



Financial Results

Results for the Fiscal Year ended March 2023
& Forecast for the Fiscal Year ending March 2024

日本発条株式会社(東証プライム市場 5991)
NHK Spring Co., Ltd.(5991/ TSE Prime Market)

NHK
NHK SPRING CO.,LTD.

Overview of the Financial Results for the year ended March 2023

Executive Vice President & CFO and
Representative Member of the Board

Hidefumi Yoshimura

Results for the year ended March 2023 & Forecast for the year ending March 2024

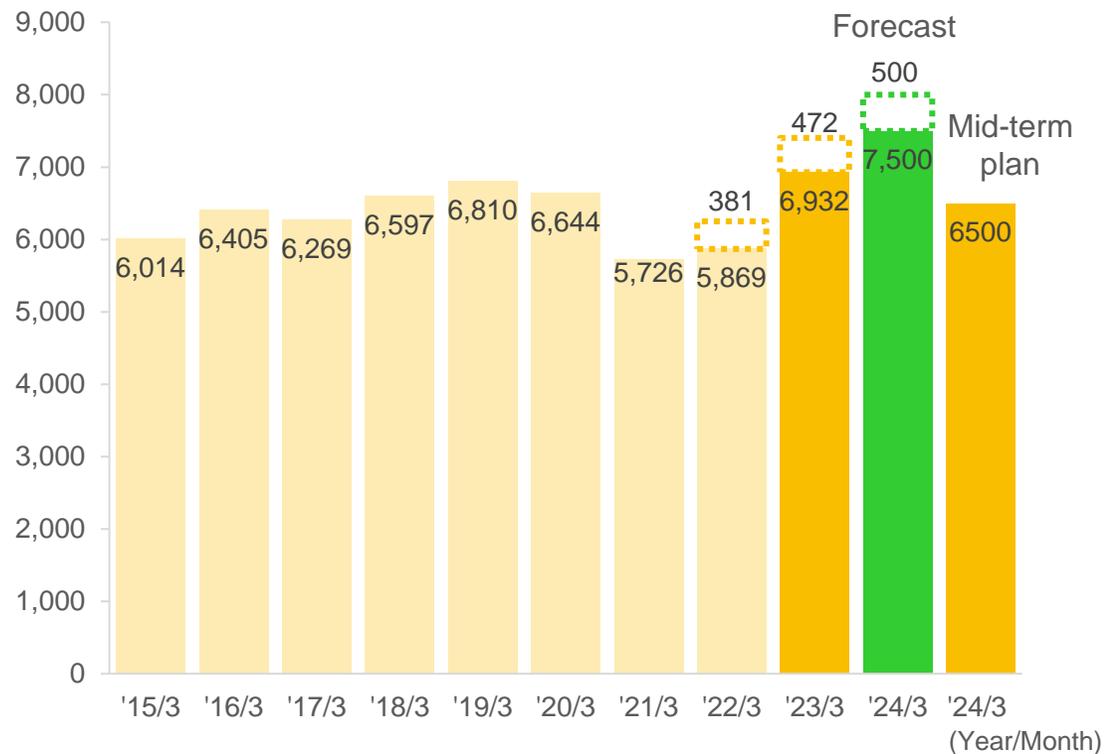
(100 million yen)

	FYE '22/3	FYE '23/3	Vs. FYE '22/3	FYE '24/3	Forecast Vs. Previous year		FYE '24/3	Forecast Vs. Mid-term plan		
	Result	Result		Forecast	Variance	Ratio	Mid-term plan	Variance	Ratio	
Net Sales	5,869	6,932	1,063	7,500	567	8.2%	6,500	1,000	13.3%	
Operating Income	213	288	74	350	61	21.4%	400	-50	-14.3%	
Ratio	3.6%	4.2%	0.5%	4.7%	0.5%	–	6.2%	-1.5%	-31.9%	
Ordinary Income	306	373	66	400	26	7.2%	420	-20	-5.0%	
Ratio	5.2%	5.4%	0.2%	5.3%	-0.0%	–	6.5%	-1.1%	-21.2%	
Profit Attribute to Owners of Parent	319	215	-104	250	34	16.1%	250	0	–	
Extraordinary profits/losses	194	-70	-264	–	70	–	–	0	–	
EPS - Earning Per Share	140.33	94.50	–	110.37	15.87	–	–	–	–	
ROE - Return On Equity	10.5%	6.4%	–	7.0%	0.01	–	8.0%	-1.0%	–	
Average Rate	US\$	112.9	135.0	22.1	130.0	-5.0	–	100.0	30.0	–
	Thai Baht	3.4	3.7	0.3	3.8	0.1	–	3.2	0.6	–
Current Rate	US\$	122.4	133.5	11.1	130.0	-3.5	–	100.0	30.0	–
	Thai Baht	3.4	3.8	0.4	3.8	–	–	3.2	0.6	–

Result Trends

Net Sales

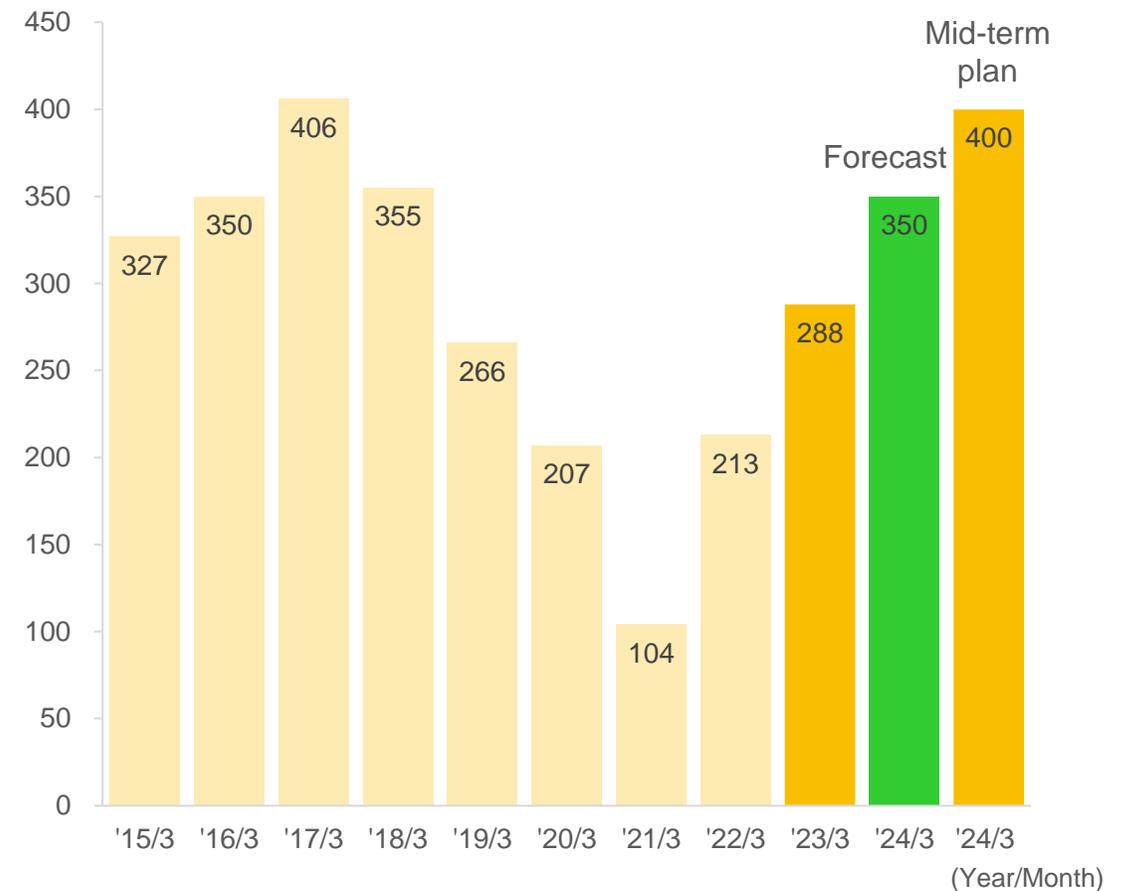
(100 million Yen)



As a result of the adoption of the "Accounting Standard for Revenue Recognition (Revised ASBJ Statement No.29)", the amount paid by customers, which was previously recorded as net sales, is offset against the cost of sales from the fiscal year ended March 31, 2022.

Operating Income

(100 million Yen)



Extraordinary Profits/Losses

Extraordinary profits/losses

(100 million yen)

Breakdown	Details		Amount
Extraordinary losses	Impairment loss	On production equipment	55
	Litigation settlement	Settlement of patent infringement litigation	13
	Other		1
	Total		70

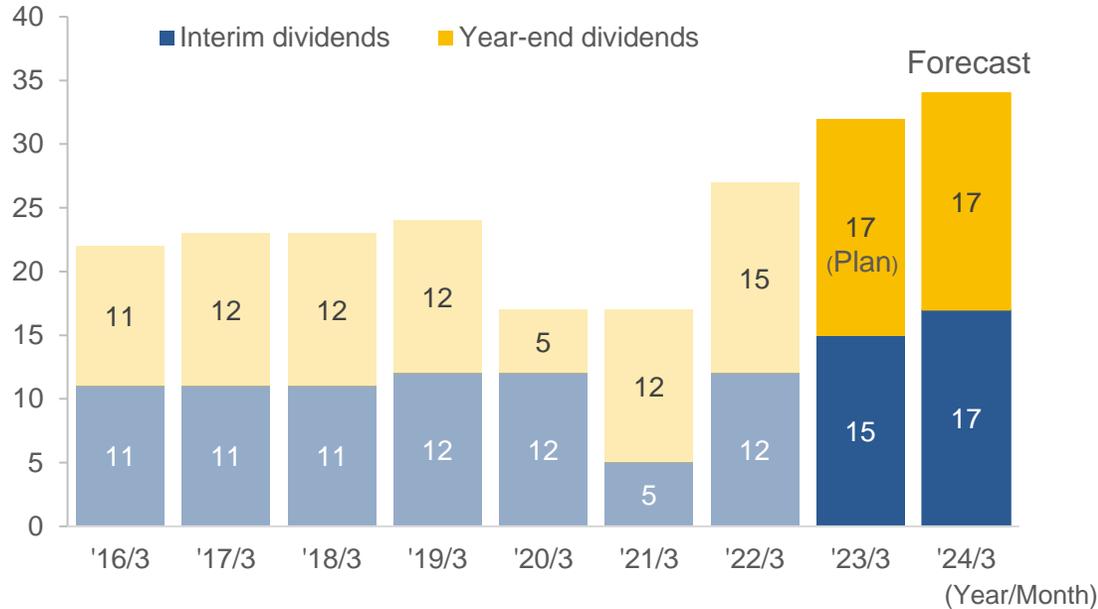
Impairment Loss

(100 million yen)

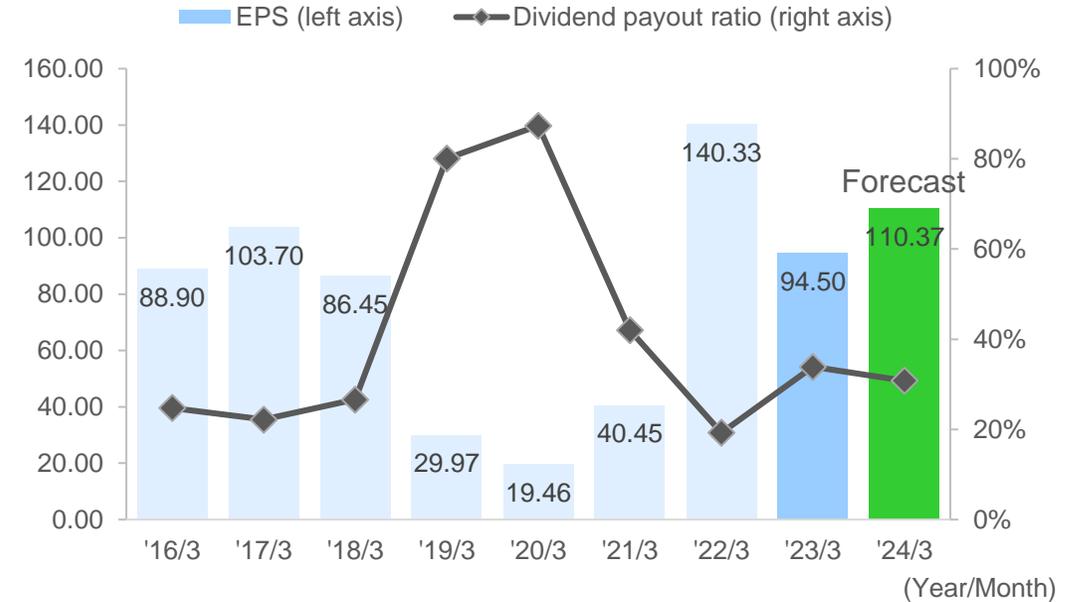
Purpose	Company	Description	Amount
Production equipment	NHK Spring Precision Springs and Components Business	Building, Machinery	52
	Subsidiaries in America	Machinery	2
Total			55

Dividends

Dividend Per Share (DPS)



Earnings Per Share (EPS)



	End of Q2	Year end	Total	Dividend payout ratio
FYE'23.3	15.0 yen	17.0 yen (Plan)	32.0 yen	33.9%
Forecast for FYE'24.3	17.0 yen	17.0 yen	34.0 yen	30.8%

Details of the Financial Results for
the Year Ended March 2023

Net Sales / Operating Income by Business Segment

(100 million yen)

		FYE '22/3	FYE '23/3		Vs. Previous year	Vs. Forecast
		Result	Forecast	Result		
A utomotive Suspension Springs Business	Net Sales	1,129	1,500	1,468	338	-31
	Operating Income	-43	-20	-27	16	-7
	Ratio	-3.9%	-1.3%	-1.9%	2.0%	-0.5%
A utomotive Seating Business	Net Sales	2,084	2,670	2,737	653	67
	Operating Income	-28	90	73	101	-16
	Ratio	-1.4%	3.4%	2.7%	4.0%	-0.7%
P recision Springs and Components Business	Net Sales	1,622	1,680	1,594	-28	-85
	Operating Income	178	170	114	-63	-55
	Ratio	11.0%	10.1%	7.2%	-3.8%	-2.9%
I ndustrial Machinery and Equipment, and Other Operations	Net Sales	1,031	1,150	1,131	100	-18
	Operating Income	107	140	127	20	-12
	Ratio	10.4%	12.2%	11.3%	0.9%	-0.9%
Total	Net Sales	5,869	7,000	6,932	1,063	-67
	Operating Income	213	380	288	74	-91
	Ratio	3.6%	5.4%	4.2%	0.5%	-1.3%

Vs. FYE'22/3

In the automotive business, sales volume recovered to a certain degree due to the recovery from the impact of the COVID-19 pandemic, despite the impact of production adjustments by automobile manufacturers due to semiconductor supply shortages and other factors. In addition, sales increased significantly due to the impact of the weaker yen on overseas subsidiaries and passing on the steep rise in steel material costs to selling prices.

In the non-automotive business, sales volume of suspensions declined significantly due to the slowdown in the HDD market in the second half of the year and thereafter, despite the profit boost from the weaker yen and sales expansion of semiconductor processing parts.

Vs. Forecast

In the automotive-related business, the impact of automobile manufacturers' production cutbacks due to semiconductor supply shortages and other factors was larger than expected, although we made progress in recovering the impact of price hikes on various expenses.

The non-automotive business also suffered from the slowdown in the HDD market from the second half of the year and a decline in orders for semiconductor process components, resulting in lower sales and profits.

Net Sales / Operating Income by Region

(100 million yen)

	FYE '22/3 Result	FYE '23/3		Vs. Previous year	Vs. Forecast	
		Forecast	Result			
Japan	Net Sales	3,413	3,967	3,910	496	-56
	Operating Income	201	274	247	45	-26
	Ratio	5.9%	6.9%	6.3%	0.4%	-0.6%
Asia	Net Sales	1,665	1,858	1,867	202	9
	Operating Income	102	123	104	2	-18
	Ratio	6.1%	6.6%	5.6%	-0.5%	-1.0%
America & Europe & Others	Net Sales	790	1,175	1,153	363	-21
	Operating Income	-90	-17	-63	26	-46
	Ratio	-11.4%	-1.4%	-5.5%	5.9%	-4.0%
Total	Net Sales	5,869	7,000	6,932	1,063	-67
	Operating Income	213	380	288	74	-91
	Ratio	3.6%	5.4%	4.2%	0.5%	-1.3%

Vs. FYE'22/3

The automobile-related business was affected by customers' production cutbacks due to semiconductor supply shortages in all regions, but overall remained on a recovery track.

In the Asia, US, Europe, and other segments, sales are increasing due to the impact of yen depreciation.

In the U.S. and Europe, which have been a challenge for us, profitability improved from the previous year, mainly in the sheet business, although the segment is still in the red.

In addition, the profit margin in Asia (Thailand and China), where we have production bases, declined from the previous year due to a decrease in HDD suspension volume.

Vs. Forecast

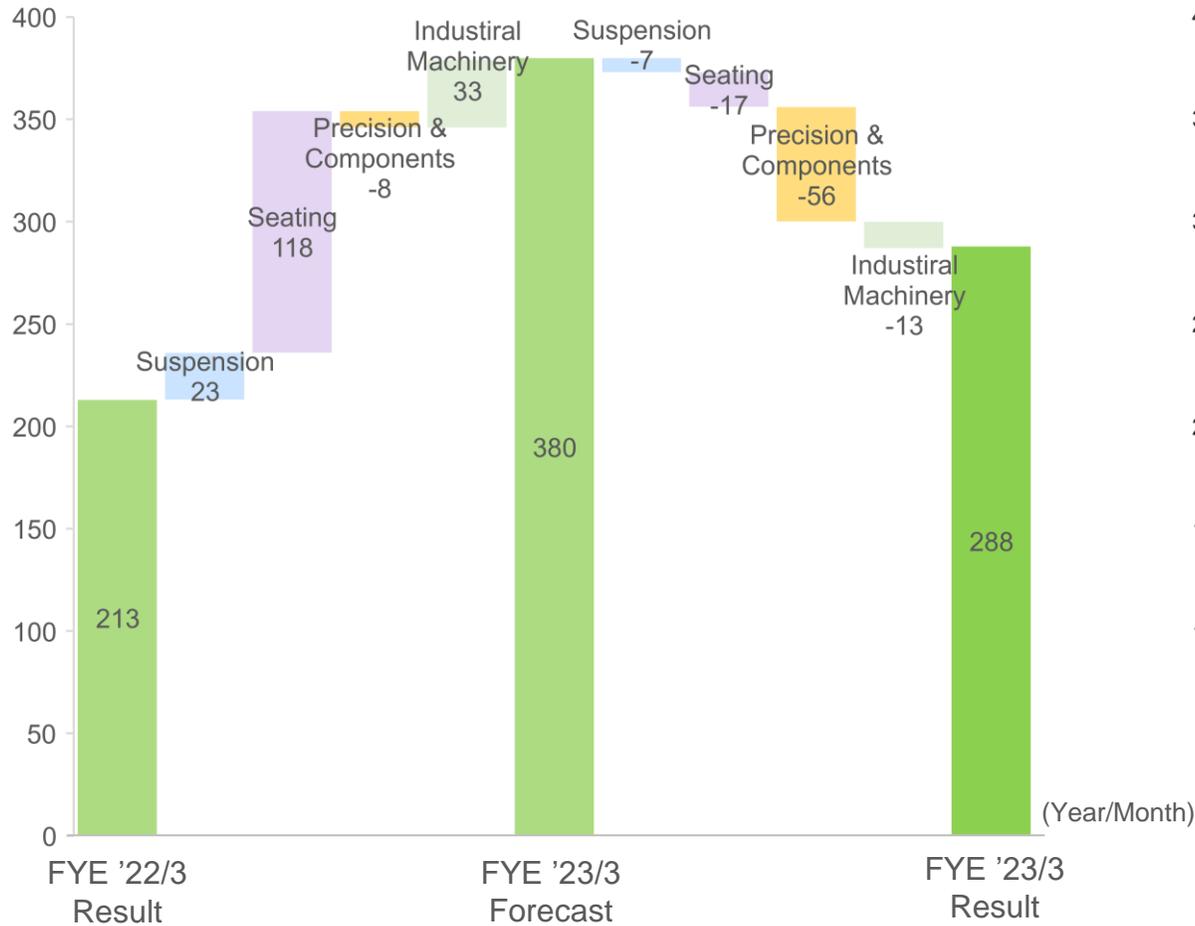
The Japan and Asia segments were strongly affected by the slowdown in the HDD market, in addition to the impact of production cutbacks by automobile manufacturer due to semiconductor supply shortages and other factors.

The U.S. and Europe segments posted lower sales and profits due to customers' production adjustments caused by semiconductor supply shortages and other factors, as well as the impact of volume declines in the SUBARU business and higher unit labor costs.

Operating Income Trends by Segment

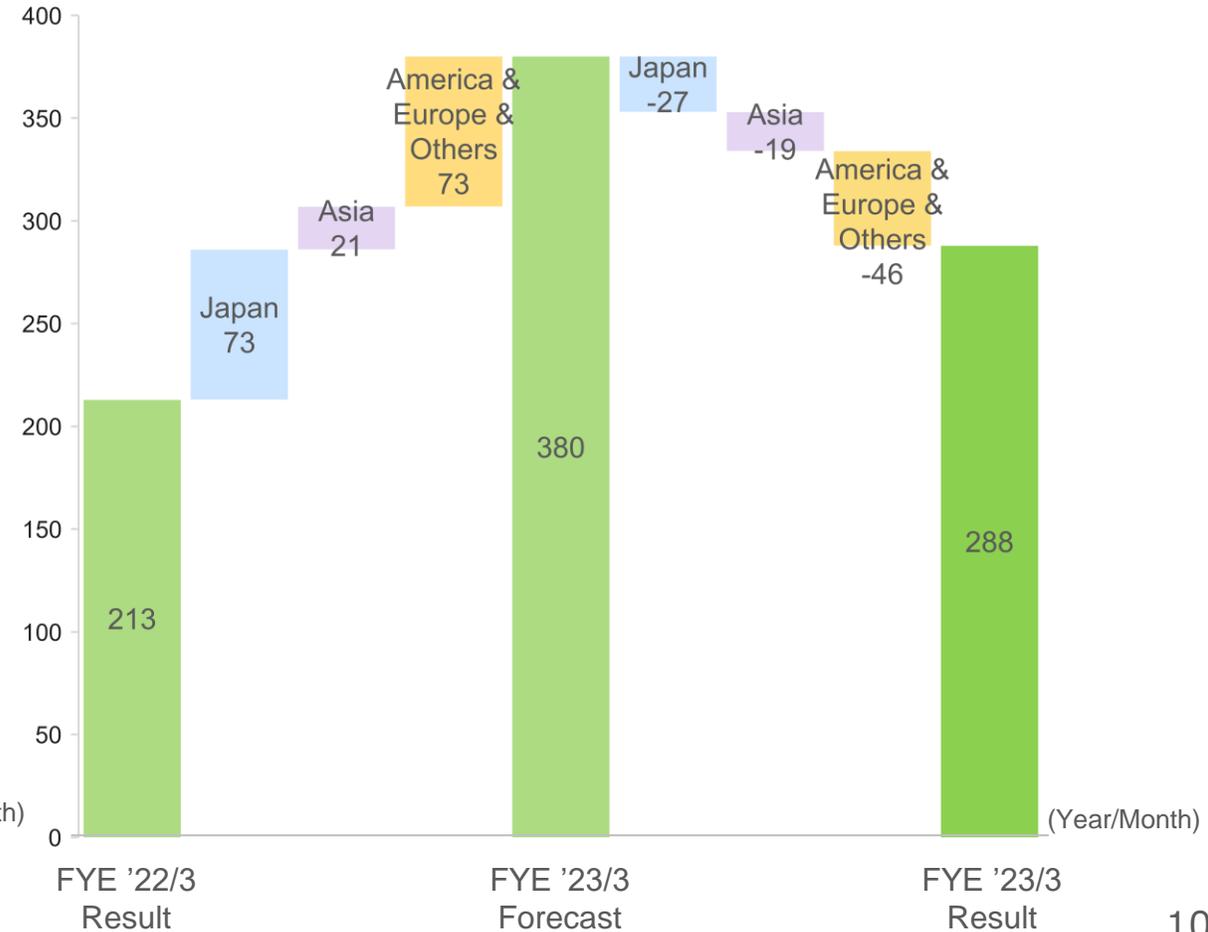
By Business Segment

(100 million Yen)



By Region

(100 million Yen)



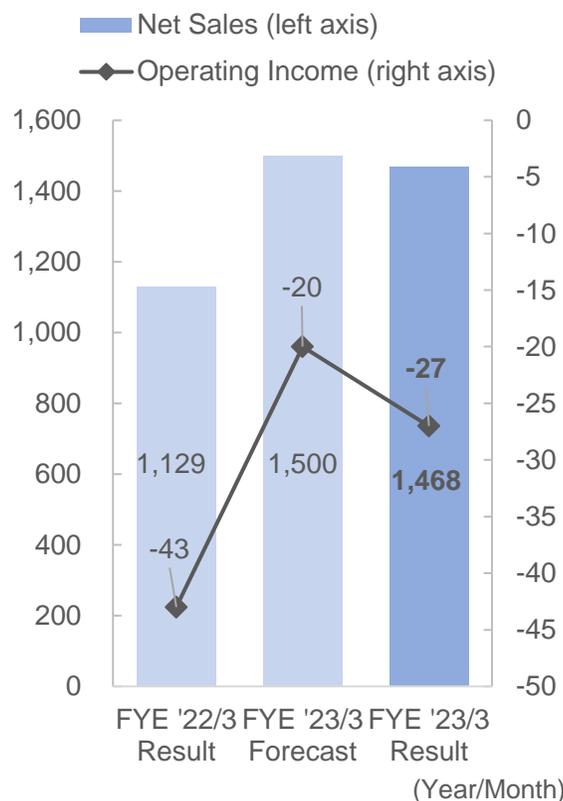
Results for the year ended March 2023: Analysis by Business Segment

Automotive Suspension Springs Business

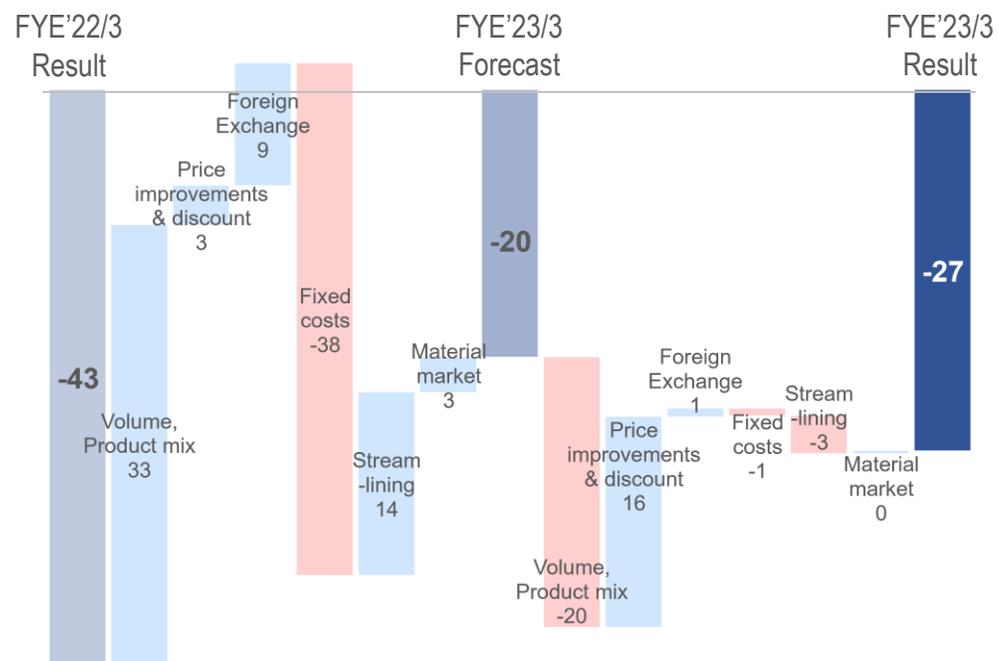
(100 Million Yen)

	FYE '22/3	FYE '23/3		Vs. Previous year	Vs. Forecast
	Results	Forecast	Results		
Net Sales	1,129	1,500	1,468	338	-31
Operating Income	-43	-20	-27	16	-7
Ratio	-3.9%	-1.3%	-1.9%	2.0%	-0.5%

Results Trends



Variable Factor Analysis for Operating Income



Vs. FYE'22/3

Sales volume recovered to a certain degree due to the recovery from the impact of the COVID-19 pandemic, despite the impact of production adjustments by automobile manufacturers due to semiconductor supply shortages and other factors.

In terms of profit and loss, changes in the external environment, such as price hikes in various expenses, and increased labor costs, mainly in the U.S., pushed down profit, but the price pass-through of higher steel material prices and the effect of the weaker yen led to an improvement in both sales and profit over the previous year.

Vs. Forecast

Sales and profits declined due to the greater-than-expected impact of automobile manufacturers' production cutbacks caused by semiconductor supply shortages and other factors, despite of the progress made in passing the impact of the sharp rise in the cost of auxiliary materials, expenses, and energy costs to prices, mainly in Japan.

Automotive Seating Business

(100 Million Yen)

	FYE '22/3	FYE '23/3		Vs. Previous year	Vs. Forecast
	Results	Forecast	Results		
Net Sales	2,084	2,670	2,737	653	67
Operating Income	-28	90	73	101	-16
Ratio	-1.4%	3.4%	2.7%	4.0%	-0.7%

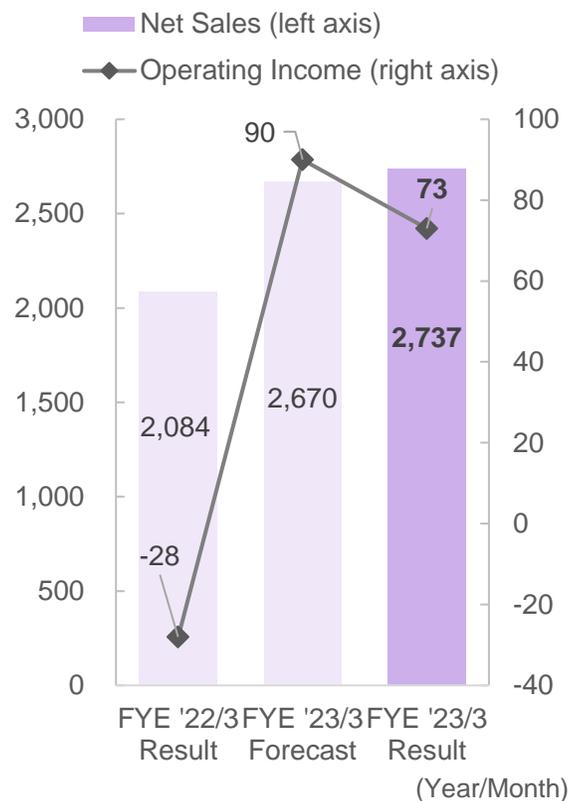
Vs. FYE'22/3

Despite production adjustments by automobile manufacturers due to semiconductor supply shortages and other factors, and the impact of price hikes in steel, energy, and other materials, sales and earnings increased due to a recovery from the impact of the COVID-19 pandemic and an increase in the yen equivalent value of overseas subsidiaries due to the weaker yen.

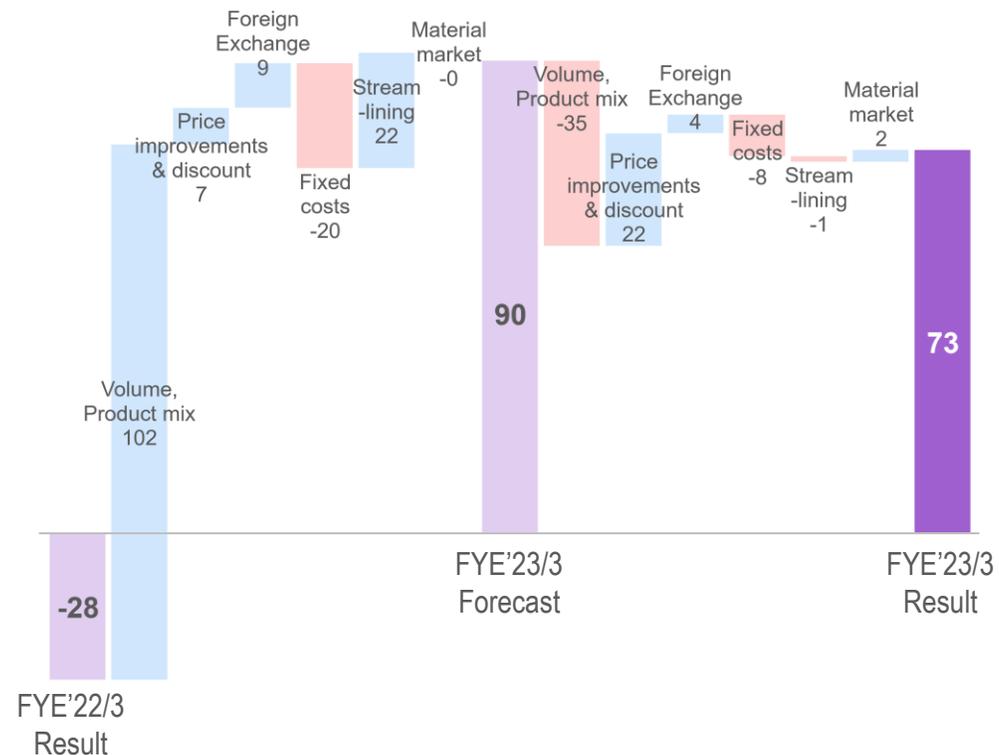
Vs. Forecast

Operating profit was lower than the previous forecast mainly due to the impact of production cutbacks in the SUBARU business from Q4 onward and one-time expenses of -1.1 billion yen to maintain the supply chain in the U.S.

Results Trends



Variable Factor Analysis for Operating Income

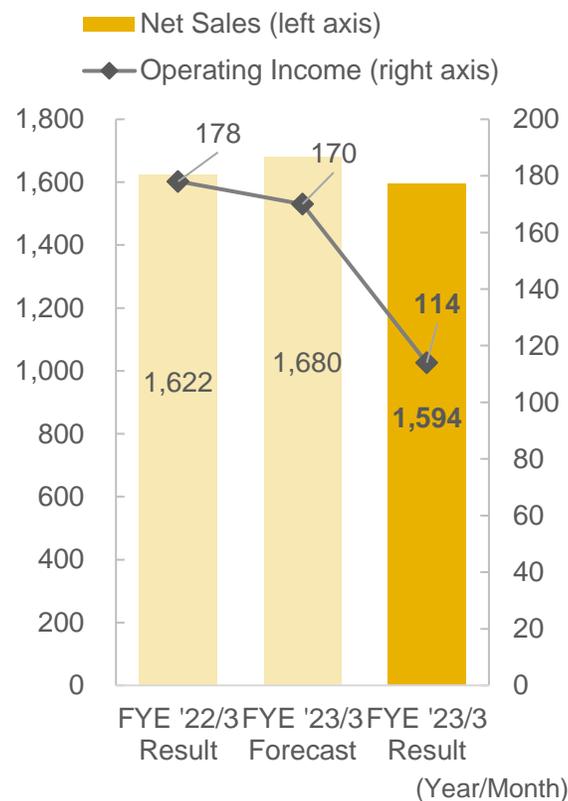


Precision Springs and Components Business

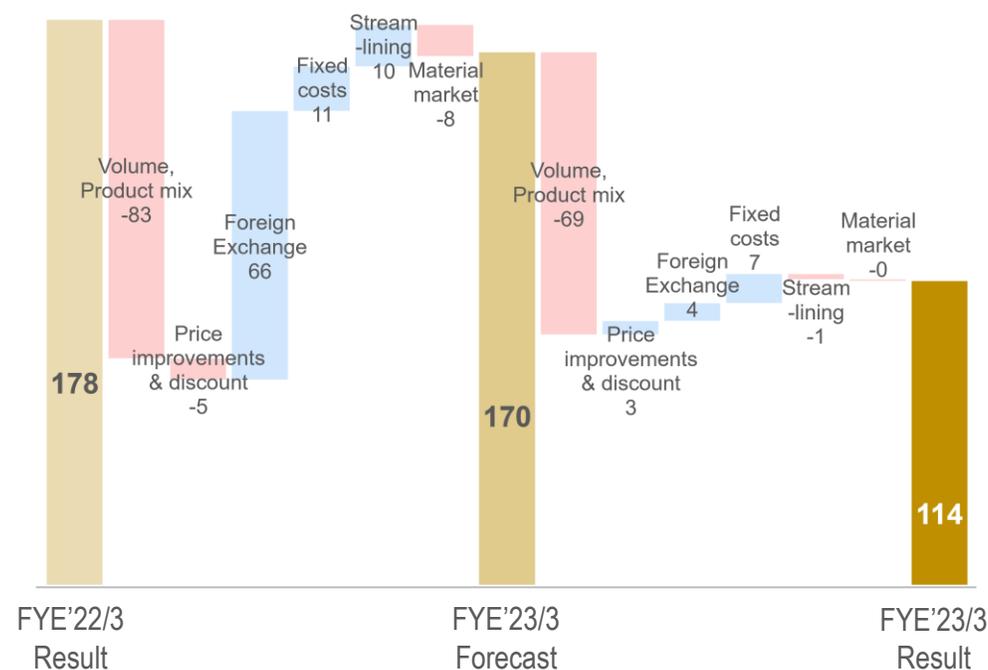
(100 Million Yen)

	FYE '22/3	FYE '23/3		Vs. Previous year	Vs. Forecast
	Results	Forecast	Results		
Net Sales	1,622	1,680	1,594	-28	-85
Operating Income	178	170	114	-63	-55
Ratio	11.0%	10.1%	7.2%	-3.8%	-2.9%

Results Trends



Variable Factor Analysis for Operating Income



Vs. FYE'22/3

In the automotive business, both sales and profits declined due to production adjustments by automobile manufacturers caused by semiconductor supply shortages and other factors. In the information and telecommunication related business, HDD suspension sales volume declined significantly due to production adjustments by HDD manufacturers, despite the profit boost from the weak yen.

Vs. Forecast

The automotive-related business was more affected than expected by automobile manufacturers' production cutbacks due to semiconductor supply shortages, mainly in Japan and North America. In the information and telecommunication related business, HDD suspension demand fell more than expected, although a slowdown in the market was anticipated from the second half of the year.

Industrial Machinery and Equipment, and Other Operations

(100 Million Yen)

	FYE '22/3	FYE '23/3		Vs. Previous year	Vs. Forecast
	Results	Forecast	Results		
Net Sales	1,031	1,150	1,131	100	-18
Operating Income	107	140	127	20	-12
Ratio	10.4%	12.2%	11.3%	0.9%	-0.9%

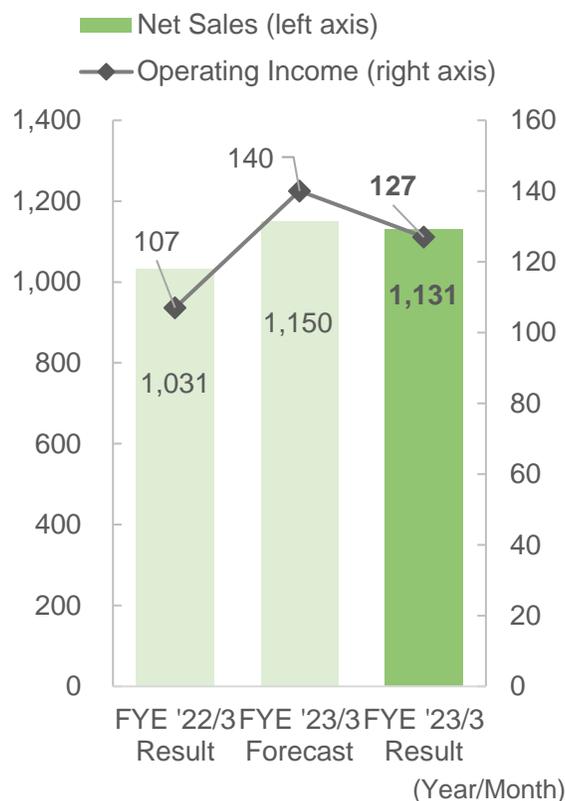
Vs. FYE'22/3

Both sales and income increased due to a recovery in the automotive-related business from the impact of the COVID-19 pandemic, strong orders for semiconductor process components, and the impact of a weaker yen on the exchange rate.

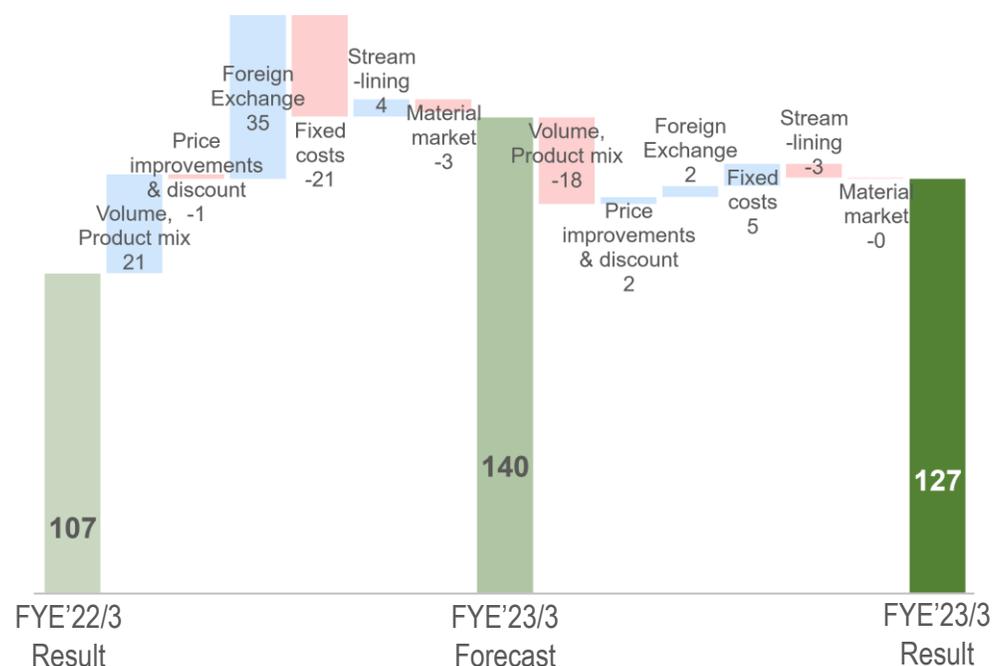
Vs. Forecast

Both sales and profit/loss were down from the previous forecast due to lower orders for semiconductor process components from the second half of the fiscal year, although the automotive-related business and golf shafts performed well.

Results Trends



Variable Factor Analysis for Operating Income



Details of the Financial Forecast
for the Year Ending March 2024

Forecast for the year ending March 2024

(100 million yen)

	FYE '23/3	FYE '24/3	Forecast Vs. Previous year		FYE '24/3	Forecast Vs. Mid-term plan		
	Result	Forecast	Variance	Ratio	Mid-term plan	Variance	Ratio	
Net Sales	6,932	7,500	567	8.2%	6,500	1,000	13.3%	
Operating Income	288	350	61	21.4%	400	-50	-14.3%	
Ratio	4.2%	4.7%	0.5%	–	6.2%	-1.5%	-31.9%	
Ordinary Income	373	400	26	7.2%	420	-20	-5.0%	
Ratio	5.4%	5.3%	1.8%	–	6.5%	-1.1%	-21.2%	
Profit Attribute to Owners of Parent	215	250	34	16.1%	250	0	–	
Extraordinary profits/losses	-70	–	–	–	–	0	–	
EPS - Earning Per Share	94.50	110.37	–	–	–	–	–	
ROE - Return On Equity	6.4%	7.0%	–	–	8.0%	-1.0%	–	
Average Rate	US\$	135.0	130.0	-5.0	–	100.0	30.0	–
	Thai Baht	3.7	3.8	0.1	–	3.2	0.6	–

Net Sales / Operating Income by Business Segment

(100 million yen)

		FYE '23/3	FYE '24/3	Forecast Vs. Previous year		FYE '24/3	Forecast Vs. Mid-term plan	
		Results	Forecast	Variance	Ratio	Mid-term plan	Variance	Ratio
A utomotive Suspension Springs Business	Net Sales	1,468	1,591	122	8.3%	1,210	381	23.9%
	Operating Income	-27	21	48	—	30	-9	-42.9%
	Ratio	-1.9%	1.3%	3.2%	—	2.5%	-1.2%	-87.8%
A utomotive Seating Business	Net Sales	2,737	2,975	237	8.7%	2,400	575	19.3%
	Operating Income	73	118	44	61.4%	80	38	32.2%
	Ratio	2.7%	4.0%	1.3%	—	3.3%	0.6%	16.0%
P recision Springs and Components Business	Net Sales	1,594	1,797	202	12.7%	1,790	7	0.4%
	Operating Income	114	125	10	9.0%	180	-55	-44.0%
	Ratio	7.2%	7.0%	-0.2%	—	10.1%	-3.1%	-44.6%
I ndustrial Machinery and Equipment, and Other Operations	Net Sales	1,131	1,137	5	0.4%	1,100	37	3.3%
	Operating Income	127	86	-41	-32.8%	110	-24	-27.9%
	Ratio	11.3%	7.6%	-3.7%	—	10.0%	-2.4%	-32.2%
Total	Net Sales	6,932	7,500	567	8.2%	6,500	1,000	13.3%
	Operating Income	288	350	61	21.4%	400	-50	-14.3%
	Ratio	4.2%	4.7%	0.5%	—	6.2%	-1.5%	-31.9%

Automotive Suspension Springs Business

Aiming to transform into a profitable structure by passing on the impact of rising unit prices of various expenses to prices and strongly promoting sales price improvement and rationalization activities.

Automotive Seating Business

Production volume increase mainly in Japan and the U.S.

In addition, we expect to increase sales and profit through cost reductions by streamlining activities.

Precision Springs and Components Business

Despite volume growth in the automotive sector, demand for HDD suspension is expected to recover in the second half of the year and remain sluggish through the first half of the year.

Industrial Machinery and Equipment, and Other Operations

Recovery of semiconductor process components volume is expected to begin in the second half of the fiscal year or later. Operating income is expected to fall below the previous year's level, partly due to the negative impact of foreign exchange rate fluctuations.

Net Sales / Operating Income by Region

(100 million yen)

		FYE '23/3	FYE '24/3	Forecast Vs. Previous year		FYE '24/3	Forecast Vs. Mid-term plan	
		Results	Forecast	Variance	Ratio	Mid-term plan	Variance	Ratio
Japan	Net Sales	3,910	4,280	369	9.4%	4,090	190	4.4%
	Operating Income	247	217	-30	-12.3%	270	-53	-
	Ratio	6.3%	5.1%	-1.3%	-	6.6%	-1.5%	-
Asia	Net Sales	1,867	2,012	144	7.7%	1,500	512	25.4%
	Operating Income	104	125	20	19.7%	110	15	12.0%
	Ratio	5.6%	6.2%	0.6%	-	7.3%	-1.1%	-
America & Europe & Others	Net Sales	1,153	1,208	54	4.7%	910	298	24.7%
	Operating Income	-63	8	71	-	20	-12	-150.0%
	Ratio	-5.5%	0.7%	6.2%	-	2.2%	-1.5%	-
Total	Net Sales	6,932	7,500	567	8.2%	6,500	1,000	13.3%
	Operating Income	288	350	61	21.4%	400	-50	-14.3%
	Ratio	4.2%	4.7%	0.5%	-	6.2%	-1.5%	-

Japan

Despite volume growth in automotive-related fields, sales and profits are expected to increase due to the recovery of information and telecommunications-related volumes in the second half of the fiscal year and the negative impact of foreign exchange rates on profits.

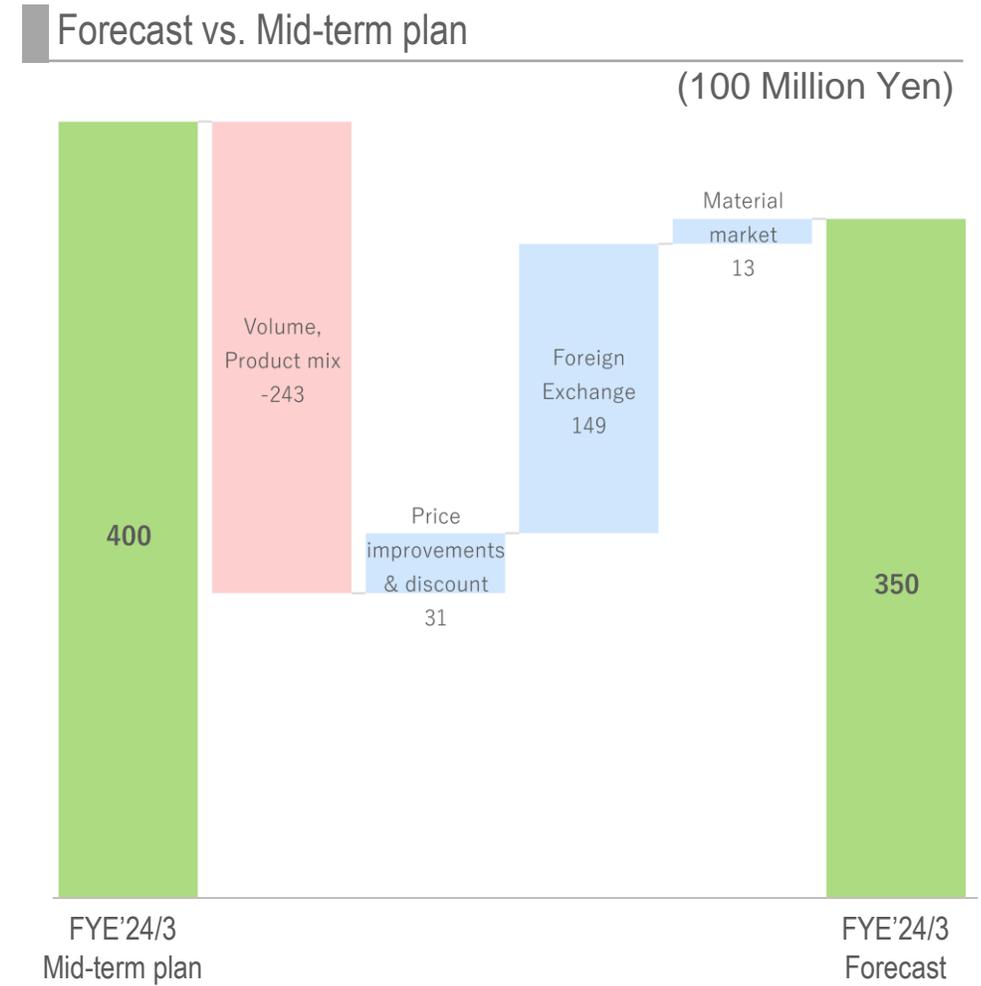
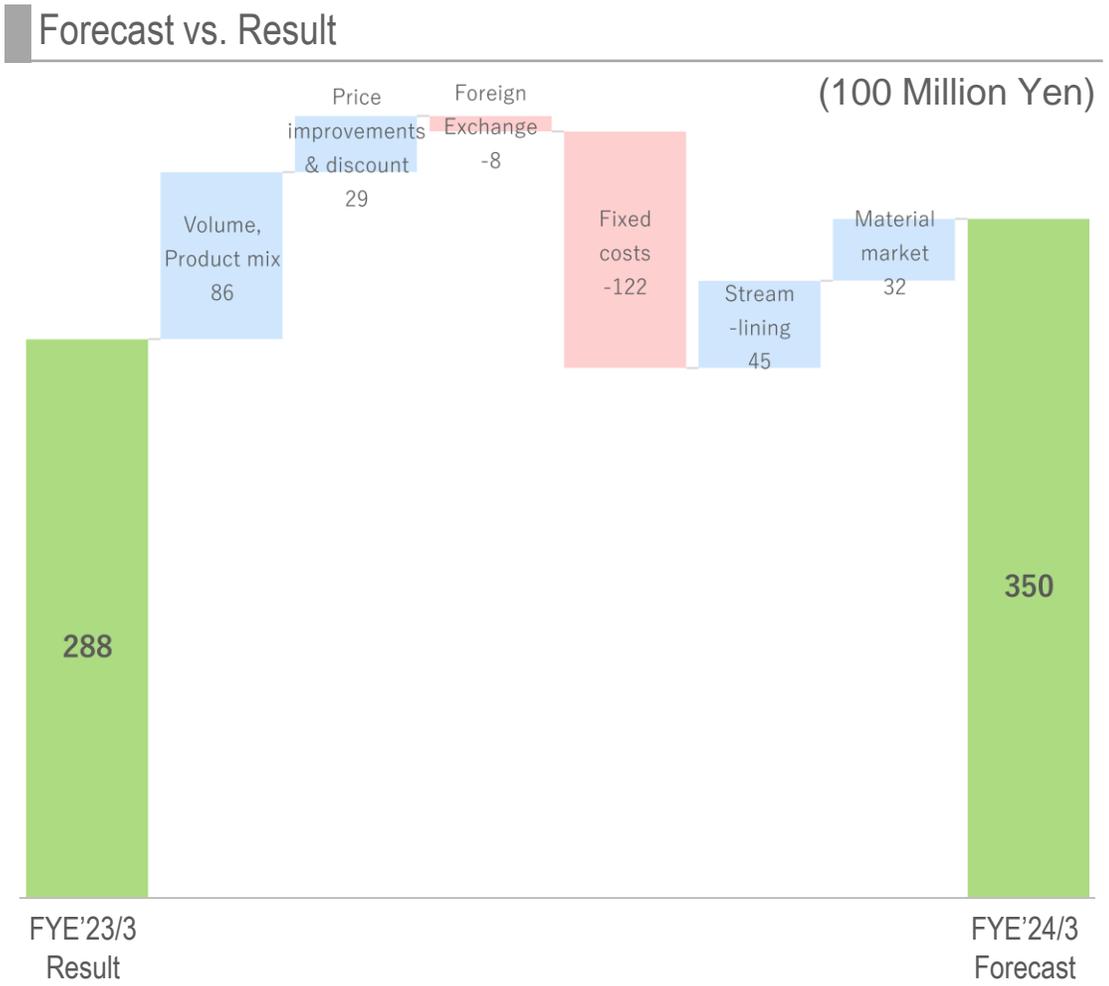
Asia

Both Thailand and China are expected to post lower profits in HDD-related components, but the automobile-related sector is expected to post higher sales and profits due to volume recovery.

America and Europe, and Others

Aim to return the U.S. and European operations to profitability by increasing volume and improving selling prices to offset the impact of logistics costs, power and utilities costs, and labor costs hikes and inflation.

Variable Factor Analysis for Operating Income



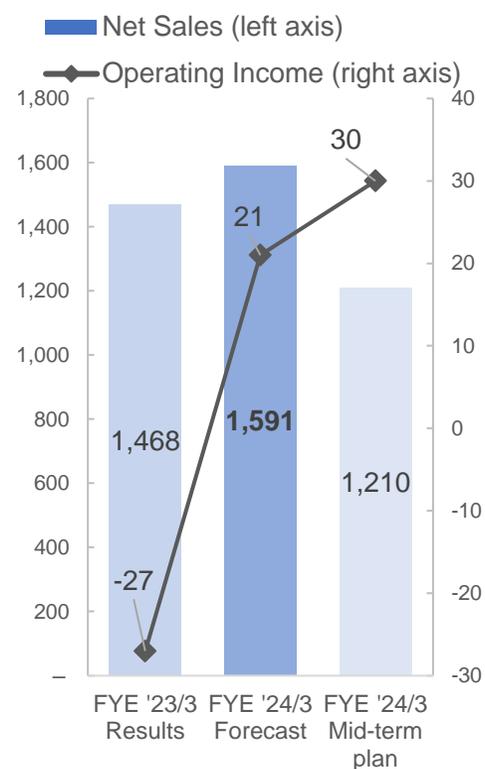
Forecast for the year ending March 2024: Analysis by Business Segment

Automotive Suspension Springs Business

(100 Million Yen)

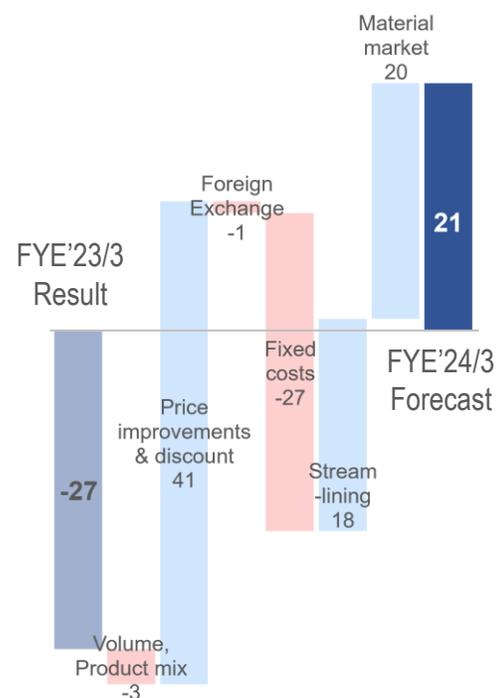
	FYE '23/3 Results	FYE '24/3 Forecast	Vs. Previous year Variance	FYE '24/3 Mid-term plan	Vs. Forecast Variance
Net Sales	1,468	1,591	122	1,210	381
Operating Income	-27	21	48	30	-9
Ratio	-1.9%	1.3%	3.2%	2.5%	-1.2%

Results Comparison

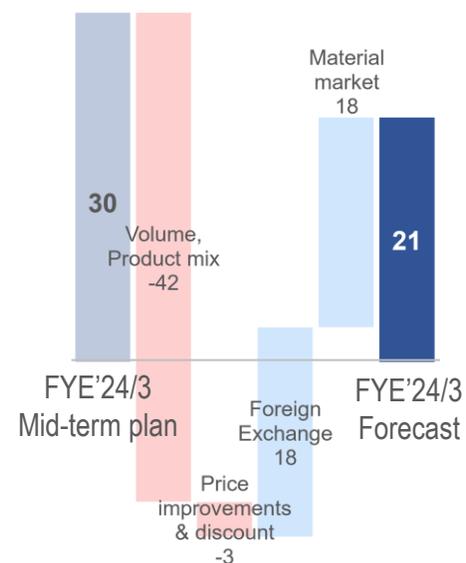


Variable Factor Analysis for Operating Income

▼ Forecast vs. Result



▼ Forecast vs. Mid-term plan



Vs. FYE'23/3

It is still difficult to predict when the supply will stabilize, although the semiconductor shortage is gradually being resolved.

We aim to return to profitability by passing on the impact of rising unit prices of various expenses to prices, improving selling prices, and further promoting rationalization in the U.S. and Europe, which have been a challenge.

Vs. Mid-term plan

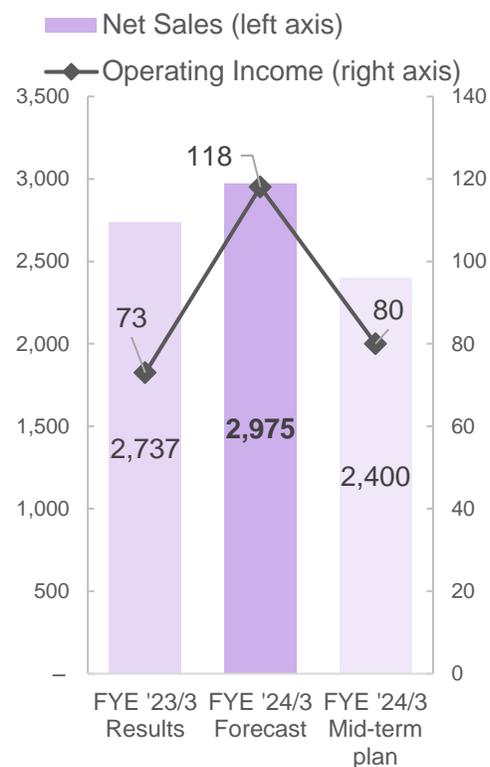
Sales are expected to exceed the initial plan by a large margin due to passing on steel and other price hikes to selling price and the weaker yen. However, profit targets are expected to fall short of the mid-term plan due to lower volume and the impact of soaring costs for auxiliary materials and energy.

Automotive Seating Business

(100 Million Yen)

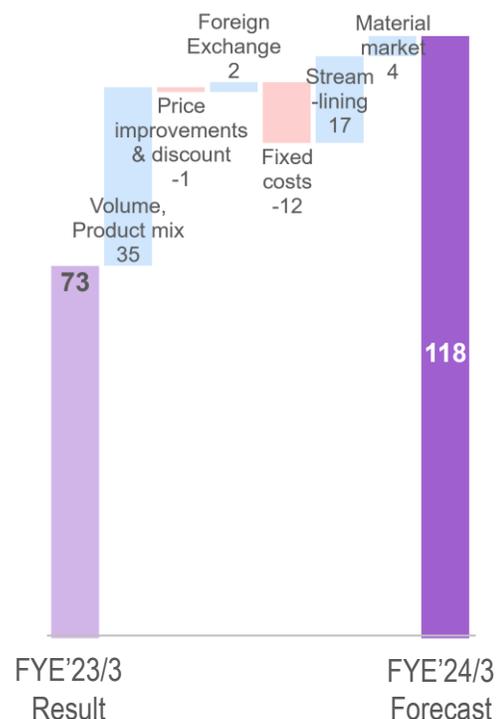
	FYE '23/3 Results	FYE '24/3 Forecast	Vs. Previous year Variance	FYE '24/3 Mid-term plan	Vs. Forecast Variance
Net Sales	2,737	2,975	237	2,400	575
Operating Income	73	118	44	80	38
Ratio	2.7%	4.0%	1.3%	3.3%	0.6%

Results Comparison

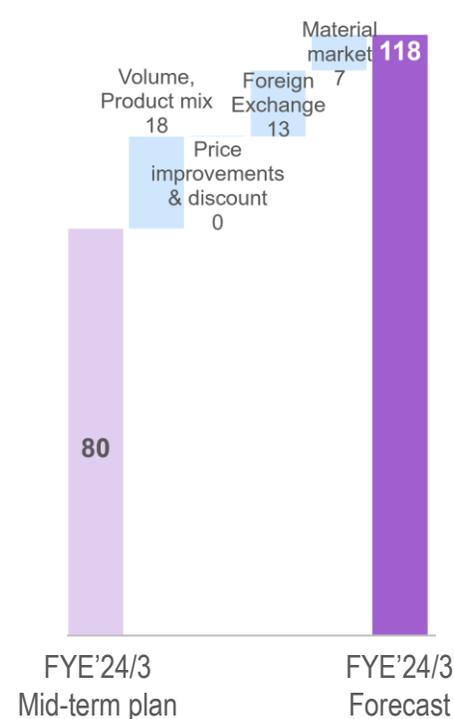


Variable Factor Analysis for Operating Income

▼ Forecast vs. Result



▼ Forecast vs. Mid-term plan



Vs. FYE'23/3

We expect automobile production volume to recover, although the timing of customers' production cutbacks due to semiconductor supply shortages and other factors is uncertain.

Volume will increase mainly in Japan and the U.S. due to increased sales to SUBARU and NISSAN.

Furthermore, we aim to achieve a significant increase in sales and profit through cost reduction activities by streamlining operations.

Vs. Mid-term plan

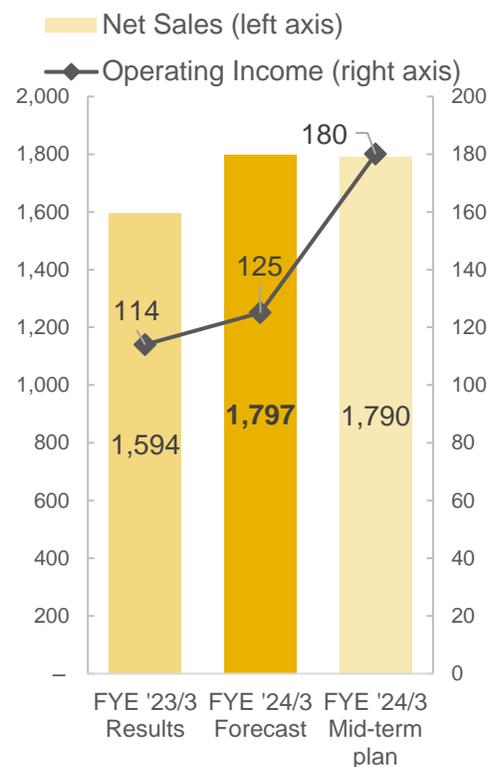
Although the U.S. business will fall short of the profit target, Japan and Thailand business will drive the profitability. Furthermore, with the impact of the weaker yen, we expect an increase in sales and profit for the overall automotive seating business.

Precision Springs and Components Business

(100 Million Yen)

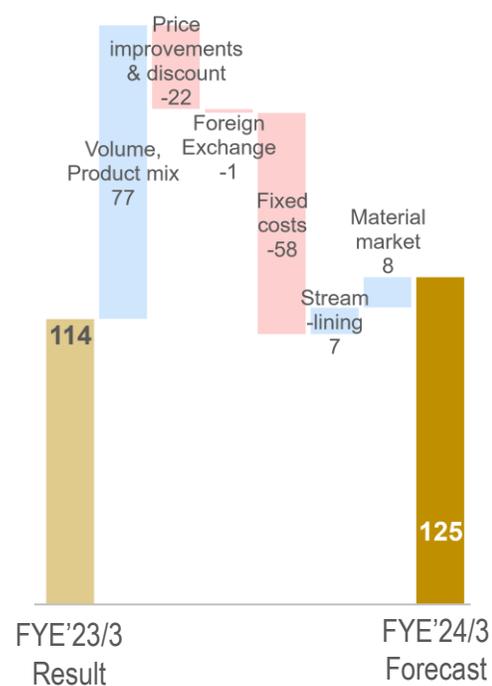
	FYE '23/3 Results	FYE '24/3 Forecast	Vs. Previous year Variance	FYE '24/3 Mid-term plan	Vs. Forecast Variance
Net Sales	1,594	1,797	202	1,790	7
Operating Income	114	125	10	180	-55
Ratio	7.2%	7.0%	-0.2%	10.1%	-3.1%

Results Comparison

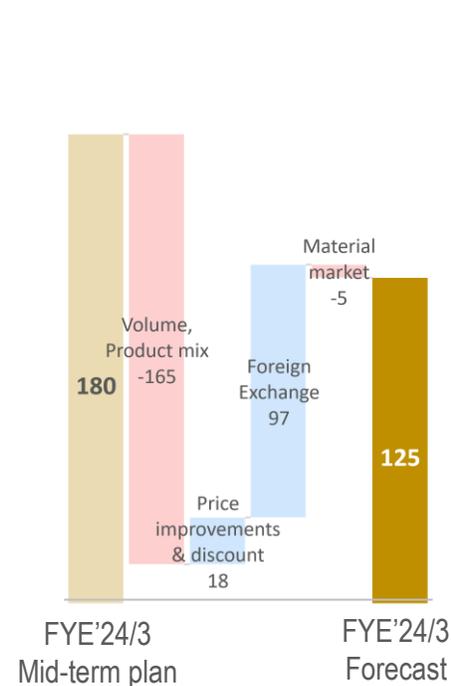


Variable Factor Analysis for Operating Income

▼ Forecast vs. Result



▼ Forecast vs. Mid-term plan



Vs. FYE'23/3

Demand for HDD-related components is expected to remain sluggish through the first half of the year, although a recovery in demand for suspensions is anticipated from the second half.

In the automobile-related field, sales and profits are expected to increase due to recovery in production volume, expansion of business scale of Motor Core, a core product for the next fiscal year, and passing on the steep rise in steel material costs to selling prices.

Vs. Mid-term plan

In the automobile-related field, earnings in the U.S. and Europe are expected to reach the mid-term plan target, but the volume of engine and transmission springs is expected to be lower than initially expected. In addition, sales of motor cores in Japan and China are expected to fall short of the original mid-term plan, resulting in lower sales and profits.

Although the weaker yen is expected to boost profits for HDD-related products, the volume decline in the first half of the year is expected to have a significant impact on profits in Japan, Thailand, and China, all of which are expected to fall slightly short of the profit targets.

Industrial Machinery and Equipment, and Other Operations

(100 Million Yen)

	FYE '23/3 Results	FYE '24/3 Forecast	Vs. Previous year Variance	FYE '24/3 Mid-term plan	Vs. Forecast Variance
Net Sales	1,131	1,137	5	1,100	37
Operating Income	127	86	-41	110	-24
Ratio	11.3%	7.6%	-3.7%	10.0%	-2.4%

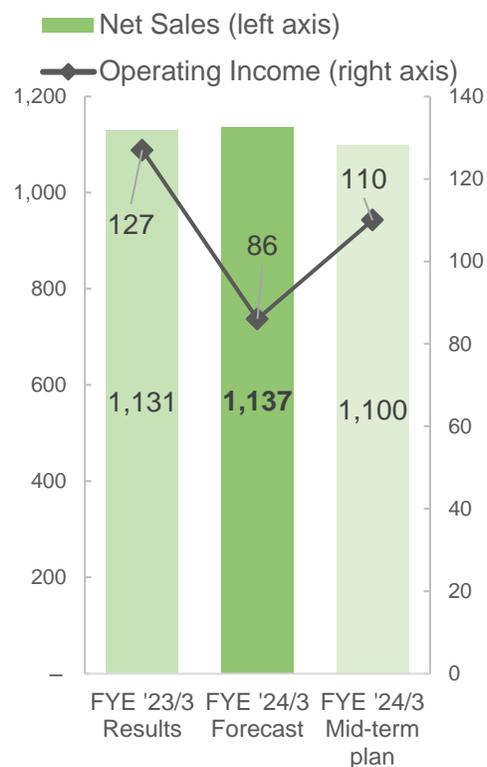
Vs. FYE'23/3

Operating income is expected to be lower than the previous year due to lower volume of semiconductor process components and the negative impact of foreign exchange rates on profits, although the leisure sector, including golf shafts and marine products, is expected to remain strong.

Vs. Mid-term plan

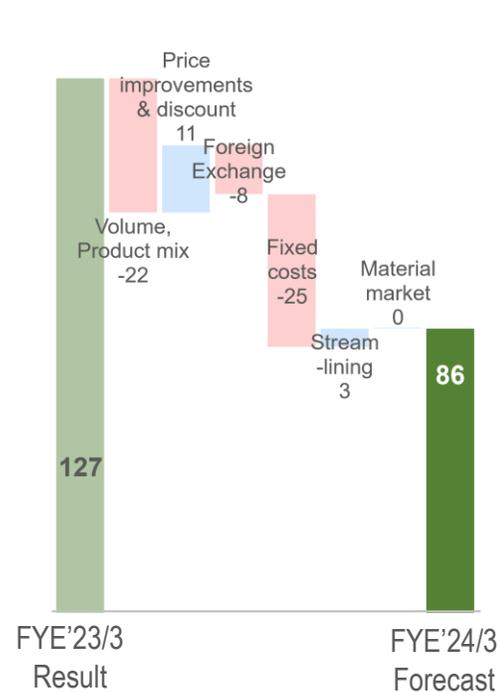
The leisure sector, including golf shafts and marine products, is expected to perform well against the mid-term target. On the other hand, semiconductor processing components are expected to see lower sales and profits compared to the mid-term plan due to the volume decline in the first half of the year, although the weaker yen will boost profits.

Results Comparison

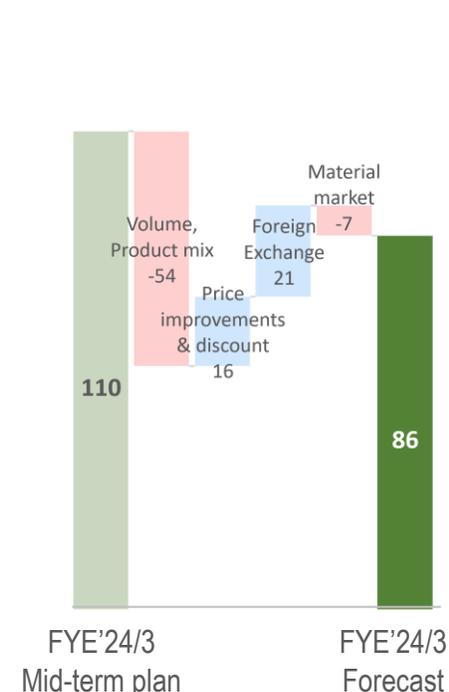


Variable Factor Analysis for Operating Income

▼ Forecast vs. Result



▼ Forecast vs. Mid-term plan



For Future Growth

President & CEO
Representative Member of the Board

Takashi Kayamoto

Background and Project Measures

Automotive Suspension Springs	-Increasing the value of Automotive Suspension Springs -Optimal production system	<h2>Profitability Improvement Project</h2> <ul style="list-style-type: none">-Price improvement of Automotive Suspension Springs-Negotiation of appropriate price for cost increase-Productivity improvement
Automotive Seating	Adaptation to electrification	<h2>SUBARU Project</h2> <ul style="list-style-type: none">-Establishment of a management system with QCDD-Development of seats adapted to needs
Motor Core	Further acceleration of electrification	<h2>Motor Core</h2> <h2>Die</h2> <ul style="list-style-type: none">-Expand new sales by leveraging strengths-Accelerate business by increasing competitiveness and differentiation

Automotive Suspension Springs Initiatives Profitability Improvement Project

Increasing the value of Automotive Suspension Springs

- Price improvement
- Price pass-through of inflationary increases

Labor productivity improvement

- Productivity improvement based on rising labor costs
- Thorough manpower saving

Equipment productivity improvement

Aim for optimal production between sites based on global utilization rates

Strengthening resilience and BCP

Review of global supply structure for stable supply and production flexibility

Roadmap

2023

2024

2025

Returning to profit

Profit increase

Maximum profit

Increasing the Value of Automotive Suspension Springs

Price improvement due to increased value

Improvement in inflation increase

Labor productivity improvement

manpower saving

Ensure adequate production

3 shift →
2 shift production

Equipment productivity improvement

Global multi-site production

Strengthening resilience and BCP

Optimized production system

Automotive Seating Initiatives SUBARU Project

Relationship with SUBARU

SUBARU market share

North America : 1 0 0 %
Japan : 9 2 %

History

- Delivering seats since 1969
- Synchronized production since 1989

Time from order to delivery

Delivered in 3 hours

Construction of a new plant in North America

July 2021: Incorporation begins

→We need to further improve SUBARU's satisfaction.

What's needed to improve customer evaluations and strengthen relationships ?

Q:Quality

Quality creation from the development and design stages

C:Cost

Eliminate design rework and achieve cost targets

D:Delivery date

Clarification of processes and driving progress by Project Manager

D:Development

-Pursuit of the essence of seating
-Virtual development

Establishment of Project Management (PM) structure

- Centralized management of the entire project progress and a single point of contact with the client
- Specialized teams focus on their own tasks to improve efficiency

Customer Evaluation

Improve QCDD and respond quickly, leading to evaluation and building even stronger relationships

Motor Core Initiatives
Motor Core Project
Die Project

Establishment of global production system

~Responding to increased orders~

- Construction of new production building (Atsugi Plant)
- Land acquisition (Mexico)
- Production capacity expansion (China)

Increased die fabrication capacity

- Increase and train more designers
- Expansion of machining facilities
- Add design and manufacturing base in Thailand

Development of new construction methods

- Interlock-less lamination
- Glue bonding core
- Interlock-less +
Development of new construction methods

Proactive response to prototypes

- Reinforcement of design system
- Reinforcement of prototype production system
- Introduction of dedicated press machine for prototype production

Roadmap



Establishment of production system

New Atsugi Plant completed

Capacity expansion in China & Mexico

Increased die fabrication capacity
※current ratio

Production lead time: 3/4 reduced
 Production capacity: 2x

Production lead time: 1/2 reduced
 Production capacity: 4x

Development of new construction methods

Interlock-less lamination
 Establishment of mass production

Glue bonding core
 Establishment of mass production

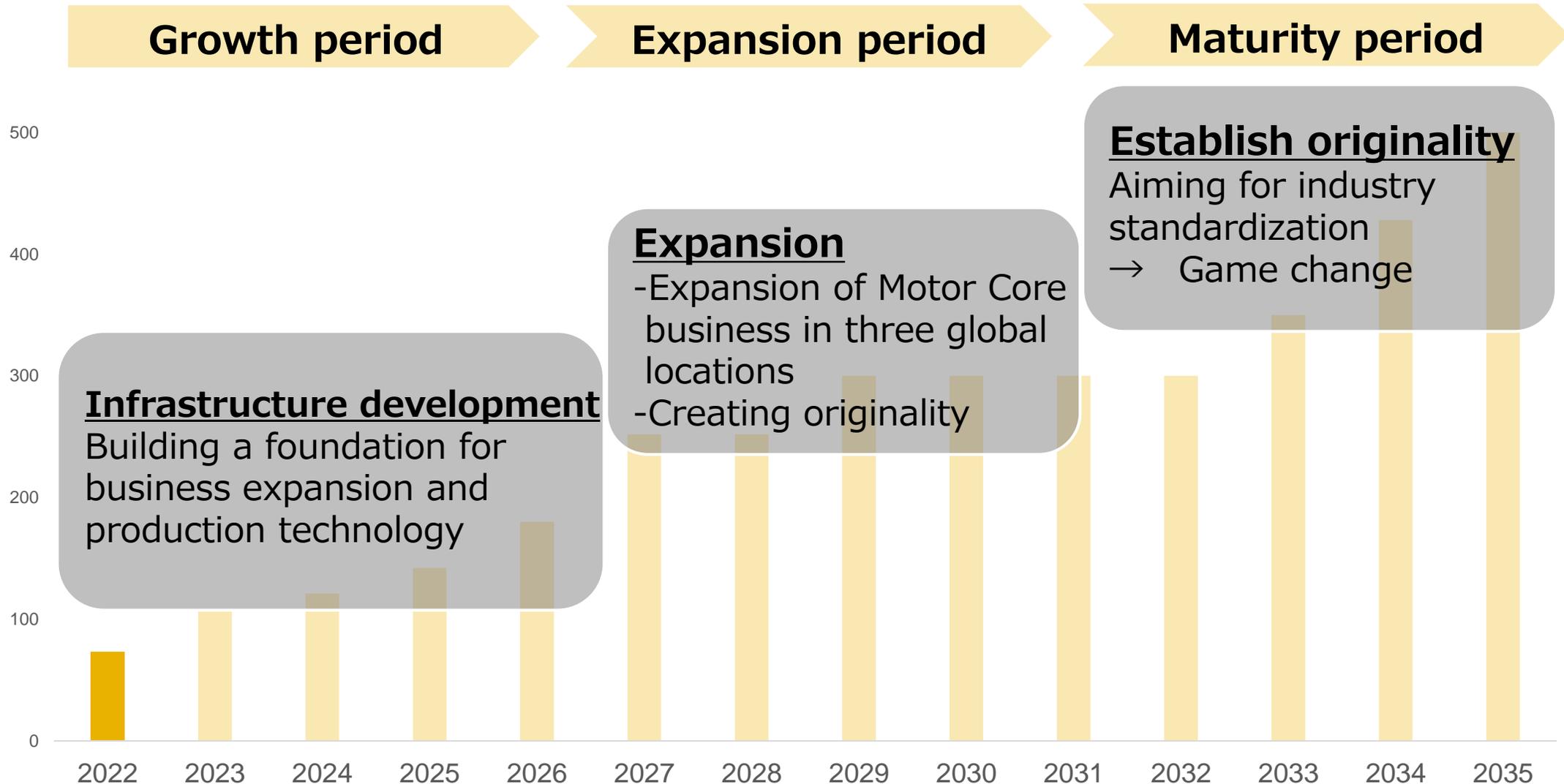
Interlock-less +
 Development of new construction methods

Establishment of prototype system

Introduction of prototype equipment

Multi-product support

Global sales of Motor Core (billion yen)



Supplementary Materials

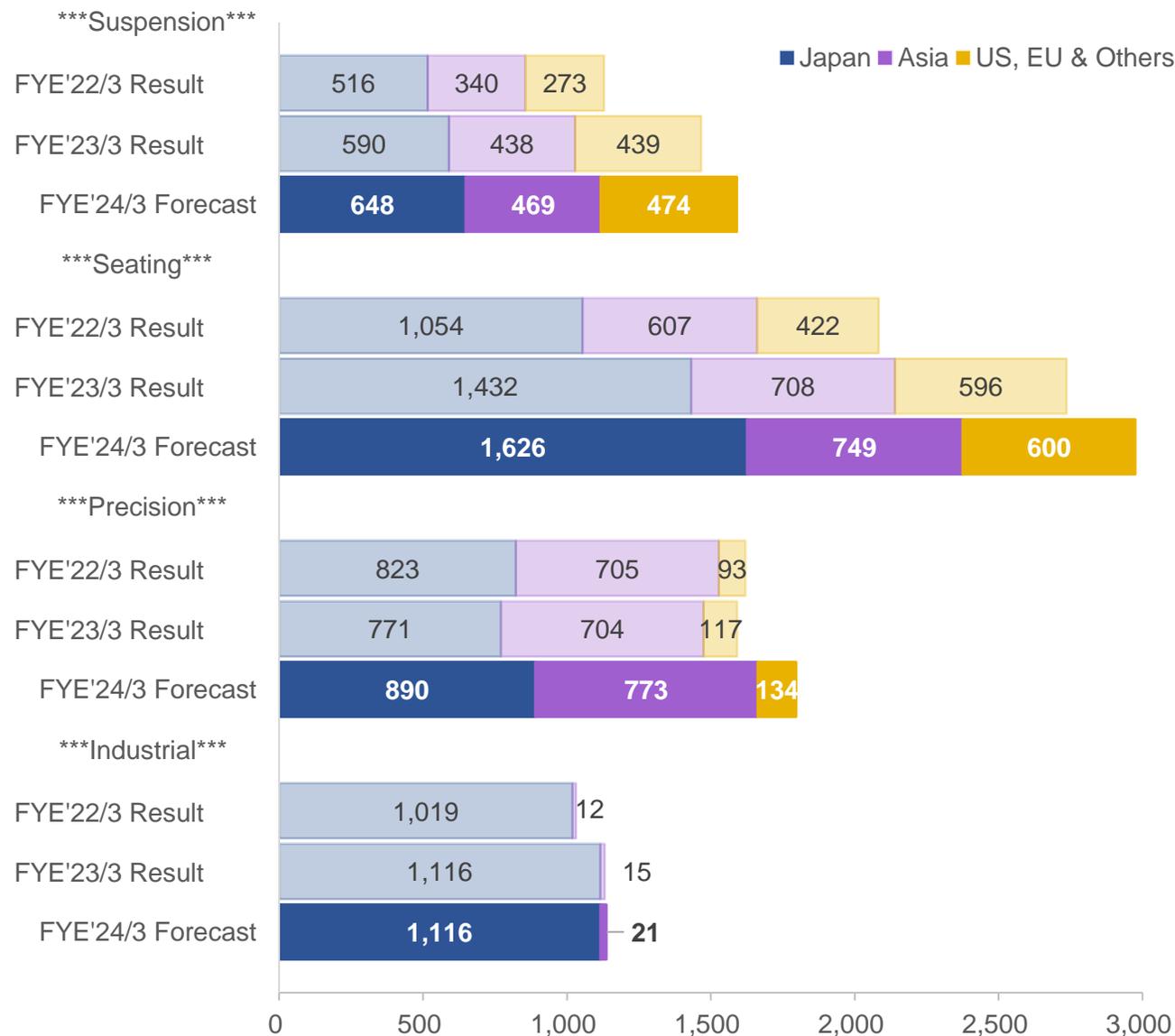
Supplementary Materials: Overseas Expansion

Major Overseas Operations



Supplementary Materials

Details of Net Sales (full-year)



(100 million Yen)

		Japan	Asia	US,EU &Others	Total
Automotive Suspension Spring Business	FYE'22/3 Result	516	340	273	1,129
	FYE'23/3 Result	590	438	439	1,468
	FYE'24/3 Forecast	648	469	474	1,591
Automotive Seating Business	FYE'22/3 Result	1,054	607	422	2,084
	FYE'23/3 Result	1,432	708	596	2,737
	FYE'24/3 Forecast	1,626	749	600	2,975
Precision Springs & Components Business	FYE'22/3 Result	823	705	93	1,622
	FYE'23/3 Result	771	704	117	1,594
	FYE'24/3 Forecast	890	773	134	1,797
Industrial Machinery & Other Operations	FYE'22/3 Result	1,019	12	-	1,031
	FYE'23/3 Result	1,116	15	-	1,131
	FYE'24/3 Forecast	1,116	21	-	1,137
Total	FYE'22/3 Result	3,413	1,665	790	5,869
	FYE'23/3 Result	3,910	1,867	1,153	6,932
	FYE'24/3 Forecast	4,280	2,012	1,208	7,500

Supplementary Materials
Assets Status

(100 million yen)

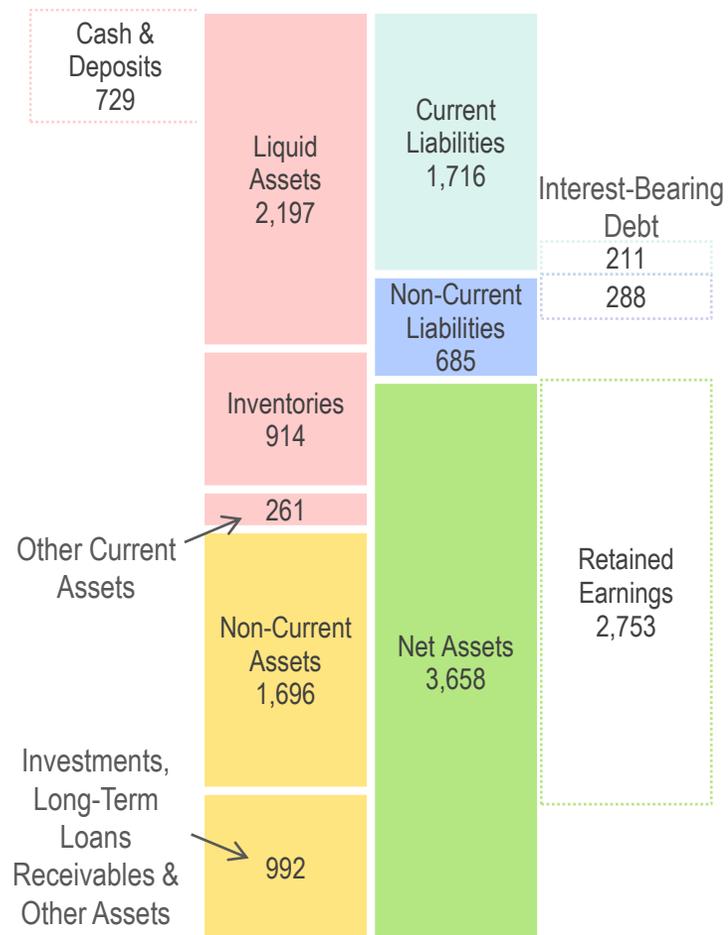
	FYE'19.3	FYE'20.3	FYE'21.3	FYE'22.3	FYE '23/3 Result	Increase /Decrease
Total Assets	5,731	5,326	5,607	5,880	6,060	179
Stockholder's Equity	2,811	2,709	2,839	3,226	3,492	266
Stockholder's Equity to Total Assets Ratio	49.0%	50.9%	50.6%	54.9%	57.6%	2.8%
Cash and Bank Deposits	985	745	793	921	729	-191
Interest Bearing Debt	687	581	697	505	500	-5
Net Cash	298	164	95	416	229	-186

Supplementary Materials

Balance Sheet Status

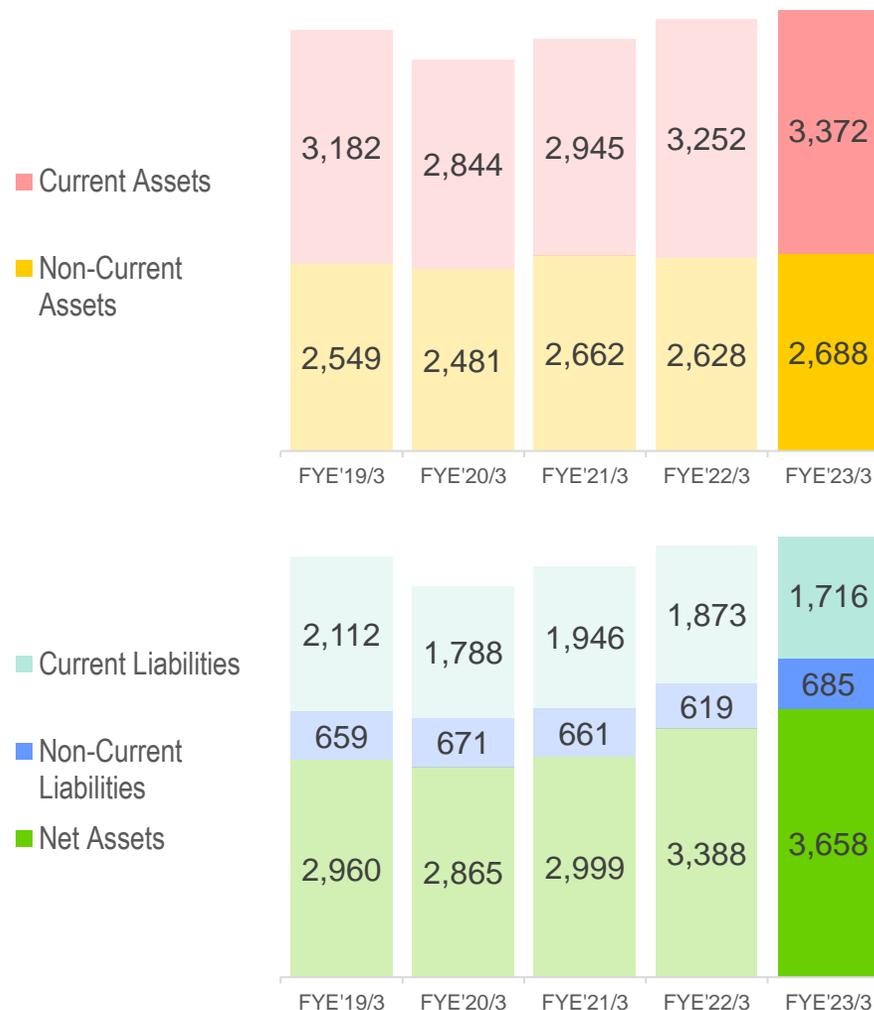
Balance Sheet as of 2023/3

(100 million yen)



Balance Sheet Trends

(100 million yen)



Assets

Cash decreased due to payments of dividends and repayments of borrowings.

Trade receivables increased due to a recovery in business transactions and a weaker yen, which pushed up the yen value of assets of foreign subsidiaries.

Liabilities

Purchases increased due to a recovery in operating transactions, but liabilities decreased due to changes in payment terms and income tax payments.

Net Assets

Foreign currency translation adjustments increased.

In addition, retained earnings increased due to profit attributable to owners of the parent.

Capital Investment / Depreciation & Amortization

by Business Segment

(100 million Yen)

		FYE'22/3 Result	FYE'23/3 Result	FYE'24/3 Forecast
Capital Investments	Automotive Suspension Springs	30	45	78
	Automotive Seating	50	46	59
	Precision Springs & Components	113	121	196
	Industrial Machinery & Others	30	58	63
	Company-wide sharing	7	9	40
	Total	232	280	436
	Vs. Previous year	-6.9%	20.7%	55.3%
Depreciation & Amortization	Automotive Suspension Springs	66	66	62
	Automotive Seating	48	55	48
	Precision Springs & Components	114	113	122
	Industrial Machinery & Others	36	35	39
	Company-wide sharing	17	17	25
	Total	283	288	296
	Vs. Previous year	2.9%	2.0%	2.5%

Capital Investment / Depreciation & Amortization Cont'd

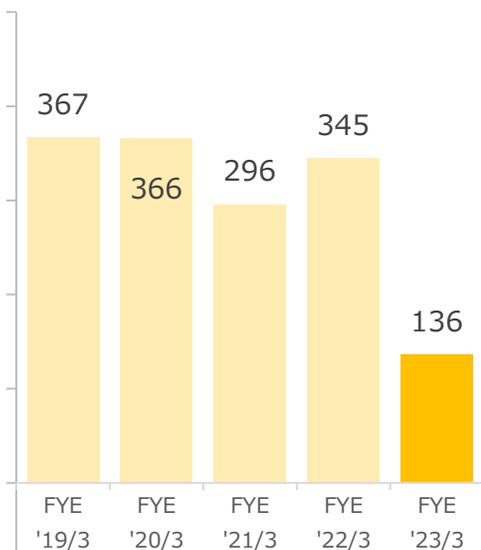
(100 million Yen)

by Region

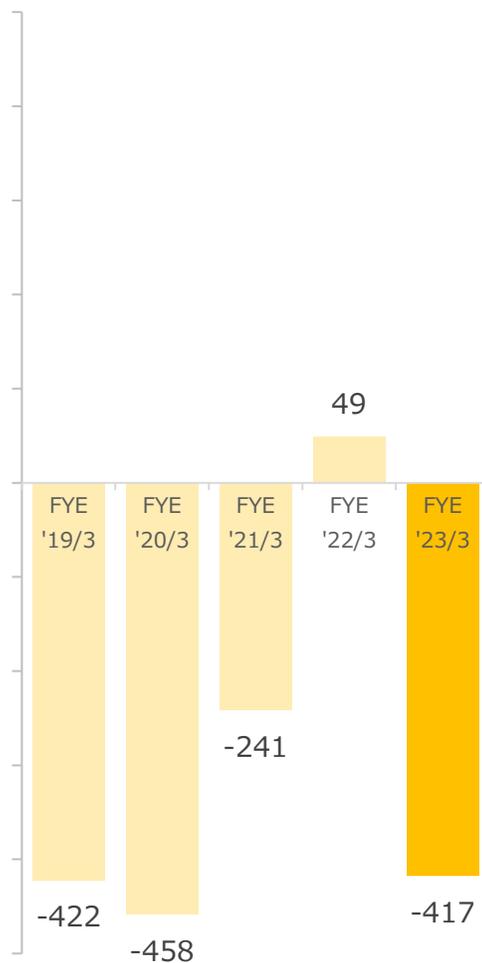
		FYE'22/3 Result	FYE'23/3 Result	FYE'24/3 Forecast
Capital Investments	Japan	130	178	252
	Asia	73	61	126
	America, Europe & Others	28	40	58
	Overseas total	102	102	184
	Total	232	280	436
Depreciation & Amortization	Japan	165	149	162
	Asia	73	86	91
	America, Europe & Others	44	52	43
	Overseas total	117	139	134
	Total	283	288	296

Supplementary Materials
Cash Flow Status

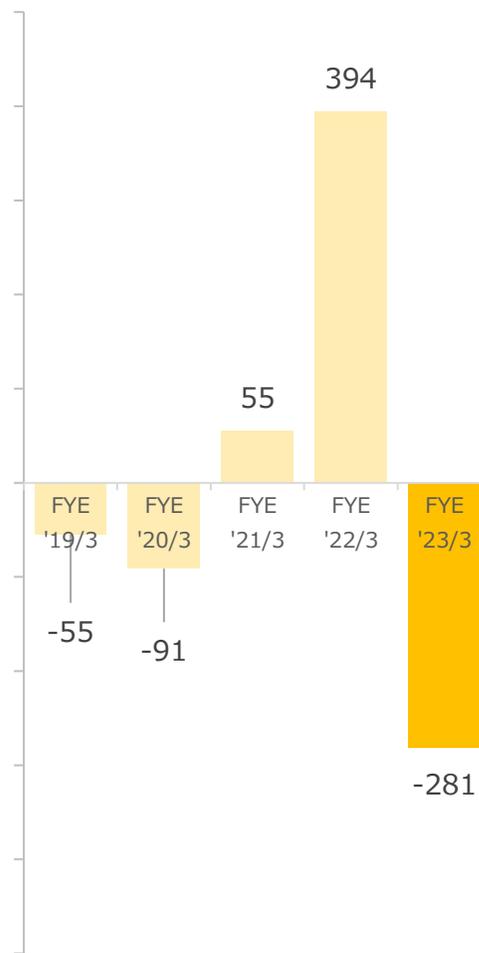
Operating CF



Investment CF

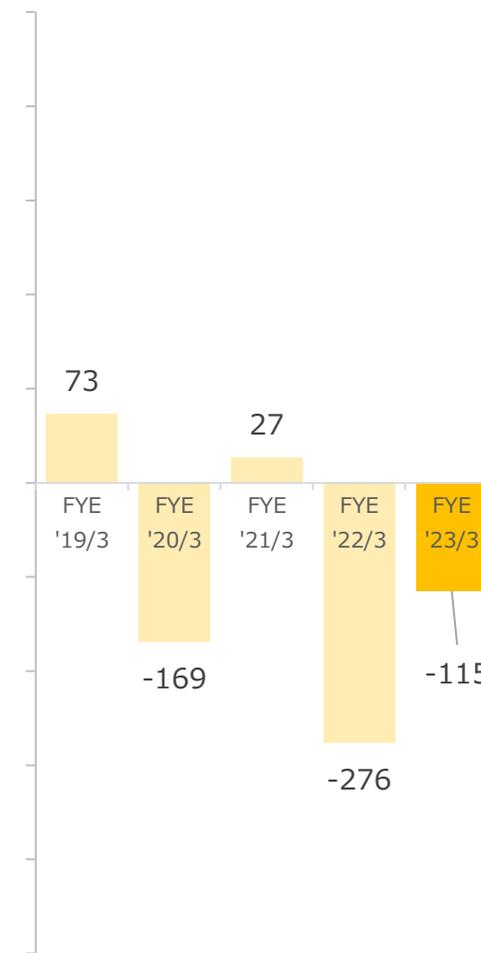


Free CF



Financial CF

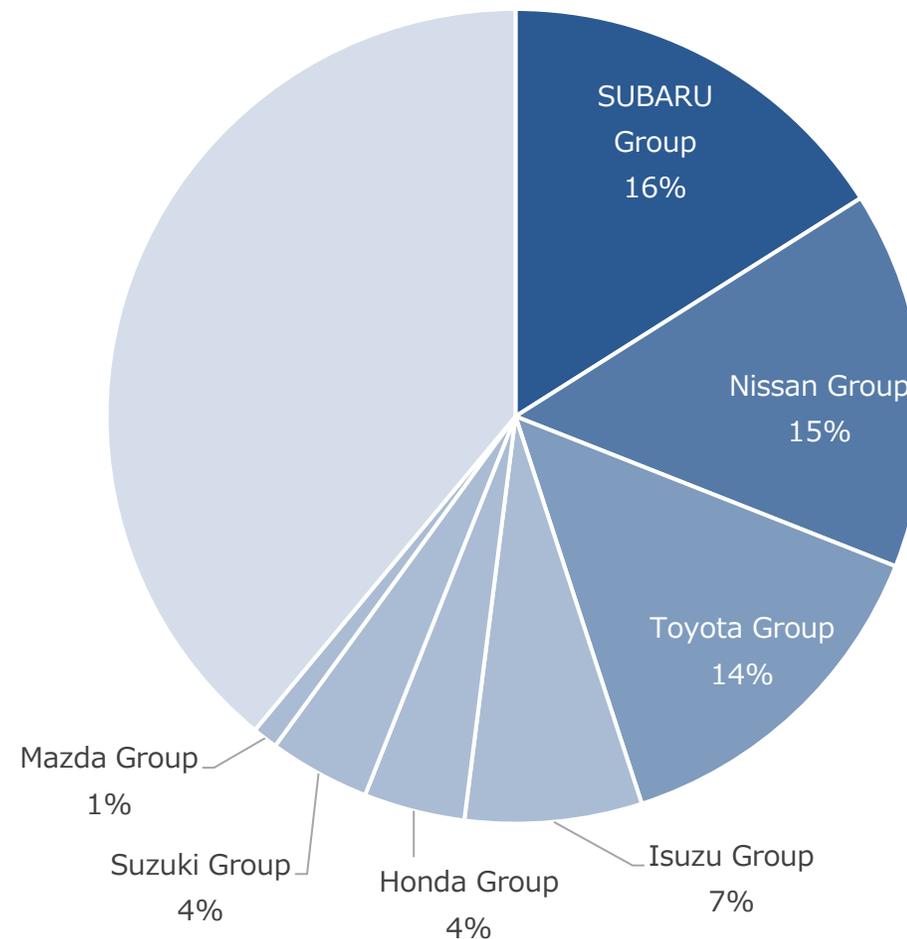
(100 million Yen)



Sales Breakdown to Each of the Major Car Makers

Major car makers	FYE'22/3	FYE'23/3
SUBARU Group	15%	16%
Nissan Group	14%	15%
Toyota Group	13%	14%
Isuzu Group	6%	7%
Honda Group	4%	4%
Suzuki Group	4%	4%
Mazda Group	1%	1%
Top 3 Companies	42%	45%

(Note) The percentages show share versus total net sales.



Motor Core

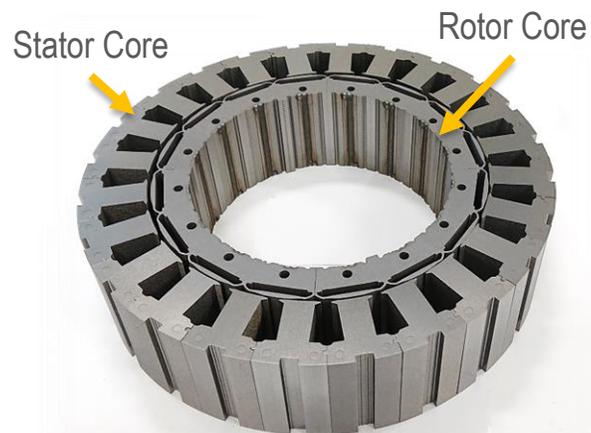
NHK produce Motor Cores, which are laminated iron cores used in the motors -- drive motors and/or power generators-- for EV and HV vehicles. They are made by some hundred layers of 0.25-0.35 mm thickness electromagnetic steel sheets which are stamped out one by one, and are fastened together by caulking or welding.

The motor core consists of the Rotor Core, which has a magnet inserted and serves as the rotating part of the motor, and the Stator Core, which is the fixed winding part. Electric power from battery is supplied to the motors through inverters, and Rotor Cores --which contains magnets-- are pulled and repelled by rotating magnetic field generated in the Stator Cores-- which are wound with coils--, causing Rotor Cores high speed rotation. Thin plate laminated iron cores can easily pass through magnetic field lines, and have ability to generate stronger magnetic force.

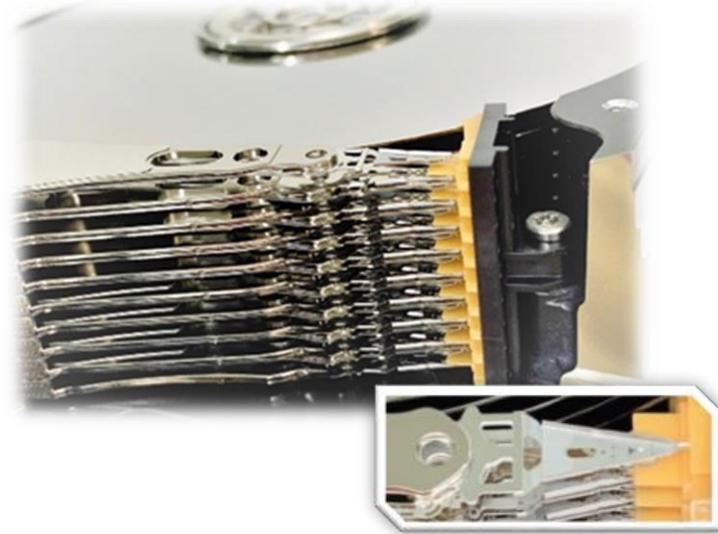
NHK Motor Cores are diameter of around 200mm and height of around 150mm, which is a relatively large size for the precision stamped products that NHK produce; but NHK has built up an ability over the many years, to produce dimensional accuracy as micron level, through our production of automotive parts and HDD (hard disk drive) parts, to be able to produce this kind of large, ultra-high precision stamped products.

The press dies --which is the key to the production of Motor Core-- are manufactured in-house, from designing, production to maintenance. In addition to our Atsugi Plant in Japan, NHK is able to produce the same quality motor cores, at our global operations in Mexico and China.

Motor Core



Suspension for HDD (Hard Disk Drive) Read-Write Head



Suspensions for HDD are unique spring products, holding read-write head in Hard Disk Drive devices.

In these days, there are much more HDDs in the Data Center in the companies ,who operates SNS and/or Video sharing sites --rather than used in Personal computers--; In these Data Centers, Ultra-large capacity HDDs line up with unit of hundreds of thousands.

A lot of CLA type suspensions (Refer Note 1. :hereinafter CLA) are used in these kind of HDDs; for example, in the picture (left), 18 pieces of CLA are used in 1 HDD equipment. The CLA is an Ultra-small actuator, built into the tip of the suspension, which moves read-write head. The CLA types can make finer movement at higher speed, rather than DSA type suspensions (Refer Note 2. :hereinafter DSA), a conventional product with a small actuator built into the center.

If you compare it to a human part, DSAs use up to the wrist, and CLAs use up to the fingertips; It has become an indispensable product for ultra-large capacity HDDs, by improving positioning accuracy and speed, with speedy & fine movements.

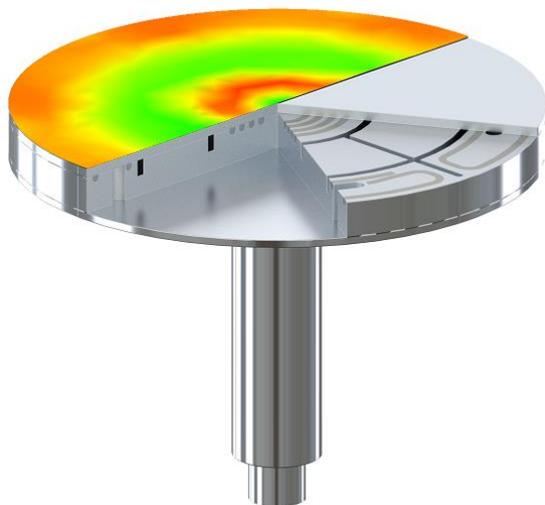
NHK Spring had started CLA mass-production from January 2016 --first in the world-- and have top share of the world.

*Note 1 : CLA stands for "Co-Located Actuators"

*Note 2 : DSA stands for "Dual Stage Actuators"



Stage heater with multi-zone temperature distribution control function for film deposition equipment



Ceramics spray-coated cooling plate for etching equipment



In semiconductors, conductors and insulators are drawn in a fine and complicated pattern on a silicon substrate to form a circuit.

Our stage heaters, which are mainly made of metal such as aluminum alloy and stainless steel, are broadly adopted in film deposition processes such as CVD and ALD*, and they make it possible to realize a complicated internal structure by the advanced bonding technology that we have cultivated over many years.

*CVD stands for Chemical Vapor Deposition

*ALD stands for Atomic Layer Deposition

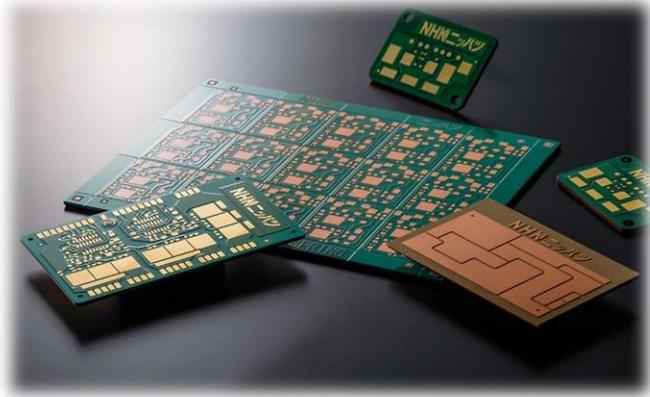
In making full use of our own heater element design technology and analysis technology for simulation, it is possible to arrange multiple heater elements, refrigerant channels, and heat insulating space, which enables to realize not only equalize temperature distribution, but also active temperature distribution control, that partially generates a difference in the range of several tens of degrees.

Regarding to etching equipment, we are manufacturing important stage parts called cooling plates, on which silicon wafers are loaded during process. Most of them are made from aluminum alloy ; NHK have the strength of integrated production --from material procurement to precision processing and ceramic spray coating--, and applying our advanced bonding technology, common to the heater manufacturing.

In these years, in addition to the parts at the bottom of the chamber -- heater and cooling plate which support work in process wafers--, we have also focused on developing the parts of the upper side of the chamber -- called shower heads, for the purpose of supplying required gas in the process --, and this sales are also increasing.

IMS (Integrated Metal Substrate)

IMS with high heat dissipation and high reliability insulation layer



Integrated Metal Substrates (IMS) are circuit plates, circuits are formed via an insulating layer on metal base, such as aluminum or copper, and their excellent heat dissipation are characteristic of IMS. Taking advantage of this heat-radiating performance, IMS is used in the fields of automotive, industrial, and consumer applications, to efficiently dissipate the heat generated by semiconductor components mounted on IMS.

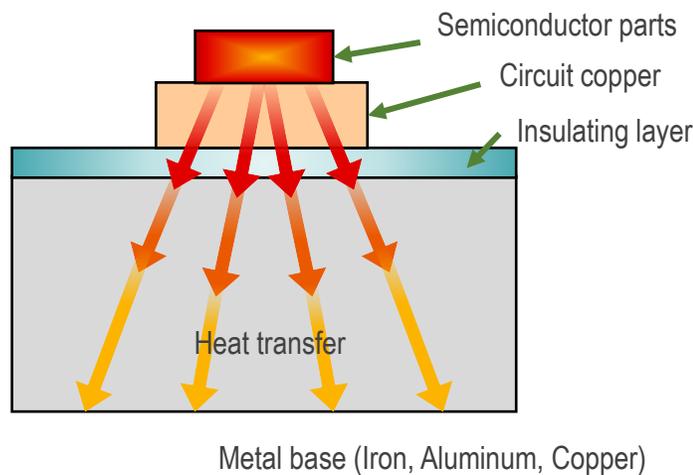
In the automotive field, our products are increasingly used in DC-DC converters and charger modules for electric and hybrid vehicles, and we are aiming to use them in drive inverter circuits in their future. In industrial applications, in addition to general-purpose inverters and inverter circuits for air conditioners, our IMS are widely used as power modules inside power conditioners for renewable energy.

Our IMS is specialized in the development and manufacturing of high heat radiation and highly reliable insulating layers.

Our IMS is characterized by our strength in integrated production, from the development of high heat-dissipating and highly reliable insulating layers, to manufacturing and finishing into IMS.

We have been developing IMS since 1980s, and have been leading the industry by introducing high heat dissipation insulating materials to the market successively.

Cross-sectional structure of IMS





NHK SPRING CO.,LTD.

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