



Results Briefing for 2nd Quarter of FY2020

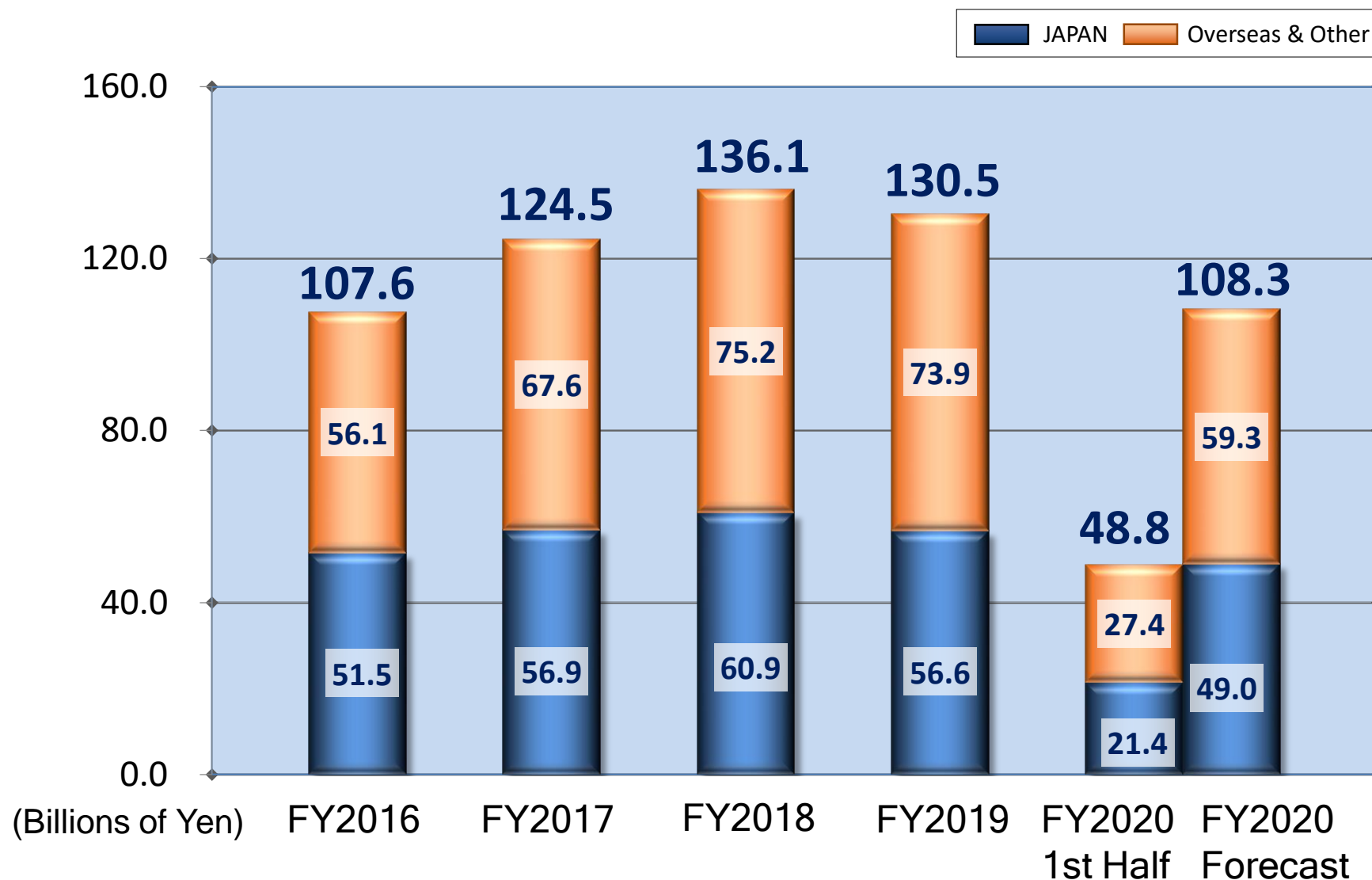
T.RAD Co.,Ltd.

Financial Results and Forecast

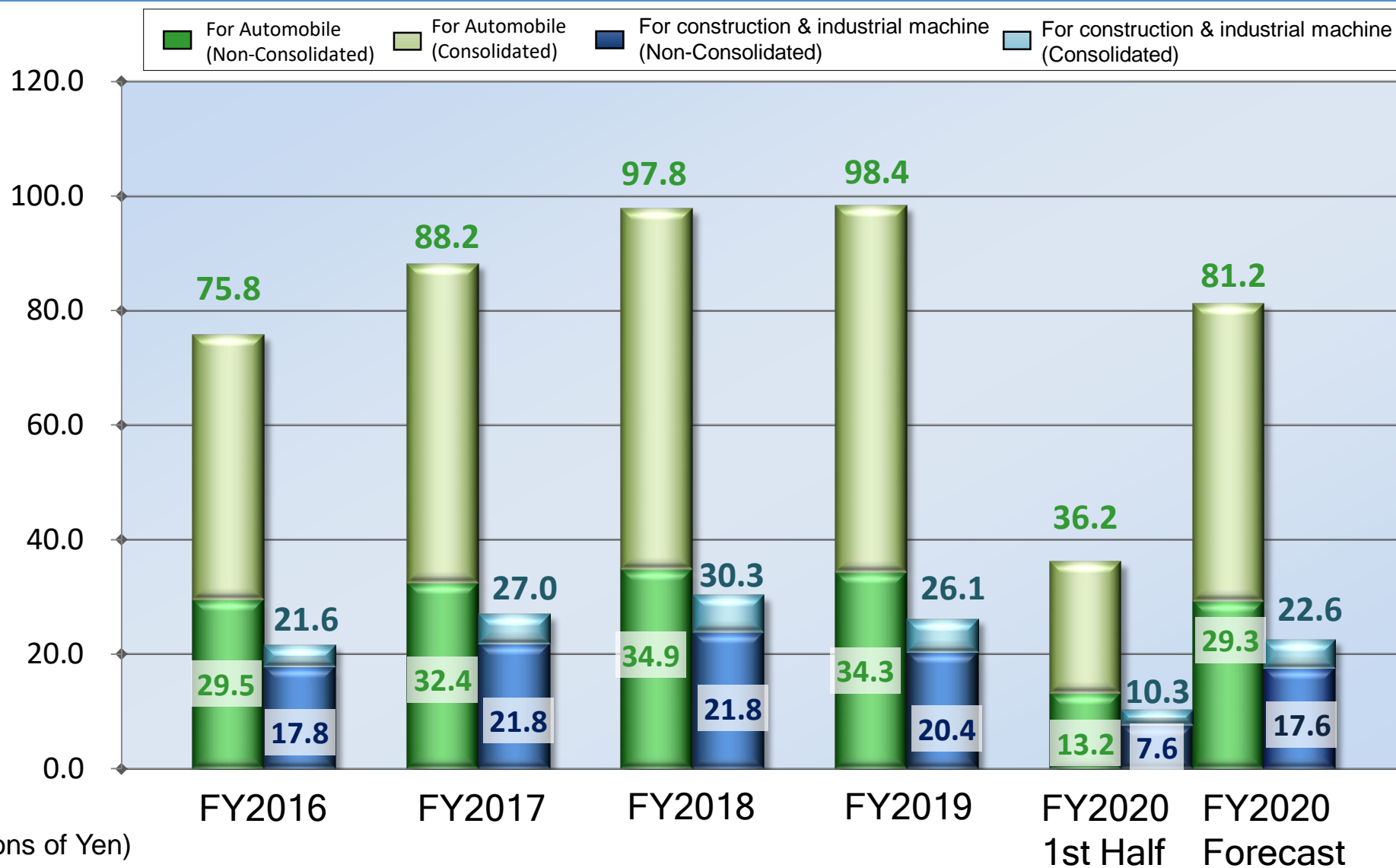
(Billions of Yen)

		FY2019				FY2020				Increase, Decrease (-)			
		1st Half Results		FY2019 Results		1st Half Results		FY2020 Forecast		'20/1st Half-'19/1st Half		'20Forecast-'19Results	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Net Sales	Consolidated	66.1	100.0	130.5	100.0	48.8	100.0	108.3	100.0	-17.3	-26.2	-22.2	-17.0
	Non-Consolidated	32.6	100.0	63.5	100.0	23.9	100.0	52.8	100.0	-8.7	-26.6	-10.7	-16.8
Operating Income	Consolidated	1.7	2.5	2.8	2.2	(1.6)	-3.4	0.3	0.3	-3.3	-198.1	-2.5	-89.4
	Non-Consolidated	(0.3)	-0.9	(0.6)	-0.9	(1.8)	-7.4	(1.0)	-1.9	-1.5	-510.0	-0.4	-65.8
Ordinary Income	Consolidated	1.6	2.5	2.9	2.2	(1.6)	-3.4	0.1	0.1	-3.3	-200.9	-2.8	-96.5
	Non-Consolidated	1.6	4.8	2.8	4.5	(0.5)	-1.9	1.4	2.7	-2.0	-129.4	-1.4	-50.8
Profit attributable to owners of parent	Consolidated	1.7	2.6	1.4	1.1	(2.5)	-5.1	(1.4)	-1.3	-4.2	-245.1	-2.8	-197.6
	Non-Consolidated	2.2	6.8	2.7	4.3	(1.4)	-5.9	(0.7)	-1.3	-3.6	-164.1	-3.4	-125.6

Net Sales(Consolidated)

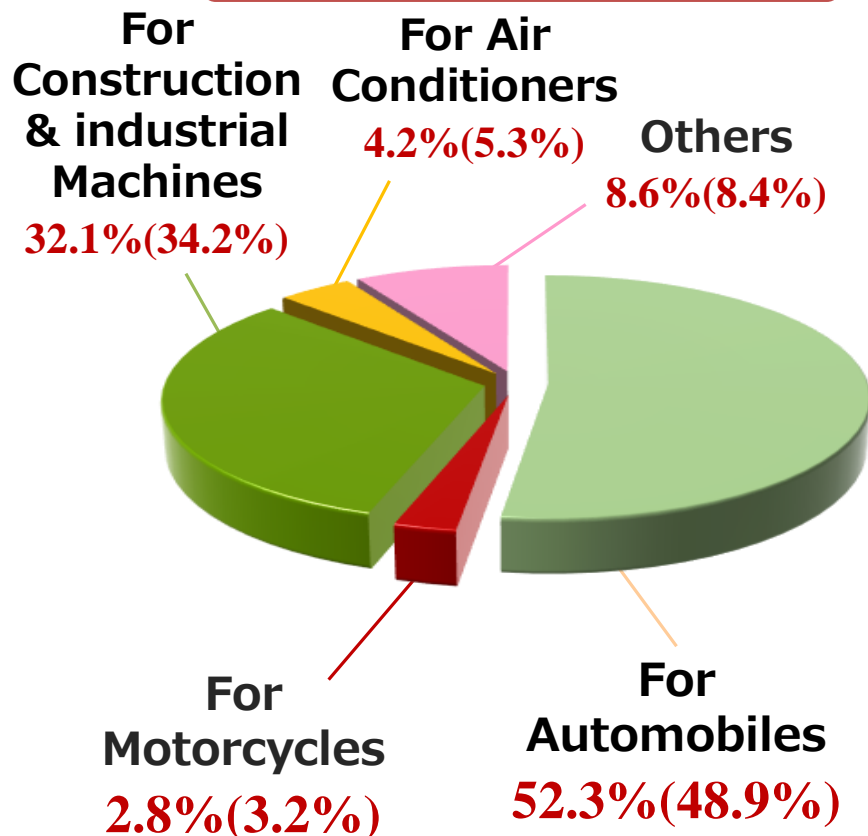


Sales by Application

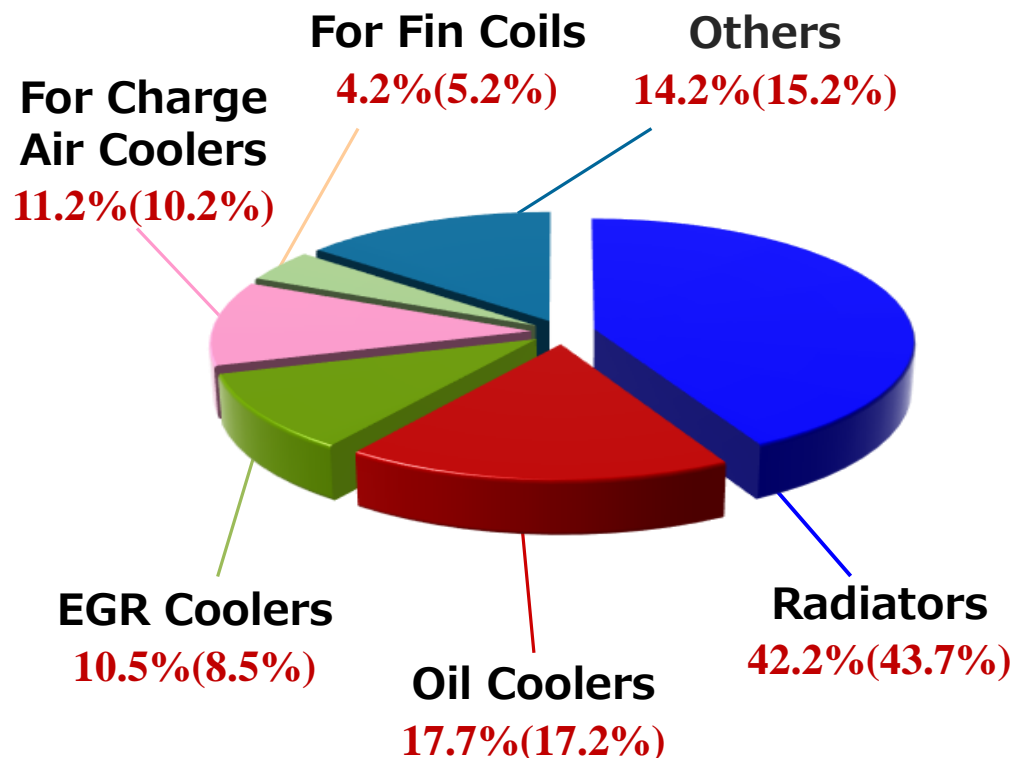


Sales by Applications & Products in 1st Half of FY2020(Non-Consolidated)

Sales by applications



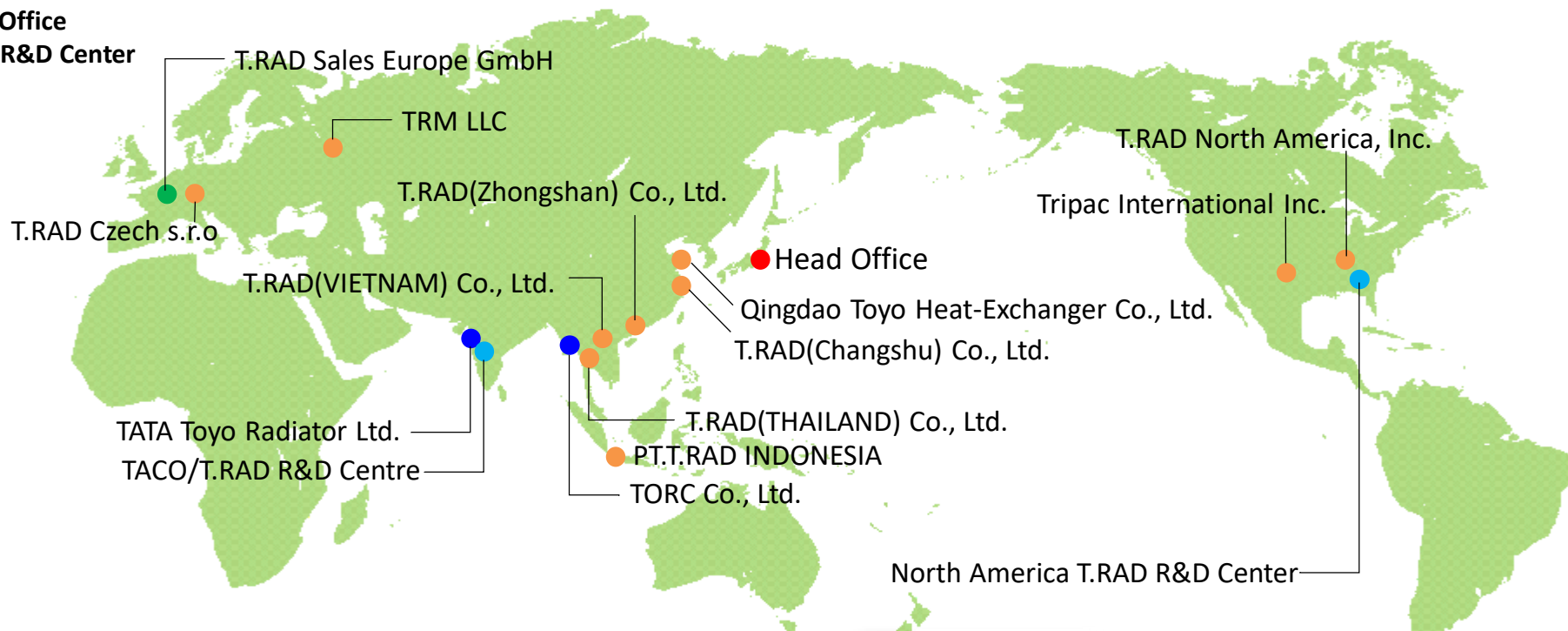
Sales by Product types



The stability that is not biased to a specific industry or product

Global Network

- Head Office
- Main Subsidiaries
- Main Joint Ventures
- Office
- R&D Center



T.RAD Czech s.r.o.



T.RAD(THAILAND)Co.,Ltd.

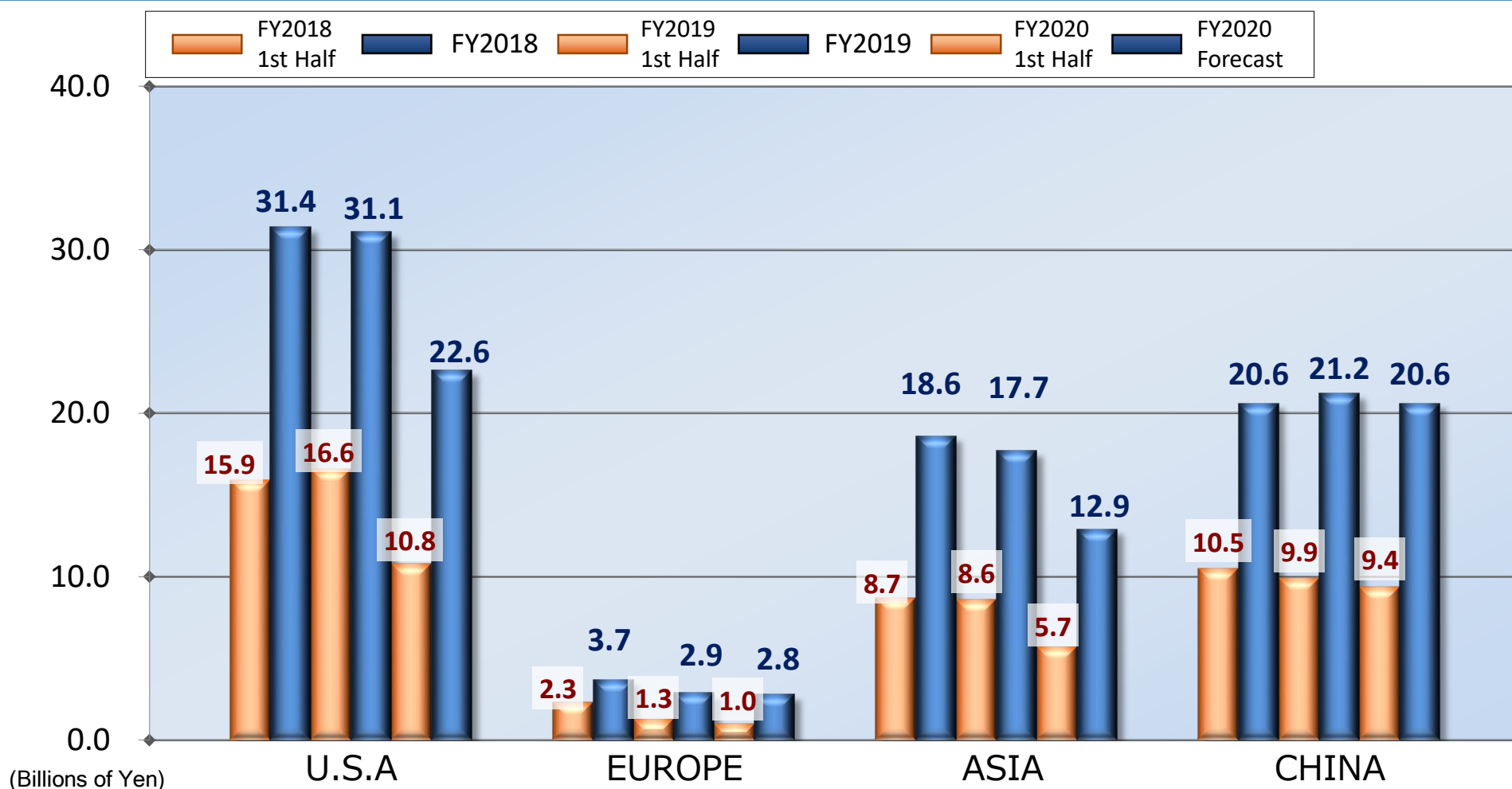


T.RAD(Zhongshan)Co.,Ltd.



T.RAD North America, Inc.

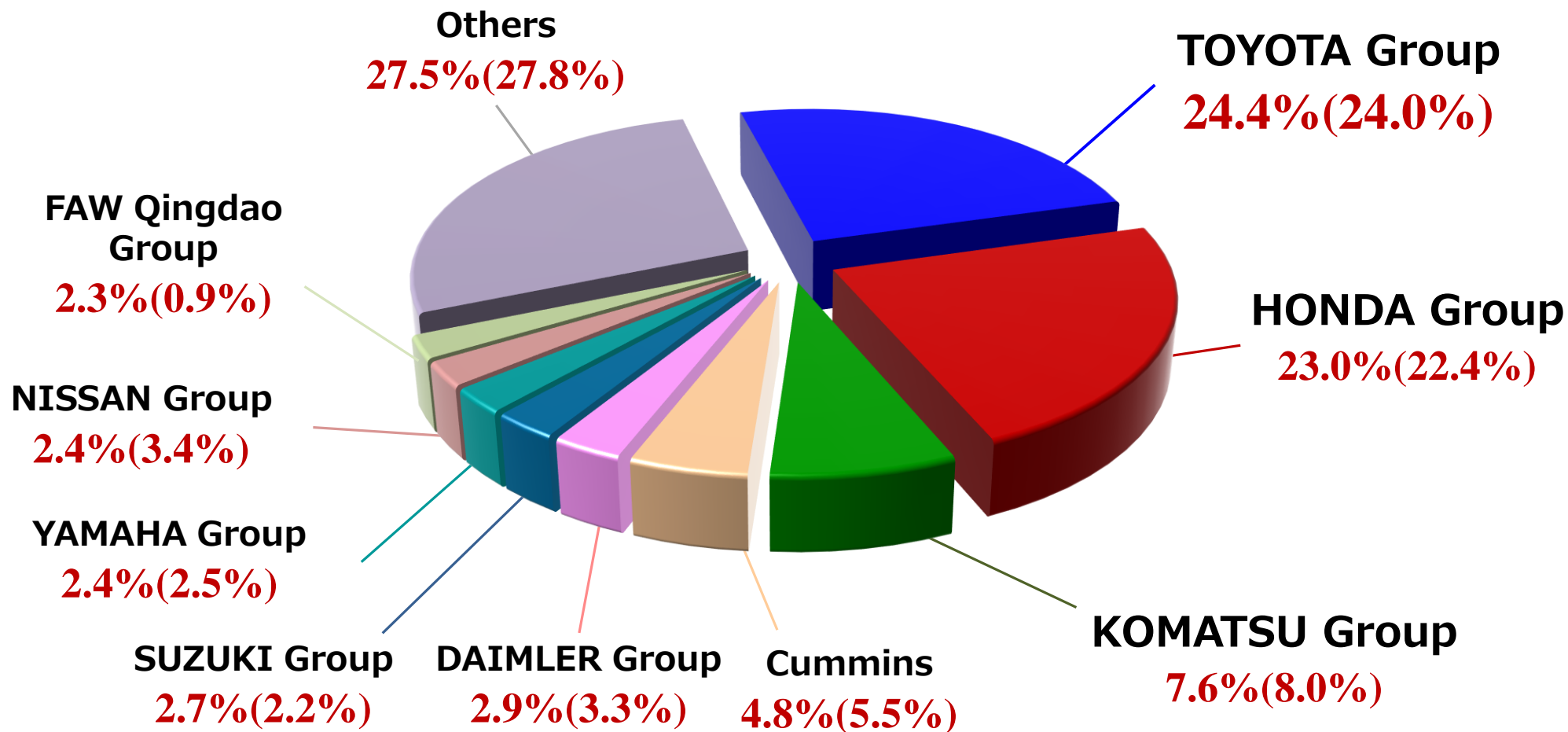
Sales by Region



Exchange Rate (June.2019⇒June.2020) USD: 107.75⇒107.74, THB: 3.51⇒3.49, CNY: 15.68⇒15.23, CZK: 4.81⇒4.52, IDR: 0.0076⇒0.0076, VND: 0.0046⇒0.0046, EUR: 122.46⇒121.05, RUB: 1.71⇒1.53

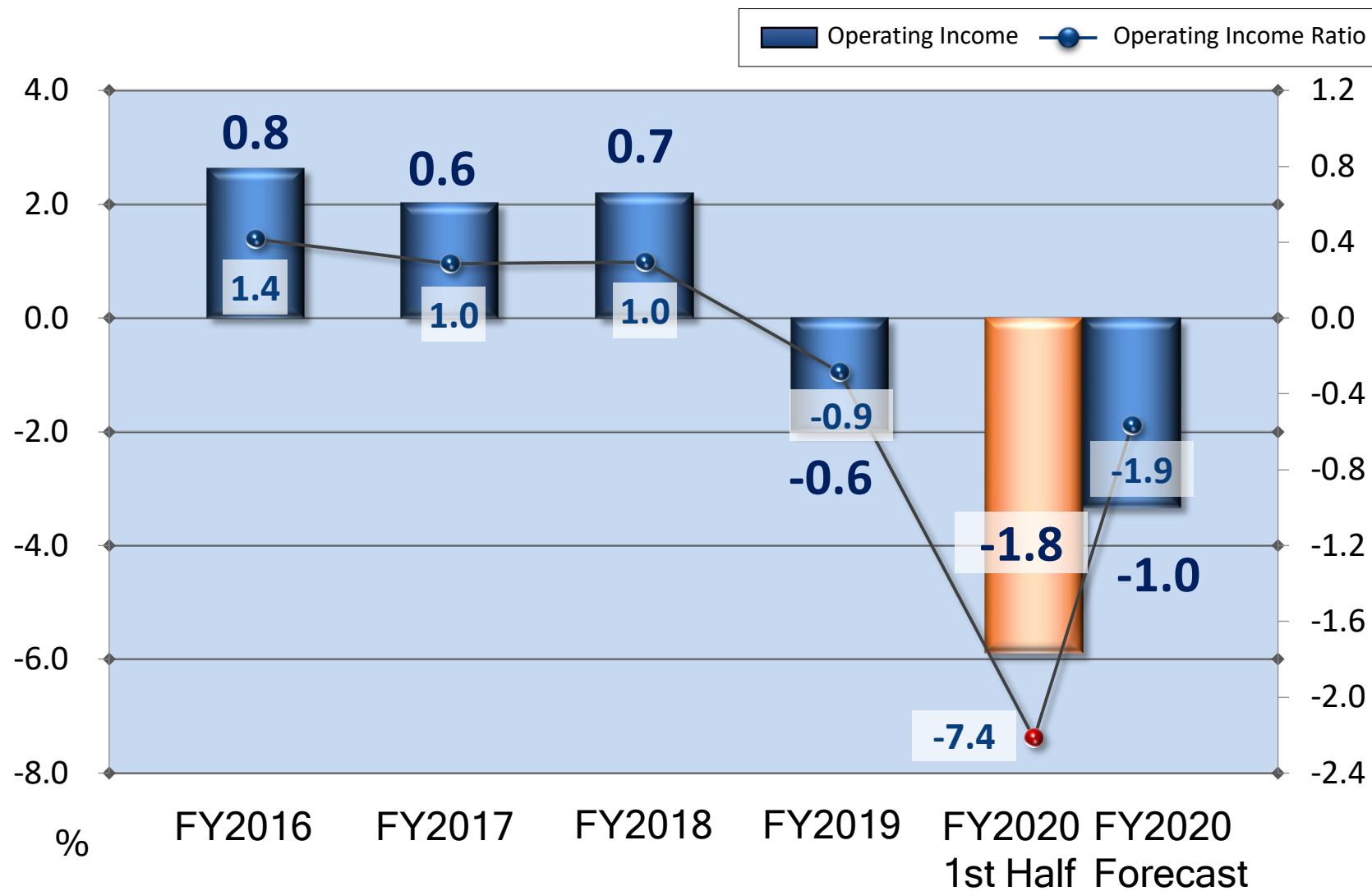
Exchange Rate (Dec.2019⇒Dec.2020 Forecast) USD: 109.55⇒106.75, THB: 3.63⇒3.51, CNY: 15.68⇒15.12, CZK: 4.81⇒4.29, IDR: 0.0079⇒0.0072, VND: 0.0047⇒0.0047, EUR: 122.51⇒122.85, RUB: 1.76⇒1.48

Sales by Customer Groups in 1st Half of FY2020(Consolidated)



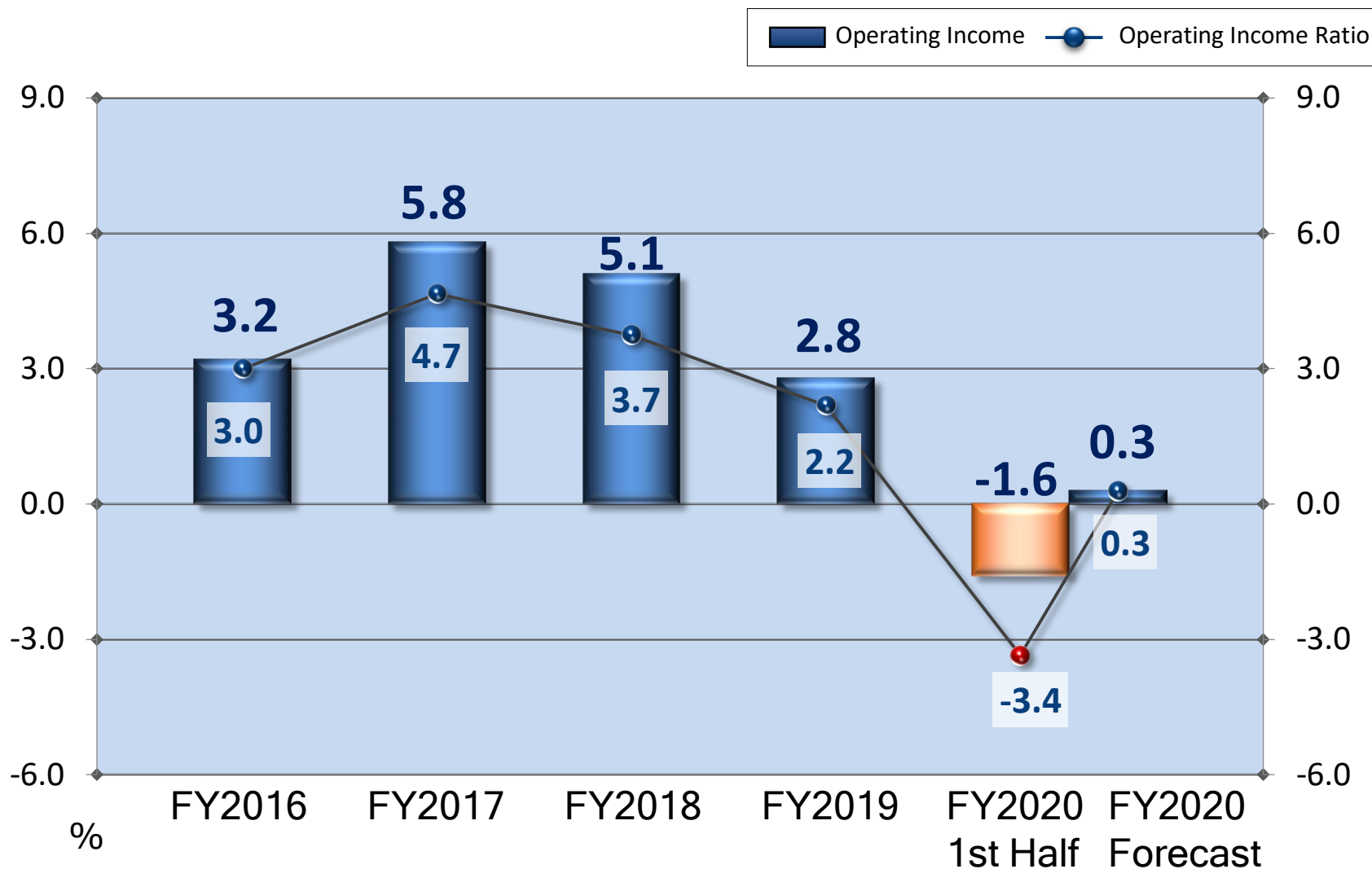
Independent mobility
⇒ Adopted by industry-leading enterprises

Operating Income(Non-Consolidated)



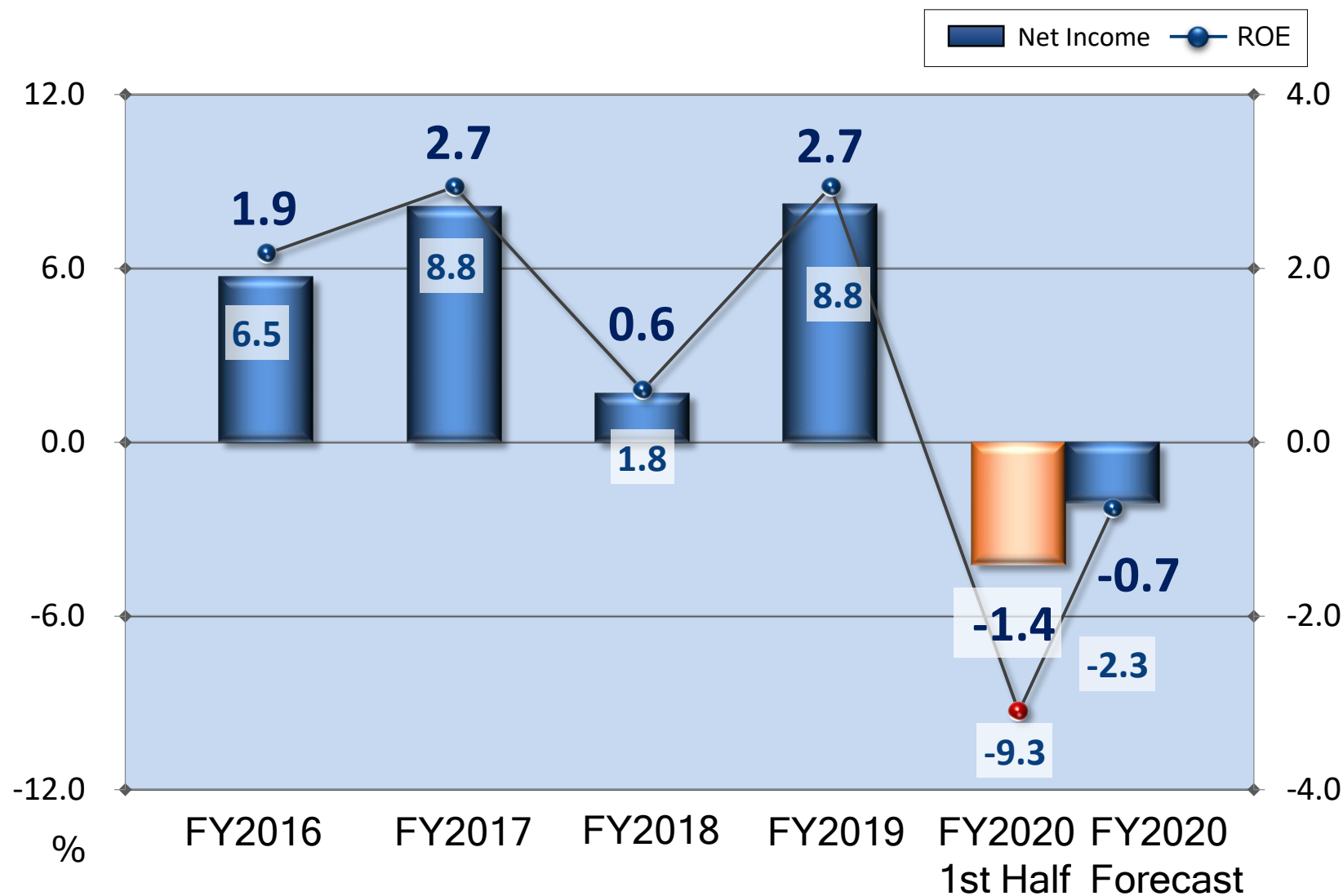
(Billions of Yen)

Operating Income(Consolidated)



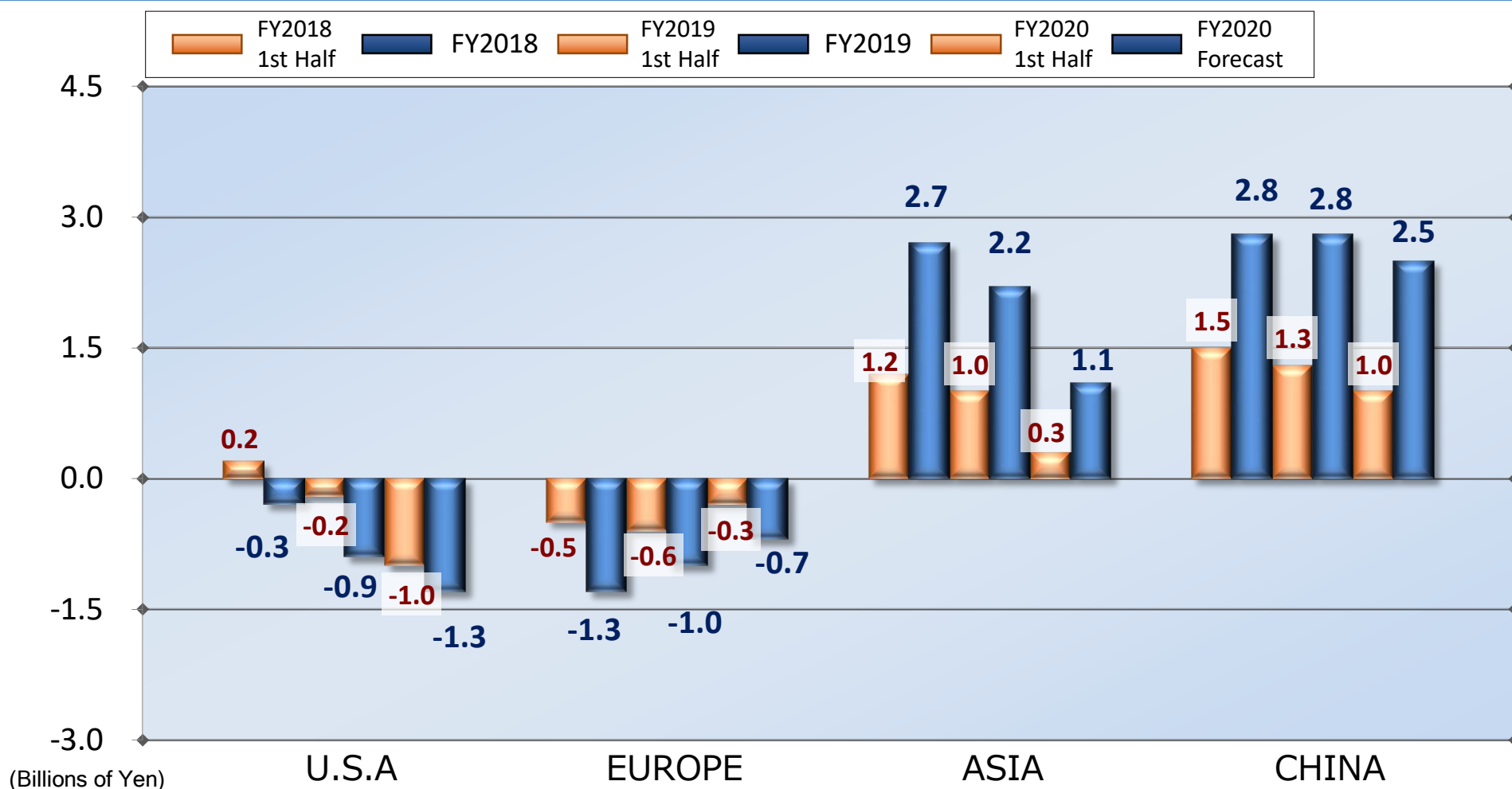
(Billions of Yen)

Net Income & ROE(Non-Consolidated)



(Billions of Yen)

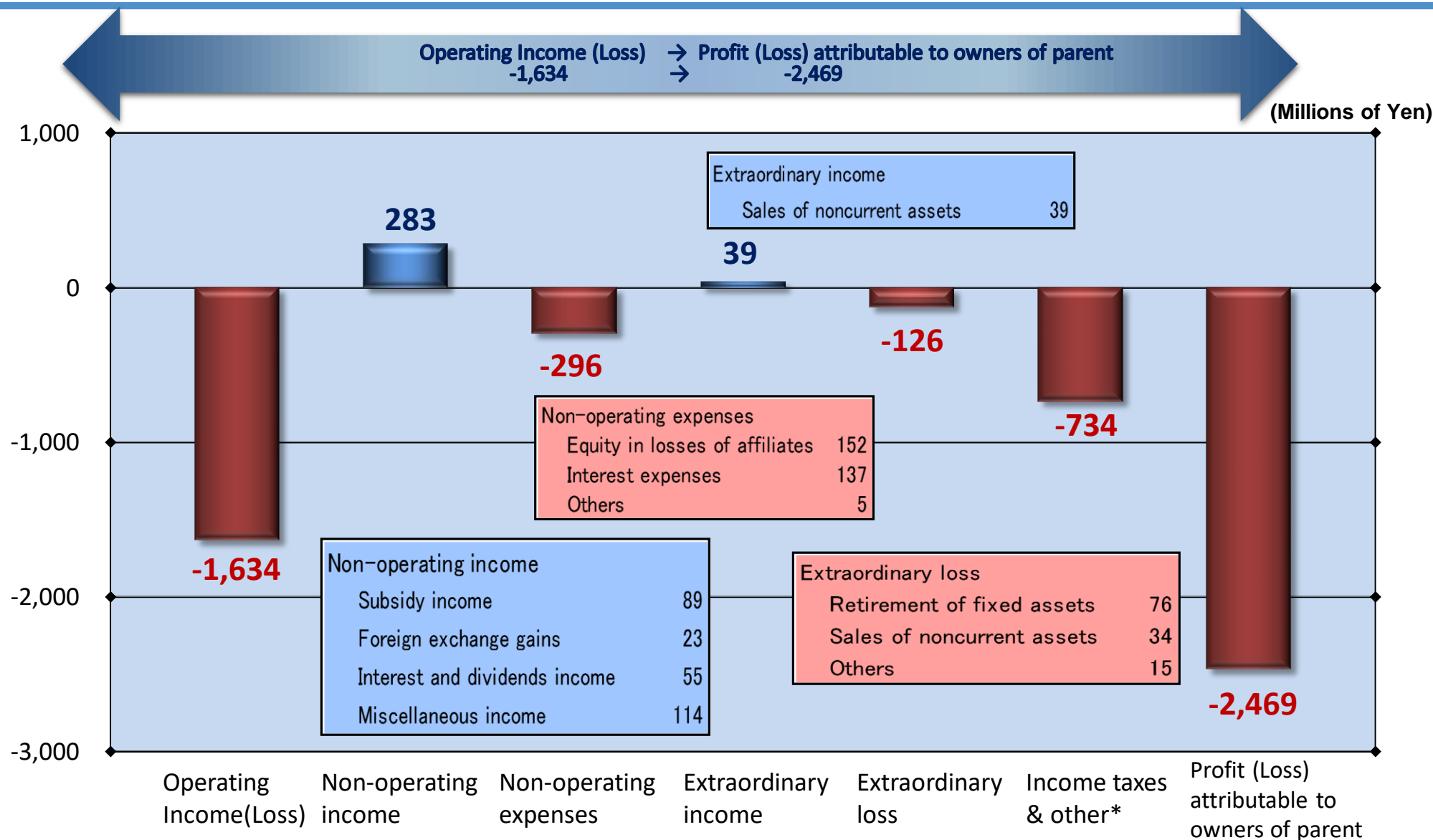
Operating Income by Region



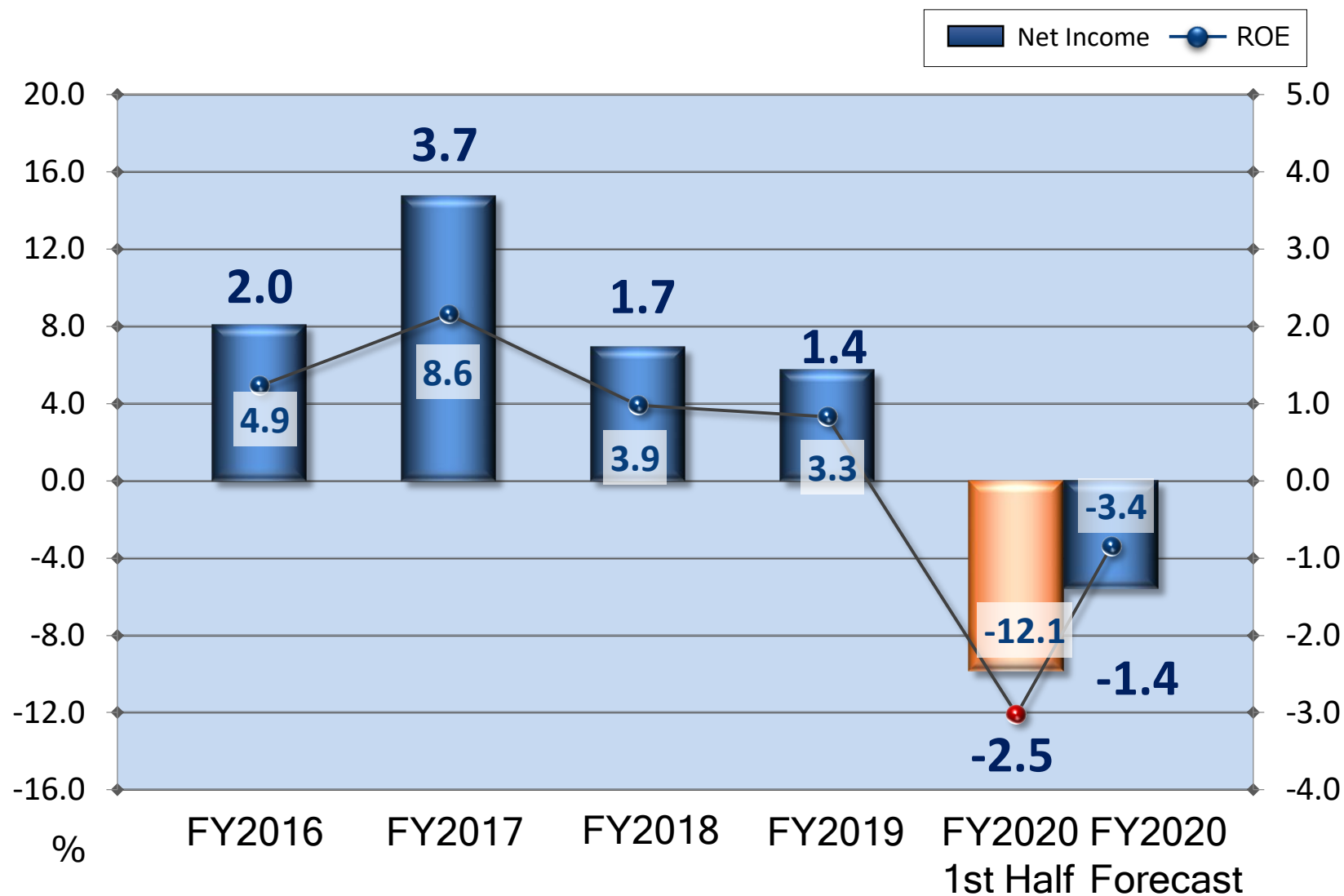
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Non-operating Income/Expenses and Extraordinary Income / Loss for 1st Half of FY2020(Consolidated)

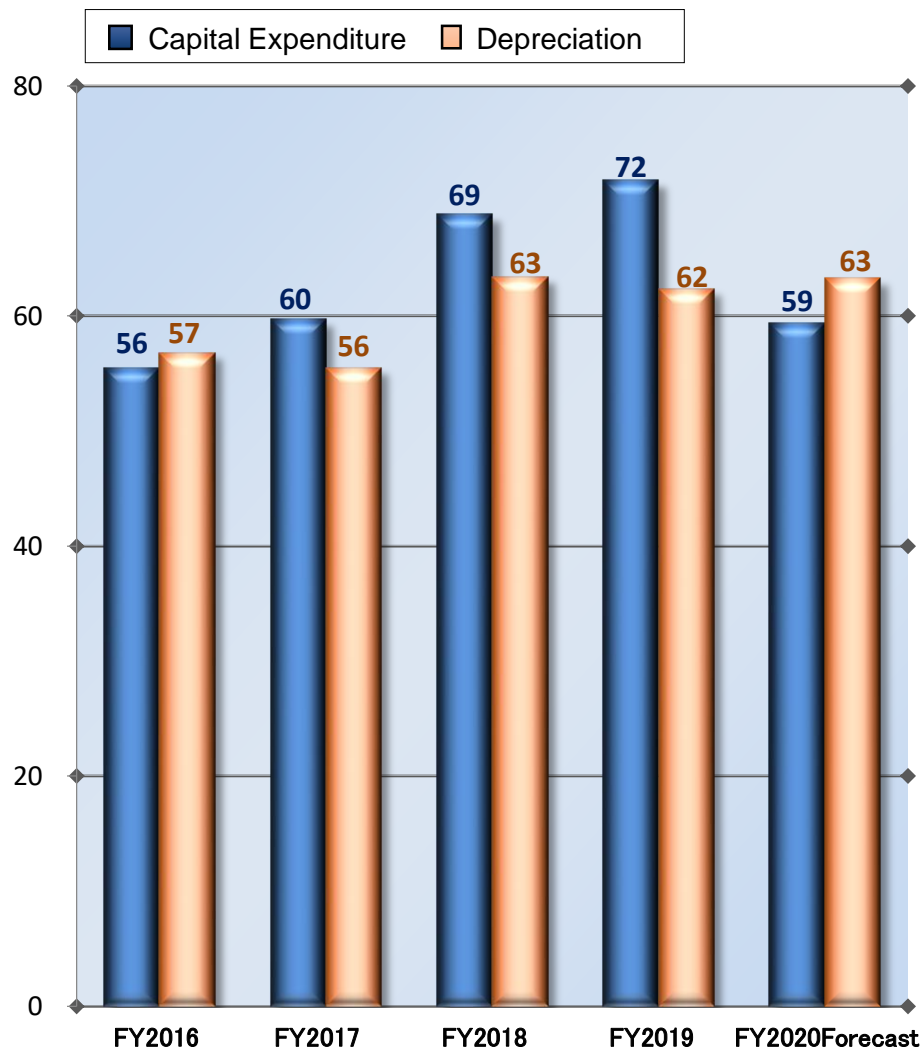


Net Income & ROE(Consolidated)



(Billions of Yen)

Capital Expenditure & Depreciation(Consolidated)



(100 Millions of Yen)

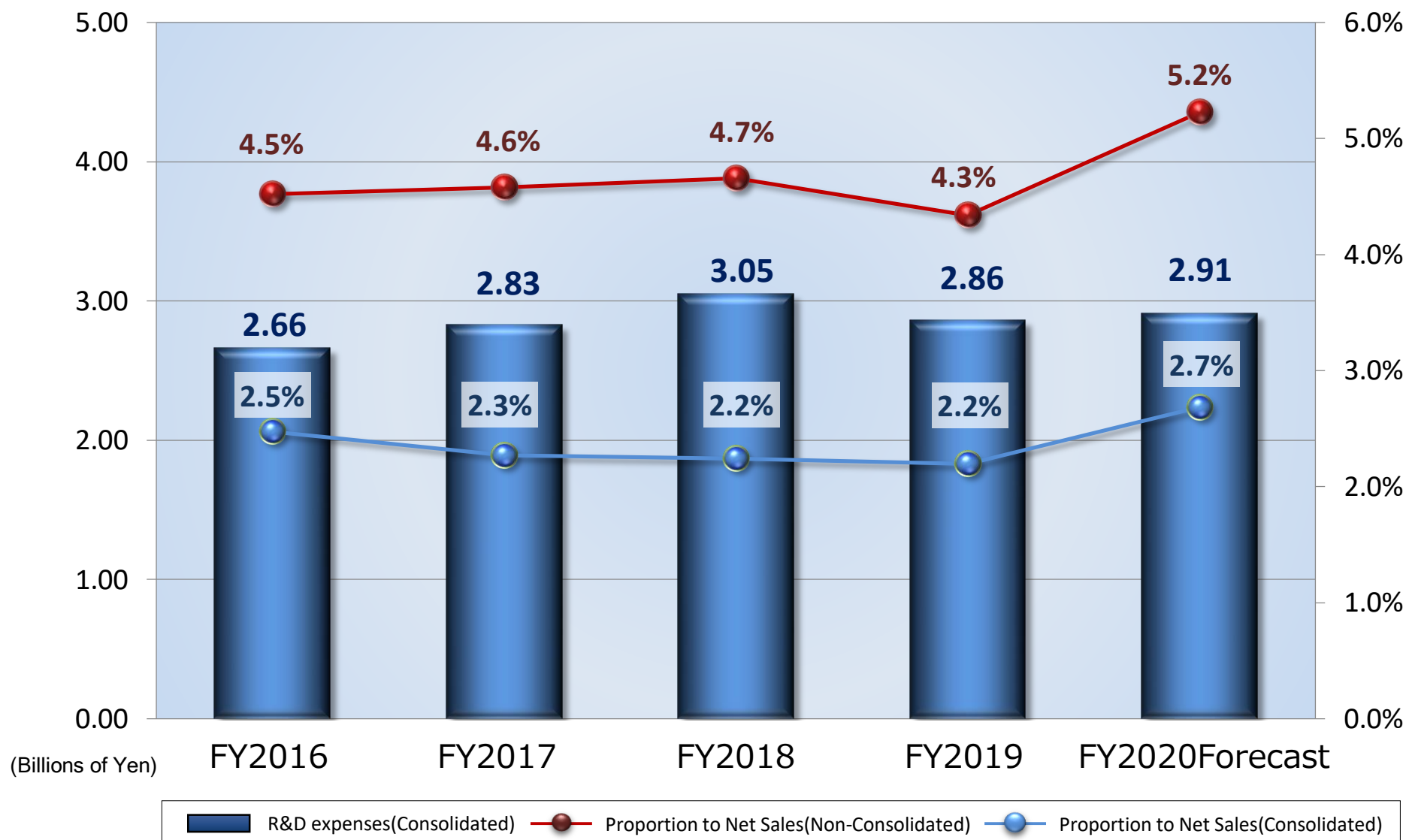
Capital Expenditure by region (100 millions of Yen)

	FY2019		FY2020 Forecast	
	Capital Expenditure	Share	Capital Expenditure	Share
Japan	35.5	49.5%	32.2	54.1%
North America	16.1	22.5%	11.6	19.5%
Europe	2.1	2.9%	1.3	2.2%
China	8.6	11.9%	5.0	8.4%
Thailand	3.7	5.1%	2.6	4.4%
Indonesia	1.5	2.1%	4.0	6.7%
Vietnam	4.3	6.0%	2.8	4.7%
Total	71.8	100.0%	59.4	100.0%

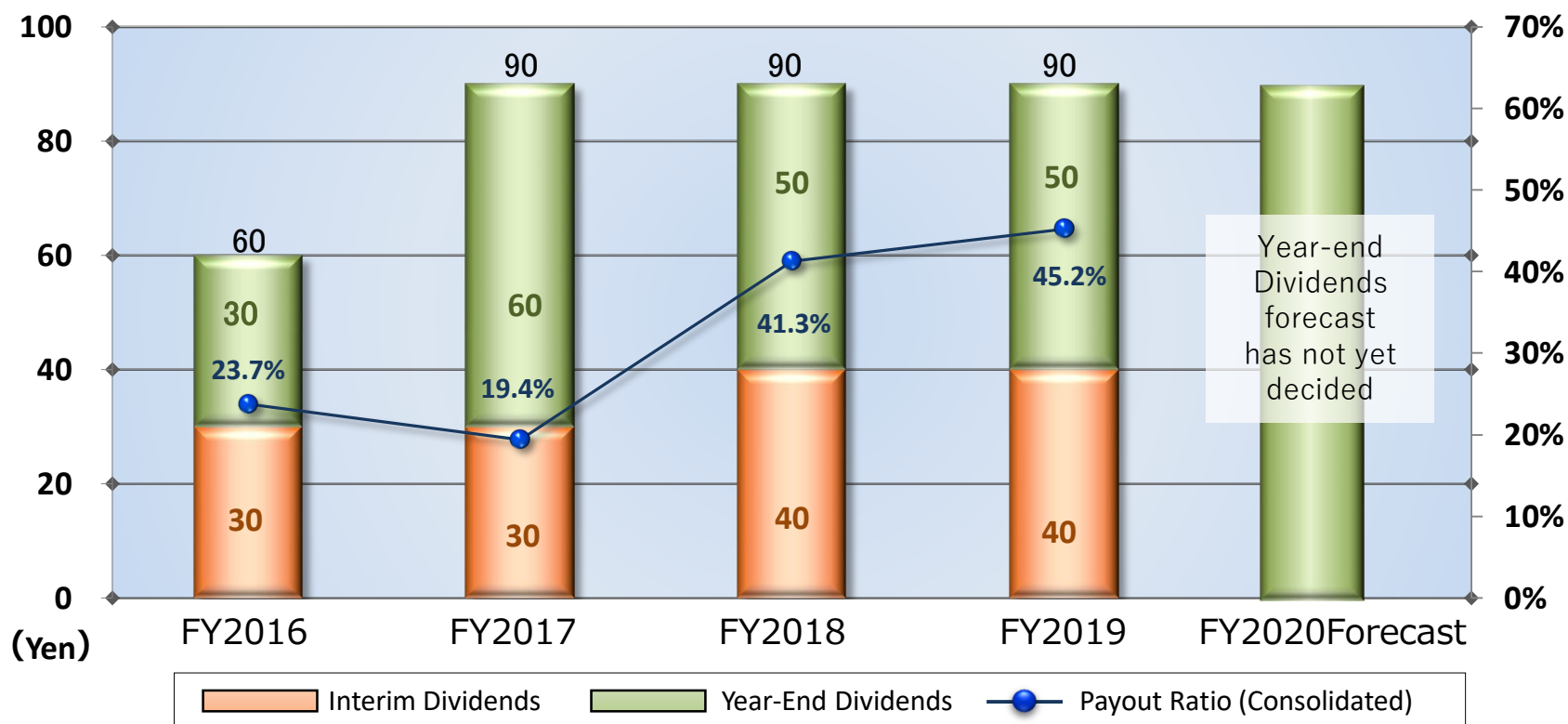
Depreciation by region (100 millions of Yen)

	FY2019		FY2020 Forecast	
	Depreciation	Share	Depreciation	Share
Japan	33.3	53.4%	36.6	57.8%
North America	11.8	19.0%	12.4	19.5%
Europe	1.1	1.7%	0.6	0.9%
China	6.7	10.7%	6.2	9.8%
Thailand	5.3	8.4%	4.0	6.3%
Indonesia	3.3	5.3%	2.5	3.9%
Vietnam	0.9	1.5%	1.2	1.8%
Total	62.4	100.0%	63.3	100.0%

R&D Expenses

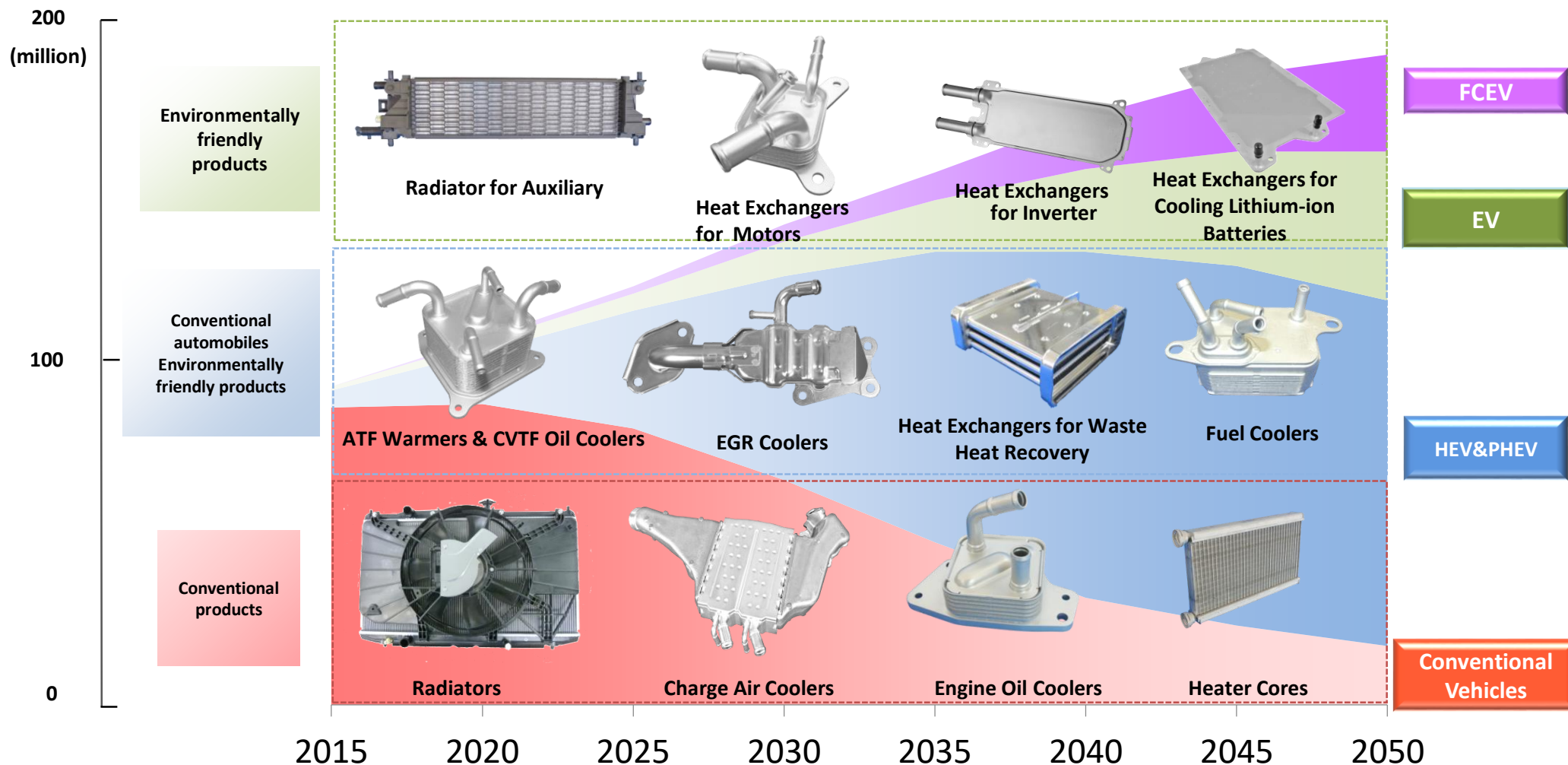


Dividends Per Share



	FY2016	FY2017	FY2018	FY2019	FY2020 Forecast
Dividends Per Share	60	90	90	90	—
(Year-End Dividends)	30	60	50	50	—
(Interim Dividends)	30	30	40	40	0
Payout Ratio(Consolidated)	23.7%	19.4%	41.3%	45.2%	—%
Payout Ratio(Non-Consolidated)	25.1%	26.4%	127.9%	23.7%	—%

Automobile Components



Development of exchangers corresponding to the change of the markets and customers' needs

Automobile Components

Name	Function
Radiators	To cool cooling water increased in temperature by the engine.
Charge Air Coolers	To cool intake air increased in temperature by being pressurized by a supercharger such as a turbocharger.
Engine Oil Coolers	To cool engine oil increased in temperature by the engine
Heater Cores	To heat indoors by allowing a part of cool cooling water increased in temperature to flow.
ATF Warmers & CVTF Oil Coolers	To heat lubricants for AT and CVT during warming-up and cool down at high temperatures.
EGR Coolers	To cool high-temperature exhaust gas when re-circulating a part of exhaust gas.
Heat Exchangers for Waste Heat Recovery	To recover heat within exhaust gas in HEV and reuse for heating and quick warming of the engine.
Fuel Coolers	To cool fuel increased in temperature by being pressurized by the fuel injection pump.
Radiator for Auxiliary	To cool cooling water increased in temperature by the heat exchanger for auxiliary equipment such as an inverter.
Heat Exchangers for Motors	To cool circulating oil for cooling the motor.
Heat Exchangers for Inverter	To cool inverters used in HEV and EV.
Heat Exchangers for Cooling Lithium-ion Batteries	To cool lithium ion batteries used in HEV and EV.