

**Results Briefing for the First  
Six-month of the Fiscal Year Ending  
December 31, 2022  
(FY2022/12 H1)**

**Nabtesco Corporation  
August 8, 2022**

The forecast data presented herein reflects assumed results based on conditions that are subject to change.

Nabtesco Corporation does not make representations as to, or warrant, in whole or in part, the attainment or realization of any of the forecasted results presented in this document.

Numerical figures presented herein are rounded down to the nearest whole unit for monetary value and rounded off to one decimal place for percentage.

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**1. Results for FY2022/12 H1**

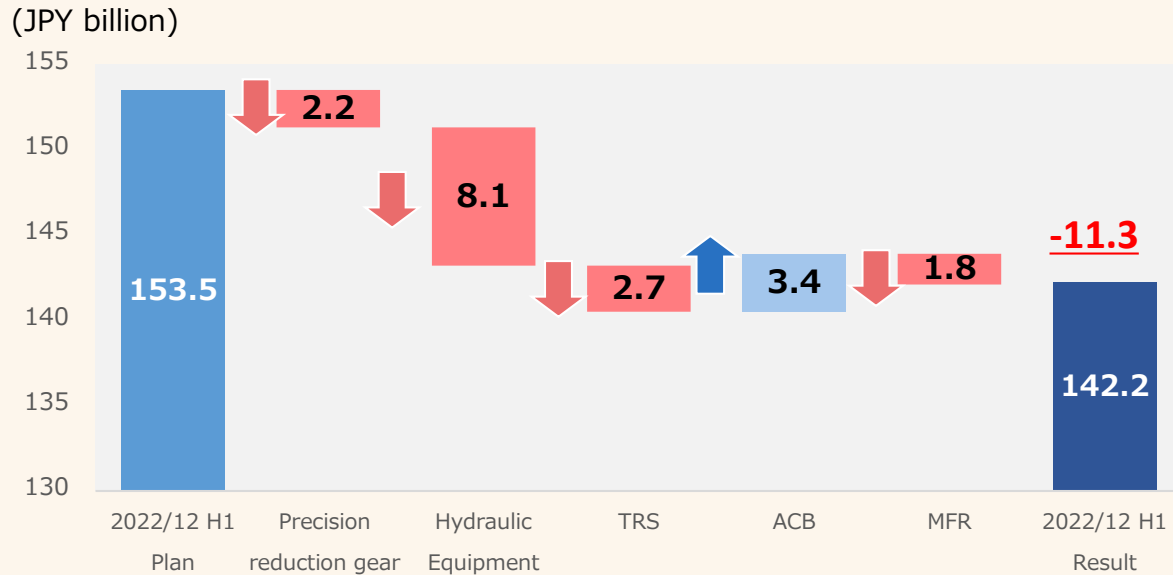
**2. Outlook for FY2022/12 H2**

**3. Outlook for FY2022/12 Full Year**

**4. Topics**

## 1. Results for FY2022/12 H1

## Sales Comparison



### [Sales increase]

-**ACB**: Increased platform doors sales in overseas

### [Sales decrease]

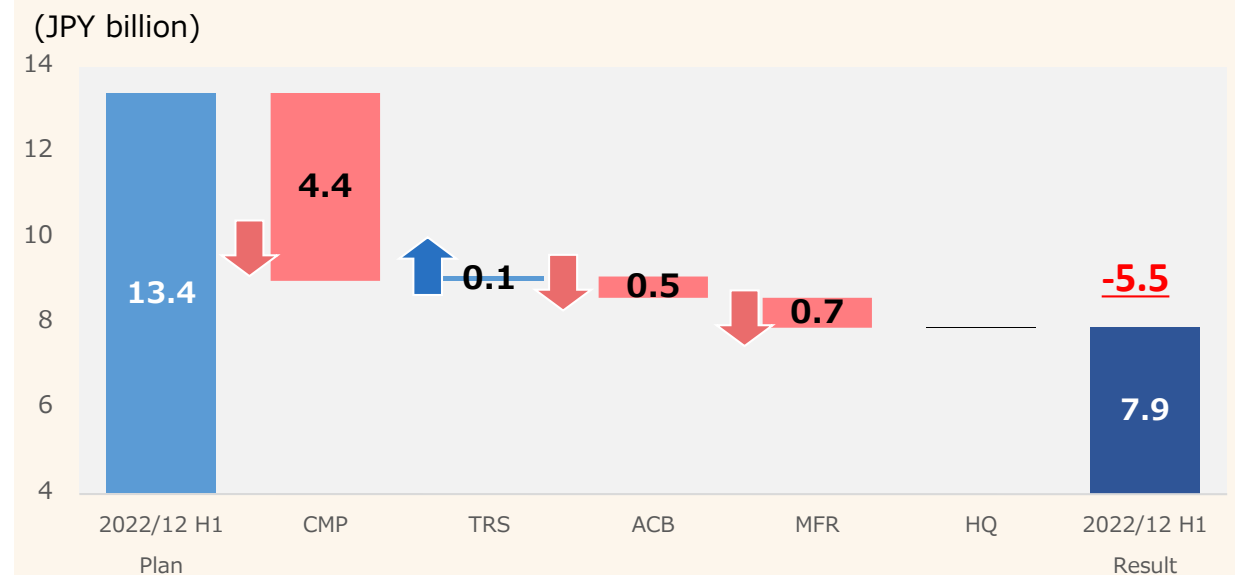
-**Precision Reduction Gears**: Production volume decreased due to spread of COVID-19 at Japan plant, and production delay happened at China plant due to logistics disruption caused by the Shanghai lockdown.

-**Hydraulic Equipment**: Production volume decreased due to lower-than-expected Chinese excavators demand comparing to the initial plan, and temporary operation suspension at Shanghai plant due to the lockdown.

-**TRS**: Production delay happened due to the shortages of electronic components both of at customers or at the Company side.

-**MFR**: Production and shipment delay happened due to the shortage of electronic components for packaging machines assemble.

## O.P. Comparison



### [O.P. increase]

-**TRS**: Increased due to the recovery of MRO and cost reductions

### [O.P. decrease]

-**Precision Reduction Gears**: Decreased due to lower production volume resulting from lower sales mentioned on the left.

-**Hydraulic Equipment**: Decreased in sales due to lower demand in China market and lower production volume due to temporary suspension of operations at the Shanghai plant.

-**MFR**: Decreased due to the delay in production and shipments caused by shortage of electronic components for packaging machines assemble.

- O.P. declined due to the lower sales resulting from the temporary suspension of production at the Shanghai plant and components shortages, and increased in raw material and other production costs.
- The decrease in financial income and cost is due to the mark-to-market valuation of HDS\*1 shares.  
(2021 Q4: ¥4,860/share → 2022 Q2: ¥3,995/share)

(JPY billion)	2021/12	2022/12	2022/12	YoY	Plan
	H1 result (A)	H1 plan As of Feb.10 (B)	H1 result (C)	Variation (C-A)	Variation (C-B)
<b>Sales</b>	145.7	153.5	142.2	-3.5	-11.3
<b>O.P.</b>	14.6	13.4	7.9	-6.7	-5.5
<b>Operating profit margin</b>	10.0%	8.7%	5.5%	-4.5pt	-3.2pt
<b>Financial income and cost</b>	92.6	0.1	-14.7	-107.3	-14.8
<b>(Revaluation share of HDS)</b>	93.8	-	-16.6	-110.4	-
<b>Equity in earnings of affiliates</b>	1.2	0.9	1.1	-0.1	0.2
<b>Profit before tax</b>	108.5	14.4	-5.7	-114.1	-20.1
<b>Net profit*2</b>	68.1	7.7	-5.1	-73.2	-12.8
<b>Total basic earnings per share (JPY Yen)</b>	556.45	64.03	-42.56		
<b>DPS (JPY Yen)</b>	38	39 (Plan)	39		

\* 1 HDS: Harmonic Drive Systems Inc.

\*2 Net profit attributable to owners of the parent

- Decrease in "Assets held for sale" and "Other financial assets in non-current assets" was mainly due to the write-down of HDS\*<sup>1</sup> shares.
- Decrease in "Income taxes payable and deferred tax liabilities" is due to the payment of income taxes payable in FY2021 (including gain on valuation of HDS\*<sup>1</sup>).

(JPY billion)	2021/12 Q4 (As of Dec. 31, 2021)	2022/12 Q2 (As of June 30, 2022)	Variation
<b>Assets</b>	481.7	465.6	-16.1
(Cash and cash equivalents)	112.8	106.7	-6.1
(Inventories)	41.9	53.1	11.3
(Assets held for sale)	44.5	36.2	-8.3
(Tangible fixed assets and right-of-use assets)	97.9	102.0	4.1
(Other financial assets in non-current assets)	53.8	46.1	-7.7
<b>Liabilities</b>	226.7	212.3	-14.4
(Income taxes payable and deferred tax liabilities)	33.7	11.8	-22.0
<b>Equities</b>	255.0	253.3	-1.7
(Non-controlling interests)	15.1	14.3	-0.8
(Equity attributable to owners of parent)	239.9	239.0	-0.9
Ratio of equity attributable to owners of parent:	49.8%	51.3%	

\* 1 HDS: Harmonic Drive Systems Inc.

## 2. Outlook for FY2022/12 H2

# 2-1 Outlook for FY2022/12 H2

-Market situations, Order taking, Order backlog and Actions in H2-

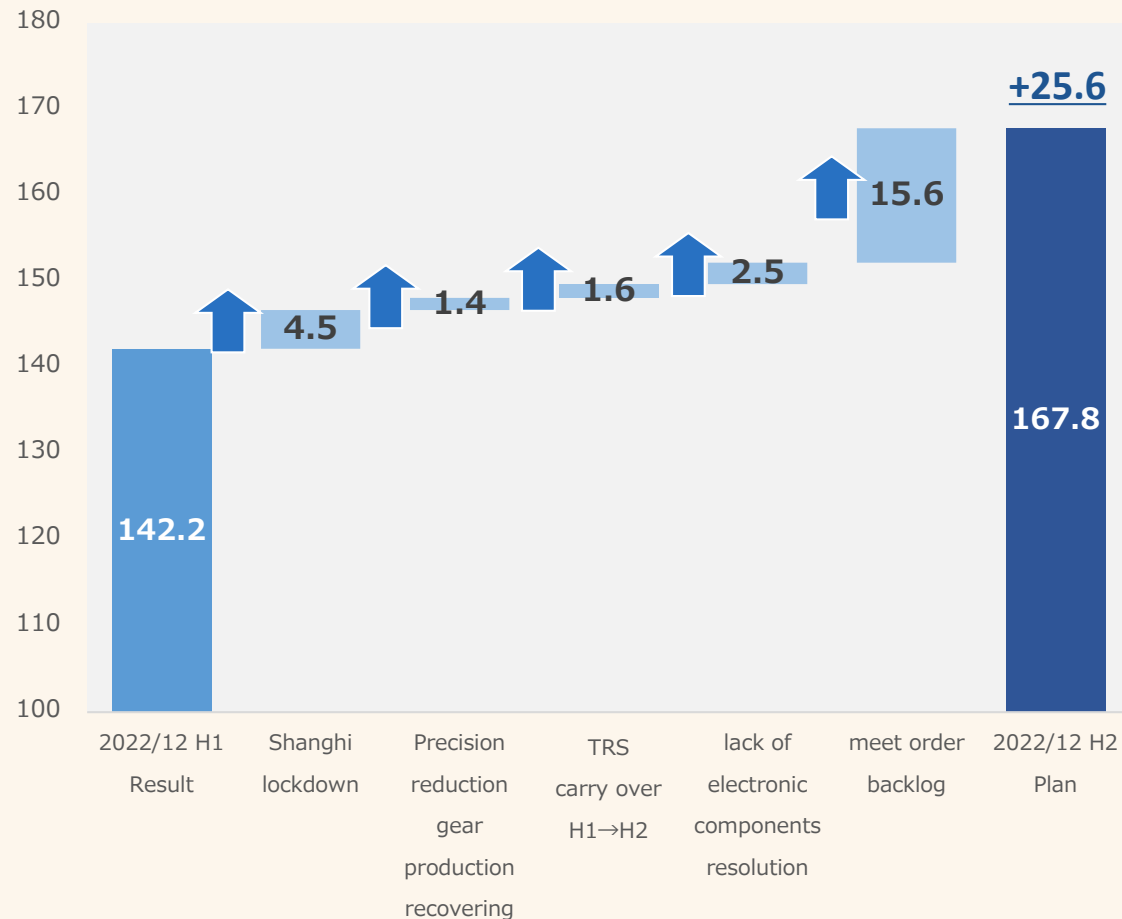
	Market situations	Orders taking 21 H1/21 H2/22 H1	Order backlog (vs 21 H2)	Sales 21 H1/21 H2/22 H1/22 H2	Actions to achieve 2022/H2 plan
<b>Precision Reduction Gears</b>	<p><b>-Continuing high robot demand for new EV production lines</b> -Increasing demand for automation in battery production lines as well</p> <p><b>-Strong demand for semiconductor manufacturing equipment and machine tools</b></p>		 <b>+42%</b>		<p><b>Sales expansion</b></p> <p><b>-High utilization to meet strong demand (Precision reduction gears)</b> -Ensure supply chain management and workforce acquisition</p>
<b>Hydraulic Equipment</b>	<p><b>-Sluggish demand for China in 22 H1</b> Demand forecast for Excavator market in China YoY -36% (initial assumption: YoY -20%)</p> <p>-Demand for Europe, the U.S. and Southeast Asia remained strong as expected.</p>		 <b>-2%</b>		<p><b>-Secure electronic components (TRS/ACB/MFR)</b> -Developing new suppliers -Promoting designs changes</p>
<b>TRS</b>	<p><b>-Railroad Vehicle Equipment:</b> Recovery for MRO demand</p> <p><b>-Aircraft Equipment:</b> Recovery for small aircraft</p> <p><b>-Marine Vessel Equipment:</b> Increase demand for new marine ship build</p> <p><b>-Commercial Vehicle Equipment:</b> Increase demand for Southeast Asian markets</p>		 <b>+11%</b>		<p><b>O.P. expansion</b></p> <p><b>-Achievement of sales targets</b></p> <p><b>-Promoting price increases in MRO (TRS)</b></p> <p><b>-Reduction of raw material and outsourcing costs</b> -In-house production of bearings -Developing new suppliers</p> <p><b>-Passing on rising raw material costs to product prices</b></p> <p><b>-Reallocation of personnel to high-utilization plants</b> -From Aircraft/Hydraulic equipment plant to Precision reduction gear plant</p> <p><b>-Reduction of ad. expenses (HQ)</b></p>
<b>ACB</b>	<p><b>-Increase demand for automatic doors for redevelopment in the metropolitan area in 2023 and 2024.</b></p> <p>-Strong demand for platform doors in Japan and overseas markets</p>		 <b>+20%</b>		
<b>MFR</b>	<p>-Increase demand for automation requirements due to labor shortages</p> <p><b>-Growing demand for individual food packaging</b></p>		 <b>+35%</b>		



■ By resolving the stagnation in production, logistics, etc. that occurred in H1, we will steadily digest the high level of order backlogs in H2 and achieve the sales and O.P. plan.

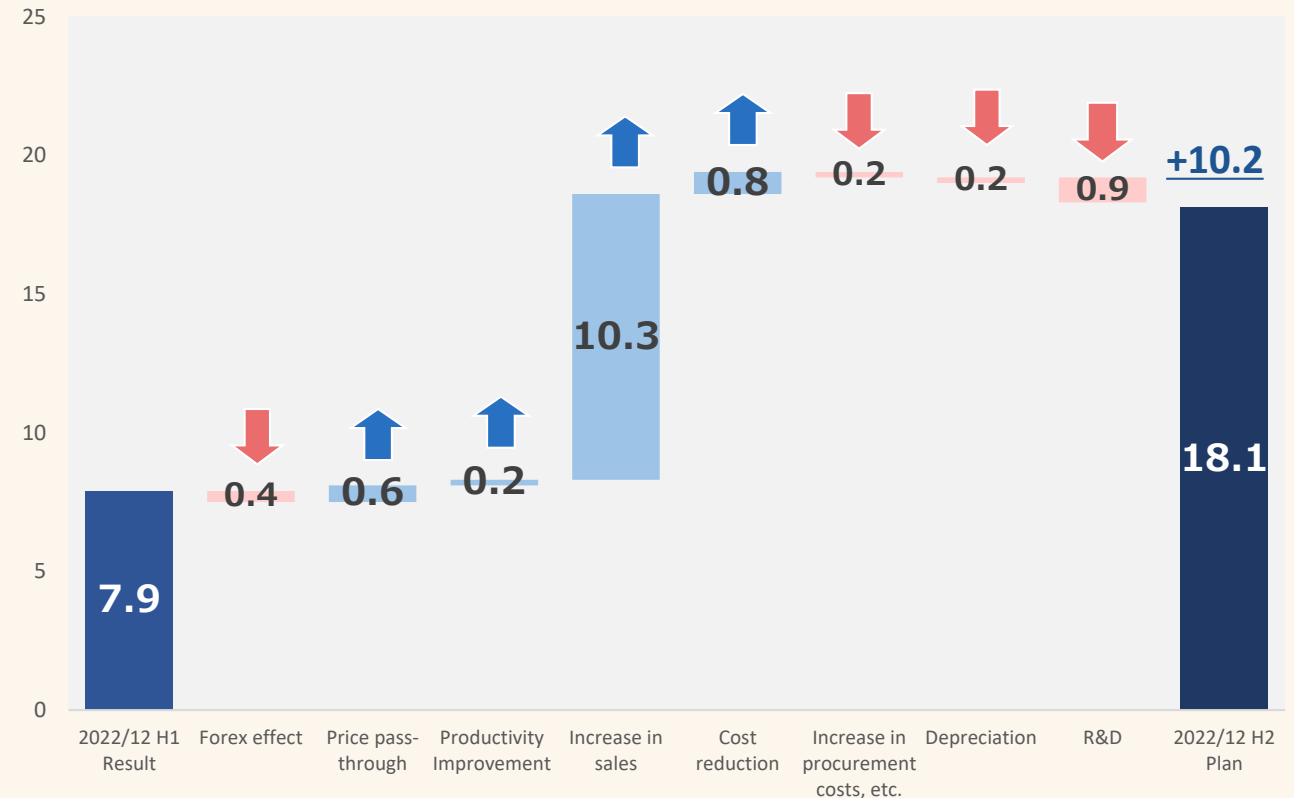
## Sales Comparison

(JPY billion)

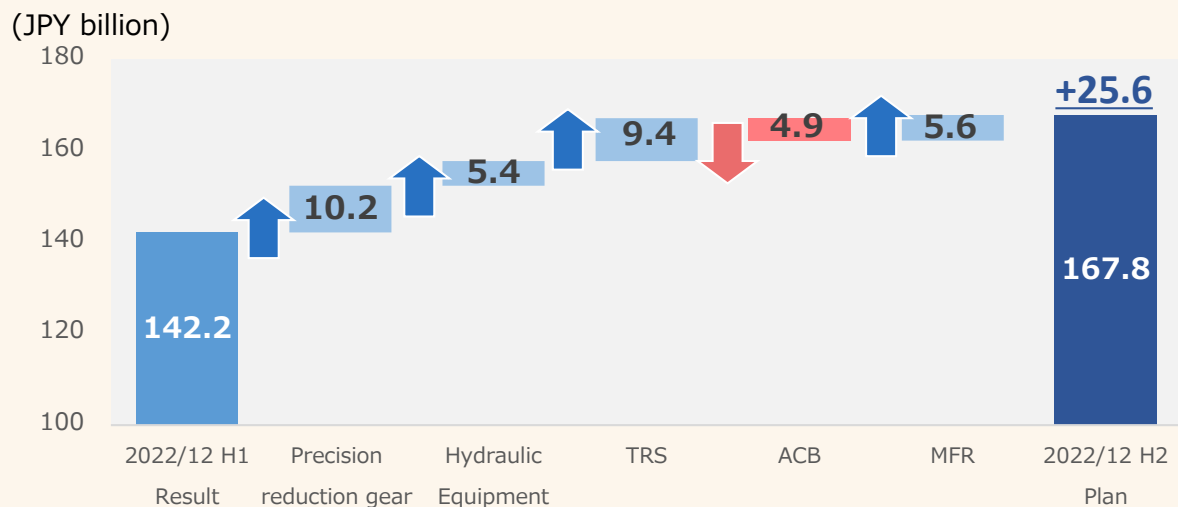


## O.P. Comparison

(JPY billion)



## Sales Comparison



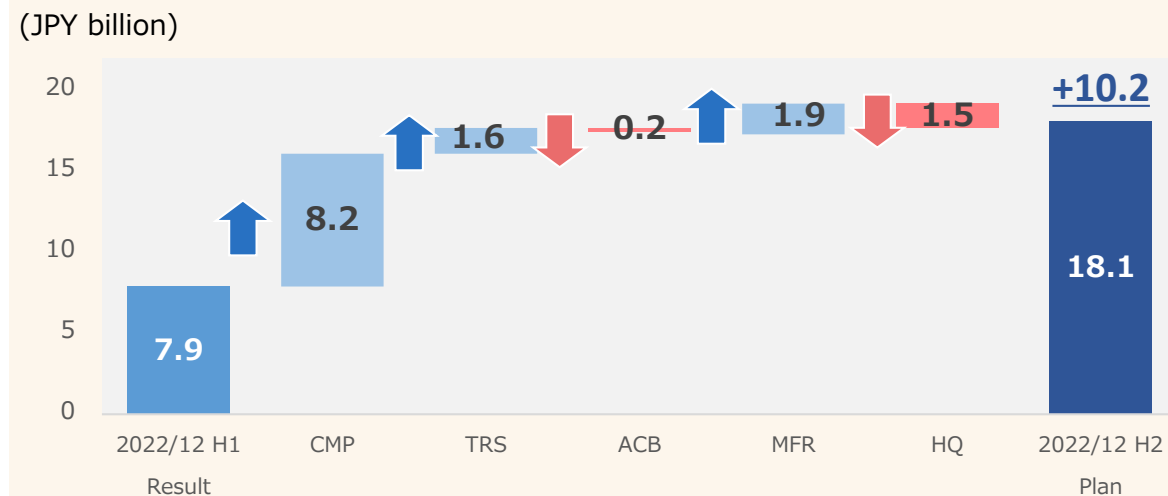
### [Sales increase]

- Precision Reduction Gears:** Sales increase due to continued high demand for industrial robots, machine tools, SME, and EV battery manufacturing equipment
- Hydraulic Equipment:** Sales increase due to recovery from production delays caused by the Shanghai lockdown and increase demand tied to the Chinese New Year 2023.
- TRS:** Sales increase due to response to delay in procurement of electronic components, recovery from production delays caused by the Shanghai lockdown, and recovery in passenger demand.
- MFR:** Sales increase due to the promote to recovery actions to catch up procurement of electronic components delay.

### [Sales decrease]

- ACB:** Due to the advance of sales in H1, full year sales will be in line with the initial plan for the full year

## O.P. Comparison



### [Sales increase]

- CMP:** In addition to the increase in sales as described on the left, OP increase due to the price pass-through of increased procurement costs.
- TRS:** OP increase due to higher MRO sales in addition to increased demand as described on the left.
- MFR:** OP increase due to the increase in sales as described on the left.

### [OP decrease]

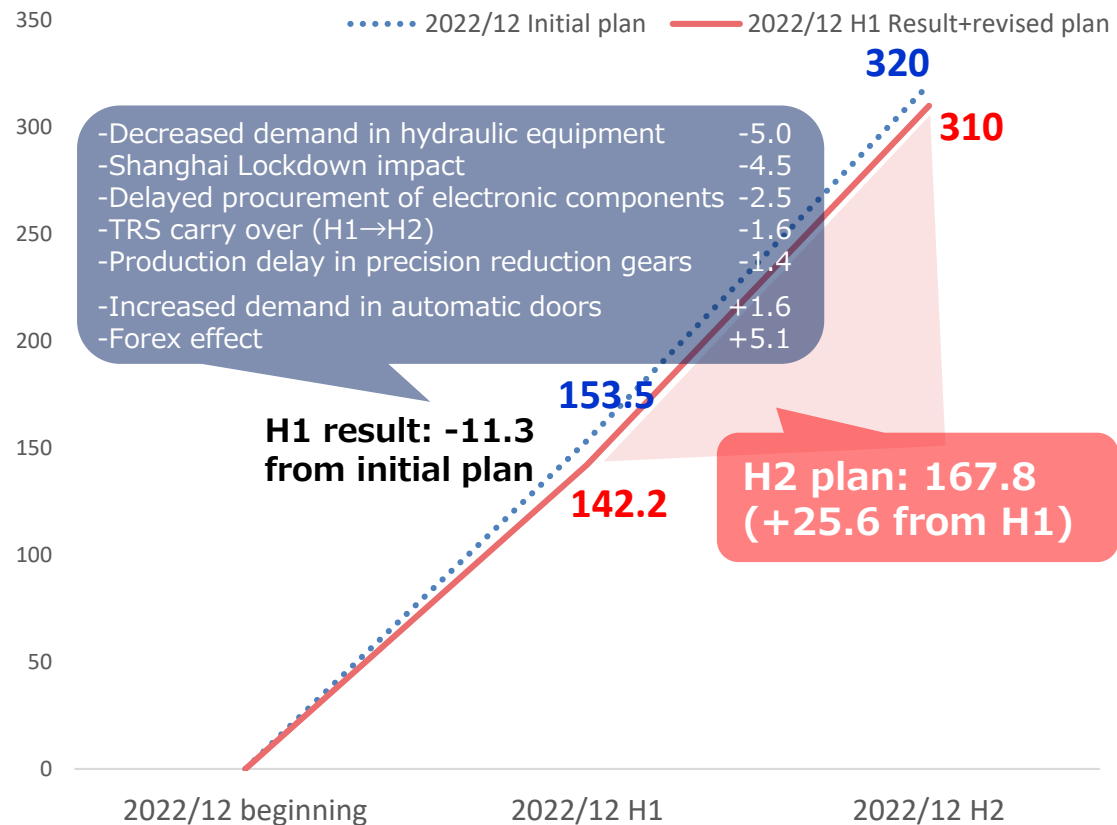
- ACB:** OP is expected to decrease due to lower sales, but the amount of decrease is limited.
- HQ cost:** R&D investments to promote innovation will be executed as planned.

## 3. Outlook for FY2022/12 Full Year

## Sales Comparison

- H2: 167.8 JPY billion (+25.6 JPY billion from H1)
- Full year: 310 JPY billion yen (-10 JPY billion from initial plan)

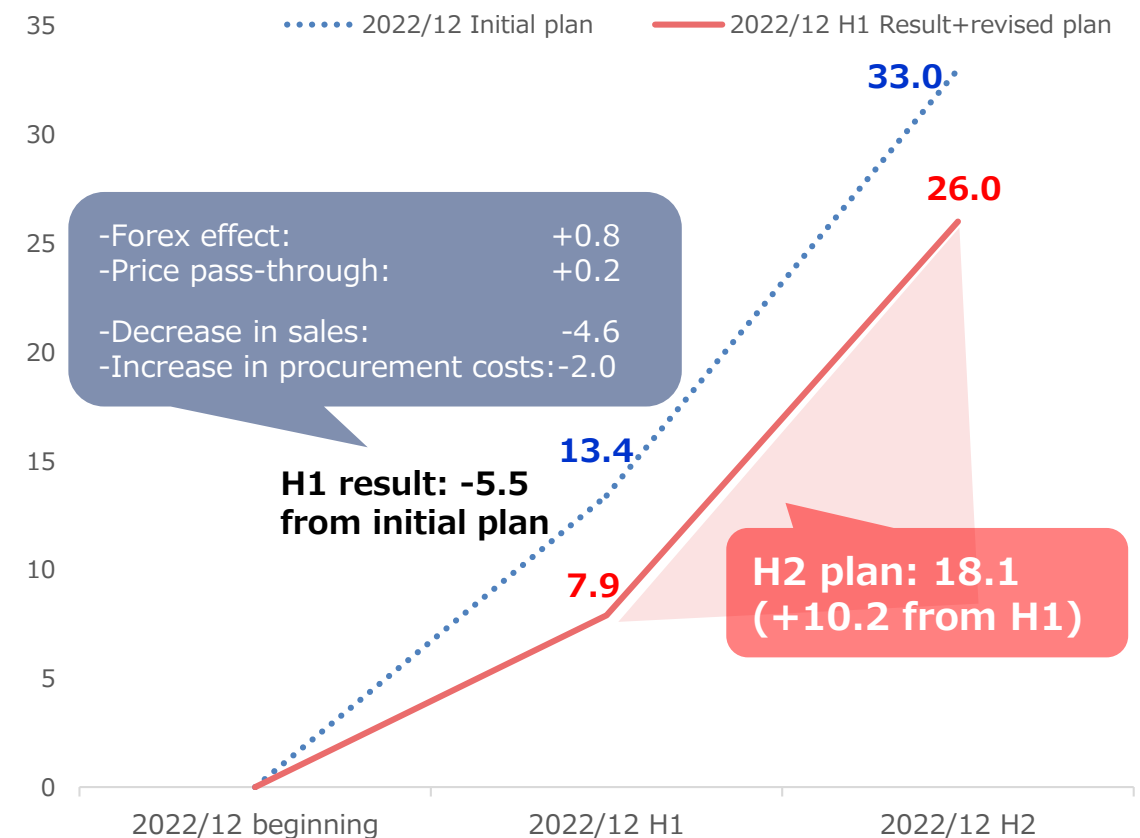
(JPY billion)



## O.P. Comparison

- H2: 18.1 JPY billion (+10.2 JPY billion from H1)
- Full year: 26 JPY billion yen (-7 JPY billion from initial plan)

(JPY billion)



- The sale of half of the HDS\*<sup>1</sup> shares held was completed on July 11. 4.9 JPY billion of financial income will be recorded in Q3 under the revised plan. Total sales amounted to 49.4 billion yen (VWAP\*<sup>2</sup> during the sale period: ¥5,392). We intend to sell the other half of our holdings (approx. 9 million shares) in the future.
- ROIC in the plan is 6.6%. We will continue to improve asset efficiency through the use of the ROIC tree.

(JPY billion)	2021/12 Full year result	2022/12 Full year plan As of Feb.7	2022/12 Revised plan As of July 31
<b>Sales</b>	299.8	320.0	310.0
<b>O.P.</b>	30.0	33.0	26.0
<b>(OPM)</b>	10.0%	10.3%	8.4%
<b>Financial Income and Cost</b>	69.9	0.1	6.1
<b>(Revaluation share of HDS)</b>	70.7	-	4.9
<b>Income before tax</b>	102.0	35.0	35.0
<b>Net profit*<sup>3</sup></b>	64.8	23.4	23.4
<b>ROIC</b>	8.1%	8.5%	6.6%
<b>DPS (JPY Yen)</b>	77.0	78.0 (Plan)	78.0 (Plan)
<b>Payout ratio</b>	14.4%	40.1% (Plan)	40.0% (Plan)
<b>Share price used for revaluation of HDS share (JPY yen)</b>	4,860/share	4,860/share	4,860/share

\*1 HDS: Harmonic Drive Systems Inc.

\*2 VWAP: Volume Weighted Average Price

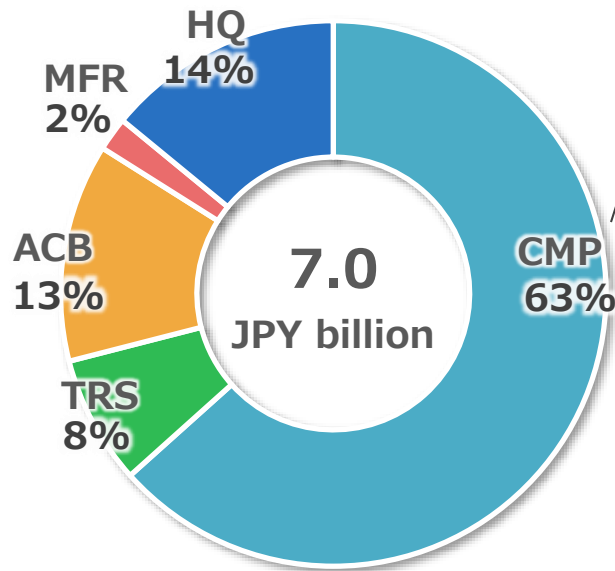
\*3 Net profit attributable to owners of the parent

# 3-3 CAPEX, R&D and Depreciation

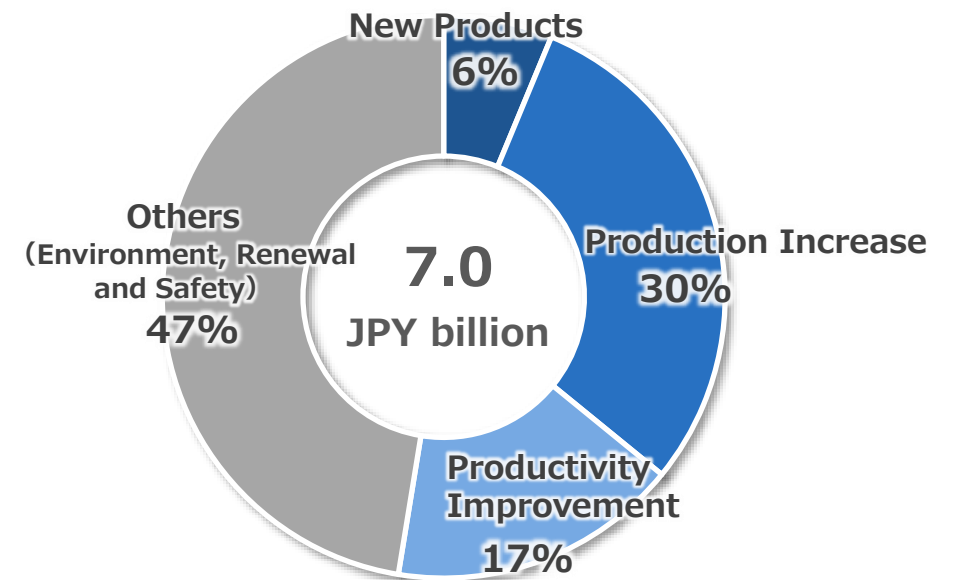
(JPY billion)	2021/12 H1 result (A)	2022/12 H1 result (B)	YoY Variation (B-A)
CAPEX	4.7	7.0	2.3
R&D	4.8	5.4	0.6
Depreciation	6.6	7.1	0.5

2021/12 Result	2022/12 Revised plan (C)	2022/12 Initial plan (D)	Plan Variation (C-D)
9.6	30.2	36.1	-5.9
9.6	12.3	11.4	0.9
13.3	14.1	14.3	-0.2

## 2022/12 H1 Result



- Precision reduction gears**  
 -investments for increase production, productivity improvement and environment-related investments (Tsu plant, Hamamatsu plant)
- Hydraulic equipment**  
 -Facility obsolescence, productivity improvement (Tarui plant)

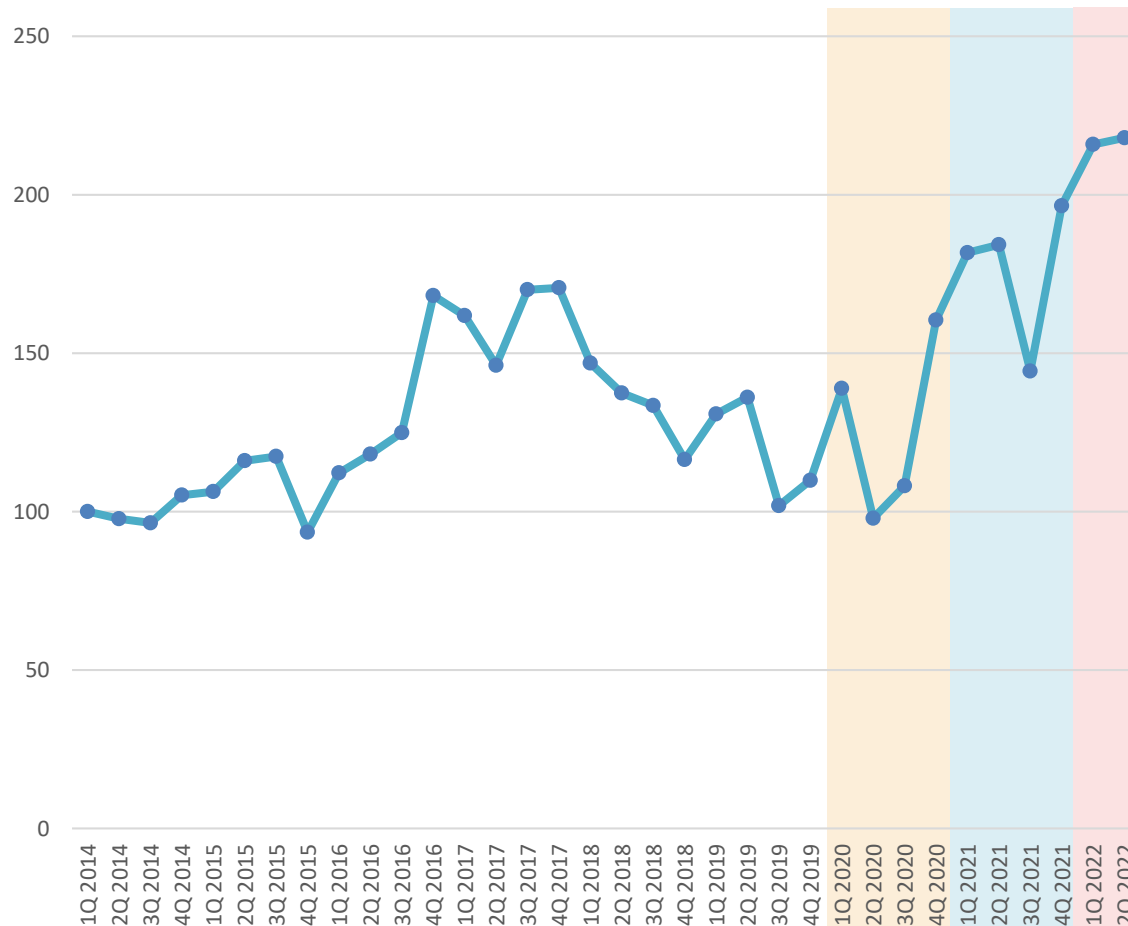


## 4. Topics

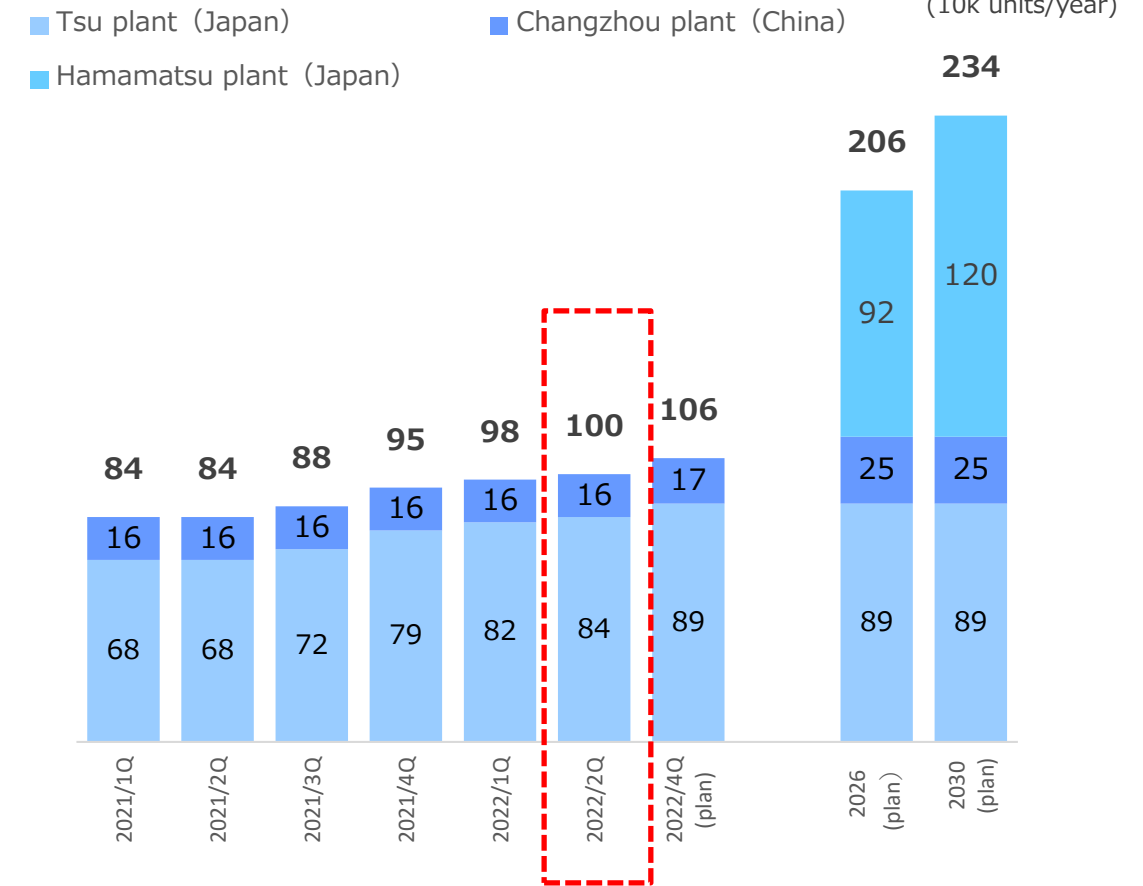
# 4-1 Precision Reduction Gears -Consolidated Orders and Production Capacity-

**Index for FY2022/Q2 consolidated orders taking**  
-Record-high orders for three quarters in a row following FY2021/Q4.  
QoQ +1%, YoY +18%

**Production capacity expansion**  
-Annual production capacity reached to one million units at FY2022/Q2.  
-The new Hamamatsu plant commencement ceremony in Sep.23, 2022



FY2014/Q1 = 100





- Smart manufacturing plant for Precision Reduction Gear RV™
  - Regular production capacity: 920,000 units as of 2026/1.2 million units as of 2030
- Promote initiatives to address 10 SDGs, including energy creation by solar power generation (to achieve RE100)



Three-story office building with a sense of freedom in harmony with green



Wooden guard station with RV motif roof

Item	Tsu plant	Hamamatsu plant
Site area	111,978 m <sup>2</sup>	181,700 m <sup>2</sup>
Ordinary production capacity for RV	890,000 units per year	1.2 million units as of 2030

# Appendix

## ■ FOREX rate

	2021/12 H1 results	2021/12 Full year results	2022/12 H1 results	2022/12 Initial plan	2022/12 Revised plan
<b>USD</b>	¥108.45	¥110.37	¥124.52	¥110.00	¥120.00
<b>RMB</b>	¥16.76	¥17.12	¥19.12	¥17.00	¥18.50
<b>EUR</b>	¥130.46	¥120.34	¥135.16	¥125.00	¥130.00
<b>CHF</b>	¥119.02	¥120.71	¥131.83	¥120.00	¥125.00

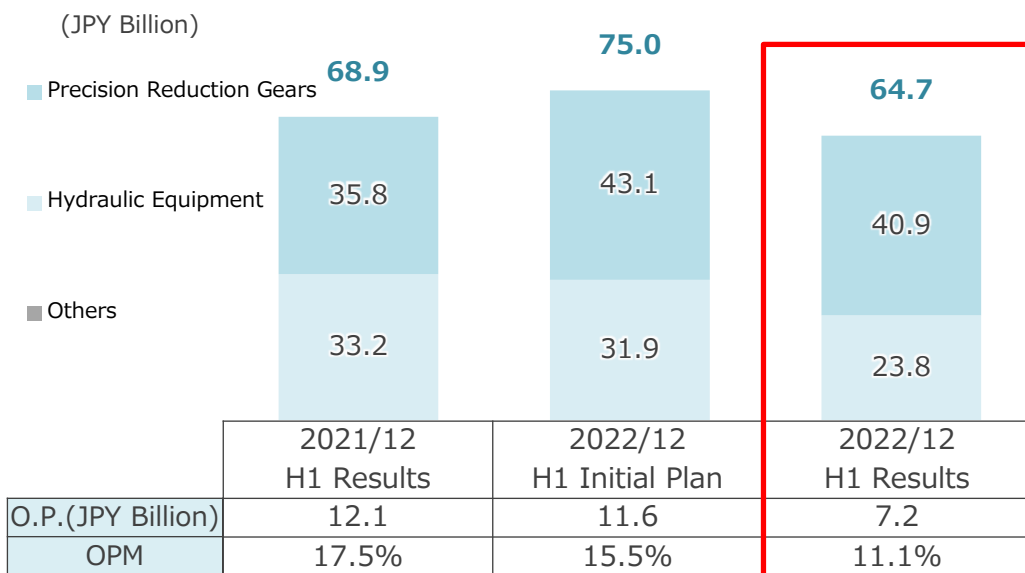
## ■ FOREX sensitivity (This represents the effect to be expected on operating profit if the exchange rate fluctuates by one yen )

(Million yen)	2022/12 H1 results	
	Sales	O.P.
<b>USD</b>	68	16
<b>RMB</b>	1,092	262
<b>EUR</b>	32	Minimal
<b>CHF</b>	103	Minimal

2022/12 Revised plan	
Sales	O.P.
174	30
2,679	759
76	Minimal
194	Minimal

# Details of 2022/12 H1 Results

## Component Solutions Segment (CMP)



### [Sales]

#### • Precision Reduction Gears Business :

Sales increased YoY due to the strong demand for industrial robots, machine tools, semiconductor manufacturing equipment and lithium-ion battery manufacturing equipment for EVs.

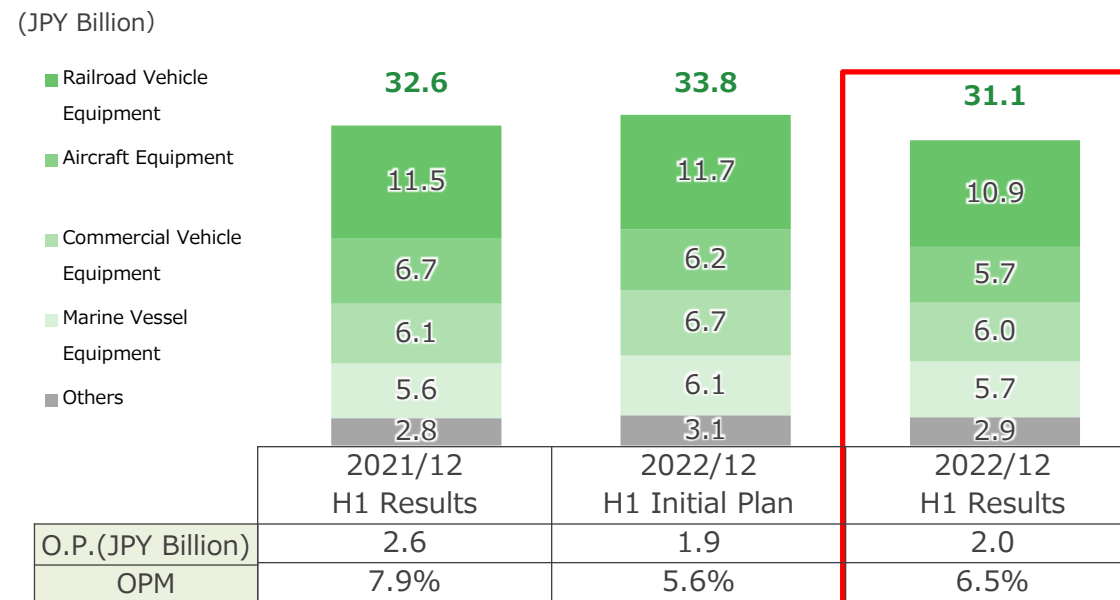
#### • Hydraulic Equipment Business :

Sales decreased YoY due to significantly lower demand in China and suspension of Shanghai Plant operation by Shanghai lockdown.

### [O.P.]

O.P. Decreased YoY due to lower sales and higher personnel/distribution etc. costs

## Transport Solutions Segment (TRS)



### [Sales]

#### • Railroad Vehicle Equipment Business :

Sales declined YoY due to lower demand for new vehicles in the domestic and foreign markets, despite of the strong sales of MRO.

#### • Aircraft Equipment Business :

Sales declined YoY due to the delay in procuring components for Ministry of Defense, despite of moderate recovery in demand for commercial aircraft.

#### • Commercial Vehicle Equipment Business :

Despite the impact of production cut due to customers' production adjustments, sales remained at the same level as the previous year due to the recovery of the Southeast Asian market.

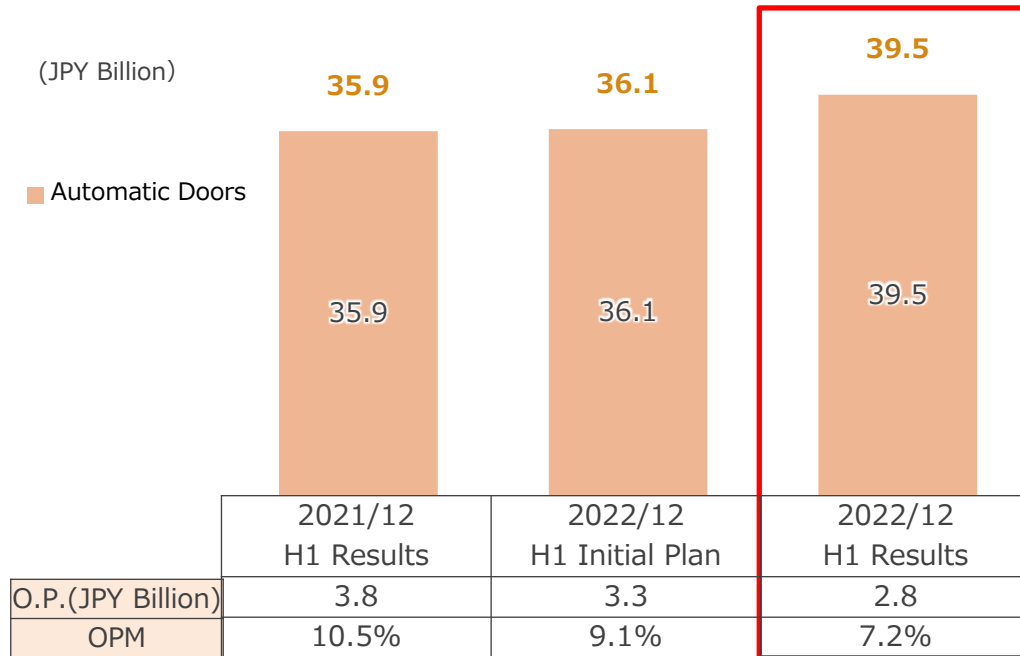
#### • Marine Vessel Equipment Business :

Sales remained at the same level as the previous year due to higher demand of shipbuilding and marine transportation, despite of the negative impact of shanghai lockdown.

### [O.P.]

O.P. Decreased YoY due to lower sales.

## Accessibility Solutions Segment (ACB)



### [Sales]

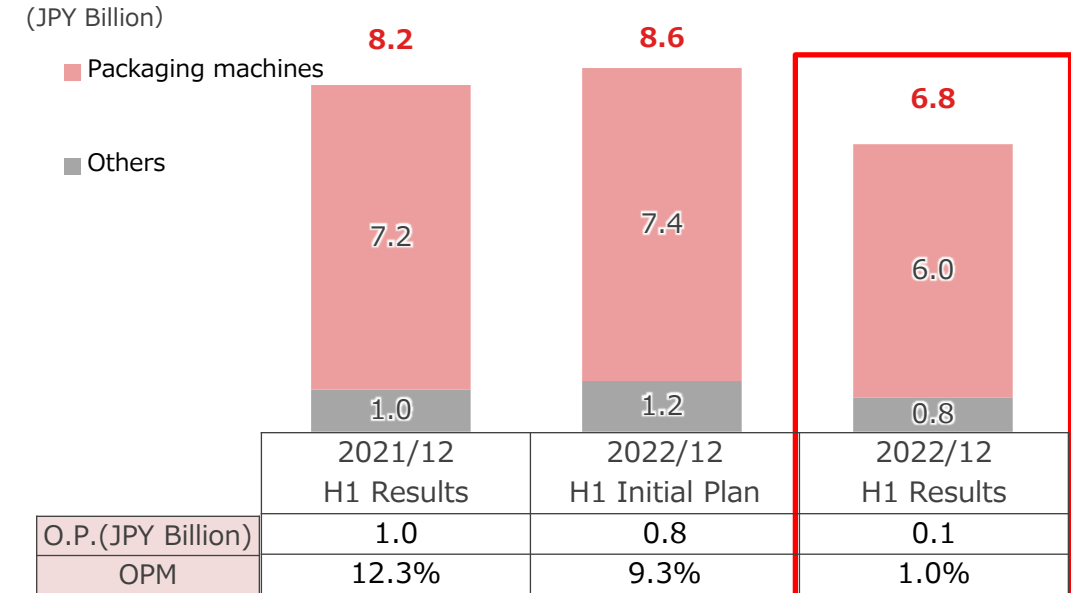
#### • Automatic Doors :

Sales increased YoY due to the steady demands in both domestic and overseas markets

### [O.P.]

O.P. decreased YoY due to the higher personnel costs resulting from travel restrictions in Europe caused by COVID-19, as well as lower profitability resulting from differences in product mix.

## Manufacturing Solutions Segment (MFR)



### [Sales]

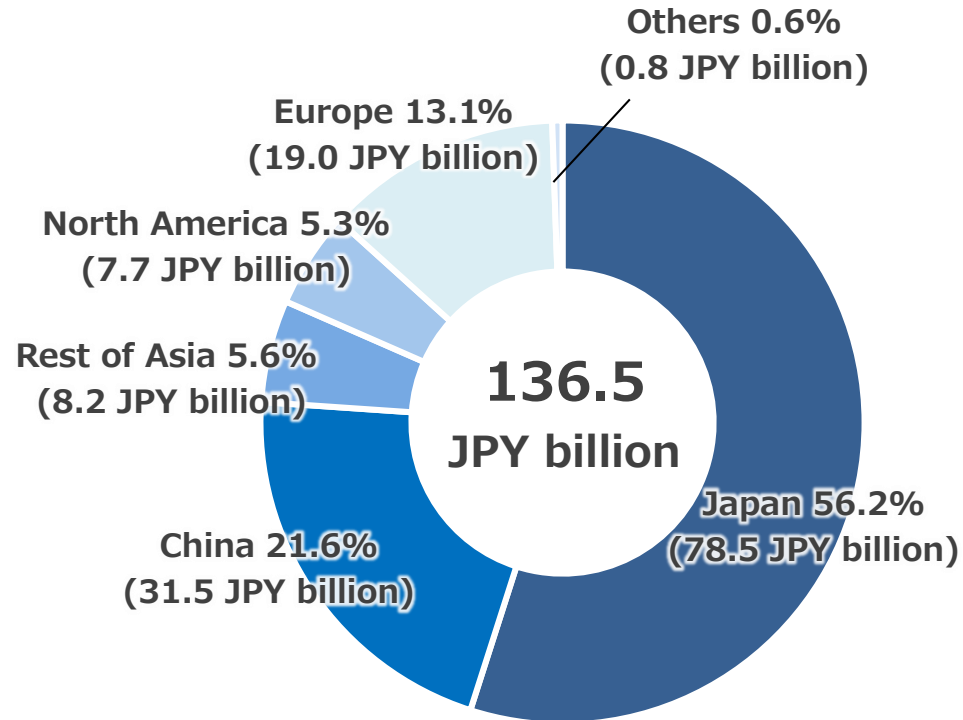
#### • Packaging Machines :

Both product sales and MRO sales declined YoY due to the procurement delay of electronic components and other items.

### [O.P.]

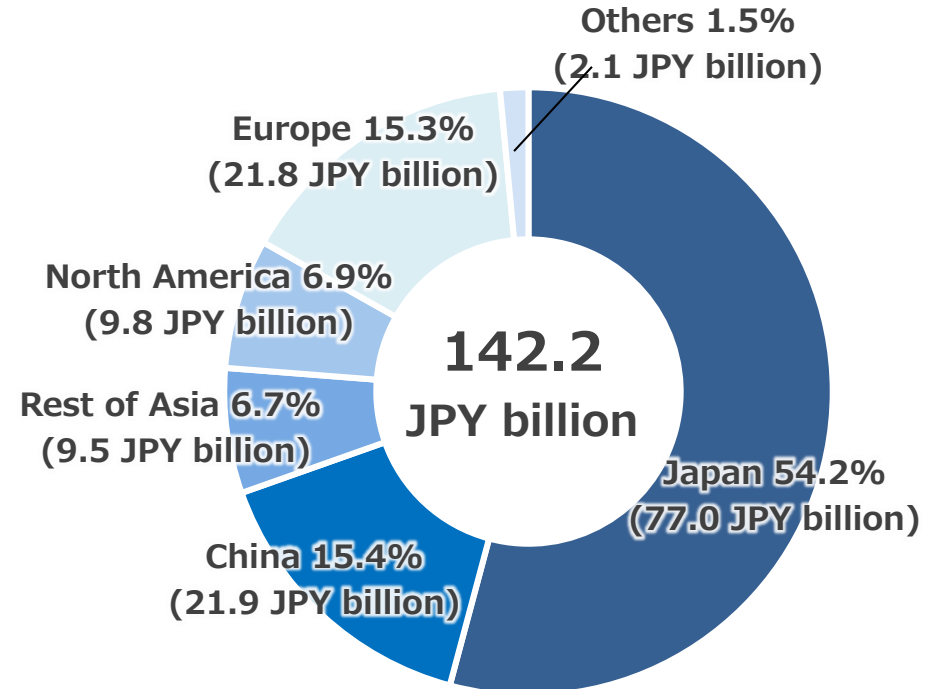
O.P. decreased YoY due to lower sales because of production delay caused by shortage of electronic components.

## 2021/12 H1 Results



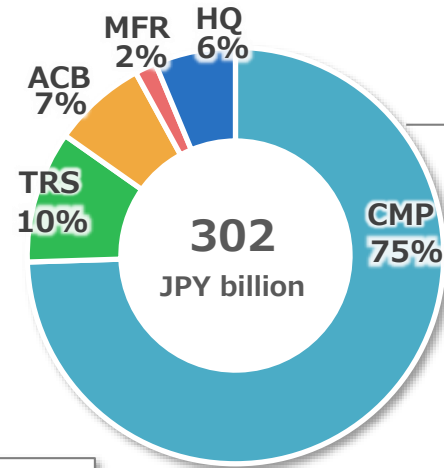
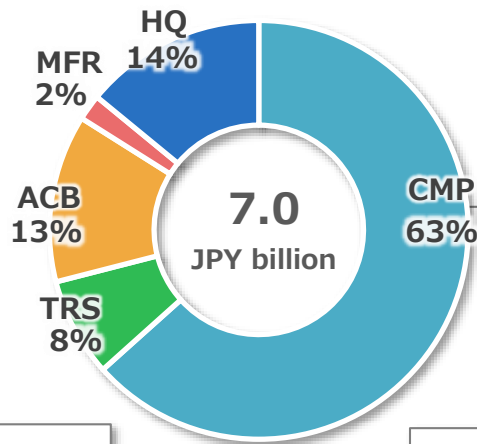
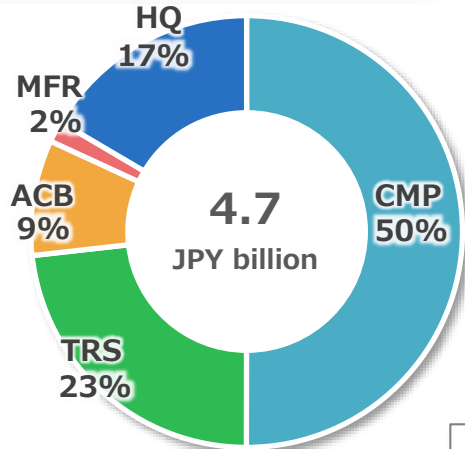
Overseas Sales	JPY 67.2 billion
Ratio	46.1%

## 2022/12 H1 Results

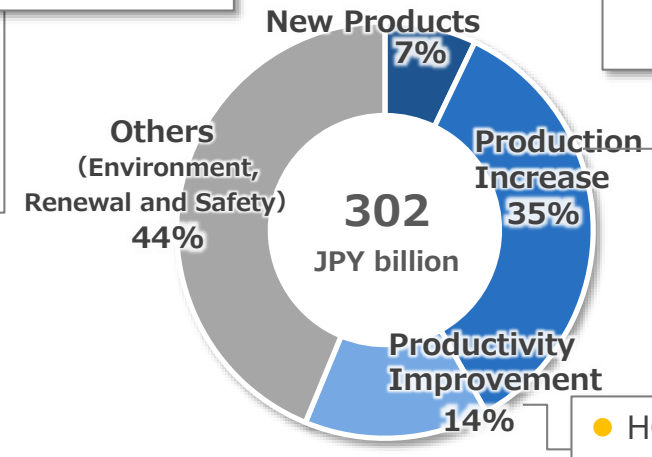
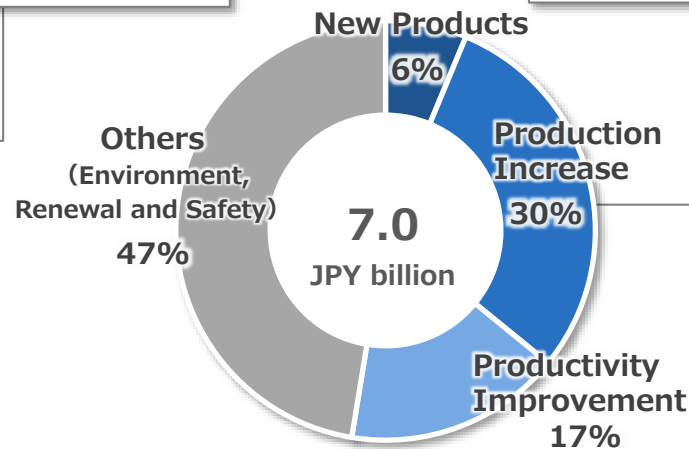
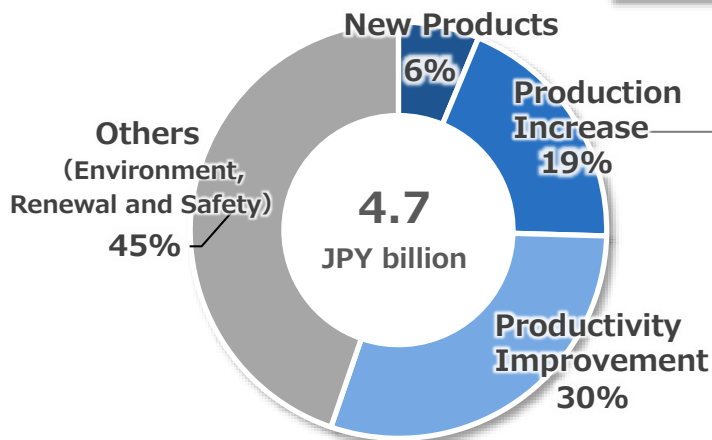


Overseas Sales	JPY 65.2 billion
Ratio	45.8%

## By segment



## By usage



● Precision reduction gears: increase capacity (Tsu plant)

● Precision reduction gears: increase capacity (Tsu plant / Hamamatsu plant)

● Precision reduction gears: increase capacity (Tsu plant / Hamamatsu plant / China)

● Hydraulic Equipment: Renewal (Tarui plant)

● HQ -Enterprise system update

2021/12 H1 results

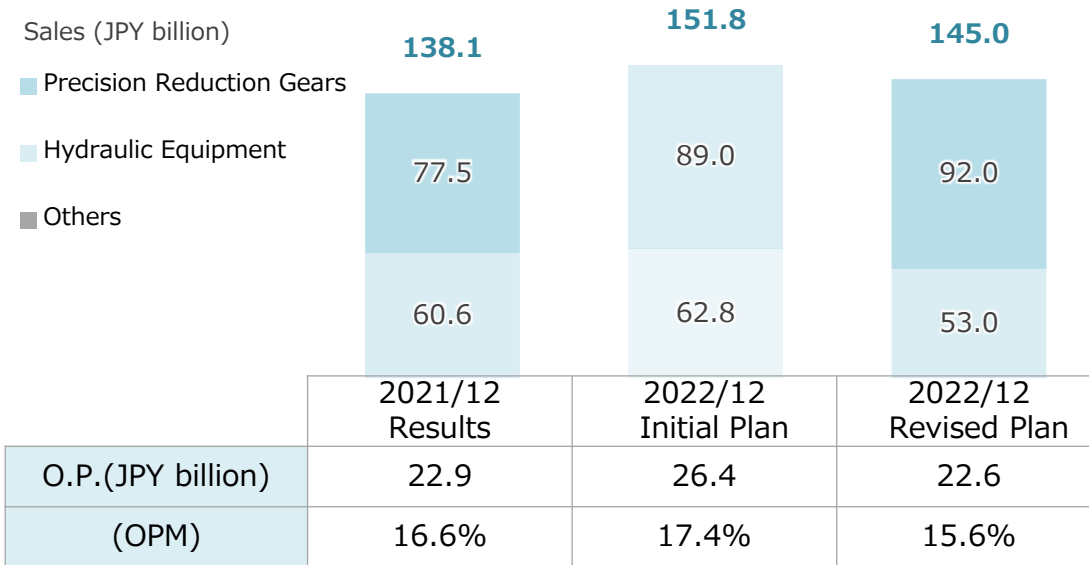
2022/12 H1 results

2022/12 Revised plan



# Details of FY2022/12 Full Year Forecasts

## Component Solution Segment (CMP)



### CMP: Revised down Sales and O.P.

#### [Sales]

##### • Precision Reduction Gears Business:

Sales are expected to increase compared to the initial plan due to strong demand for industrial robots, machine tools, etc.

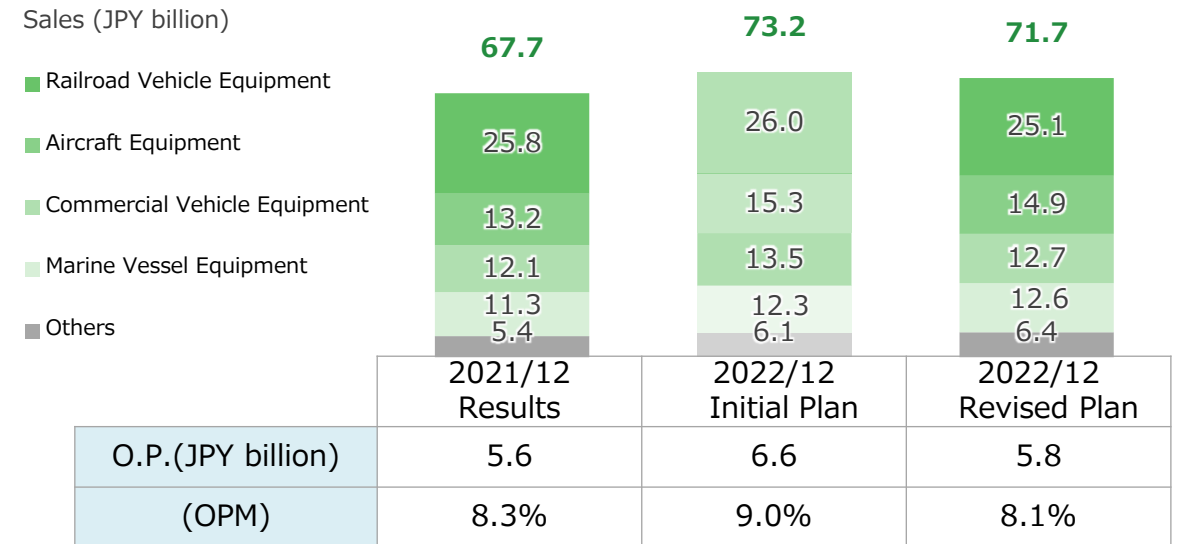
##### • Hydraulic Equipment Business:

Sales are expected to decrease compared to the initial plan due to significantly lower demand in China and suspension of Shanghai Plant operation caused by Shanghai lockdown.

#### [O.P.]

O.P. is expected to decrease compared to the initial plan due to lower sales of Hydraulic Equipment business in H1 and higher materials etc. costs.

## Transport Solution Segment (TRS)



### TRS: Revised down Sales and O.P.

#### [Sales]

##### • Railroad Vehicle Equipment Business :

Sales are expected to decrease compared to the initial plan mainly due to postponement of subway projects in China.

##### • Aircraft Equipment Business/Commercial Vehicle Equipment Business :

Sales are expected to decrease compared to the initial plan due to prolonged product quality issues and production adjustments at customers.

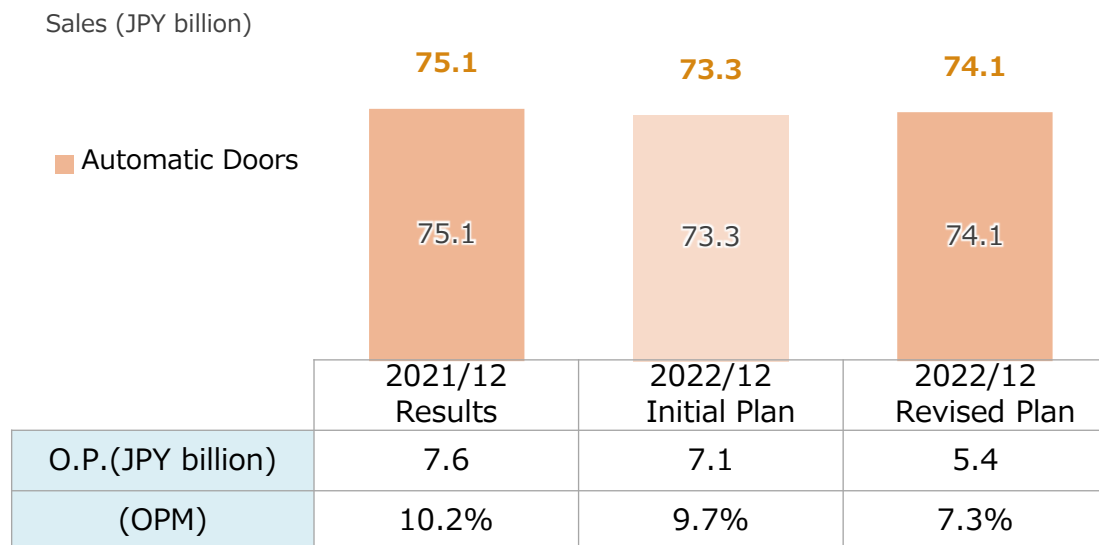
##### • Marine Vessel Equipment Business :

Sales are expected to increase compared to the initial plan due to higher demand in shipbuilding and shipping markets, despite of the negative impact of shanghai lockdown.

#### [O.P.]

O.P. expected to decrease compared to the initial plan due to lower sales.

## Accessibility Solution Segment (ACB)



### ACB : Revised up Sales and down O.P.

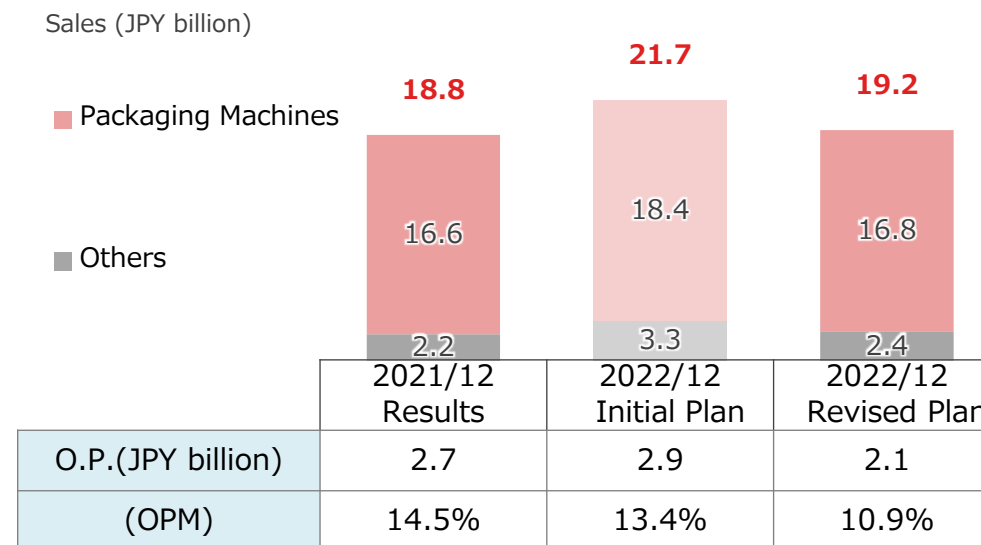
#### [Sales]

Sales are expected to increase compared to the initial plan due to FOREX effects and the strong platform doors demands in Japan and overseas. Sales of automatic doors are expected to increase steadily by small and medium-sized projects and MRO orders, while demands of automatic doors are sluggish until the completion of the buildings for the redevelopment projects in the Tokyo metropolitan area in 2023 and 2024.

#### [O.P.]

O.P. is expected to decrease compared to the initial plan due to the higher personnel costs resulting from travel restriction in Europe caused by COVID-19, as well as lower profitability resulting from differences in product mix.

## Manufacturing Solution Segment (MFR)



### MFR : Revised down Sales and O.P.

#### [Sales]

##### • Packaging Machines :

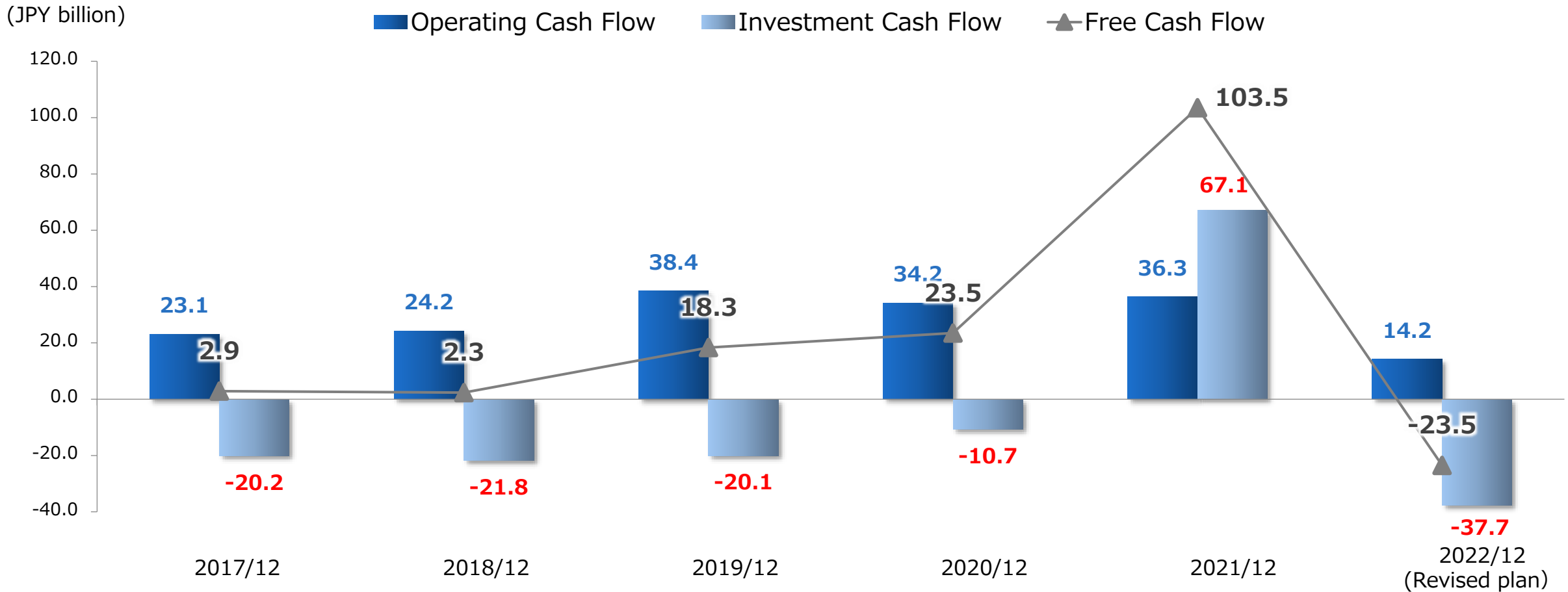
Sales in H1 declined due to the procurement delays of electronic components and other items, despite strong demands for packed food for individual use and labor saving.

Sales are expected to be in line with the revised plan through the solving procurement issues in H2 by changing of product design and developing new suppliers.

#### [O.P.]

O.P. is expected to decrease compared to the initial plan due to lower sales resulting from production delays caused by shortage of electronic components in H1.

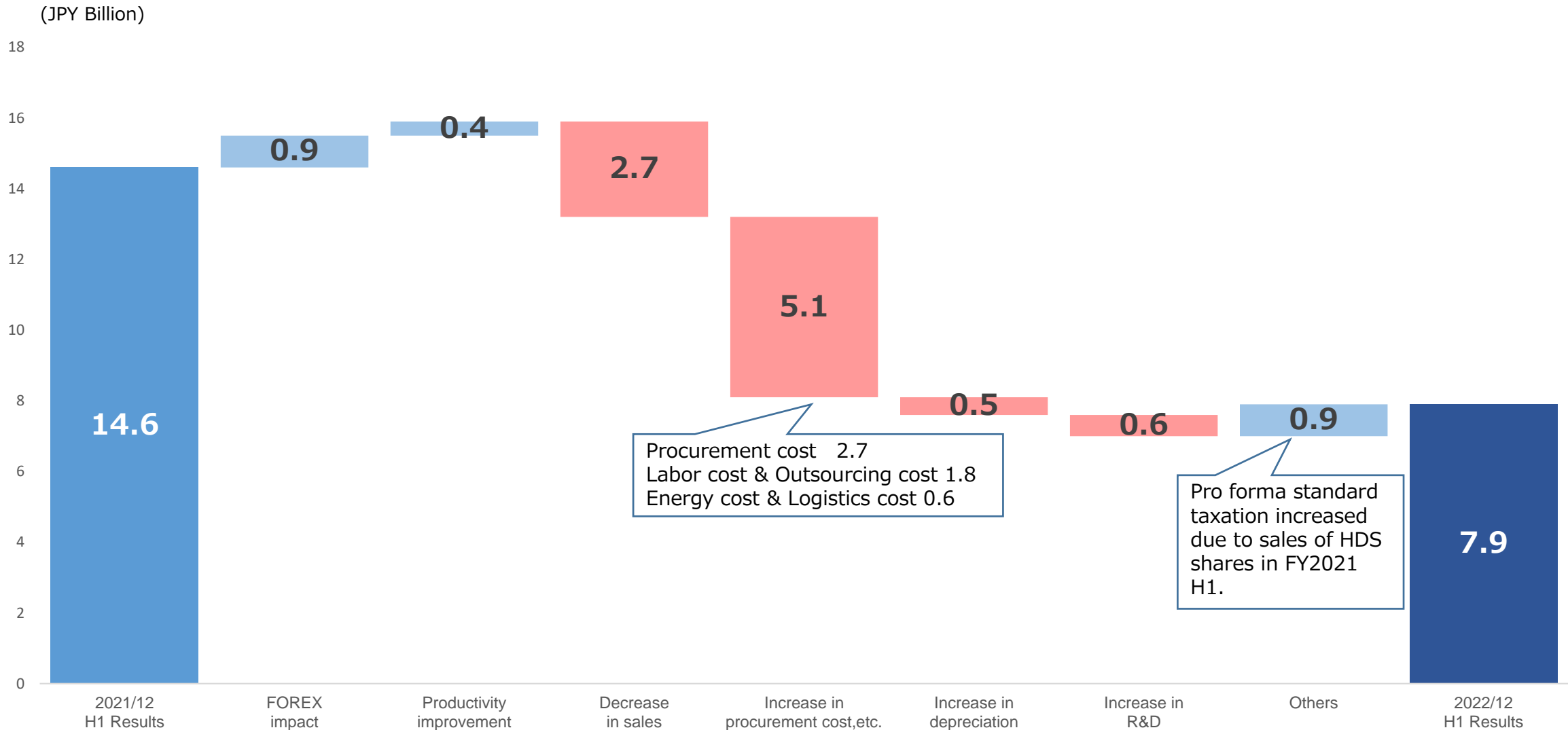
- For FY2022/12, negative free cash flow is expected due to CAPEX increase for the construction of a new precision reduction gear factory, increased income tax payments, and payment of difference adjustment to a securities firm related to the sale of HDS\*<sup>1</sup> shares.



\* 1 HDS: Harmonic Drive Systems Inc.

# Analysis of Factors Caused Changes in O.P. (FY2021/12 H1 Results vs. FY2022/12 H1 Results)

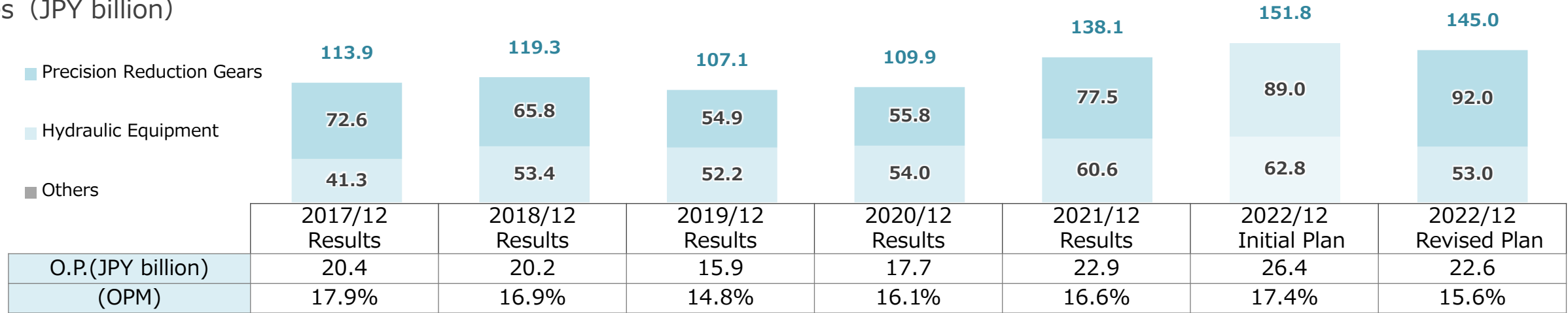
■ O.P. decreased year-on-year mainly due to “Decrease in sales” and “ Increase in procurement cost, etc.”



# Sales by Segment and Business Outline

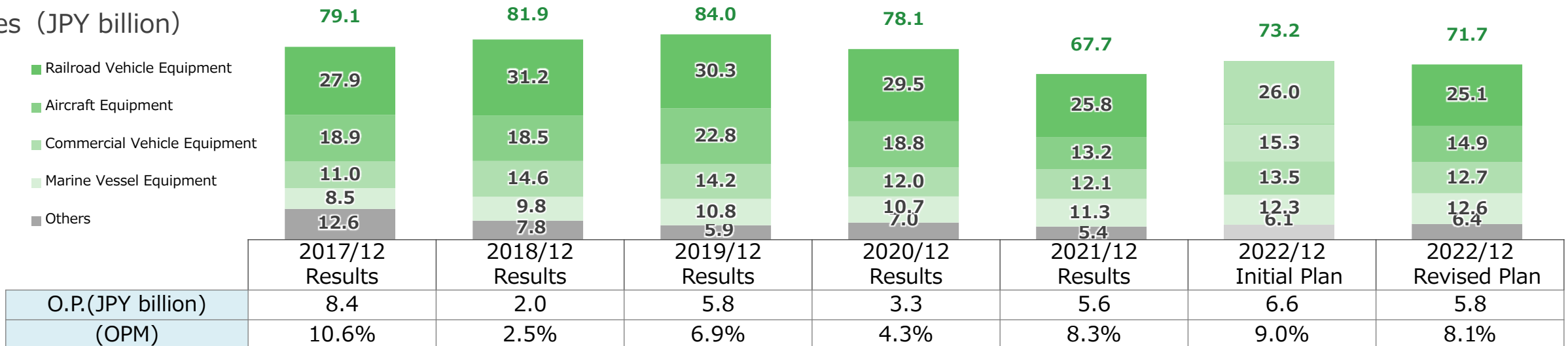
# Component Solutions Segment (CMP)

Sales (JPY billion)

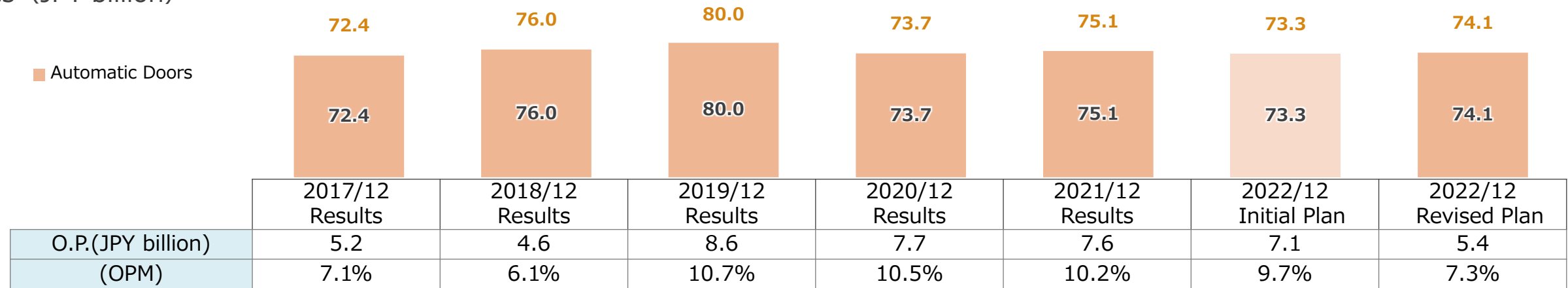


# Transport Solutions Segment (TRS)

Sales (JPY billion)

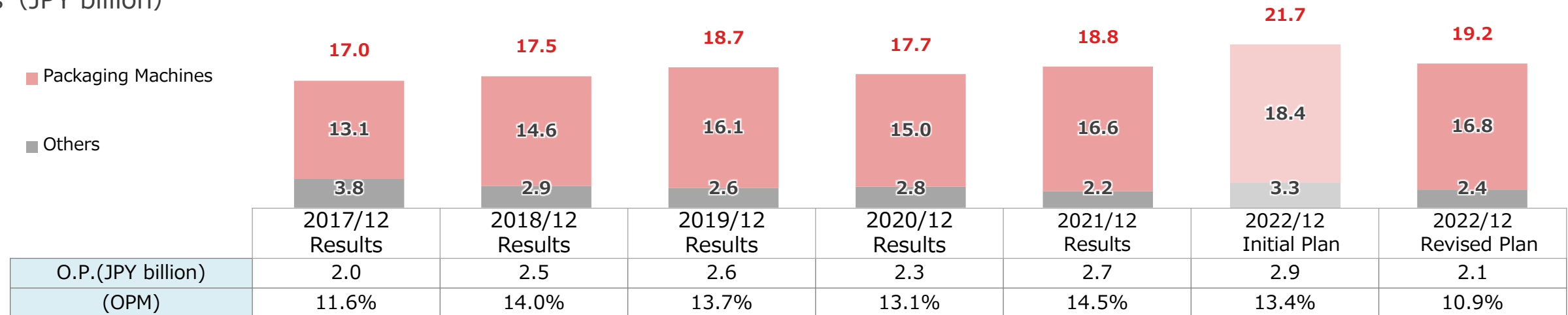


Sales (JPY billion)



# Manufacturing Solutions Segment (MFR)

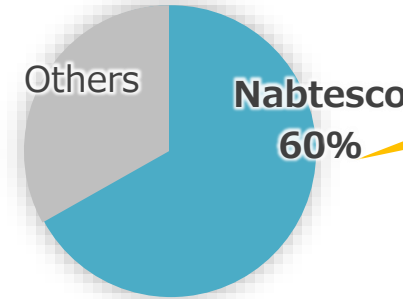
Sales (JPY billion)





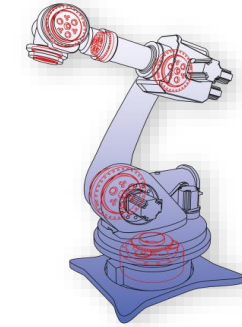
## Precision Reduction Gears

- Joints of Medium and Large Size Industrial Robots



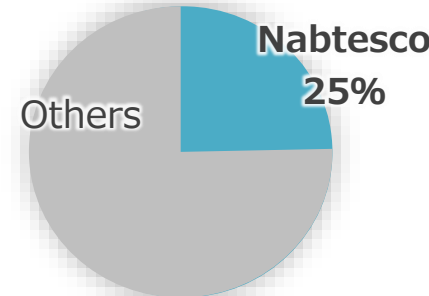
**No.1**

Approx. **60%**  
world market share

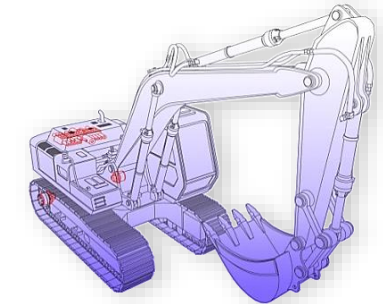


## Hydraulic Equipment

- Traveling Units for Hydraulic Excavators



Approx. **25%**  
world market share



## Main Customers

### ■ Precision Reduction Gears

**Industrial Robots:** Fanuc, Yasukawa Electric, KHI, KUKA Roboter (Germany), ABB Robotics (Sweden)

**Machine Tools:** Yamazaki Mazak, Okuma, DMG Mori Seiki

### ■ Hydraulic Equipment

**Traveling Units:** Komatsu, Sumitomo Construction Machinery, Kobelco Construction Machinery, Sany (China), XCMG (China), Liu Gong (China)

## Railroad Vehicle Equipment

### ■ Brake Systems



No.1

Approx. **50%** Domestic Market Share

### ■ Door Operating Systems



No.1

Approx. **60%** Domestic Market Share



## Aircraft Equipment

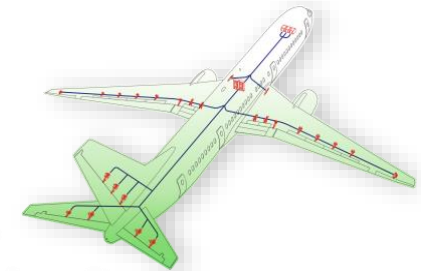
### ■ Flight Control Actuation Systems (FCA)

- One of the four major world players for FCA systems (major FCA supplier to Boeing Company)
- Expanding businesses including engine accessories and power supply systems in the product lineup



No.1

Approx. **100%** market share for domestically-produced aircrafts



## Main Customers

### ■ Railroad Vehicle Equipment

JR Companies, Private railway companies, KHI, Bullet train and subway projects in China

### ■ Aircraft Equipment

Boeing, KHI, MHI, IHI, Japanese Ministry of Defense, Airline operators

## Commercial Vehicle Equipment

### ■ Wedge Chambers



### ■ Air Dryers



## Marine Vessel Equipment

### ■ 2ST Main Engine Control Systems



## 主要顧客 (敬称略)

### ■ Commercial Vehicle Equipment

Hino, Isuzu, Mitsubishi Fuso Truck & Bus, UD Trucks

### ■ Marine Vessel Equipment

KHI, Hitachi Zosen, Makita Corporation, Japan Engine Corporation, Mitsui Engineering & Shipbuilding, Hyundai Heavy Industries (Korea), HSD Engine Co., Ltd. (Korea), Hudong Heavy Machinery (China), MAN Diesel (Denmark)

## Automatic Doors

### ■ Automatic Doors

Others

Nabtesco  
55%

No.1

Approx. **55%**  
market share for  
building automatic doors  
(top share in the world)



### ■ Platform Screen Doors

Others

Nabtesco  
95%

No.1

Approx. **95%**  
domestic market share  
(accumulated total)



## Main Customers

**Automatic Doors for buildings:** Major general contractors, sash manufacturers, hospitals, banks, public institutions, etc.

**Platform Doors :** Subway projects in France, China and others

# Main Products: Manufacturing Solutions Segment (MFR)

## Packaging Machines

### ■ Packaging Machines for Retort Pouch Foods

Others

Nabtesco  
85%

No.1

Approx. **85%**  
domestic market share



## Main Customers

### ■ Packaging Machines

Mitsui Sugar, Ajinomoto, Marudai Food Co., Ltd., ARIAKE Japan, KENKO Mayonnaise, P&G, Kao, Lion, beverage companies in North America, food companies in China

# Nabtesco

*moving it. stopping it.*

