

NTN

**Consolidated Financial
Results
for FY2018**



**May 20, 2019
NTN Corporation**

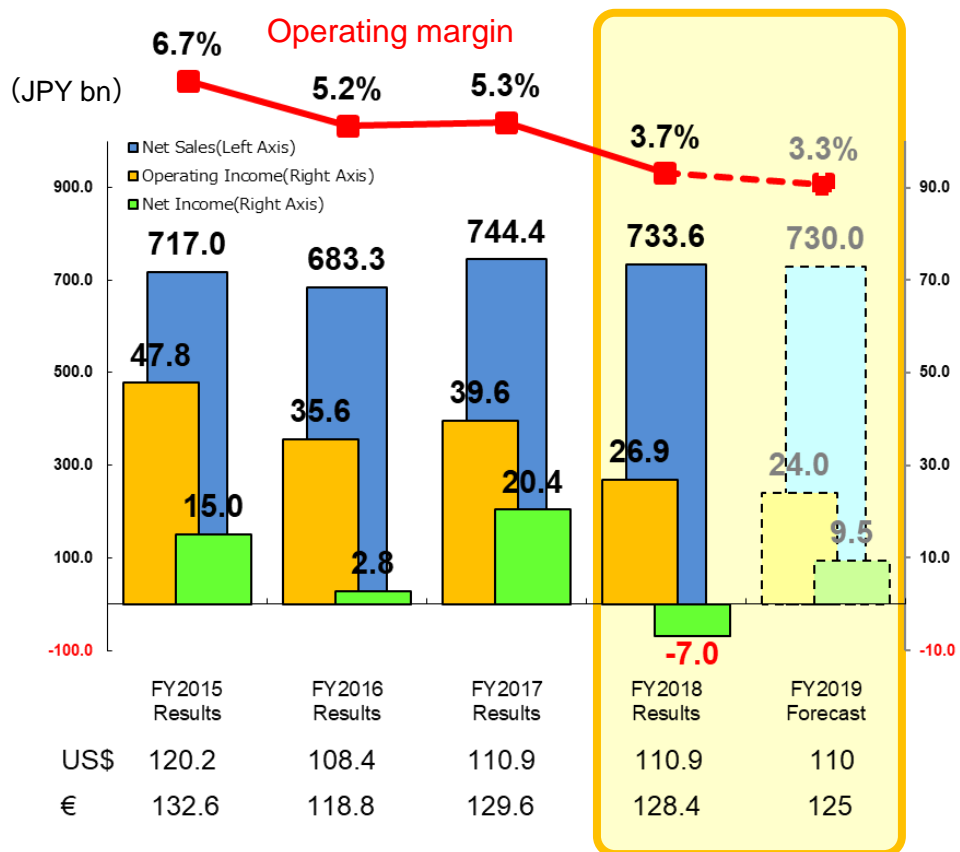
- I . Outline
- II . Financial Results for FY2018 and Forecast for FY2019
- III . Initiatives of “DRIVE NTN100”

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- 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.

Outline: Trends in consolidated financial results

FY2018: Despite strong demand for industrial machinery and aftermarkets, sales and profits declined due to the impact of additional tariffs and decreased in automotive demand and soaring steel materials.

FY2019: Sales and profits will be declined due to a deterioration in the demand environment and upfront investments in IT core systems and Wakayama Works. However, the company is working to improve profitability by reducing costs and other measures, and plans to pay a dividend of annual ¥15, the same amount as in FY2018.



FY2018 results Figures in brackets are FY2017 results

Net Sales: **¥733.6bn** (¥744.4bn)

YoY-1.5%, Volume -0.9%

Operating Income: **¥26.9bn** (¥39.6bn)

YoY-32.0%, Volume -29.5%

Extraordinary Losses: **¥19.3bn** (¥4.3bn)

Net Income: **¥7.0bn** (¥20.4bn)

Year-end Dividend: **year-end ¥7.5 * Annual ¥15.0**

FY2019 forecast

Net Sales: **¥730.0bn** YoY-0.5%, Volume +0.7%

Operating Income: **¥24.0bn** YoY-10.9%, Volume -5.9%

Net Income: **¥9.5bn**

Factored in ¥4.5bn in extraordinary losses

Annual Dividend: **Interim ¥7.5, year-end ¥7.5**

***Annual ¥15.0**

FY2018 results

Net Sales:

¥733.6bn

Operating Income:

¥26.9bn

Ordinary Income:

¥22.2bn

Extraordinary Losses:

-¥19.3bn

Pretax Income:

¥2.9bn

Net Income:

-¥7.0bn

① **An impairment loss of ¥17.0bn. Total extraordinary losses of ¥19.3bn were recorded.**

An impairment loss of ¥17.0bn on the assets of domestic manufacturing facilities and domestic manufacturing subsidiaries fixed assets were reduced in view of deteriorating demand and low growth in Japan.

② **Increased tax expense because the company could not record tax effects mainly for impairment losses**

Net income was negative (-¥7.0bn) after recording tax expenses of ¥9.1bn.

Despite severe financial results, operating income and ordinary income were profitable, and the Company maintained the amount of dividends based on a policy of stable dividends from a medium-term perspective.

Interim ¥7.5, year-end ¥7.5 (annual ¥15)

Focus on improving earnings and generating free cash flow.

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★Financial Results for FY2018 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 & Others
7. Inventories
8. Capital Expenditure and Depreciation
9. Interest-Bearing Debt
10. Cash Flows

Financial Results for FY2018 : Key Factors

FY2018 Results

- ◇ Net sales: **¥733.6bn**, a **-¥10.8bn** decrease year-on-year
(Excl. forex, decrease **-¥6.8bn**)
- ◇ Operating income: **¥26.9bn**, a **-¥12.7bn** decrease year-on-year
(Excl. forex, decrease **-¥11.7bn**)
- ◇ Extraordinary income/loss: **-¥19.3bn**
- ◇ Net income: **¥-7.0bn**, **-¥27.3bn** decrease year-on-year
- ◇ Planned fiscal year-end dividend of **¥7.5** (Annual: **¥15**)

FY2019 Forecast

- ◇ Net sales: **¥730.0bn**, a **-¥3.6bn** decrease year-on-year
- ◇ Operating income: **¥24.0bn**, a **-¥2.9bn** decrease year-on-year
- ◇ Extraordinary income/loss: **-¥4.5bn**
- ◇ Net income: **¥9.5bn**, **+¥16.5bn** increase year-on-year
- ◇ Dividends: Plan for annual dividend of **¥15 yen** (Annual)
- ◇ Exchange rates: 1US\$ = **¥110**, 1EURO = **¥125**

1. Consolidated Statements of Operation



(billion yen)

		FY2017	FY2018	FY2019	Year on year					
		Results	Results	Forecast	FY2018 ②-①			FY2019 ③-②		
		①	②	③	Total	Volume	Forex	Total	Volume	Forex
Net sales		744.4	733.6	730.0	-10.8	-6.8	-4.0	-3.6	5.5	-9.1
Operating income		39.6	26.9	24.0	-12.7	-11.7	-1.0	-2.9	-1.6	-1.3
Operating margin		(5.3%)	(3.7%)	(3.3%)	(-1.6%)			(-0.4%)		
Ordinary income		31.3	22.2	18.0	-9.0	-8.1	-0.9	-4.2	-2.9	-1.3
Extraordinary income/loss		-4.3	-19.3	-4.5	-14.9	-15.0	0.0	14.8	14.8	0.0
Net income attributable to shareholders (parent company)		20.4	-7.0	9.5	-27.3	-26.7	-0.6	16.5	17.4	-0.9
Exchange rate	US \$	110.8	110.9	110.0	0.0		0.0	-0.9		-0.9
	EURO	129.6	128.4	125.0	-1.2		-1.2	-3.4		-3.4

2. Net Sales by Region



(billion yen)

	FY2017	FY2018	FY2019
	Results ①	Results ②	Forecast ③
Japan	204.3	207.2	209.5
Americas	201.7	201.5	194.0
Europe	175.6	167.8	169.5
Asia and others	162.8	157.0	157.0
Total	744.4	733.6	730.0

Year on year					
FY2018 ②-①			FY2019 ③-②		
Total	Volume	Forex	Total	Volume	Forex
2.9	2.9	-	2.3	2.3	-
-0.2	0.8	-1.0	-7.5	-5.0	-2.4
-7.8	-6.2	-1.6	1.7	5.3	-3.7
-5.7	-4.3	-1.4	-0.0	2.9	-2.9
-10.8	-6.8	-4.0	-3.6	5.5	-9.1

3. Net Sales and Operating Income by Business Sector

< Net Sales by Business Sector >

(billion yen)

	FY2017 Results ①	FY2018 Results ②	FY2019 Forecast ③
Aftermarket	116.7	118.8	121.0
Industrial machinery	119.1	123.4	121.0
Automotive	508.6	491.3	488.0
Total	744.4	733.6	730.0

Year on year					
FY2018 ②-①			FY2019 ③-②		
Total	Volume	Forex	Total	Volume	Forex
2.2	2.7	-0.6	2.2	3.7	-1.6
4.3	4.8	-0.5	-2.4	-1.0	-1.4
-17.3	-14.3	-3.0	-3.3	2.7	-6.0
-10.8	-6.8	-4.0	-3.6	5.5	-9.1

< Operating Income by Business Sector >

(billion yen)

	FY2017 Results ①	FY2018 Results ②	FY2019 Forecast ③
Aftermarket	15.0	15.2	16.0
Industrial machinery	2.8	3.1	4.0
Automotive	21.8	8.7	4.0
Total	39.6	26.9	24.0

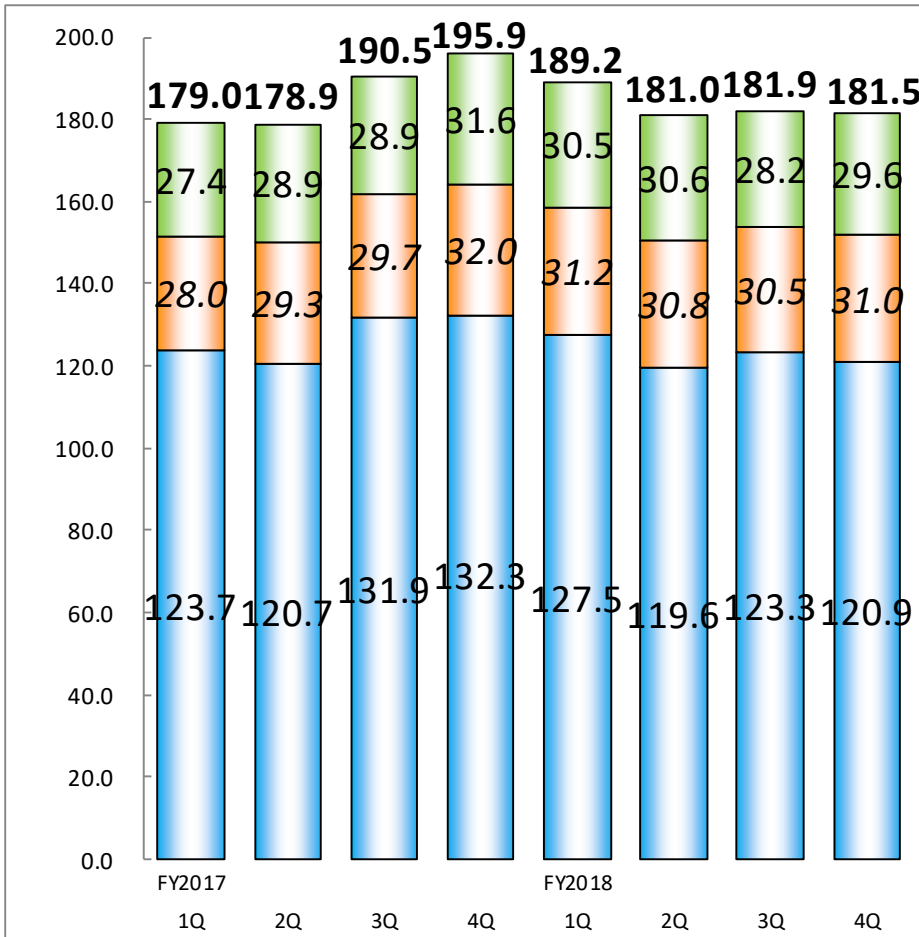
Year on year					
FY2018 ②-①			FY2019 ③-②		
Total	Volume	Forex	Total	Volume	Forex
0.2			0.8		
0.3			0.9		
-13.1			-4.7		
-12.7			-2.9		

4. Results by Business Sector (Quarterly Trend)

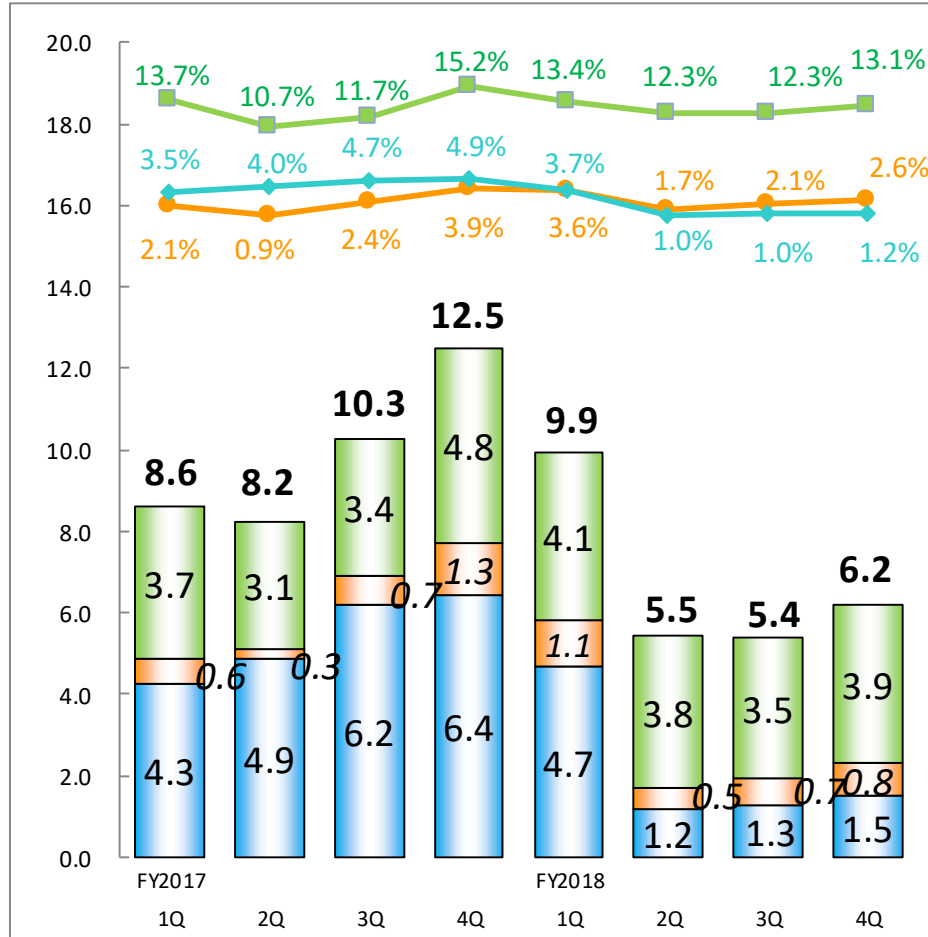
* All figures in billion yen.

Automotive Industrial machinery Aftermarket

Net Sales

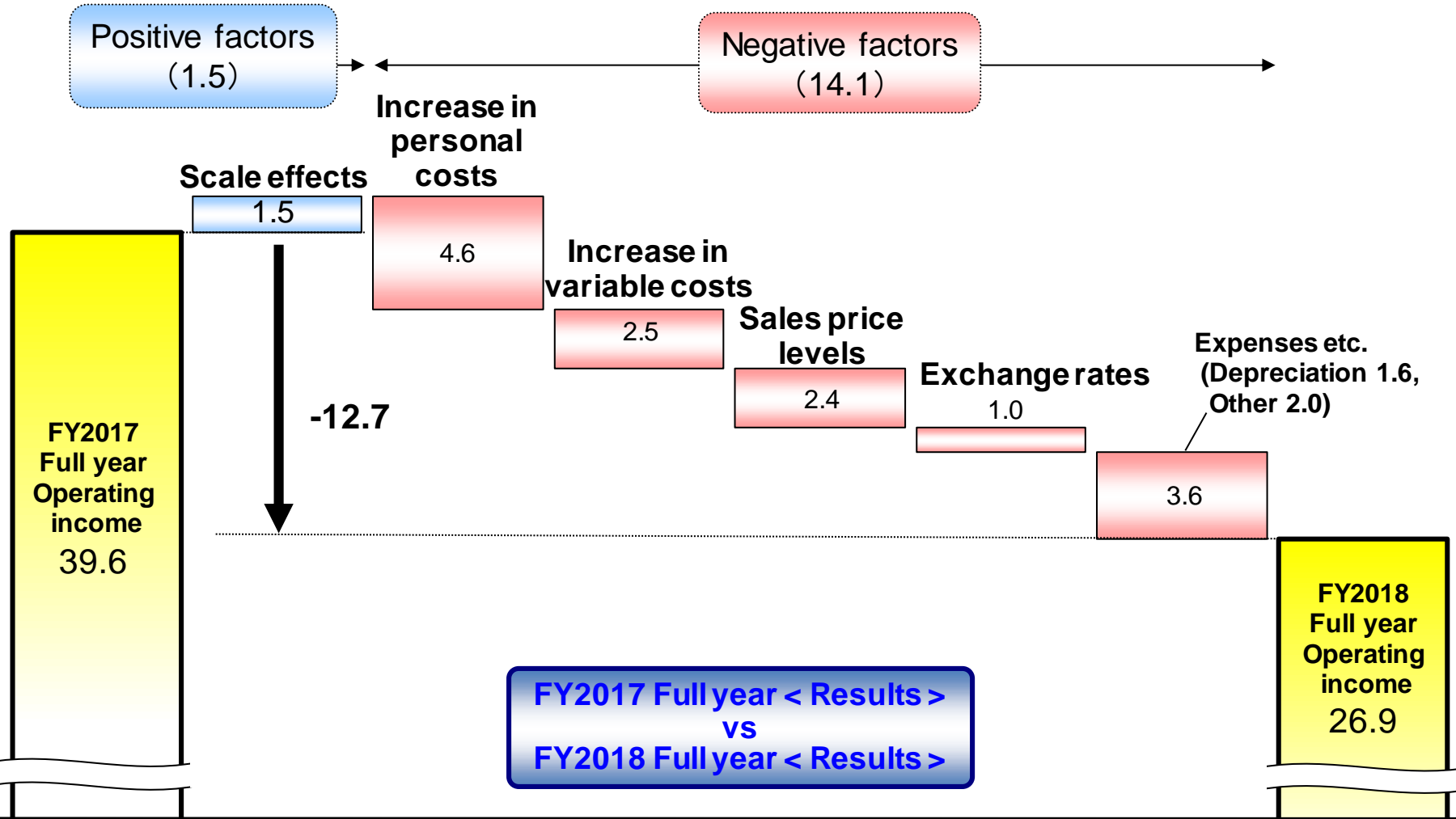


Operating Income/ Operating Margin



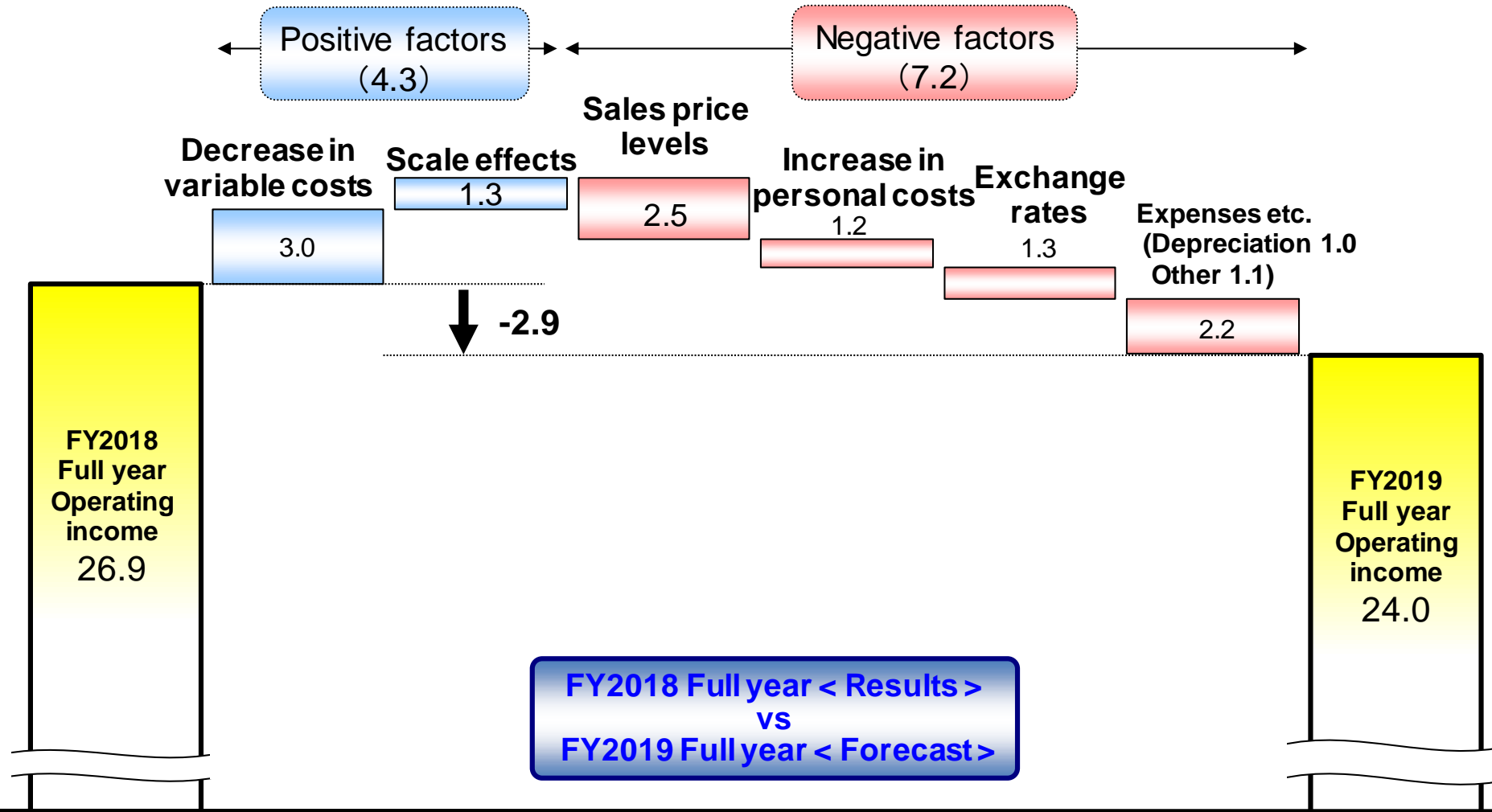
5-1. Analysis of Operating Income (FY2018)

* All figures in billion yen.



5-2. Analysis of Operating Income (FY2019)

* All figures in billion yen

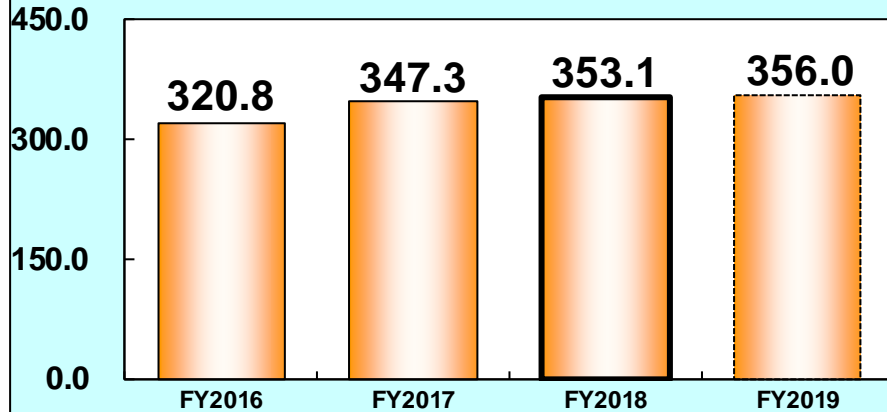


6. Net Sales and Operating Income by Company Location

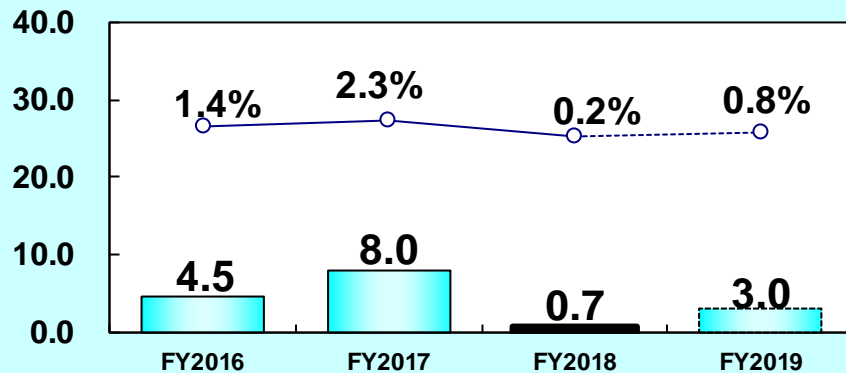
* All figures in billion yen

《 Japan 》

Net Sales

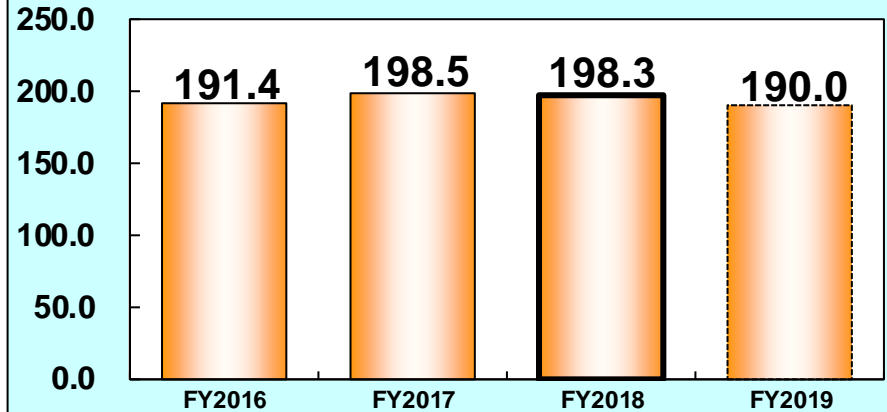


Operating Income

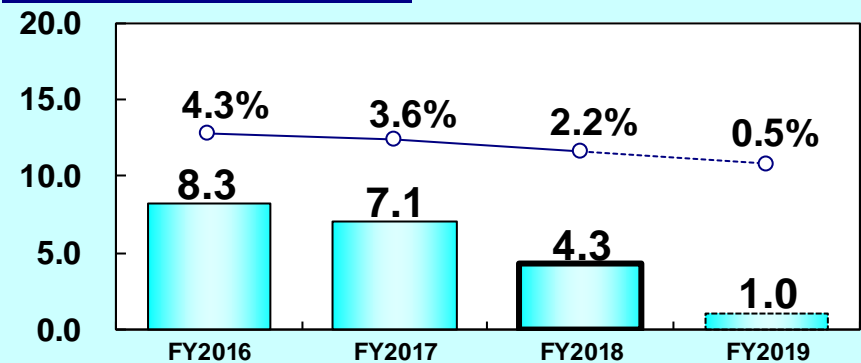


《 Americas 》

Net Sales



Operating Income

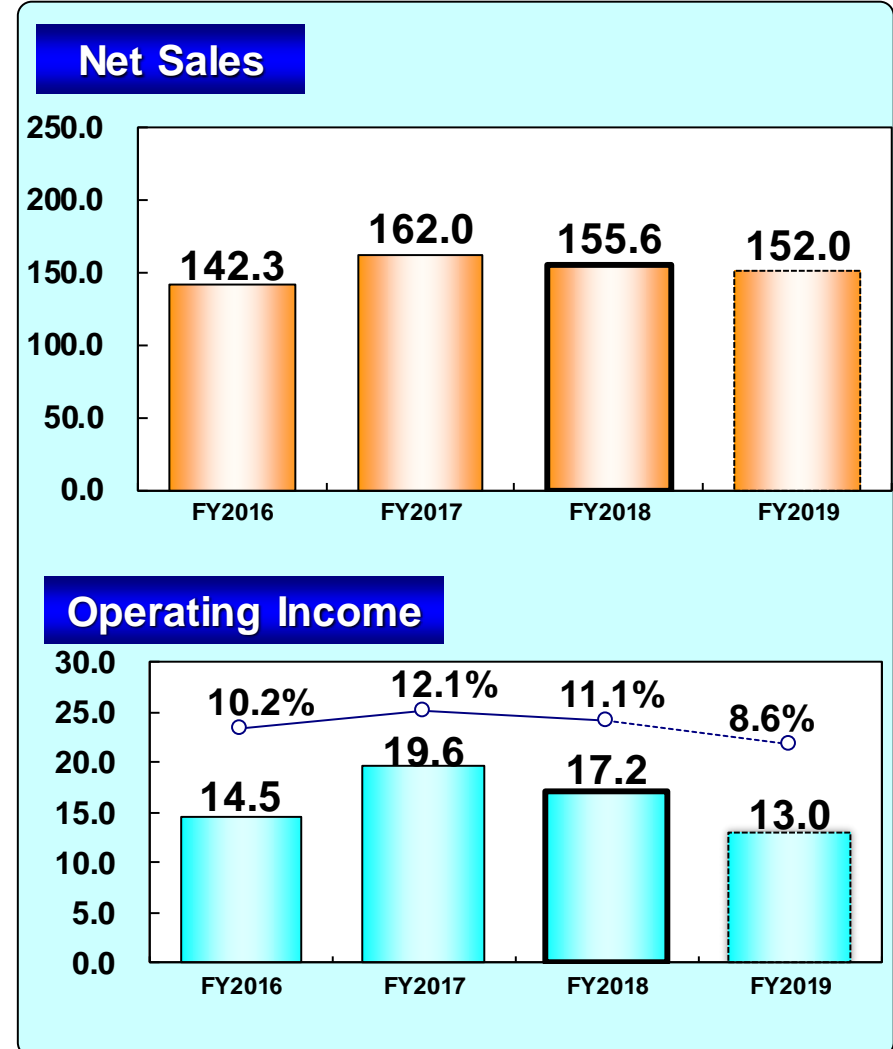
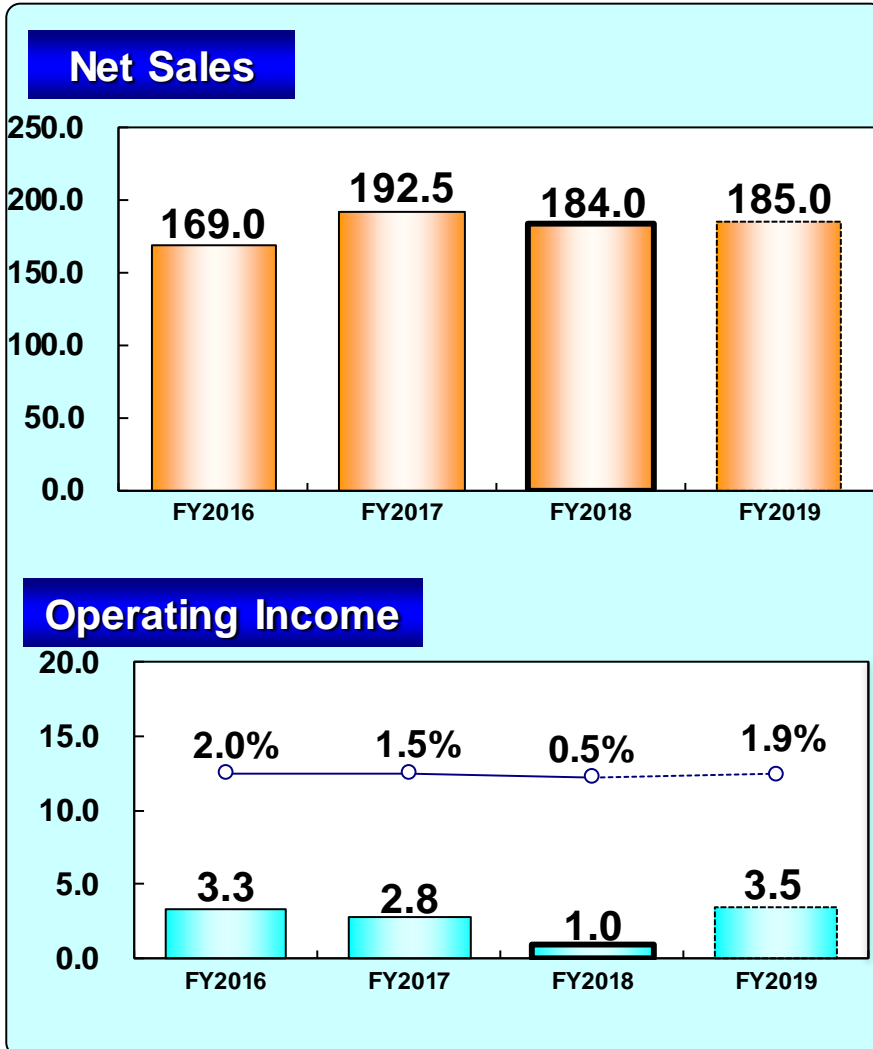


6. Net Sales and Operating Income by Company Location

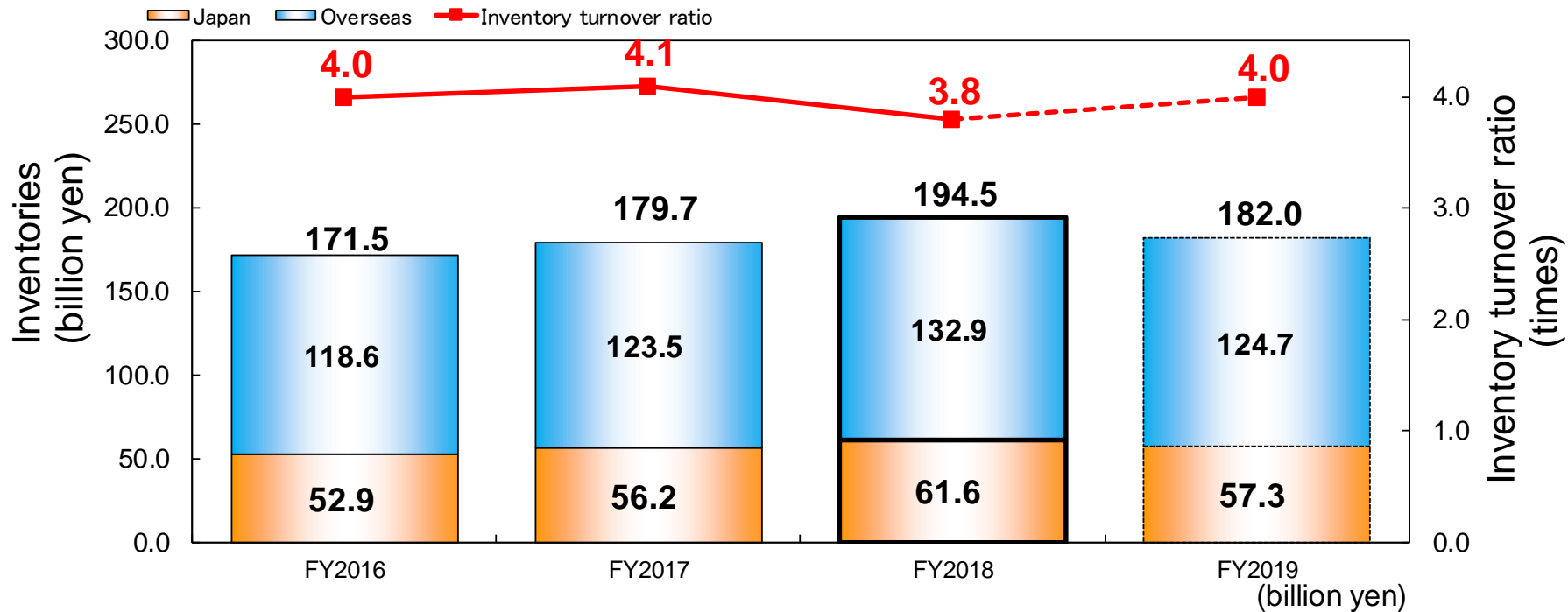
* All figures in billion yen

《 Europe 》

《 Asia and others 》



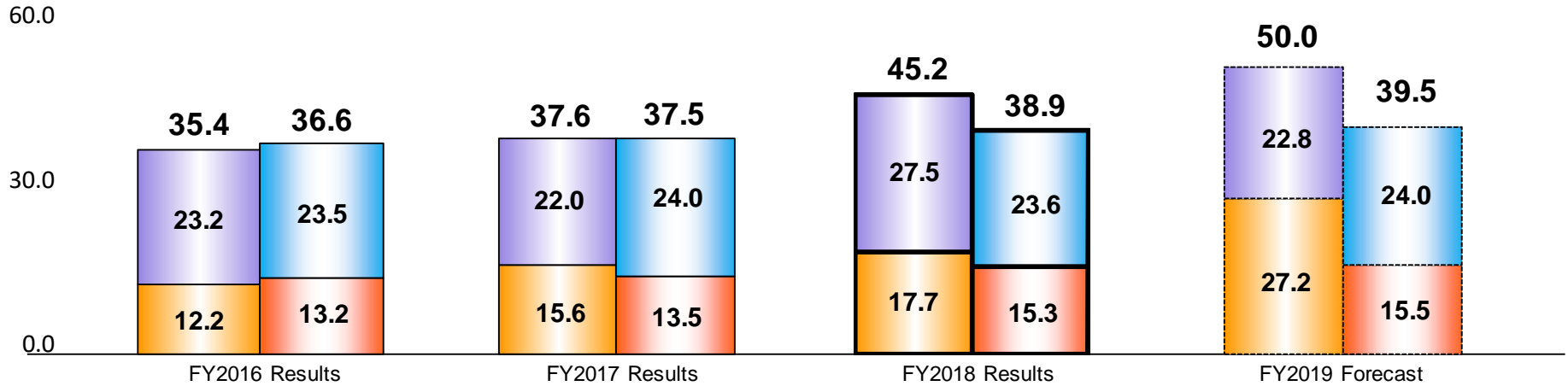
7. Inventories



	FY2016 Results	FY2017 Results	FY2018 Results	FY2019 Forecast
Inventories	171.5	179.7	194.5	182.0
(Overseas)	(118.6)	(123.5)	(132.9)	(124.7)
(Japan)	(52.9)	(56.2)	(61.6)	(57.3)
Inventory turnover ratio (times)	4.0	4.1	3.8	4.0

8. Capital Expenditure and Depreciation

(billion yen) Investment (Japan) Investment (Overseas) Depreciation (Japan) Depreciation (Overseas)

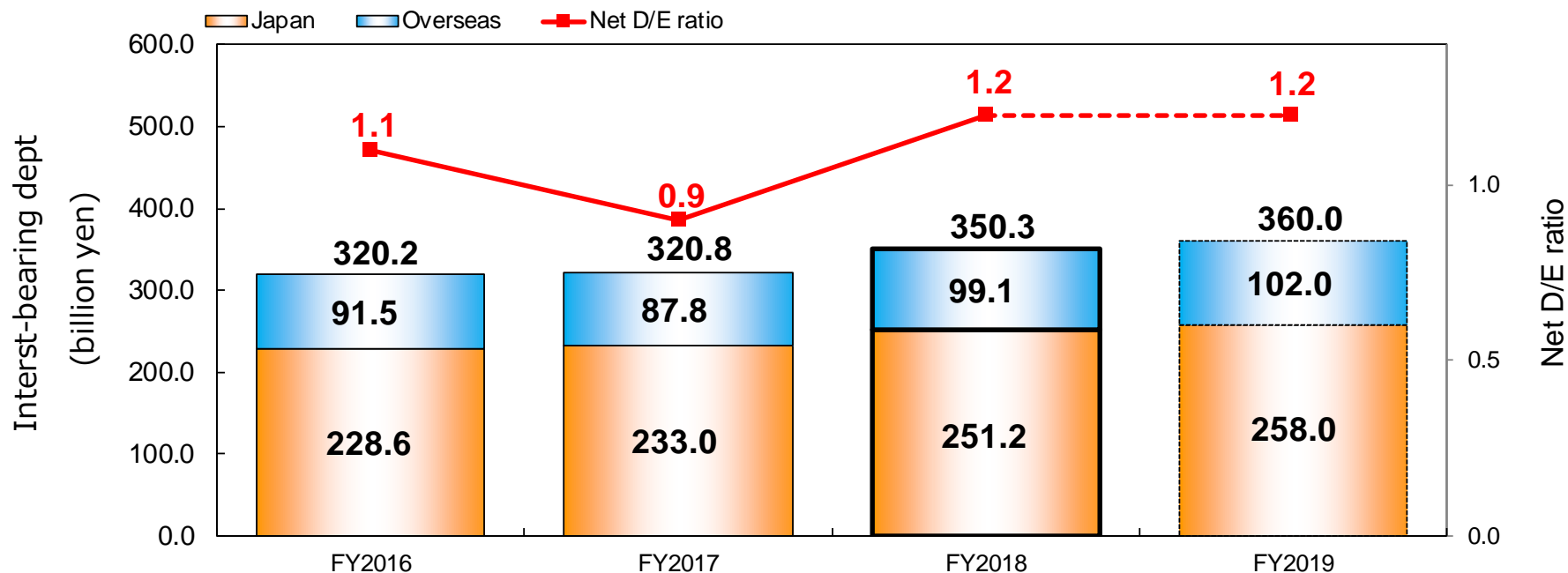


	FY2016 Results	FY2017 ①Results	FY2018 ②Results	FY2019 ③Forecast	②-①	③-②
Capital expenditure	35.4	37.6	※ 45.2	50.0	7.6	4.8
(Overseas)	(23.2)	(22.0)	(27.5)	(22.8)	(5.4)	(-4.7)
(Japan)	(12.2)	(15.6)	(17.7)	(27.2)	(2.2)	(9.5)

※ In addition, capital expenditure of ¥9.6 billion of intangible fixed assets

	FY2016 Results	FY2017 ①Results	FY2018 ②Results	FY2019 ③Forecast	②-①	③-②
Depreciation	36.6	37.5	38.9	39.5	1.4	0.6
(Overseas)	(23.5)	(24.0)	(23.6)	(24.0)	(-0.4)	(0.4)
(Japan)	(13.2)	(13.5)	(15.3)	(15.5)	(1.8)	(0.2)

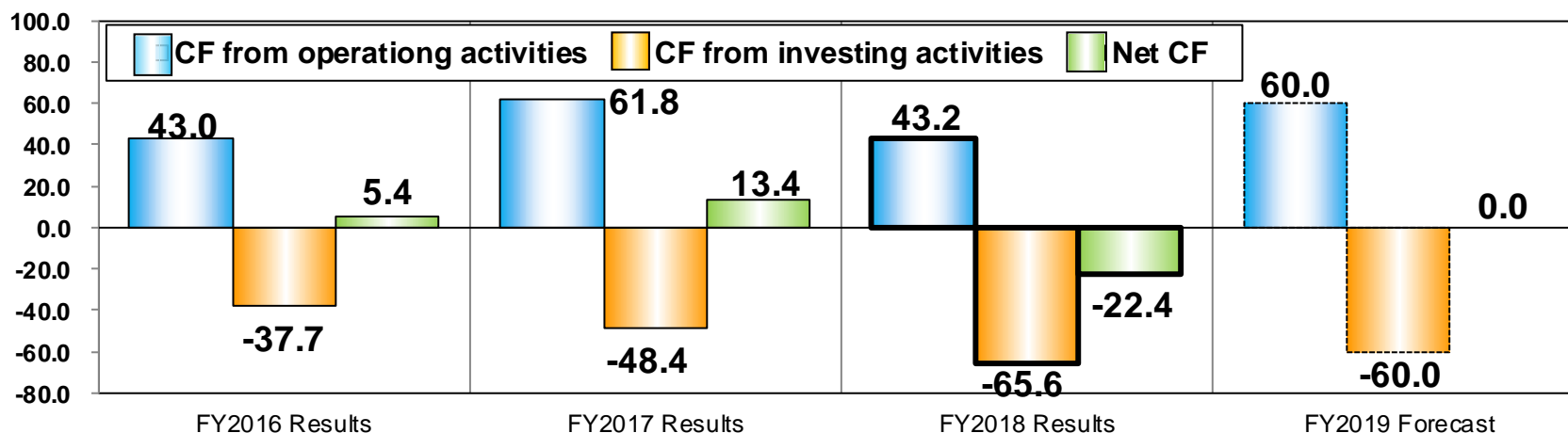
9. Interest-Bearing Debt



	FY2016 Results	FY2017 Results	FY2018 Results	FY2019 Forecast
Interest-bearing debt	320.2	320.8	350.3	360.0
(Overseas)	(91.5)	(87.8)	(99.1)	(102.0)
(Japan)	(228.6)	(233.0)	(251.2)	(258.0)
Net Interest-bearing debt	240.9	234.7	266.9	276.0

10. Cash Flows

(billion yen)	FY2016 Results	FY2017 ①Results	FY2018 ②Results	FY2019 ③Forecast	②-①	③-②
I . Cash flow from operating activities	43.0	61.8	43.2	60.0	-18.6	16.8
II . Cash flow from investing activities	-37.7	-48.4	-65.6	-60.0	-17.3	5.6
I + II . Net cash flow	5.4	13.4	-22.4	0.0	-35.8	22.4
III . Cash flow from financing activities	-10.8	-7.5	20.7	1.0	28.3	-19.7
IV . Effect of exchanging rate translation on cash and cash equivalents	0.6	0.9	-1.0	-0.5	-1.9	0.5
V . Net increase in cash and cash equivalents	-4.8	6.8	-2.6	0.5	-9.4	3.1



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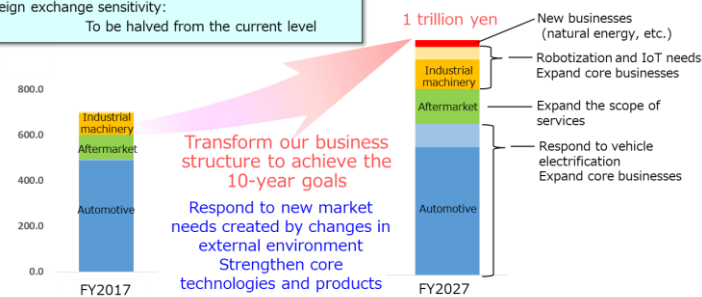
Outline of Medium-term Management Plan “DRIVE NTN100”

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



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





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

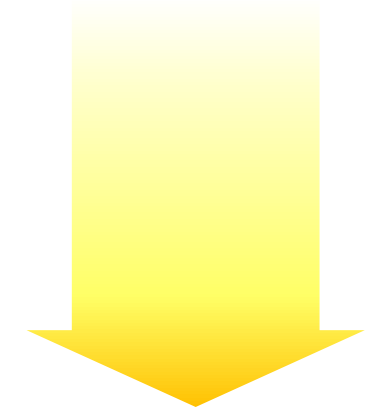


- Points**
1. Develop in new business areas and strengthen core technology and products for sustainable growth
 2. Focus on management bases supporting business in 3 years
 - ① Variable cost reformation
 - ② Structural Reforms for Man-hours and Resource
Smart Manufacturing (utilize IoT, AI and Robot)
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” Factors of Impairment

Impairment loss of ¥17.0bn was recorded in the first year

Structural background	<p>Investment efficiency in domestic production declined</p> <ul style="list-style-type: none">• Domestic manufacturing sites and domestic manufacturing subsidiaries <p>Increased expenses for H.Q to support global businesses</p> <ul style="list-style-type: none">• The head office supports overseas business activities. (Overseas sales ratio: over 70%)• The domestic market is mature. 
External factor	<p>Sharp increase in expenses</p> <ul style="list-style-type: none">• Surge in demand• Soared prices of steel and secondary materials 
Conscious investment (DRIVE)	<p>The company made investments aimed at future business growth and asset efficiency</p> <ul style="list-style-type: none">• New Wakayama Works• Renovated IT core systems, etc.   <p>future</p>



Maturation of the Japanese market makes structurally it difficult to generate profits



Assets of domestic production facilities will be impaired

Structural reforms will be implemented in the domestic manufacturing sector.

Structural reforms in the domestic manufacturing sector

1. Break away from self-sufficiency

- Past: The company acquired technology superiority and scale effects by in-house manufacturing (vertical integration) of the pre-process
- Current: Scale effect declined due to the increase in costs and the decline in sales prices.
- Future: **Shift to overseas production and outsourcing domestic production (OEM supply)**
 - Japan: Concentrate domestic production on high value-added products, and invest cautiously in Japan. General-purpose products and pre-processes will be outsourced
 - Overseas: Concentrate investments on growth areas. Utilize the alliance (ASEAN, India, etc.) Consider the best solution for pre-process of local production; in-house or OEM by region

2. Variable cost reformation

- Select suppliers and centralized purchasing
- Establishment of an OEM supply network overseas accompanying with outsourcing of domestic manufacturing

3. Restructure of businesses

- Accelerate restructuring of domestic production of radial bearings (New Wakayama Works, etc.)
- Begin restructuring of domestic production of other products

DRIVE NTN100

Build a strong domestic base to support global business

“DRIVE NTN100” Focus Points on in the 2nd year

Continue measures to strengthen the management bases to support medium-to long-term growth, and focus on improving earnings and generating FCF in the 2nd year

Strengthen management bases Ongoing measures for “DRIVE NTN100”

① Variable cost reformation

- Build a global procurement network to reduce procurement costs (Organizational change, specialization of operations, strengthening of overseas procurement)

② Structural reform of man-hours and resources

- Reduce costs and LT by optimization in smart factory
- Improve operational efficiency of back-office departments (use of RPA and CAE)

③ Strengthen supply chain management (SCM) and concentrate investment

- Improve operational efficiency and asset efficiency through the renewal of IT core systems
- Concentrate investments on high value-added products

Create a management base to support medium- and long-term sustainable growth

Key Points

- **Reduce inventories**
- **Restrain capital investment**
 - Capital investment will be restrained (from FY2020 onwards, investment < depreciation cost)
 - Reduce investment (tangible fixed assets) from ¥150.0 billion to ¥130.0 billion over the three-year period
- **Focus on earnings (price and production)**

Focus on profitability improvement and FCF creation

Aftermarket Business of "DRIVE NTN100" Result, Issues in First Year and Efforts



Sales: Sales increased compared to initial forecasts due to measures to ensure supply under tight supply-demand situation, and strengthening sales activities and technical services. (+2.0%)

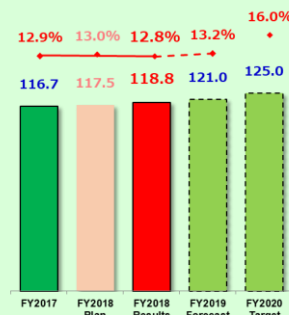
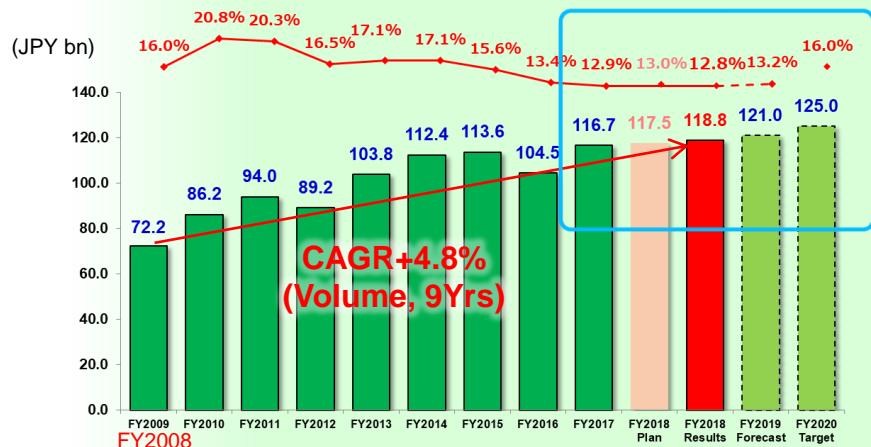
Profit: Despite the impact of rising raw material prices and manufacturing costs, profits were largely in line with initial forecasts due to improved selling prices and other factors.

First year(FY2018) results

Sales : YOY+1.8%, CAGR +4.8%(9 years)

Profit : YOY+1.2%, Operating margin 12.8%

Net Sales and Operating Margin of Aftermarket Business



Sales and profit almost achieved the plan in May

「DRIVE NTN100」

Check & Repair business

MRO

Aftermarket bearing



Issues from the First Year

- Long Delivery times due to tight demand, and there was a shortage of inventory for immediate delivery
- Loss of sales opportunities due to a shortage of supply

Efforts to Strengthen the Second Year (FY2019)

1. Ensure the supply of aftermarket products
Implement supply measures by expanding the use of overseas products
Prepare inventories for quick delivery systems for general-purpose products
2. Promote further price increases
3. Continue efforts to enhance the brands
Expanding product lineup, enhancing services, and strengthening organizational and organizational structure

Ensure the ability to supply
Steadily capturing sales opportunities



Industrial Machinery Business of "DRIVE NTN100" Result, Issues in First Year and Efforts

Sales: Increased compared to initial forecasts due to strong demand for construction machinery, wind turbine, agricultural machinery and machine tools, etc. (+2.6%)

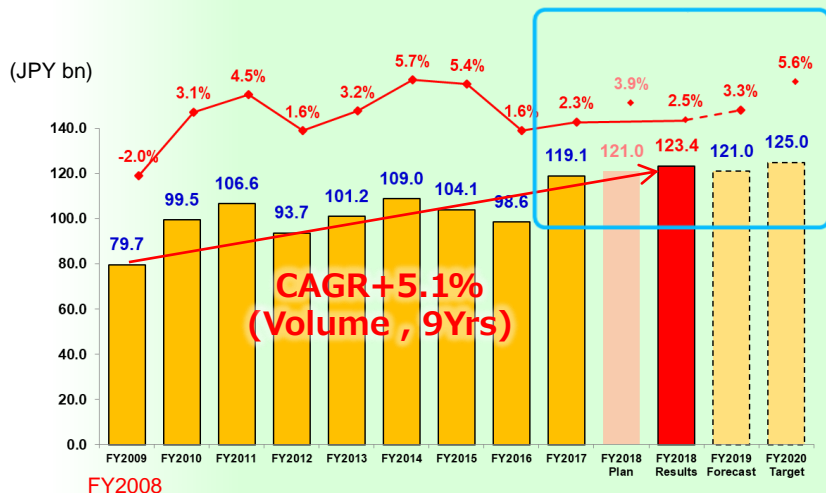
Profit: Decreased for initial forecast due to higher steel prices and secondary materials.

First year(FY2018) results

Sales: YOY+3.6%, CAGR + 5.1%(9 years)

Profit: YOY+11.3%. Operating margin 2.5%

Net Sales and Operating Margin of Industry machinery Business



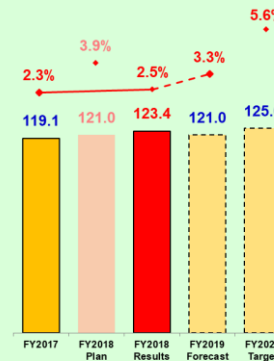
「DRIVE NTN100」



Develop in new areas



Develop core technology and high performance product



Sales increased however operating income decreased for the plan in May

Issues from the First Year

- Establish a production system to respond to customer demand fluctuations
- Increase costs such as personnel costs, general and administrative expenses, steel materials and other expenses

Efforts to Strengthen the Second Year (FY2019)

1. Strengthen production responses to customer's demand fluctuations
2. Improve internal and external productivity, including suppliers
3. Focus on areas with medium and long-term growth potential (robots, wind turbine, rolling stocks, aircraft)
4. Win new projects with profit potential
5. New areas (Service, Solution Business, Robot-Related Business)

**Focus on growth areas
Capture profitable projects**

“DRIVE NTN100” Industrial Machinery Business

Progress of Strengthen Core Technology & Products/Develop Business in New Areas

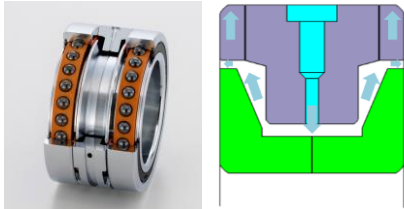


Ongoing Initiatives for "DRIVE NTN100"

1. Develop Core Technology and High-performance Product
2. New Business Area : Robot Related & Service, Solution Business

1. Develop Core Technology and High-performance Product

Develop unique technology and products



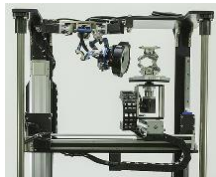
High rotation and rigidity by unique air-cooling technology(industry's first)

Improve dmn value from 140 mil. to 160 mil. for high rotation limit of grease lubricated bearing. Rigidity improved 10%

Machine Tool Spindle Bearing with Air Cooling Spacer for Grease Lubrication

2-a. New business area : Robot-related Business

Develop automation system using Wrist Joint Module



Example of Appearance Inspection system

Use CVJ technology, operating angle 90°
Labor saving and quality improvement in production line when applied in appearance inspection

→Strengthening collaboration with Sler in the future

Target : become a company that customers rely on most

Response to changes in environment

- Utilization of IoT and AI in industry
- Demand increased in robot related business
- Prevention by monitoring

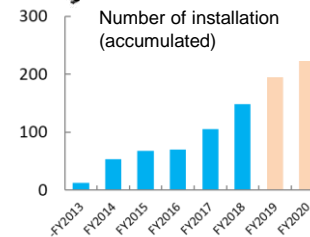


2-b. New business area : Service, Solution Business

Business of monitoring service



CMS for wind turbine

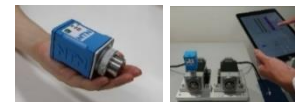


Introduce CMS for wind turbines in Japan

Promote monitoring service

Differentiation with CMS technology

(Collaboration with Academy, Life prediction by AI)



Handy Type Failure Detection Device II

Device to detect abnormalities using bearing diagnosis and vibration analysis technology

Enhance diagnosis tool and service

Automotive Business of "DRIVE NTN100" Result, Issues in First Year and Efforts

Sales: Fell below initial forecasts due to a slowdown in the Chinese economy and a decrease in sales in Europe due to sanctions against WLTP and Iran in the U.S. (-3.1%)

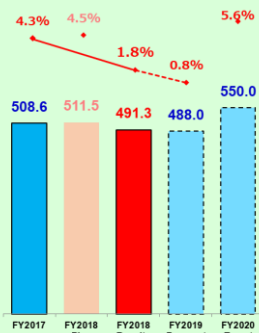
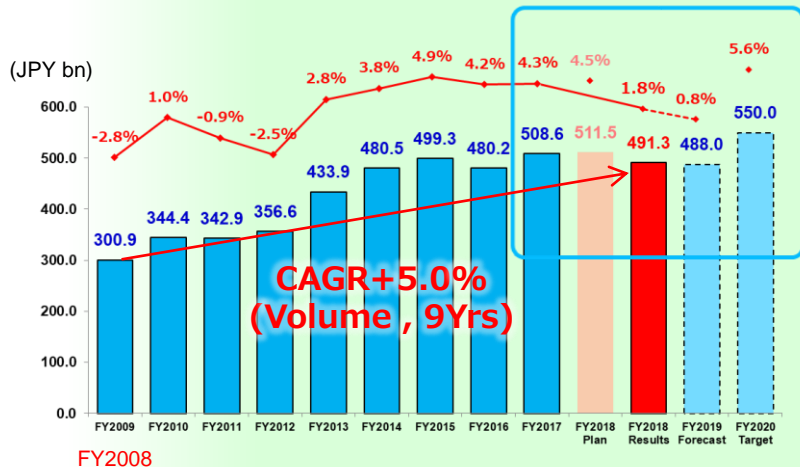
Profits: Fell below initial forecasts due to a sharp decline in scale, increase steel prices, and the impact of additional tariffs.

First year (FY2018) results

Sales: YOY -3.4%, CAGR +5.0% (9 years)

Profits: YOY -60.3%, Operating Margin 1.8%

Net Sales and Operating Margin of Automotive Business



Sales increased however operating income decreased for the plan in May

「DRIVE NTN100」



New area: Electrification, EVs



Enhance Core Technology and product (Develop for EVs)

Issues from the First Year

- Respond quickly to changes in the market environment and external factors
- Swiftly build a production system in the event of a decline in demand
- Take to mitigate cost increases associated with additional tariffs on imported steel and products in the U.S. (pass-through of prices and local procurement and production).

Efforts to Strengthen the Second Year (FY2019)

Focus on measures to recover profitability and steadily solidify the foundation for the third year of growth

Reduce the impact of additional tariffs

1. Promote switch to local steel and local production by strengthening global procurement
2. Steadily harvest additional tariffs, materials, and transportation costs by passing on higher costs to prices
3. Secure profitable business scale by leveraging product functionality and technological superiority in high value-added projects such as EV and electrification

Establish a stable earnings structure in an uncertain demand environment

“DRIVE NTN100” Automotive Business

Strengthen Core Technology & Products/Progress in New Areas



Ongoing Initiatives for "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



Target : become a essential company to provide products and service in the global market

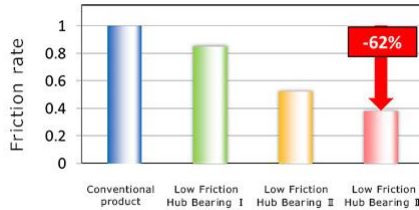
Response to changes in environment

- CASE(electrification, EVs etc.)
- Increase of production number of new vehicle(increase of population)



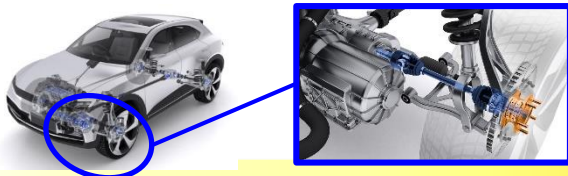
1. Strengthen Core Technology & product

Realize Super Low friction in drive-train system



Low Friction Hub Bearing III

Develop grease pursuing low friction
Reduce rotational friction by 62% keeping its durability
Contribute to improved fuel efficiency by 0.53%



Become Top manufacturer of drive-train system

2019/5/20

2. Develop businesses in new areas: Respond to electrification and EVs

Respond to electrification



Electric Motors and Actuators
For electrification of pump and accessory
Promote the business for mass-production



eHUB
Propose to improve fuel consumption of 48V Mild Hybrid System



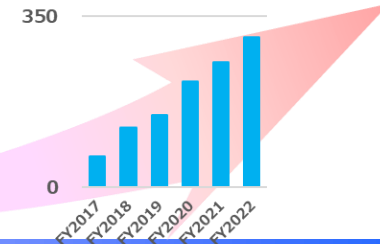
sHUB
HUB with steering assist function. Propose it for front but also rear steering



In-wheel Motor

Expand core products for EV

Low friction & torque, high rigidity & efficiency products
Current & New EV maker adopt the products



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

Low Friction Hub Bearing III



Reduce rotational friction by 62% keeping its durability
Contribute to improved fuel efficiency by 0.53%

Quantify “eco-friendly product index”

Quantify environmental contribution by our product(in Sept.)

Social

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



“NTN Rotating School” in Thailand



Support Peace village International in German



Selected as a best practice company 2018 by Osaka Labour Bureau

Governance

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



ESG meeting for investors (in Dec. 2018)

Transition to Company with Nominating Committee, etc. after approval in Annual General Meeting of Shareholders on 25th June

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

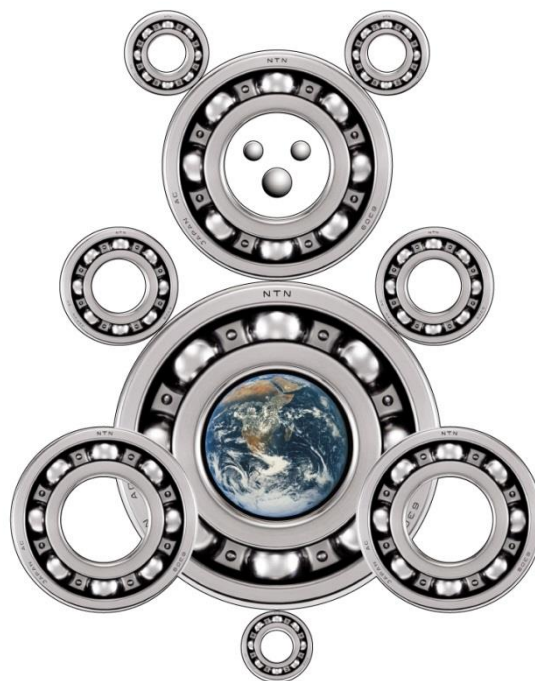
Key Management Indicators of “DRIVE NTN100”



	FY2017 Results	DRIVE NTN100			
		FY2018 Results	FY2019 Forecast	FY2020 Target	
Net Sales	¥744.4 billion	¥733.6 billion	¥730.0 billion	¥800.0 billion	
Operating Income	¥39.6 billion	¥26.9 billion	¥24.0 billion	¥57.0 billion	
Operating Margin	5.3%	3.7%	3.3%	7.1%	
Net Income	¥20.4 billion	-¥7.0 billion	¥9.5 billion	¥30.0 billion	
Capital expenditure	¥37.6 billion	¥45.2 billion	¥50.0 billion	¥170.0 billion/3 years (incl. intangible ¥20.0 billion)	
FCF	¥13.4 billion	-¥22.4 billion	¥0.0 billion	¥45.0 billion/3 years	
Inventory turnover ratio	4.1 times	3.8	4.0	4.5 times	
Net D/E ratio	0.9	1.2	1.2	1.0 or less	
Equity to capital ratio	30.2%	27.4%	27.1%	30% or more	
ROE	8.4%	-2.9%	4.1%	10.0% or more	
NTN-ROI*	5.7%	3.8%	3.3%	7.5% or more	
Dividends	¥15.0	¥15.0	¥15.0	¥15.0 or more	
Exchange rates	USD	¥110.8	¥110.9	¥110.0	¥110
	Euro	¥129.6	¥128.4	¥125.0	¥115

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

**DRIVE
NTN100**



For New Technology Network

NTN®

NTN corporation

Digitalization, **R**esources, **I**nnovation, **V**ariable cost reformation, **E**fficiency improvement

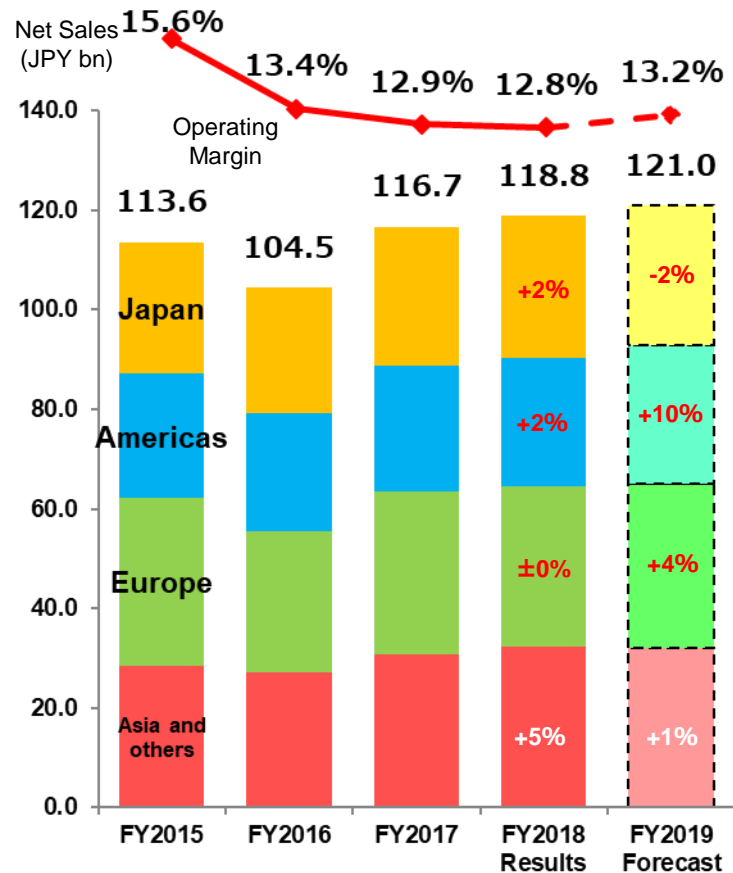
NTN **T**ransformation for **N**ew **100**years

Reference Aftermarket Business: Actual Results for FY2018 and Forecast for FY2019

<Results for FY2018 (compared with FY2017)>

Net Sales: ¥118.8bn(+1.8%), Operating Income: ¥15.2bn(+1.2%)

- Sales of industrial machinery aftermarket applications increased in all regions
- Sales of automotive parts were remained unchanged due to a decrease in Europe, despite an increase in the Americas and China



<FY2019 forecast(compared with FY2018)>

Japan

Decrease in sales due to decrease in demand for bearings for repair of machine tool

Americas

Expand sales due to the autoparts distribution network and discover of new projects for industrial machinery

Europe

Sales of industrial machinery aftermarket are expected to be unchanged, but sales for automotive aftermarket are expected to increase

Asia and others

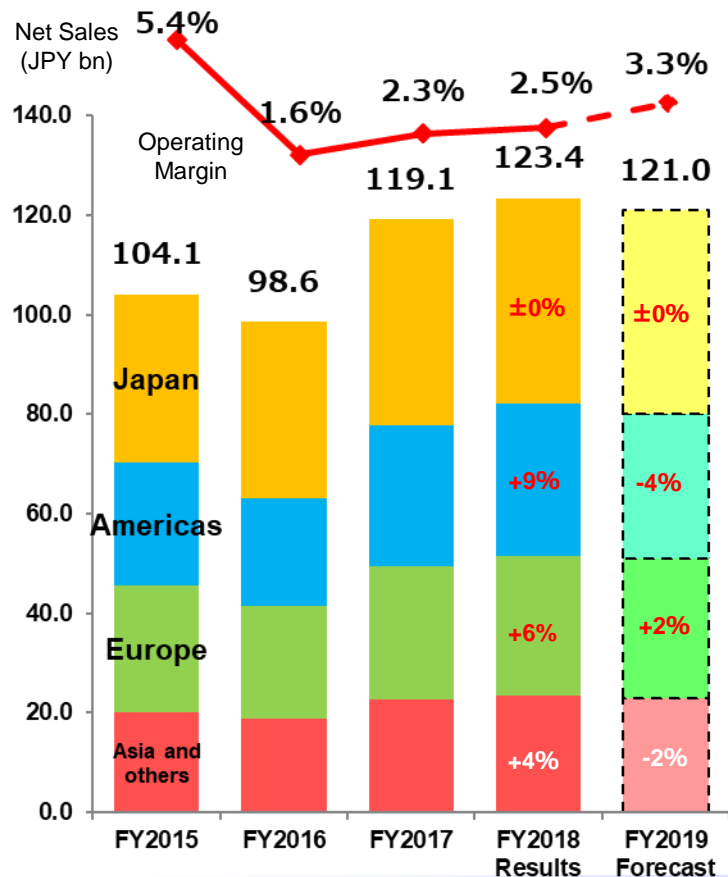
Sales are expected to decrease in China, but overall sales are expected to increase due to strong demand in Asia

[Reference] Industrial Machinery Business : Actual Results for FY2018 and Forecast for FY2019

<Results for FY2018 (compared with FY2017)>

Net Sales: ¥123.4bn(+3.6%), Operating Income: ¥3.1bn(+11.1%)

- Sales for wind turbine increased in the Americas and China
- Sales of products for aircraft increased in Japan and Europe



<FY2019 forecast(compared with FY2018)>

Japan

Sales decrease for construction machinery and machine tools but increase for rolling stock

Americas

Sales decrease for construction machinery, wind turbine, and agricultural machinery

Europe

Sales increase for aircraft and rolling stocks

Asia and others

Sales increase for wind turbine and rolling stock in China but decrease for construction machinery and machine tools

Reference Automotive Business : Actual Results for FY2018 and Forecast for FY2019

<Results for FY2018 (compared with FY2017)>

Net Sales: ¥491.3bn(-3.4%), Operating Income: ¥8.7bn(-60.3%)

- Sales in Europe declined due to the impact of Iranian sanctions and new emission metrics (WLTP)
- Sales in China declined due to the rapid economic slowdown in the second half of the fiscal year

<FY2019 forecast(compared with FY2018)>

Japan Sales increase due to increasing production by major manufactures, model changed car and robust sales to Tier-1

Americas Despite the effect of new projects, sales decrease due to the production end of major models and sedan

Europe Sales increase due to the completion of manufacturer's response to WLTP and demand shift diesel-to-gasoline vehicle and the launch of new projects

Asia and others Sales increased due to new projects in ASEAN and India, a recovery in the Chinese market, and projects for emerging EV manufacturers

