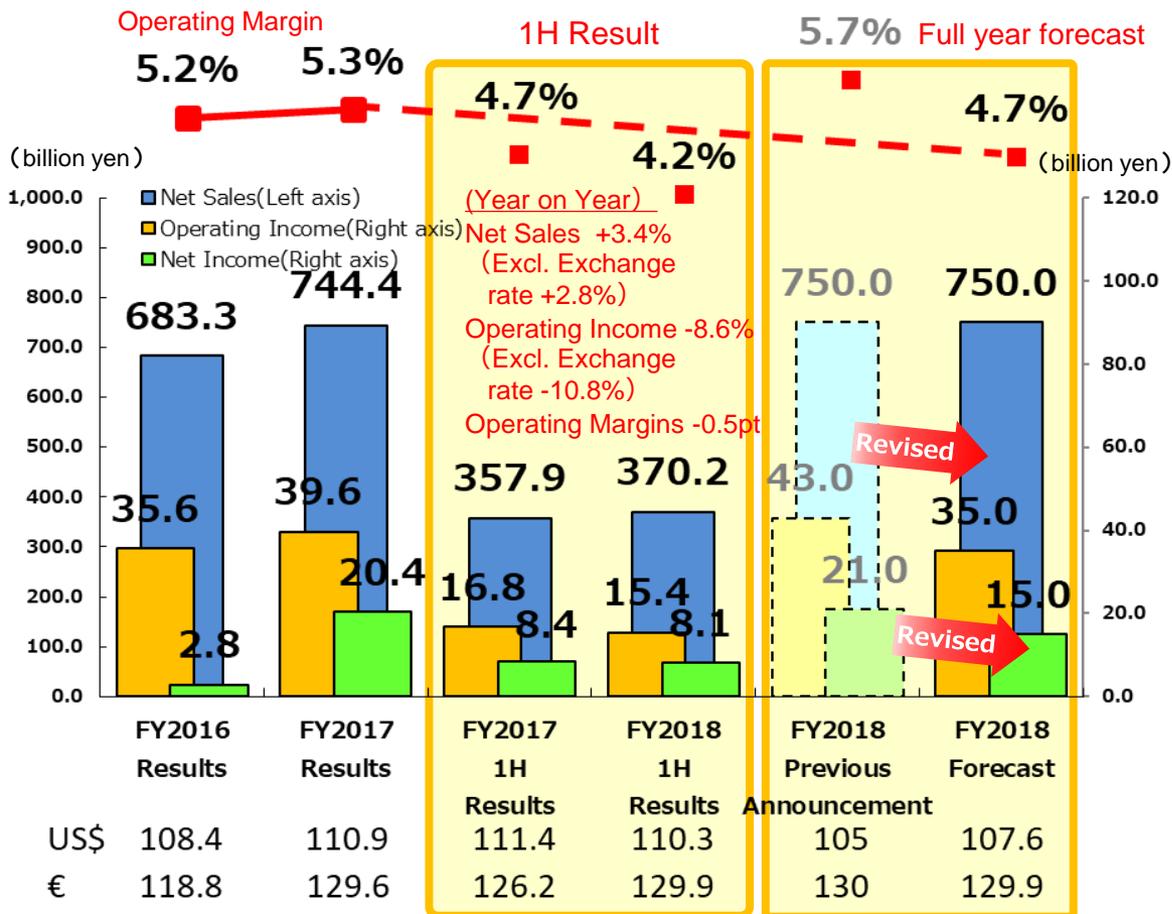
III . Initiatives of “DRIVE NTN100”

- This presentation and comments made in this conference or during the following Q&A session include forward-looking statements about future performance and future business strategies, all of which are based on decisions of the management of the Company currently available.
- These statements represent the best judgment of the management of the Company based on the information currently available. However, there can be no assurance that future results will meet any expectation, estimate or projection conveyed by these statements or comments. Actual results may differ materially from Management projections depending on various factors such as changes in product demand, exchange rates and interest rates, and contingent liabilities.

Trends in consolidated financial results: Results of 1H and Full year Forecast

For 1H, although Net Sales increased year-on-year, Operating income decreased reflecting increases of cost due principally to the increase in price of steel material, tariff rate in the U.S. and other factors.

Considering costs putting pressure on profit, we revised forecast of full year Operating income decreasing from previous fiscal year, although there are continuous strong demands.



FY2018 1H Result

in brackets are previous announcement

Net Sales: **¥370.2 billion** (¥370.0 billion)
YoY+3.4%, Excl. exchange rate effect +2.8%

Operating Income: **¥15.4 billion** (¥20.0 billion)
YoY-8.6%, Excl. exchange rate effect -10.8%

Net Income: **¥8.1 billion** (¥7.0 billion)
YoY-2.9%

Interim dividend: **¥7.5**



FY2018 Full year Forecast

in brackets are previous announcement

Net Sales: **¥750.0 billion** (¥750.0 billion)
YoY+0.8%, Excl. exchange rate effect +1.5%

Operating Income: **¥35.0 billion** (¥43.0 billion)
YoY-11.6%, Excl. Exchange rate effect -6.0%

Net Income: **¥15.0 billion** (¥21.0 billion)
Incl. extraordinary loss ¥6.0 billion

Annual dividend: ¥15 *interim ¥7.5, year-end ¥7.5

I . Outline

II . Financial Results for First Half and Forecast for FY2018

III . Initiatives of “DRIVE NTN100”

- ★ **Financial Results for FY2018 First Half : Key Factors**
 - 1. Consolidated Statements of Operation**
 - 2. Net Sales by Region**
 - 3. Net Sales and Operating Income by Business Sector**
 - 4. Results by Business Sector (Quarterly Trend)**
 - 5. Analysis of Operating Income**
 - 6. Net Sales and Operating Income by Company Location**
 - (1) Japan, Americas**
 - (2) Europe, Asia and others**
 - 7. Inventories**
 - 8. Capital Expenditure and Depreciation**
 - 9. Interest-Bearing Debt**
 - 10. Cash Flows**

Results of FY2018 Second Quarter(April, 2018-September, 2018)

- ◇ Net Sales: **¥370.2 billion**
 - Increase of **¥12.3 billion**, year-on-year
(Excluding exchange rates: Increase of **¥9.8 billion**)
- ◇ Operating Income: **¥15.4 billion**
 - Decrease of **¥1.5 billion**, year-on-year
(Excluding exchange rates : Decrease of **¥1.8 billion**)
- ◇ Ordinary Income: **¥12.6 billion**
 - Decrease of **¥1.1 billion** year-on-year
(Excluding exchange rates: Decrease of **¥1.6 billion**)
- ◇ Net income attributable to shareholder(parent company): **¥8.1 billion**
 - Decrease of **¥0.2 billion**, year-on-year
(Excluding exchange rates: Decrease of **¥0.6 billion**)
- ◇ Free Cash Flow: **-¥9.3 billion**, decrease of **¥21.5 billion**, year-on-year

Revised FY2018 Full year forecast

- ◇ Net Sales: **¥750.0 billion**, No revise from the previous announcement
- ◇ Operating income: **¥35.0 billion**,
Decrease of **¥8.0 billion** compared with previous announcement (¥43.0 billion)
- ◇ Extraordinary losses: **¥6.0 billion**
No revise from the previous announcement
- ◇ Net income attributable to Shareholder (parent company): **¥15.0 billion**,
Decrease of **¥6.0 billion** compared with previous announcement (¥21.0 billion)
- ◇ In regards to dividends, the Company plans **¥15** for this fiscal year
No revise from the previous announcement
(an interim dividend of **¥7.5** and year-end dividend of **¥7.5**)
- ◇ Exchange-rate form the third quarter:
1USD = **¥105** (previous announcement, ¥105)
1EURO = **¥130** (previous announcement, ¥130)

1. Consolidated Statements of Operation

(billion yen)

		FY2017			FY2018		Year on year					
		1H	2H	Full year	1H	Full year	FY2018 1H					
		Results ①	Results	Results	Results ②	Forecast	②-①					
		Total	Excl.Forex	Forex								
Net sales		357.9	386.4	744.4	370.2	750.0	12.3	9.8	2.4			
Operating income		16.8	22.8	39.6	15.4	35.0	-1.5	-1.8	0.4			
Operating margin		(4.7%)	(5.9%)	(5.3%)	(4.2%)	(4.7%)	(-0.5%)					
Ordinary income		13.6	17.6	31.3	12.6	29.0	-1.1	-1.6	0.5			
Extraordinary income/loss		-	-4.3	-4.3	-	-6.0	-	-	-			
Net income attributable to shareholder (parent company)		8.4	12.0	20.4	8.1	15.0	-0.2	-0.6	0.4			
Exchange rate	US\$	111.0	110.7	110.8	110.3	107.6	-0.8					
	EURO	126.2	133.1	129.6	129.9	129.9	3.7					

2. Net Sales by Region

(billion yen)

	FY2017			FY2018		Year on year		
	1H Results ①	2H Results	Full year Results	1H Results ②	Full year Forecast	FY2018 1H ②-①		
						Total	Excl.Forex	Forex
Japan	99.5	104.8	204.3	102.3	210.0	2.8	2.8	-
Americas	98.8	102.9	201.7	100.4	201.0	1.6	2.5	-0.9
Europe	82.5	93.1	175.6	85.5	172.5	3.0	0.6	2.4
Asia and others	77.2	85.6	162.8	82.0	166.5	4.8	3.9	0.9
Total	357.9	386.4	744.4	370.2	750.0	12.3	9.8	2.4

3. Net Sales and Operating Income by Business Sector

< Net Sales by Business Sector >

(billion yen)

	FY2017			FY2018		Year on year		
	1H Results ①	2H Results	Full Year Results	1H Results ②	Full year Forecast	FY2018 1H ②-①		
						Total	Excl.Forex	Forex
Aftermarket	56.2	60.4	116.7	61.1	120.0	4.8	4.3	0.6
Industrial machinery	57.3	61.8	119.1	62.0	125.5	4.6	4.2	0.4
Automotive	244.4	264.2	508.6	247.2	504.5	2.8	1.4	1.4
Total	357.9	386.4	744.4	370.2	750.0	12.3	9.8	2.4

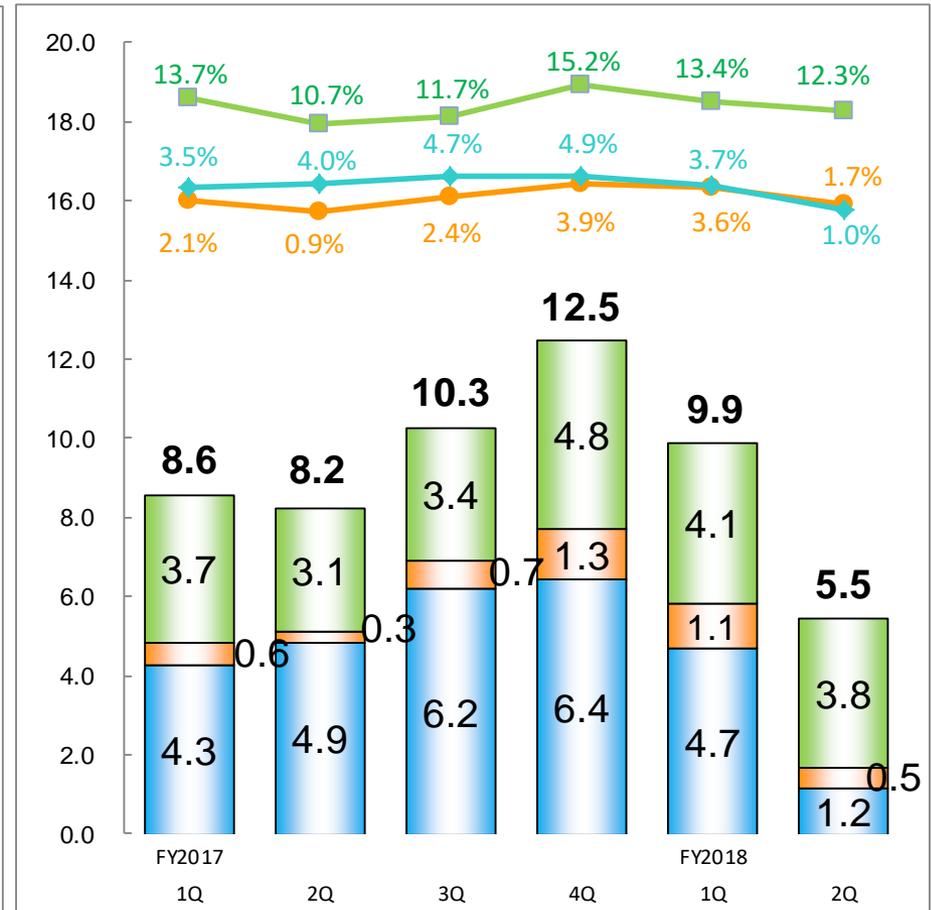
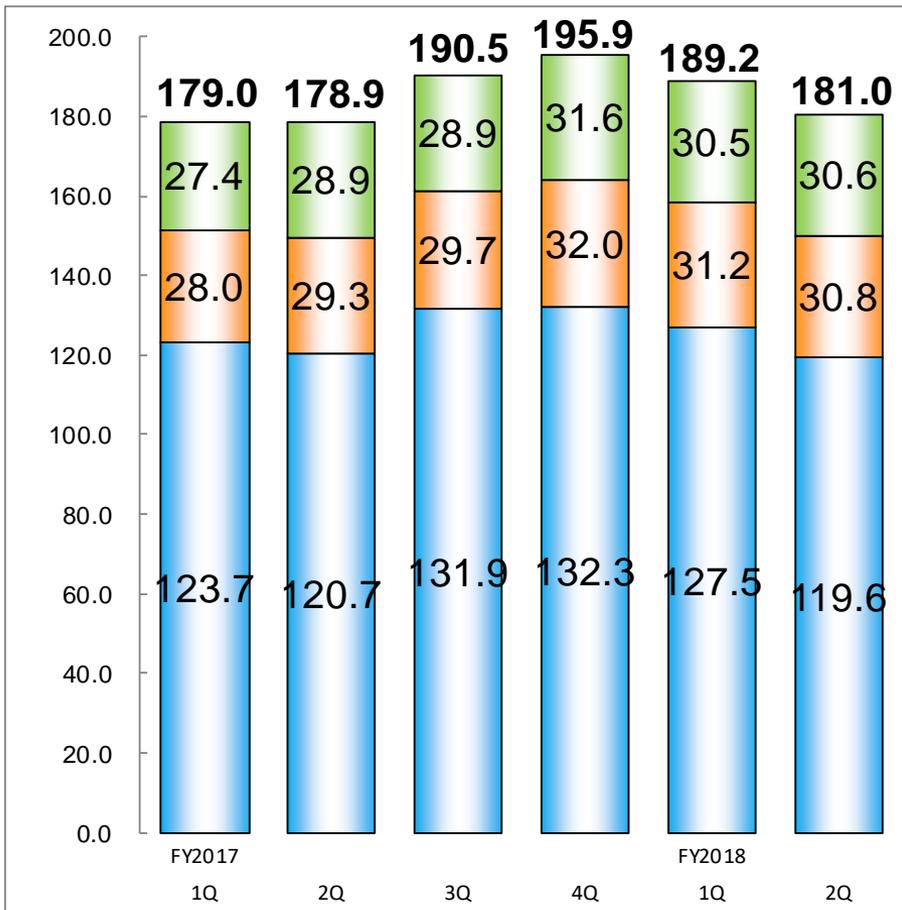
< Operating Income by Business Sector >

	FY2017			FY2018		Year on year
	1H Results ①	2H Results	Full Year Results	1H Results ②	Full year Forecast	FY2018 1H ②-①
Aftermarket	6.8	8.2	15.0	7.8	15.2	1.0
Industrial machinery	0.8	2.0	2.8	1.6	4.1	0.8
Automotive	9.2	12.6	21.8	5.9	15.7	-3.3
Total	16.8	22.8	39.6	15.4	35.0	-1.5

4. Results by Business Sector (Quarterly Trend)

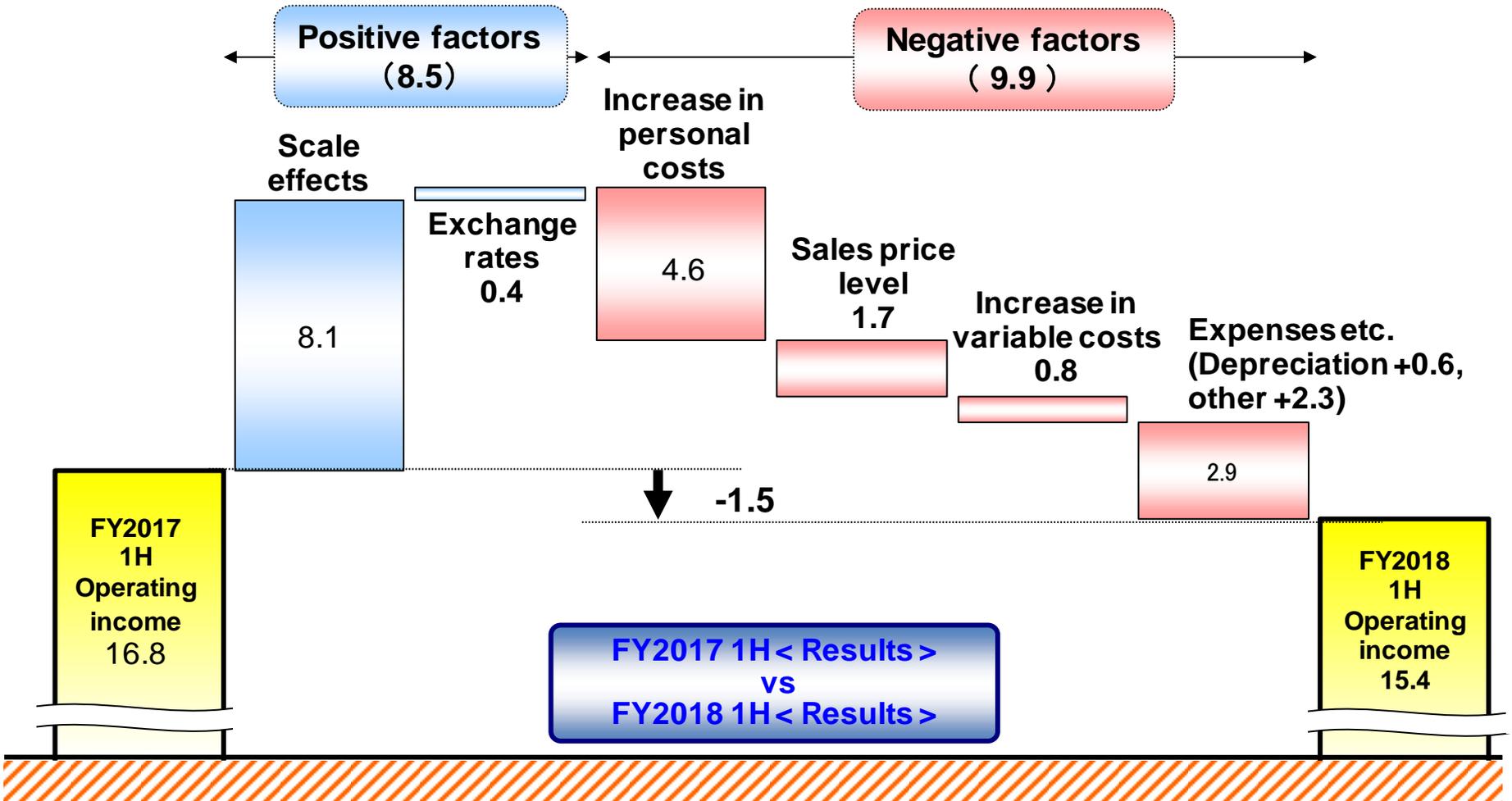
* All figures in billion yen.

Automotive Industrial machinery Aftermarket



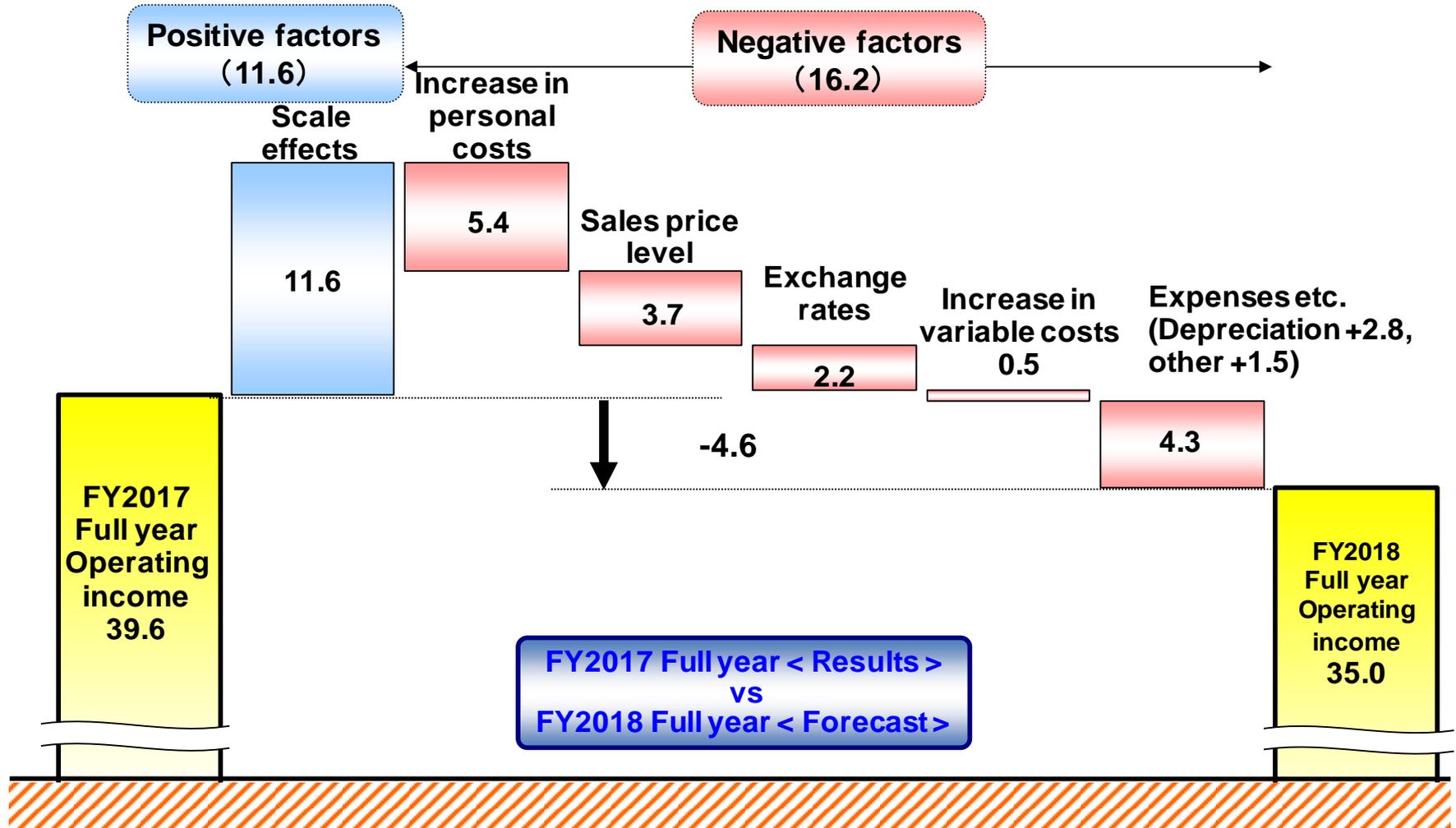
5-1. Analysis of Operating Income (FY2018 1H)

* All figures in billion yen.



5-2. Analysis of Operating Income (FY2018 Full year)

* All figures in billion yen.



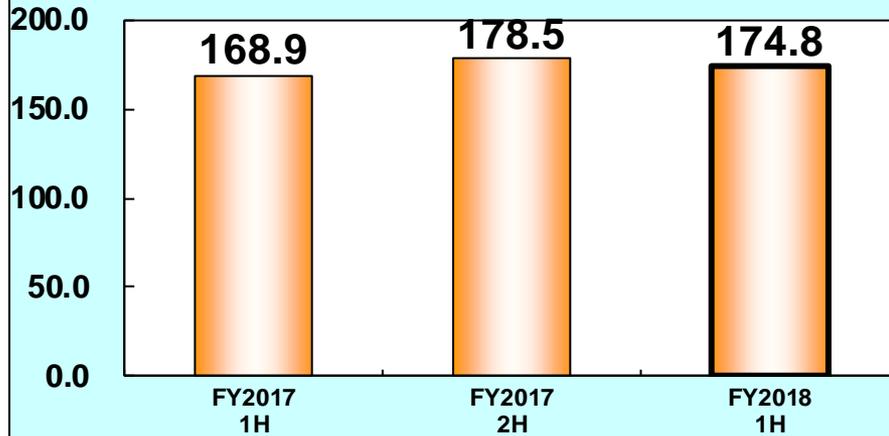
6. Net Sales and Operating Income by Company Location

* All figures in billion yen

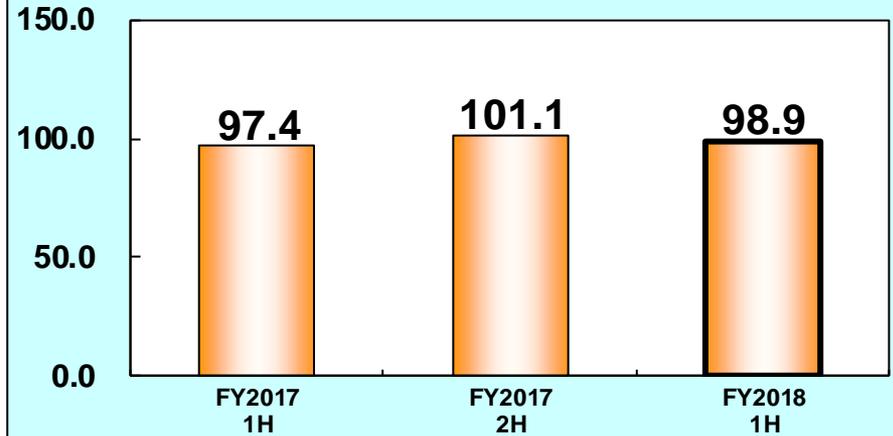
《 Japan 》

《 Americas 》

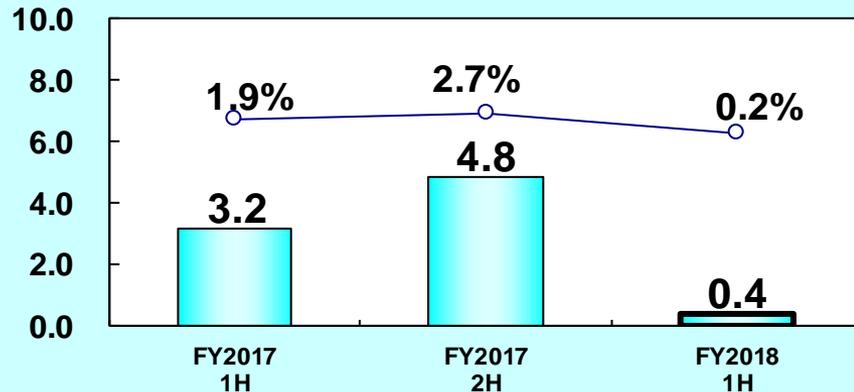
Net Sales



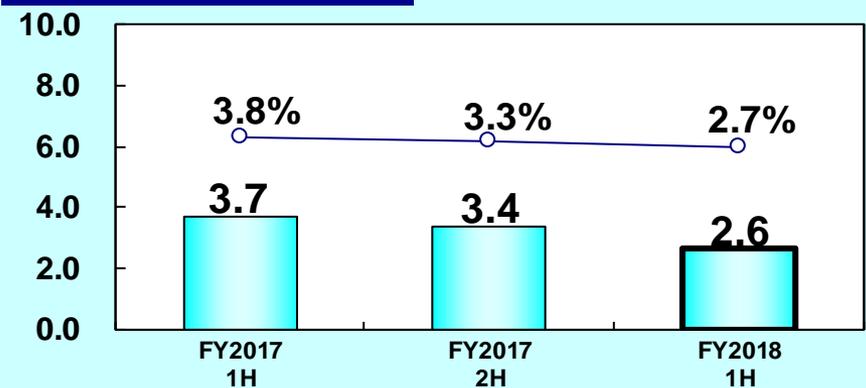
Net Sales



Operating Income



Operating Income



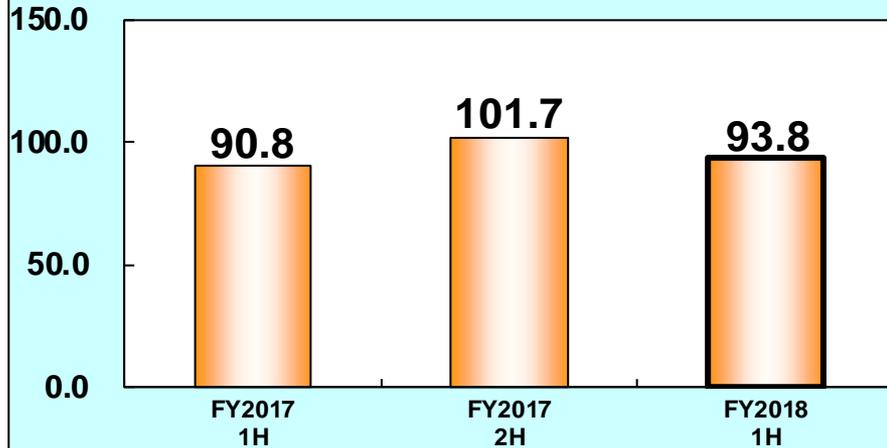
6. Net Sales and Operating Income by Company Location

* All figures in billion yen

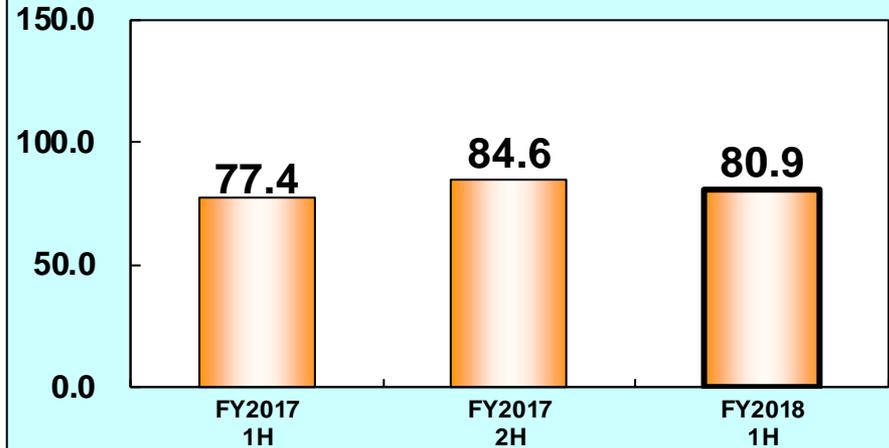
《 Europe 》

《 Asia and others 》

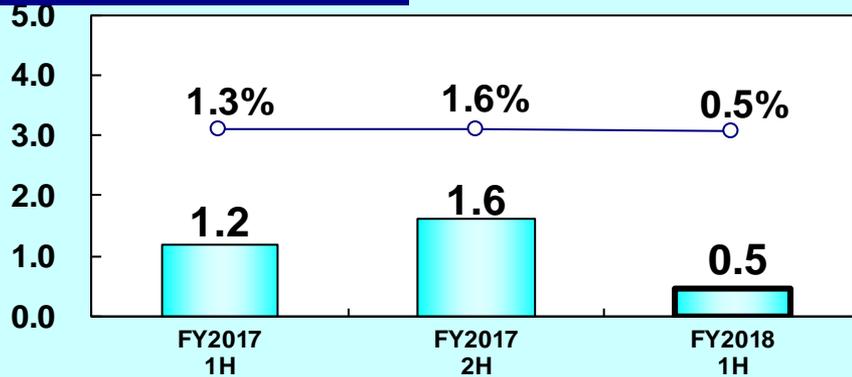
Net Sales



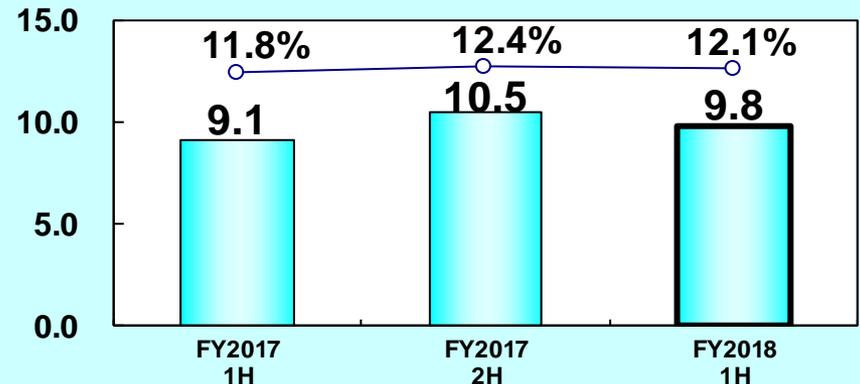
Net Sales



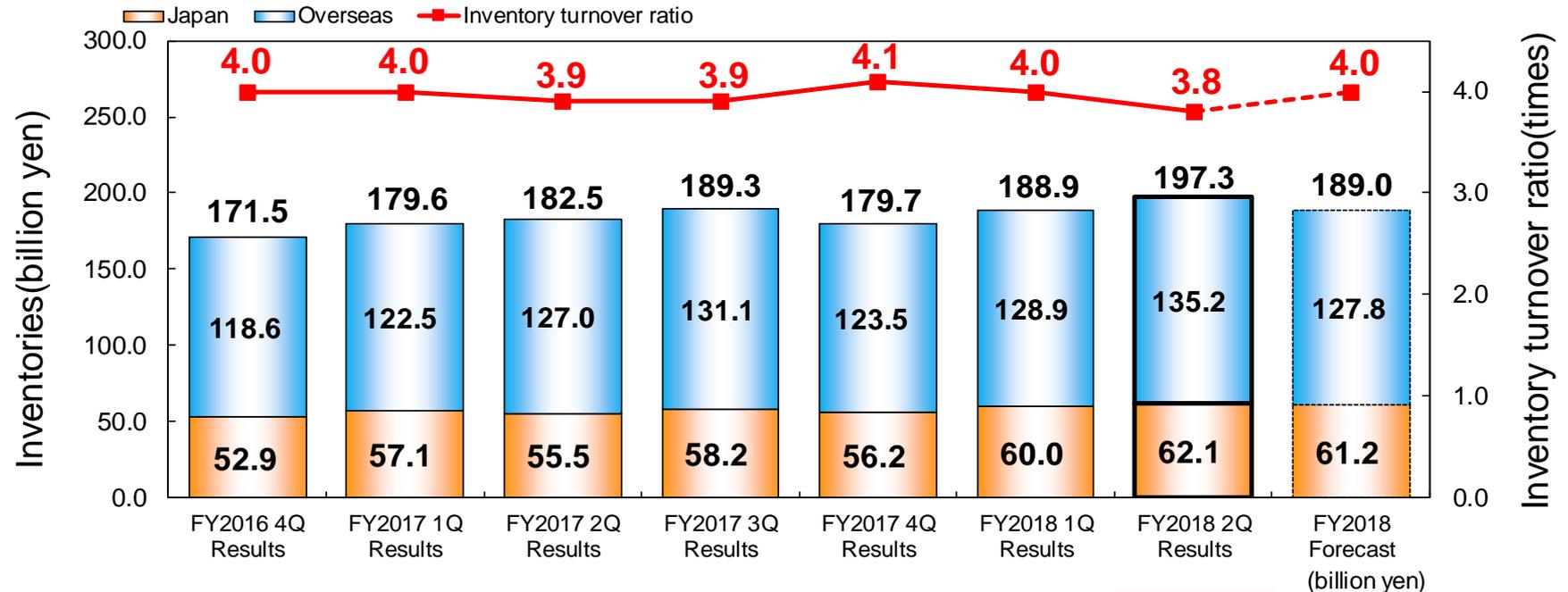
Operating Income



Operating Income

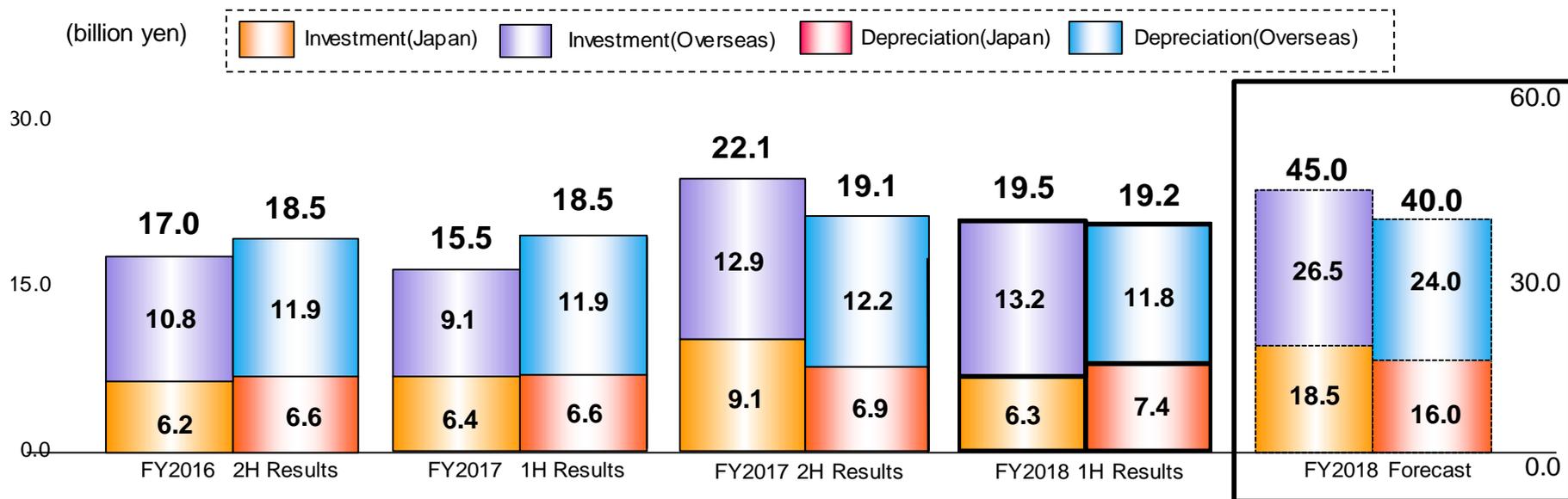


7. Inventories



	FY2016 4Q Results	FY2017 1Q Results	FY2017 2Q Results	FY2017 3Q Results	FY2017 4Q Results	FY2018 1Q Results	FY2018 2Q Results	FY2018 Forecast
Inventories	171.5	179.6	182.5	189.3	179.7	188.9	197.3	189.0
(Overseas)	(118.6)	(122.5)	(127.0)	(131.1)	(123.5)	(128.9)	(135.2)	(127.8)
(Japan)	(52.9)	(57.1)	(55.5)	(58.2)	(56.2)	(60.0)	(62.1)	(61.2)
Inventory turnover ratio (times)	4.0	4.0	3.9	3.9	4.1	4.0	3.8	4.0

8. Capital Expenditure and Depreciation



	FY2016 2H Results	FY2017		FY2018 1H Results②	②-①
		1H Results①	2H Results		
Capital expenditure	17.0	15.5	22.1	19.5	3.9
(Overseas)	(10.8)	(9.1)	(12.9)	(13.2)	(4.1)
(Japan)	(6.2)	(6.4)	(9.1)	(6.3)	(-0.2)

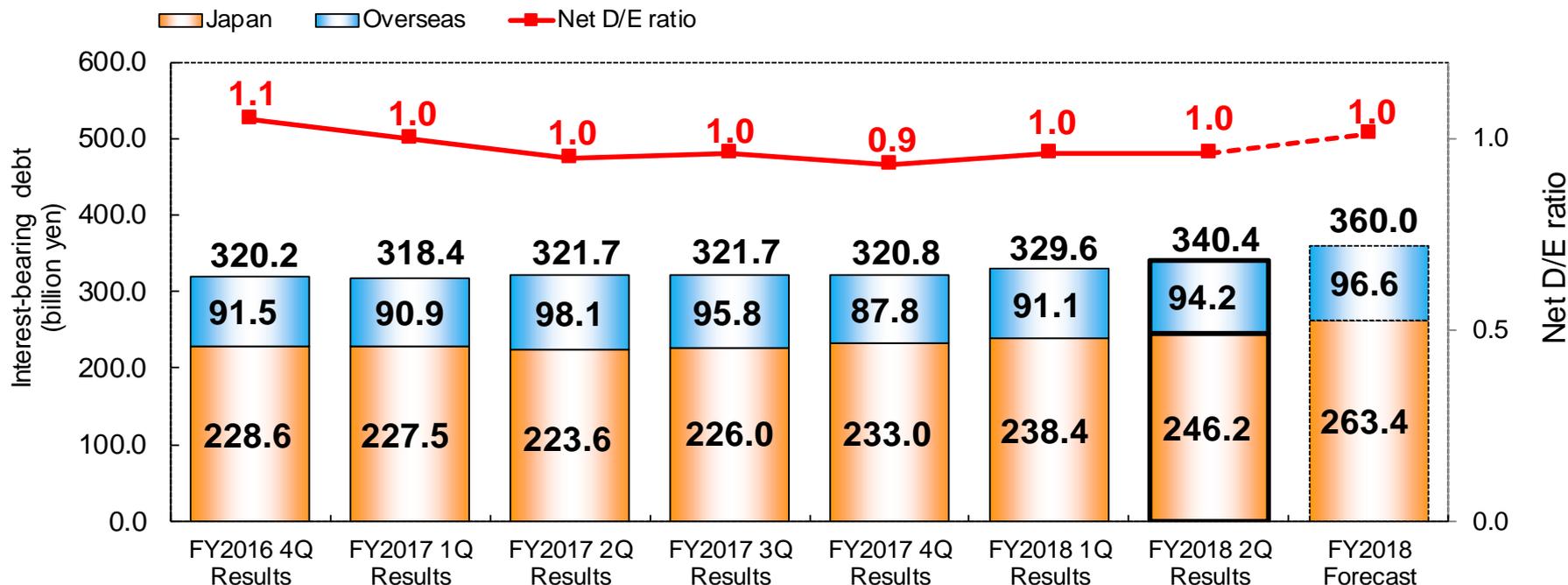
	FY2016 2H Results	FY2017		FY2018 1H Results②	②-①
		1H Results①	2H Results		
Depreciation	18.5	18.5	19.1	19.2	0.7
(Overseas)	(11.9)	(11.9)	(12.2)	(11.8)	(-0.1)
(Japan)	(6.6)	(6.6)	(6.9)	(7.4)	(0.8)

(billion yen)

FY2018 Forecast
45.0
(26.5)
(18.5)

FY2018 Forecast
40.0
(24.0)
(16.0)

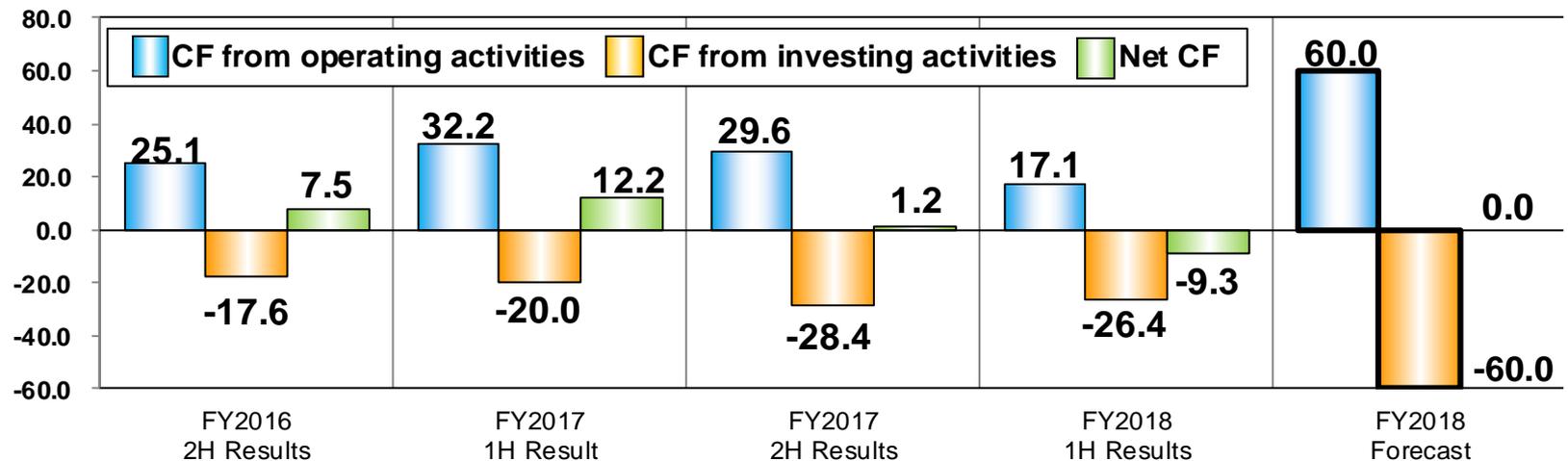
9. Interest-Bearing Debt



	FY2016 4Q Results	FY2017 1Q Results	FY2017 2Q Results	FY2017 3Q Results	FY2017 4Q Results	FY2018 1Q Results	FY2018 2Q Results	FY2018 Forecast
Interest-bearing debt (billion yen)	320.2	318.4	321.7	321.7	320.8	329.6	340.4	360.0
(Overseas)	(91.5)	(90.9)	(98.1)	(95.8)	(87.8)	(91.1)	(94.2)	(96.6)
(Japan)	(228.6)	(227.5)	(223.6)	(226.0)	(233.0)	(238.4)	(246.2)	(263.4)
Net Interest-bearing debt	240.9	239.2	234.8	247.2	234.7	244.0	252.7	264.0

10. Cash Flows

(billion yen)	FY2016	FY2017		FY2018	FY2018	②-①
	2H Results	1H Results①	2H Results	1H Results②	Forecast	
I . Cash flow from operating activities	25.1	32.2	29.6	17.1	60.0	-15.1
II . Cash flow from investing activities	-17.6	-20.0	-28.4	-26.4	-60.0	-6.4
I + II . Net cash flow	7.5	12.2	1.2	-9.3	0.0	-21.5
III . Cash flow from financing activities	4.7	-5.3	-2.2	11.8	11.0	17.2
IV . Effect of exchanging rate translation on cash and cash equivalents	1.6	0.7	0.2	-0.9	-1.0	-1.6
V . Net increase in cash and cash equivalents	13.7	7.6	-0.8	1.6	10.0	-6.0



I . Outline

II . Financial Results for First Half and
Forecast for FY2018

III . Initiatives of “DRIVE NTN100”

Outline of Medium-term Management Plan

“DRIVE NTN100”

Initiatives for Realizing Our Vision



NTN in 10 years

NTN in 10 years

Transform from a "Manufacturing Company" into a "Company that Delivers Value to Customers through Products and Services"

Numerical targets

Net sales: 1 trillion yen or more
 Operating income to sales: 10% or more
 Total assets turnover: 1.0 or more
 Foreign exchange sensitivity:
 To be halved from the current level

Changes in external environment

Automotive industry: A change that occurs only once a century (CASE)
 Overall industry: IoT, robotization, and AI
 Social issues: Population increase, climate change, resource depletion, poverty, starvation, etc. (SDGs)



“DRIVE NTN100” (April, 2018-March, 2021)

Accelerating Initiatives in the Next 3 Years towards target 10 years later



Points focused in 3 years

To strengthen management bases that support our businesses

- 1. Variable cost reformation**
- 2. Structural Reforms for Man-hours and Resource**
Smart Manufacturing (utilize IoT, AI and Robot)
Robotization in backoffice Dept.(introduce RPA)
- 3. Enhance SCM and Concentrated Investment**
Utilize new core IT system, efficient stock management and shortening LT, Intensively invest in high-value-added products

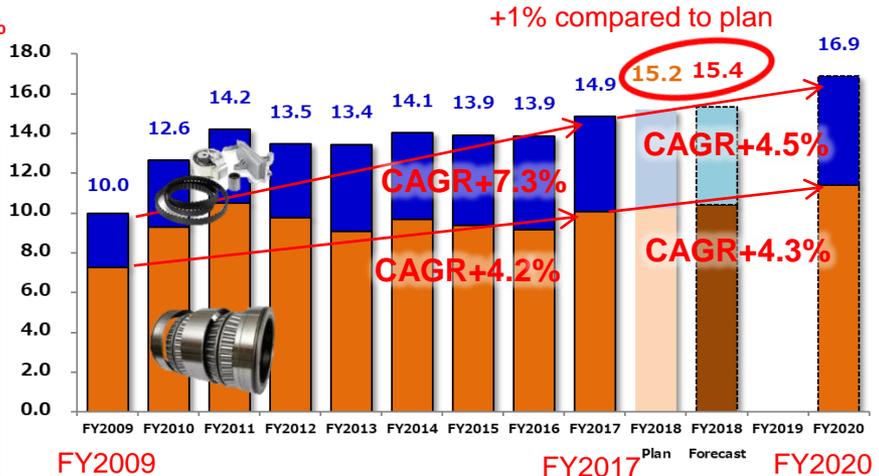
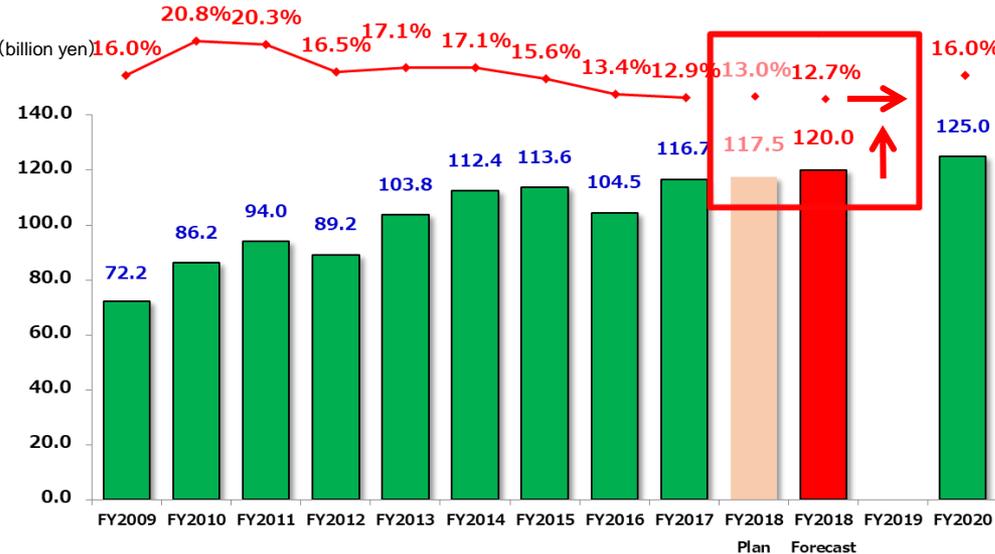
“DRIVE NTN100”: Financial Summary of Aftermarket Business and Initiatives for Future

Sales: Increased compared to the plan of first year of medium-term due to strengthened service and demand for commercial product and aftermarket

Income : Ensure the profit of the plan of first year of medium-term due to the improved sales price although there is the material price rising and deterioration of productivity caused by tight supply-demand balance

Summary of aftermarket business

Transition in physical quantity by location



Initiatives of “DRIVE NTN100”

1. Continue to strengthen technical services including maintenance
2. Establish production system which is not affected by variation of OEM business

Transform from a “Manufacturing Company” that provides bearings into a “Company that Delivers Value to Customers” that provides services
→ Utilize sensing technology for industrial machinery business

Aftermarket bearing

MRO

Check & Repair business

2018/11/5



Aug.: Start production of precision bearings in Germany



Oct.: Start delivering tapered roller bearing made in Italy to U.S



Nov.: Develop Handy Type Failure Detection Device II



Expand sales by strengthening technical service and prompt delivery system

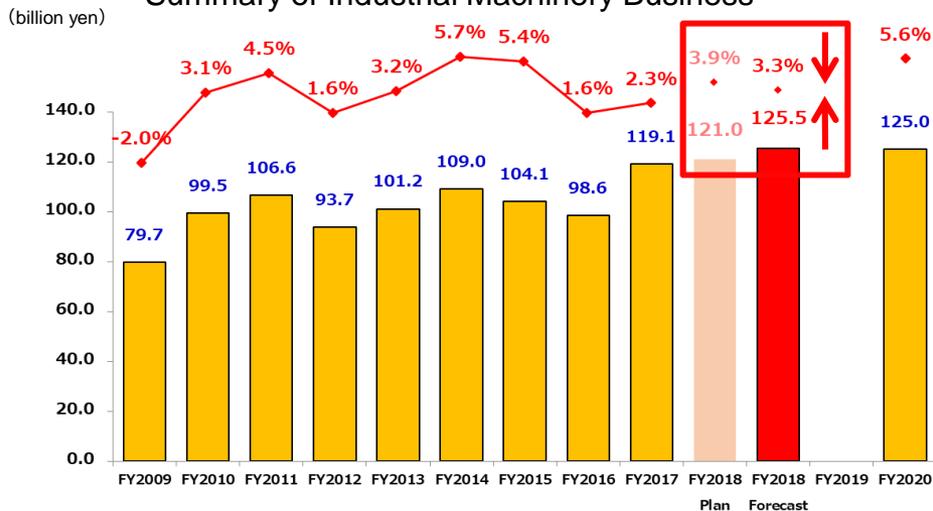
“DRIVE NTN100”:

Financial Summary of Industrial Machinery Business and Trend of main business

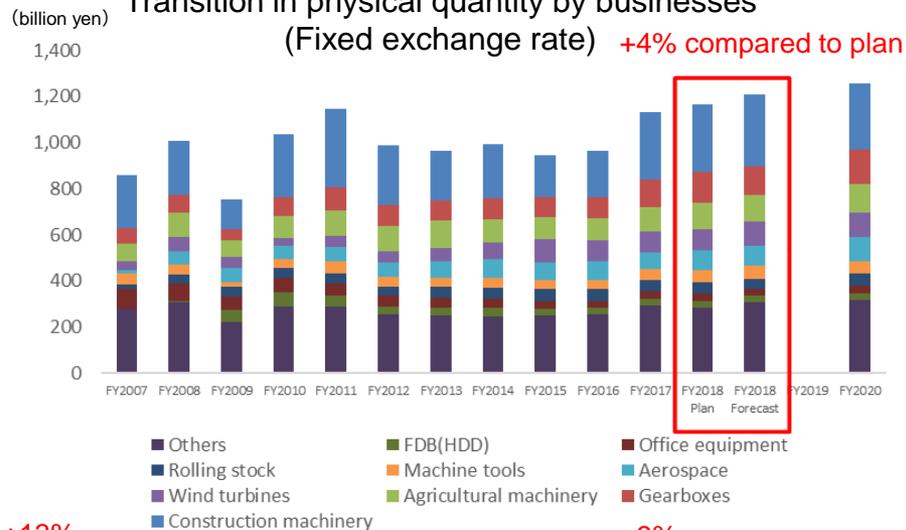
Sales: increased compared to compared to the plan of first year of medium-term for construction and agricultural machinery, wind turbine and machine tools, etc.

Income: decreased compared to the plan of first year of medium-term due to the steel and material price soring and deterioration of productivity caused by tight supply-demand balance although the sales price improved

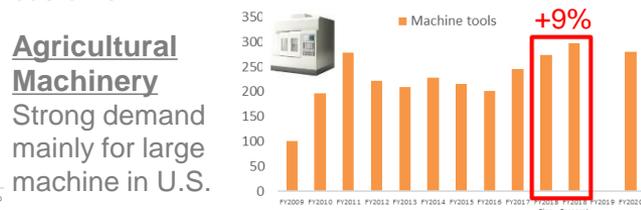
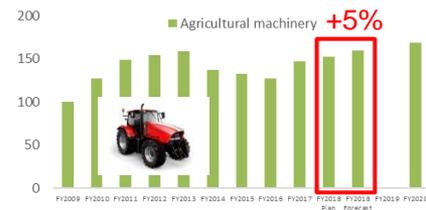
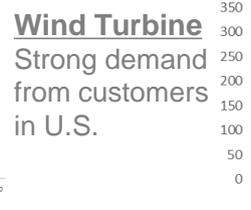
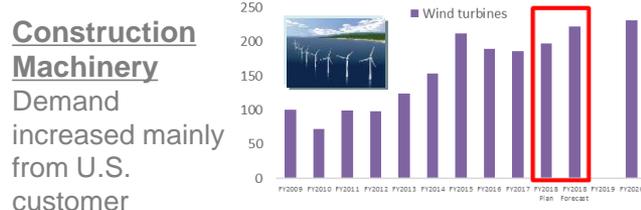
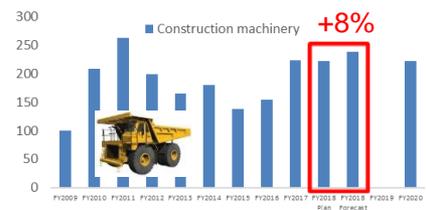
Summary of Industrial Machinery Business



Transition in physical quantity by businesses



Transition in physical quantity by businesses(indexation)



Strengthen procurement management system
Profit improvement by efficient productivity

“DRIVE NTN100”: Financial Summary of Industrial Machinery Business and Initiatives for Future

Initiatives of “DRIVE NTN100”

1. Further development of core technologies;
development of high-performance products
2. Develop businesses in new areas
Robot related business(Robotics)
Service, solution business

Become a company that customers in the industrial machinery market rely on most for its exceptional technological competence

Respond changes in external environment

- Spread of IoT and utilization of AI
- Increased demand of robot related business
- Prevention by monitoring



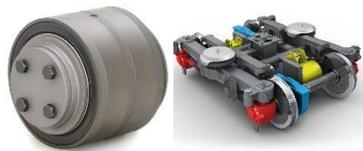
1. Further development of core technologies:
development of high-performance products

Accelerate development of products utilizing
NTN unique technology



Angular Contact Ball Bearing for High-Speed and Heavy-Cutting Machine Tools

Realize both high-speed rotational performance and load resistance
Enable one machine tool to conduct rough processing to finish processing



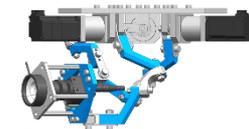
Short Type Sealed Journal Bearing Unit

For shorter journal and reducing journal bending
Contribute to safe and comfortable driving of rolling stock

2. New areas:
Robot related business and Service, solution business

Robot related business :

Labor-saving applications using wrist joint modules



i-WRIST™ equipped with camera enables automation of visual inspection conducted by human

Service,solution: Intergrated sensor enables to prevent seizing



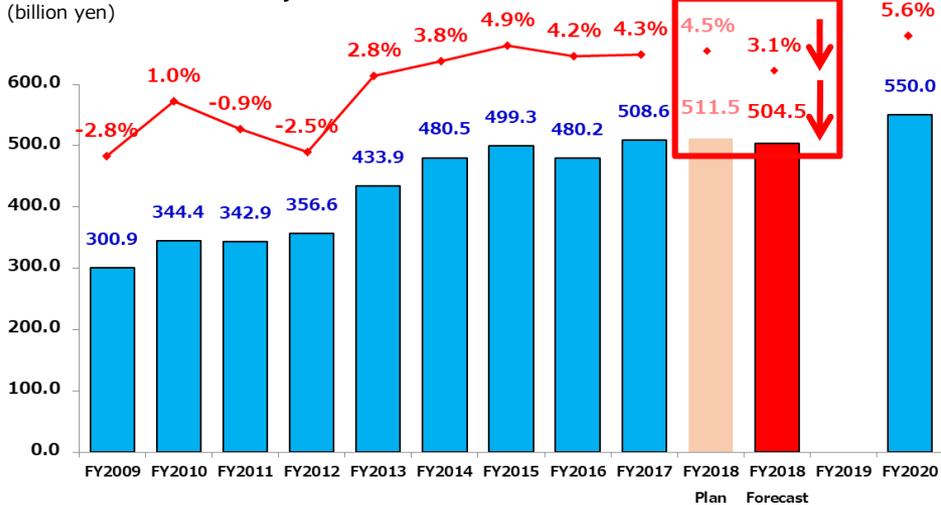
Sensor Integrated Bearing Unit

Sensor Integrated Bearing Unit measures temperature, vibration and heat flux
Advanced condition monitoring and prevent bearing seizing

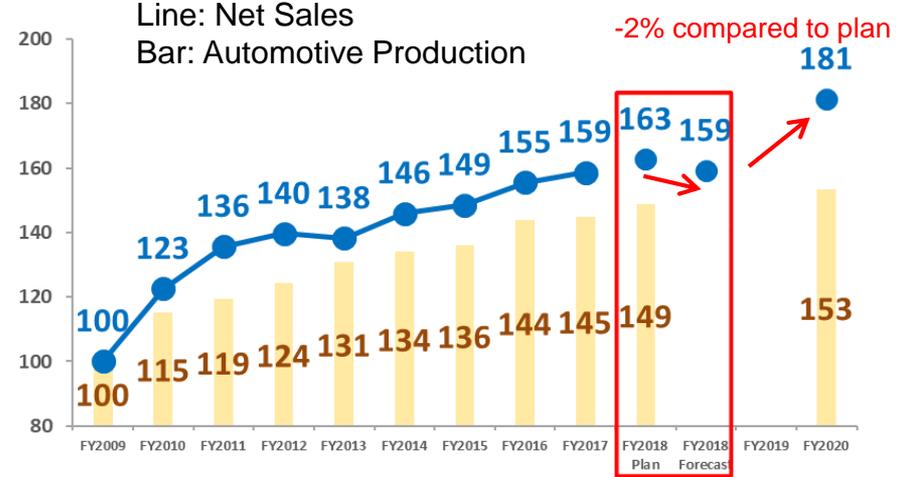
“DRIVE NTN100”: Financial Summary of Automotive Business and Trend of Each Area

Sales: demand decreased in China due to backlash of tax reduction for small-size car. In Europe, demand also decreased compared to the plan of first year of medium-term due to economic sanction on Iran in U.S. and WLTP
Income: decreased compared to the plan due to increase of cost caused by tariff and to the steel and material price soaring

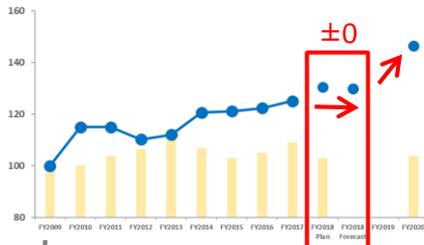
Summary of automotive Business



Net sales & automotive production(indexation)

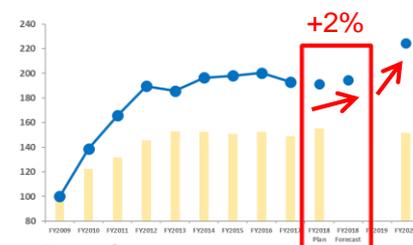


Net sales & automotive production (indexation) by business areas



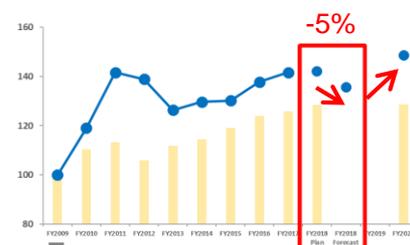
Japan

Recovery from effect of natural disasters completed in 2nd half of the year and light weight cars and new models remains strong



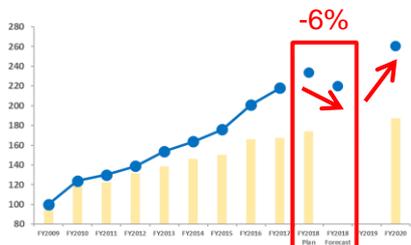
Americas

Demand for sedan decreased but demand for EVs and large-size SUV and Pickup increased well



Europe

Decreased due to WLTP and economic sanction on Iran and stagnant shift from diesel to gas vehicle



Asia & others

ASEAN growth well. In India, sales decreased due to postpone of SOP on new models

“DRIVE NTN100”: Financial Summary of Automotive Business and Initiatives for Future

Initiatives of “DRIVE NTN100”

1. Strengthen core technologies and products :
Become the world's top maker of drive-train systems (including EVs)
2. Develop businesses in new areas:
Respond to electrification and EVs

As an indispensable presence for the automotive market, NTN will become a company that offers products and services for vehicles all over the world

Respond changes in external environment

• Electrification/EV/Automatic driving

Conected
Autonomous
Shared
Electric



• Increase of global automotive production (population growth)

1. Strengthen core technologies and products

Accelerate development of products which contribute to low friction and weight saving



CFJ-W

World's highest maximum operating angle capability of 55° approximately
50% reduction in torque loss ratio
Contribute to a smaller minimum turning radius of FF vehicle and low fuel consumption



Low Friction Hub Bearing II

Reduces rotational friction by 50% compared to conventional products without affecting muddy water resistance
Improves fuel efficiency of vehicle by approximately 0.42%

2. New area: Respond to electrification and EVs

Expand electric device products



Electric motor and actuator



sHUB

Develop the products which respond to electrification of vehicle motion control
Contribute to vehicle stabilization and low fuel consumption



eHUB

Expand core products for EVs



Adoption of NTN Core products, hub bearing & driveshaft in EV manufacturer increased
Contribute with Low torque, high rigidity, high efficiency

“DRIVE NTN100”: Initiatives to strengthen management bases

Initiatives of “DRIVE NTN100”

1. Variable cost reformation
2. Structural reform of man-hours and resources
3. Enhanced SCM and concentrated investment

Robust management foundation

- Improve profitability
- Business expansion without the need for additional workforce
- Improve efficiency in asset management

1. Variable cost reformation

Establish Procurement HQ. in April

Expand production capability
Build supply chain to support to utilize external production capability
Reduce external procurement cost



2. Structural reform of man-hours and resources

Smart Manufacturing (Robotization)



Utilize IoT, AI and Robot in manufacturing to halve delivery time of prototype and reduce LT by one third (Wakayama Works)

Robotization in backoffice dept.(introduce RPA)

Introduce RPA in HQ. and Technical dept.

Promote to apply with business reform

Establish CAE R&D Center in October

Introduce latest CAE Technology

Quickly respond to customers by making designing and experiment more efficient

3. Enhanced SCM and concentrated investment

Renew core IT system and strengthen SCM

System for Human resource, finance and

technical information control already operated

System for SCM will be also operated (in 2nd half of FY2018)
Promote LT Reduction and efficient inventory asset

Intensively investing management resources in processes in which our technical strengths can be demonstrated

Intensively invest in high-value-added products

- Reorganization of production system in Kuwana works
- Establish integrated production system in Hokuriku region
- Reorganization of production system of radial bearing (Wakayama works)
- Reorganization of production system in Europe area(France)

Target of Variable cost reformation

3rd year: 3 billion yen on top of conventional cost reductions

10th year: 30 billion yen on top of conventional cost reductions

Target of reductions

in personnel expense in 3 years

Manufacturing dept. : 1 billion yen

Technical or managing dept. : 0.5 billion yen

Initiatives for ESG

NTN is working on ESG issues through the implementation of its corporate philosophy, contributing to the realization of a sustainable society

Environmental

- ✓ Develop innovative technologies, products, and services
- ✓ Reduce environmental burdens
- ✓ Prevent global warming

Green Energy Business

NTN Micro Hydro Turbine large-scale construction work to develop the water level difference and generate power in water channel



Received 2018 Nikkei Global Environmental Technology Awards (Award for Excellence)

Social

- ✓ Social contribution activities
- ✓ Coexistence with local communities
- ✓ Work style reform



"NTN Rotating School" Environmental education to the next generation



Support for function recovery of students with disabilities



Safety and Health Act ISO45001 obtained in Japan Establish EHS(Environment, Health & Safety) Integrated Managing Dept.

Governance

- ✓ Strengthen and enhance corporate governance
- ✓ Risk management
- ✓ Promote compliance



CSR Global Meeting

Supplier Meeting Promote CSR procurement



Responding to social issues

UN Global Compact -

Ten principles in four areas: human rights, labor, environment, and anti-corruption

Sustainable Development Goals (SDGs) -

Business activities in consideration of SDGs



Adopted in the SRI indices

Promote the disclosure of ESG information



NTN is a company selected in the ESG indices adopted by the GPIF

Key Management Indicators of “DRIVE NTN100”



		FY2017 Results	FY2018 Forecast	DRIVE NTN100	
				FY2018 Plan	FY2020 Target
Net Sales		¥744.4 billion	¥750.0 billion	¥750.0 billion	¥800.0 billion
Operating Income		¥39.6 billion	¥35.0 billion	¥43.0 billion	¥57.0 billion
Operating Margin		5.3%	4.7%	5.7%	7.1%
Net Income		¥20.4 billion	¥15.0 billion	¥21.0 billion	¥30.0 billion
Capital expenditure		¥37.6 billion	¥45.0 billion	¥55.0 billion	¥170.0 billion/3 years (incl. intangible ¥20.0 billion)
FCF		¥13.4 billion	¥0.0 billion	¥0.0 billion	¥45.0 billion/3 years
Inventory turnover ratio		4.1 times	4.0 times	4.0 times	4.5 times
Net D/E ratio		0.9	1.0	1.0	1.0 or less
Equity to capital ratio		30.2%	29.0%	29.5%	30% or more
ROE		8.4%	5.8%	8.1%	10.0% or more
NTN-ROI*		5.7%	4.8%	5.9%	7.5% or more
Dividends		¥15.0	15.0円	¥15.0	¥15.0 or more
Exchange rates	USD	¥110.8	¥108	¥105	¥110
	Euro	¥129.6	¥130	¥130	¥115

*NTN-ROI = Net operating income after tax / (Inventories + tangible fixed assets)

Target of “DRIVE NTN100” by business sector

	Revival 2014 FY2014	NTN100 FY2017			DRIVE NTN100 FY2020	
	Results ①	Plan	Results ②	②vs① excl. Forex	Plan ③	③vs② excl. Forex
Net Sales	¥701.9 billion	¥800.0 billion	¥744.4 billion	+9%	¥800.0 billion	+12%
Automotive	¥480.5 billion	¥530.0 billion	¥508.6 billion	+9%	¥550.0 billion	+13%
Industrial Machinery	¥10.9 billion	¥120.0 billion	¥119.1 billion	+12%	¥125.0 billion	+11%
Aftermarket	¥112.4 billion	¥150.0 billion	¥116.7 billion	+7%	¥125.0 billion	+13%
Operating Income	¥43.9 billion	¥70.0 billion	¥39.6 billion	-2%	¥57.0 billion	+68%
Automotive	¥18.4 billion	¥32.0 billion	¥21.8 billion	+32%	¥30.0 billion	+62%
Industrial Machinery	¥6.3 billion	¥9.0 billion	¥2.8 billion	-48%	¥7.0 billion	+368%
Aftermarket	¥19.2 billion	¥29.0 billion	¥15.0 billion	-20%	¥20.0 billion	+47%
Operating Margin	6.2%	8.8%	5.3%	-0.6pt	7.1%	+2.4pt
Automotive	3.8%	6.0%	4.3%	+0.8pt	5.5%	+1.7pt
Industrial Machinery	5.7%	7.5%	2.3%	-3.1pt	5.6%	+3.9pt
Aftermarket	17.1%	19.3%	12.9%	-4.3pt	16.0%	+3.6pt
Net Income	¥23.4 billion	¥42.0 billion	¥20.4 billion	-	¥30.0 billion	-
Exchange rates	USD=¥109.8	USD=¥110	USD=¥110.9	-	USD=¥110	-
	Euro=¥138.7	Euro=¥130	Euro=¥129.6	-	Euro=¥115	-

**DRIVE
NTN100**



For New Technology Network

NTN®

NTN corporation

Digitalization, **R**esources, **I**nnovation, **V**ariable cost reformation, **E**fficiency improvement
NTN Transformation for **N**ew **100**years

(Reference) Aftermarket Business :

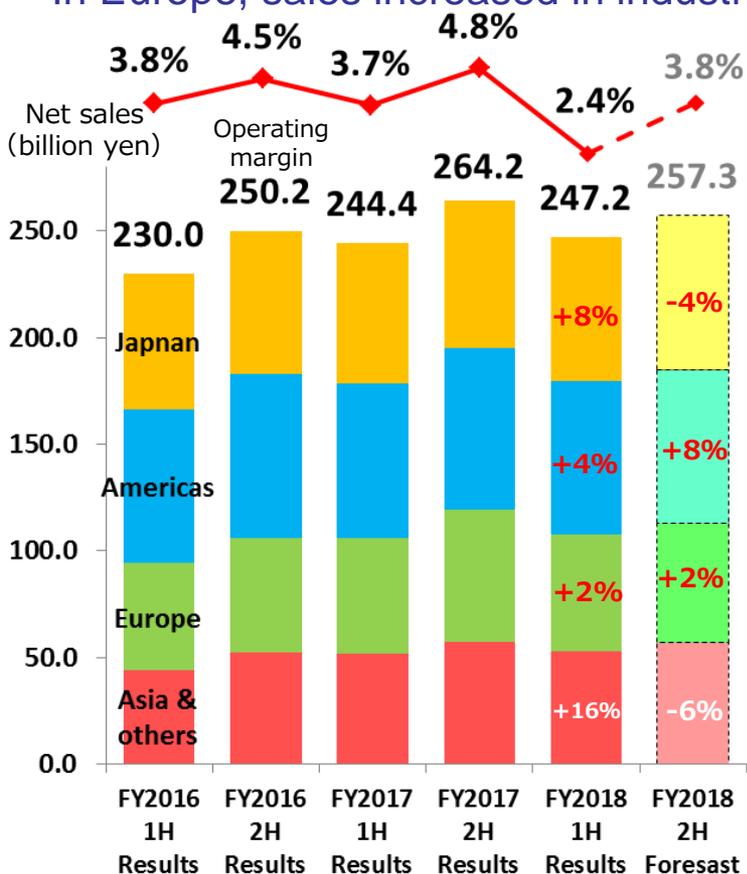
Result for the First Half and Forecast for the Second Half



<Results for FY2018 1st Half (compared with FY2017 1st Half)>

Net sales: ¥61.1 billion (+8.6%), Operating income: ¥7.8 billion (+14.6%)

- In Japan, sales increased in industrial machinery aftermarket.
- In Americas, Asia and others, sales increased in industrial machinery aftermarket and auto parts.
- In Europe, sales increased in industrial machinery aftermarket.



<Forecast for FY2018 2nd Half (compared with FY2017 2nd Half)>

Japan	Decrease machine tools aftermarket
Americas	Steady sales for major distributors in industrial machinery aftermarket. Increase auto parts.
Europe	Increase sales mainly for major distributors in industrial machinery aftermarket. Steady sales for auto parts.
Asia and others	Short of stock due to increasing sales. Decrease sales due to increasing demands exceeding the supply.

(Reference) Industrial machinery Business :

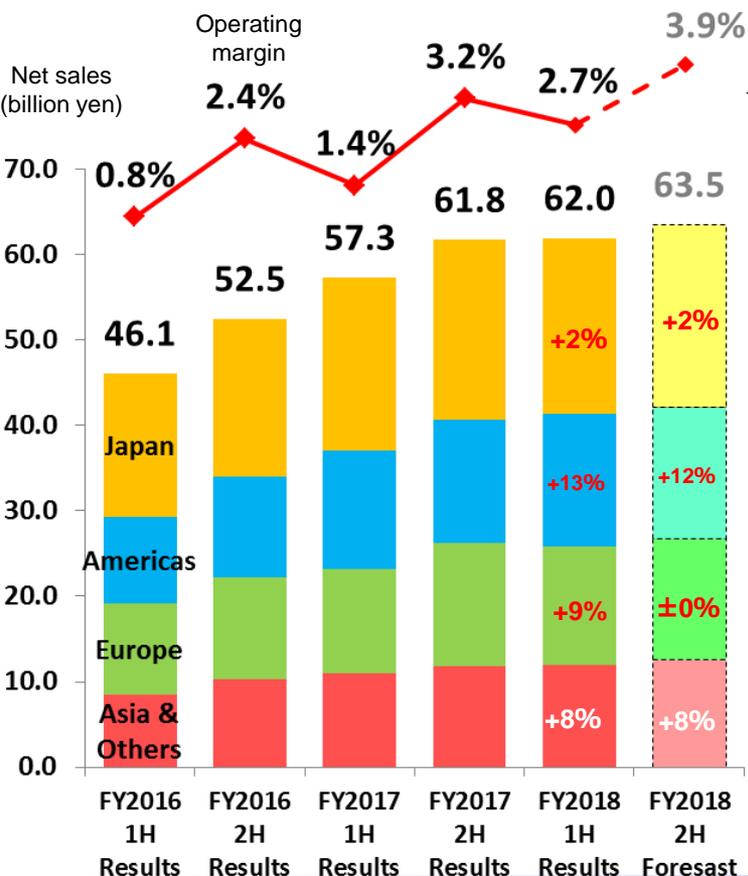
Result for the First Half and Forecast for the Second Half



<Results for FY2018 1st Half (compared with FY2017 1st Half)>

Net sales: ¥62.0 billion (+8.1%), Operating income: ¥1.6 billion (+98.4%)

- Strong demand for construction machinery increased sales in all regions.
- Sales increased for wind turbines in Americas, and aerospace in Europe.



<Forecast for FY2018 2nd Half (compared with FY2017 2nd Half)>

Japan	Steady demand for construction machinery will continue. Increase in aerospace reflecting projects for helicopters and new jet engines.
Americas	Increase demand for wind turbines. Sales for agricultural machinery reflecting recovery of demand.
Europe	Increase demand for new model in aerospace. Increase demand for construction machinery and related machinery.
Asia and others	Increase in construction machinery in Asia. Increase demand for wind turbines in China.

(Reference) Automotive Business :

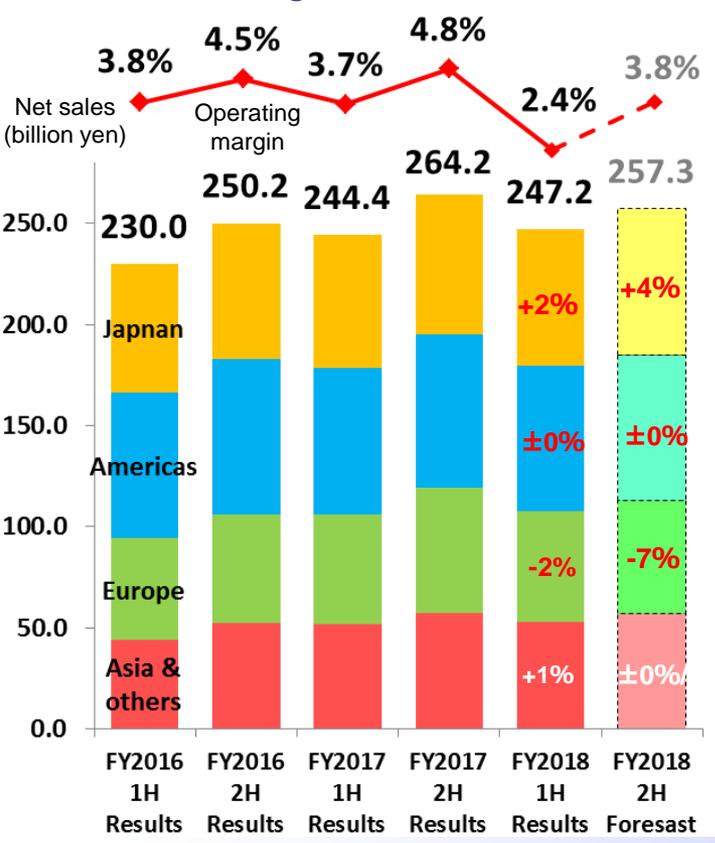
Result for the First Half and Forecast for the Second Half



<Results for FY2018 1st Half (compared with FY2017 1st Half)>

Net sales: ¥247.2 billion (+1.1%), Operating income: ¥5.9 billion (-35.7%)

- In spite of natural disaster in Japan, sales increased thanks to strong sales of vehicle using NTN products.
- Sales decreased due to stagnant shift from diesel to gas vehicle economic sanction on Iran and new exhaust gas measurement standard



<Forecast for FY2018 2nd Half (compared with FY2017 2nd Half)>

Japan	Sales increased due to production of new models start and production recovery from natural disasters
Americas	Although there is end of production of main models, Sales remains because EV products grow well and new models in NTN Mexico
Europe	Sales decreased due to decreased demand for diesel vehicle, economic sanction on Iran and production adjustment caused by new exhaust gas measurement
Asia and others	Sales in ASEAN grow well for automobile and motorcycle. However sales remains because of due to backlash of tax reduction for small-size car