



Furukawa Electric Co., Ltd.

Q3 Financial Results Briefing for the Fiscal Year Ending March 2023

February 7, 2023

[Number of Speakers]

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Akihiro Fukunaga

Director, Corporate Senior Vice
President, and General Manager of
Finance & Accounting Division

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Fukunaga: I am Fukunaga. Thank you very much for taking time out of your busy schedule to join us today. Thank you for your cooperation.

Now, please see the third page of the PowerPoint document. This is the content of today's explanation.

- **Through the end of Q3, revenue and profit increased year-on-year.**
- **In Q3 on a quarterly basis, revenue increased year-on-year. Operating income also increased. Ordinary income decreased due to lower foreign exchange gain, lower profit in equity method affiliates and higher interest expenses. Net income increased as the result of higher extraordinary income.**
- **Based on the current results and outlook, the full-year forecast has been revised lower.**

Next, on page four. The following are the key points of the financial statements.

Cumulative Q3 results show YoY increases in both revenue and profit. Looking at the Q3 single period, revenue increased YoY. Operating income also increased.

Ordinary income decreased due to lower foreign exchange gains, a decrease in earnings of equity method affiliates, and an increase in interest expenses. However, net income increased due to an increase in extraordinary income.

The full-year forecast has been revised downward in light of actual results and future prospects.

FY2022 Q3 Results Highlights

- Increased revenue from the impact of foreign currency exchange, higher copper prices and mainly the Automotive Products & Batteries business.
- Although operating income was impacted by a higher cost rate, increased in logistics expenses and soaring raw material and fuel prices, it increased as a result of the progress in incorporating the higher costs in the sales price, impact of foreign currency exchange (yen depreciation) and the elimination of the one-time factors that occurred the last fiscal year.
- Ordinary income and net income attributable to owners of the parent increased.

(JPY billion, JPY/kg, JPY/USD)

	FY20_Q3 Results	FY21_Q3 Results	FY22_Q3 Results	YoY change	
	a	b	c	c-b	(Comparison with last year)
Net Sales	563.0	670.9	785.9	+115.0	Higher revenue: Infrastructure, Electronics & Automotive Systems and Functional Products segments
Operating income	▲ 0.7	5.1	6.0	+1.0	Increased income: Infrastructure and Electronics & Automotive Systems segments Decreased income: Functional Products segment
Ordinary income	▲ 3.8	10.3	10.7	+0.4	Non-operating income : Increased interest expenses, lower profit in equity method affiliates and other factors
Net income attributable to owners of the parent	0.5	3.3	12.4	+9.1	Increased extraordinary profit: Sale of shares of TOTOKU ELECTRIC CO., LTD. (10.8 JPY billion) and cross-shareholdings, etc.
Average copper price	714	1,111	1,200	+88	
Average exchange rate	106	111	136	+25	

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Next, on page five. These are the key points of our Q3 FY2022 financial results.

The area highlighted in blue in the table at the bottom left is the actual results. Sales increased due to foreign exchange effects and higher copper prices, mainly in the Automotive Products and Batteries business.

Operating income increased despite negative factors such as increased costs and higher cost of sales ratio, amid positive factors such as progress in incorporating the higher costs in sales price, yen depreciation, and the elimination of temporary expenses incurred last year due to the spread of the COVID-19 in Vietnam, including BCM expenses and emergency transportation expenses.

Ordinary income was negatively affected by an increase in interest expenses and a decrease in profit from equity method affiliates.

On the other hand, growth in net income attributable to the parent was larger than that in ordinary income, due in part to the sale of equity interests in TOTOKU ELECTRIC CO., LTD.

FY2022 Q3 Results – P/L Summary

(JPY billion, JPY/kg, JPY/USD)

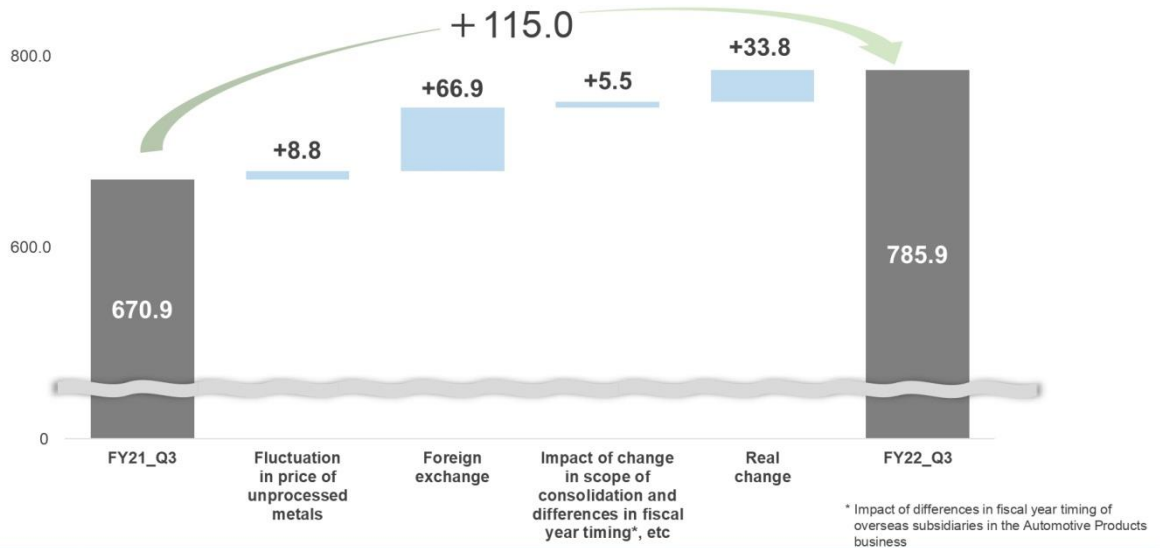
	FY20_Q3		FY21_Q3		FY22_Q3		YoY change		Breakdown of change (Q3 cumulative YoY change)
	a	a'	b	b'	c	c'	c-b	c'-b'	
Net sales	563.0	208.6	670.9	223.7	785.9	261.4	+115.0	+37.7	+115.0 (+17%) See page 7
Operating income	▲ 0.7	2.6	5.1	▲ 2.2	6.0	1.4	+1.0	+3.6	+1.0 (+19%) See page 8
(Margin)	▲ 0.1%	1.3%	0.8%	▲ 1.0%	0.8%	0.6%	+0.0	+1.5	
Profit/loss in equity method affiliates	▲ 0.5	0.6	6.1	1.7	5.0	▲ 0.8	▲ 1.1	▲ 2.5	
Foreign exchange gain/loss	▲ 0.9	▲ 0.5	0.8	0.4	1.2	▲ 3.6	+0.4	▲ 4.0	
Ordinary income	▲ 3.8	2.2	10.3	▲ 0.5	10.7	▲ 3.3	+0.4	▲ 2.8	+0.4 (+4%)
(Margin)	▲ 0.7%	1.0%	1.5%	▲ 0.2%	1.4%	▲ 1.3%	▲ 0.2	▲ 1.0	
Extraordinary income/loss	10.4	▲ 1.1	0.4	▲ 1.9	11.9	11.8	+11.5	+13.7	·Extraordinary income +9.1 (5.4 → 14.6)
Income taxes	▲ 4.6	▲ 1.3	▲ 5.4	▲ 0.6	▲ 9.3	▲ 3.4	▲ 3.9	▲ 2.8	·Extraordinary loss +2.4 (▲5.0 → ▲2.6)
Net income attributable to non-controlling interests	▲ 1.6	▲ 1.0	▲ 2.0	▲ 0.9	▲ 0.9	▲ 0.6	+1.1	+0.3	
Net income attributable to owners of parent	0.5	▲ 1.1	3.3	▲ 3.9	12.4	4.5	+9.1	+8.3	+9.1(+272%)
(Margin)	0.1%	▲ 0.5%	0.5%	▲ 1.7%	1.6%	1.7%	+1.1	+3.4	
Average copper price	714	792	1,111	1,149	1,200	1,189	+88	+40	
Average exchange rate	106	105	111	114	136	141	+25	+28	

Next, on page six. This is a summary of P&L.

Since this overlaps with what I have just described, I will skip a detailed explanation.

Breakdown of the Changes in Net Sales (YoY)

(JPY billion)

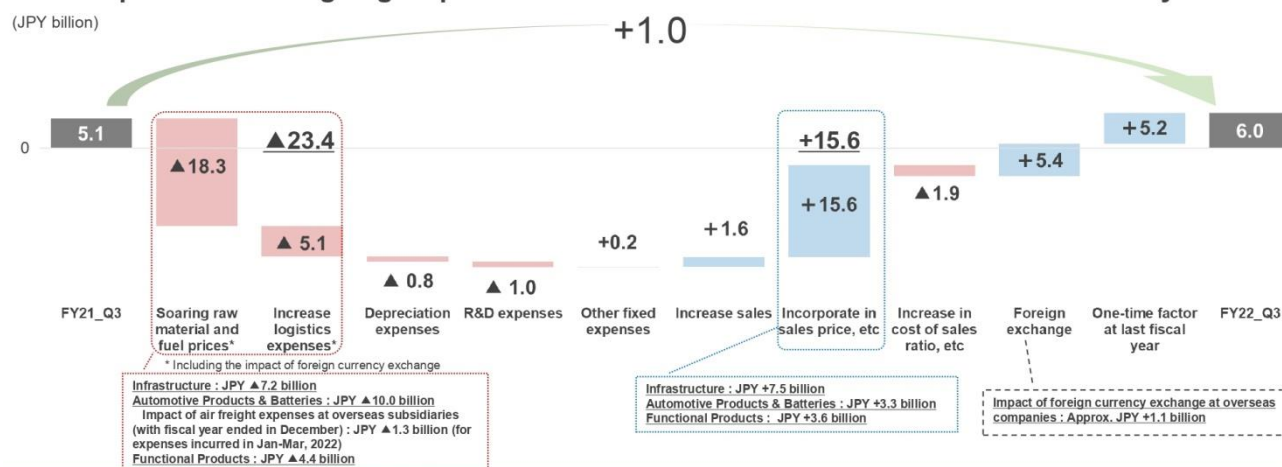


Next is page seven. This is a waterfall chart showing the factors that contributed to the increase or decrease in sales compared to the previous year.

Revenues increased by JPY115.0 billion from the previous fiscal year. Excluding special factors, such as changes in prices of unprocessed metals, exchange rates, and changes in the scope of consolidation, the real fluctuation is JPY33.8 billion. Of this total, automotive products account for the majority.

Breakdown of the Changes in Operating Income (YoY)

- Profit was increased due to progress of incorporation in sales price, impact of foreign exchange, and elimination of one-time factors at last fiscal year, despite soaring raw material and fuel prices, increased logistics expenses, and higher cost of sales ratio.
- In the Automotive Products business, invoicing the incurred expenses and incorporating in sales price remain ongoing. Improvements to the financial results will be realized mainly in Q4.



Next, on page eight. This waterfall chart shows factors behind the increase or decrease in operating income compared to the previous year.

The negative factors, such as soaring raw material and fuel prices and the increase in logistics costs, circled in red on the left, were covered by incorporating in sales price.

The price increases caused minus JPY23.4 billion, while the incorporation in sales price was JPY15.6 billion, or about 70% of the total. In the Q2 phase, the ratio was just under 60%, so that is an improvement of about 10%.

In addition, the cost ratio continues to rise in the automotive sector. While there has been a decrease in sales due to a sharp decline in production by our customers, the cost of sales has increased mainly due to labor costs, as we have been forced to retain a certain level of human resources. However, the negative margin improved by JPY1.8 billion from Q2 to minus JPY1.9 billion, an improvement of JPY1.8 billion.

As for exchange rates, the yen continues to weaken compared to the previous year, resulting in an increase of JPY5.4 billion, or approximately JPY3 for the exchange rate sensitivity.

In addition, as I mentioned earlier, emergency transportation costs and BCM costs incurred last year due to the spread of the COVID-19 in Vietnam have been eliminated, resulting in an increase of JPY5.2 billion.

These factors resulted in an operating income of JPY6.0 billion, an increase of JPY1.0 billion from the previous year.

Revised FY2022 Full-year Forecasts

- Net sales and operating income have been revised down after incorporating the demand forecast and exchange rate fluctuations.
- Ordinary income and net income attributable to owners of the parent have also been revised.

(JPY billion, JPY/kg, JPY/USD)

	FY20 Results	FY21 Results	*FY22 Previous forecasts	FY22 Forecasts	YoY change	Change from previous forecasts	
	a	b	c	d	d-b	d-c	(Comparison with previous forecasts)
Net Sales	811.6	930.5	1,050.0	1,040.0	+109.5	▲ 10.0	Revised up: Electronics & Automotive Systems segment Revised down: Infrastructure and Functional Products segments
Operating income	8.4	11.4	22.5	15.0	+3.6	▲ 7.5	Revised down: Infrastructure, Electronics & Automotive Systems and Functional Products segments
Ordinary income	5.2	19.7	28.0	20.0	+0.3	▲ 8.0	Lower foreign currency gain following changes to the exchange rate assumptions
Net income attributable to owners of the parent	10.0	10.1	21.0	15.0	+4.9	▲ 6.0	—
Average copper price	770	1,136	1,128	1,202	(Q4 Assumption : 1,210)		Previous forecasts Average copper price (Q3 - Q4 Assumption : 1,050) Average exchange rate (Q3 - Q4 Assumption : 140)
Average exchange rate	106	112	137	135	(Q4 Assumption : 130)		

*Announced on November 8, 2022

**Dividend for the fiscal year ending March 31, 2023 is unchanged
from the year-end dividend forecast of JPY 60 per share announced on May 12, 2022.**

Next is page nine. This is a revision of the full-year forecast for the current fiscal year.

The downward revisions to net sales and operating income take into account demand forecasts and exchange rate fluctuations. The exchange rate forecast of JPY140 per US dollar was revised to JPY130 per US dollar.

Regarding ordinary income, a decrease in foreign exchange gains has been factored in due to a change in foreign exchange assumptions. Net income attributable to owners of the parent has also been revised accordingly.

Although both sales and income are forecast to increase compared to the previous year, they both decreased from the previous forecast.

The year-end dividend forecast of JPY60 per share announced on May 12 remains unchanged.

FY2022 Full-year Forecasts – P/L Summary

(JPY billion, JPY/kg, JPY/USD)

	FY20 Results	FY21 Results	*FY22 Previous forecasts	FY22 Forecasts	YonY change	Change from previous forecasts
	a	b	c	d	d-b	d-c
Net sales	811.6	930.5	1,050.0	1,040.0	+109.5	▲ 10.0
Operating income	8.4	11.4	22.5	15.0	+3.6	▲ 7.5
(Margin)	1.0%	1.2%	2.1%	1.4%	+0.2	▲ 0.7
Profit/loss in equity method affiliates	▲ 0.9	9.0	—	—	—	—
Foreign exchange gain/loss	0.5	1.5	—	—	—	—
Ordinary income	5.2	19.7	28.0	20.0	+0.3	▲ 8.0
(Margin)	0.6%	2.1%	2.7%	1.9%	▲ 0.2	▲ 0.7
Extraordinary income/loss	16.1	0.8	7.9	8.5	+7.7	+0.6
Income taxes	▲ 9.2	▲ 7.2	—	—	—	—
Net income attributable to non-controlling interests	▲ 2.1	▲ 3.1	—	—	—	—
Net income attributable to owners of parent	10.0	10.1	21.0	15.0	+4.9	▲ 6.0
(Margin)	1.2%	1.1%	2.0%	1.4%	+0.4	▲ 0.6
Average copper price	770	1,136	1,128	1,202	(Q4 Assumption : 1,210)	
Average exchange rate	106	112	137	135	(Q4 Assumption : 130)	

*Announced on November 8, 2022

Next is page 10. This is a summary of P&L under the full-year forecast.

This, too, would be an overlapping explanation, so I will omit it.

Revised FY2022 Full-year Forecasts (Operating income)

■ Compared to the previous forecast, Infrastructure, Electronics & Automotive Systems and Functional Products segments have been revised down.

		(JPY billion)		Main revisions
		Previous	Current	
Infrastructure	Communications Solutions	8.0	6.5	<ul style="list-style-type: none"> (-) Impact of foreign currency exchange (yen appreciation compared to the previous forecasts) (-) Delays to the projects of networking related products in Japan due to difficulty procuring semiconductors
	Energy Infrastructure	(No change)		
Electronics & Automotive Systems	Automotive Products & Batteries	(No change)		
	Electronics Component Materials	4.0	3.5	<ul style="list-style-type: none"> (-) Lower demand for in-vehicle and electronics products
Functional Products		8.5	3.5	<ul style="list-style-type: none"> (-) Declining global demand for smartphones, PCs and data centers in China and other countries (-) Sudden and prolonged inventory adjustment by customers and its prolongation (-) Impact of foreign currency exchange (yen appreciation compared to the previous forecasts)

Please see page 11. Here are the details of the revised forecast for operating income.

Infrastructure, Electronics & Automotive Systems, and Functional Products segments have been revised downward from the previous forecast.

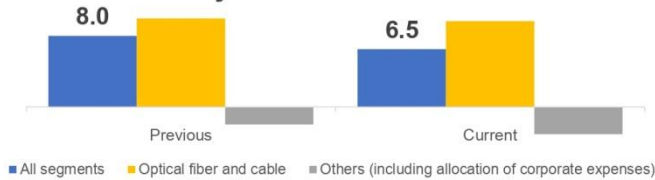
In Infrastructure segment, the forecast for Communications Solutions business has declined JPY1.5 billion from the previous JPY8.0 billion to JPY6.5 billion. In Electronics & Automotive Systems segment, the forecast for Electronics Component Materials business declined by JPY0.5 billion from JPY4.0 billion to JPY3.5 billion. Functional Products segment has been revised down from JPY8.5 billion to JPY3.5 billion, a decrease of JPY5.0 billion.

Communications Solutions business was affected by the review of foreign exchange rates. It was also affected by the delays to the projects of network-related product in Japan to the next fiscal year or later due to semiconductor procurement difficulties. The total impact of these two factors is JPY1.5 billion, with about half of that due to each factor.

In Electronics Component Materials business, profits are forecast to decrease due to lower sales resulting from a decline in demand for in-vehicle and electronics-related products.

Functional Products segment are affected by the global decline in demand for smartphones and PCs, as well as for data centers in China and other countries. In addition, sales and profits declined due to rapid inventory adjustments by customers starting in Q3, and the expectation that these adjustments will be prolonged. In addition, after changing our exchange rate assumption, there is a negative factor that the yen could appreciate.

Revised Full-year Forecasts



(Revisions)

- Impact of foreign currency exchange (yen appreciation)
: Mainly optical fiber & cable and FITEL products business
- Delays to the projects of networking related products in Japan due to difficulty procuring semiconductors

Response to the issue for networking related products



Issue	Response
Difficulty procuring semiconductors used as a component Unanticipated delays in product delivery lead time have occurred, and the impact is expected to be prolonged	<ul style="list-style-type: none"> Secure strategic inventory by understanding procurement lead time and procuring in installments based on long-term advance orders Reduce the risk by shifting to new models and making design changes Expand the procurement routes and secure alternate materials and components
Soaring prices	<ul style="list-style-type: none"> Incorporate in the sales price Already incorporated in the sales price for some products. Continued further price shifting

Next, please go to page 12. This shows details of Communications Solutions business. We have attached a similar table that we discussed in Q2.

In the graph, the yellow area is the Optical fiber and Cable business. There is no significant change from the previous forecast for Optical fiber and Cables business. Although the appreciation of the yen will result in a slight negative impact, there will be no change in the content.

However, the delays to the projects of network-related product in Japan due to semiconductor procurement difficulties has resulted in a wider negative impact than we forecast in Q2. As I have mentioned in the past, semiconductor procurement has been difficult, and the shortage of semiconductors has expanded in range and types of semiconductors that are becoming more difficult to procure. As a result, although we have orders, we are unable to produce products, and sales have been postponed to the next fiscal year.

As for countermeasures, we are reducing risk by switching to semiconductors that are easier to procure by switching to new models, as we have in the past. We are also expanding procurement routes and procuring alternative materials and parts.

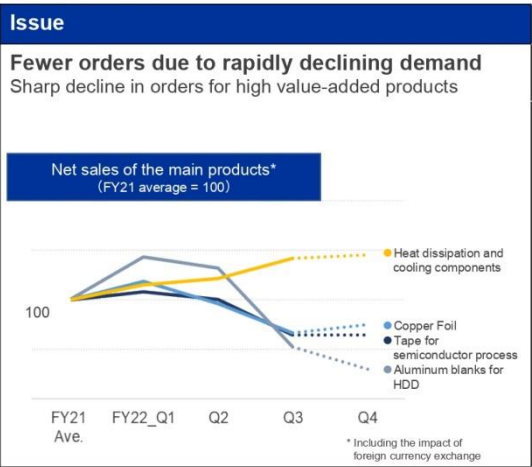
We have already passed on prices for some of our products, but we are continuing our efforts to further pass on prices.

Functional Products : Response to the issues

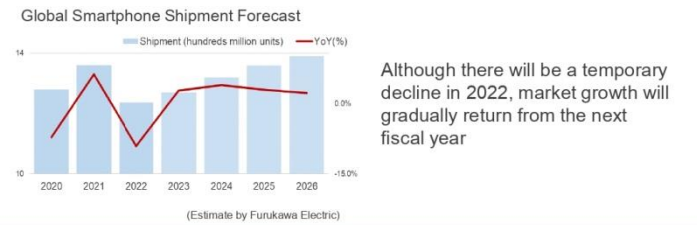
- Declining global demand for smartphones, PCs and data centers in China and other countries
- Sudden and prolonged inventory adjustments by customers



Expect to eliminate excess inventory in the supply chain and recovery in demand for smartphones, PCs, etc. from FY23Q2



- Response**
- Temporarily halt production and limit business expenses
 - Continue the activities aimed at satisfying the specifications for new customers
 - Enhance communication with customers directed at grasping the inventory status within the supply chain
 - Production related responses for when demand rapidly recovers
 - Continue the negotiations aimed at incorporating the costs in the sales price



Next, on page 13, is the status of the Functional Products business.

There is a global decline in demand for smartphones, PCs, and data centers in China and other countries, as well as rapid and prolonged inventory adjustments by our customers.

Please see the lower section of the page for information on this. There is a decrease in orders due to a sharp slowdown in demand. Orders for high-value-added products have plummeted, and as you can see below, orders and sales for copper foil, tape for semiconductor manufacturing, and aluminum blanks for hard disk drives have dropped significantly since Q3. This situation will continue in the Q4, which is the cause of the downward swing this time.

In the supply chain, there were disruptions in the supply chain due to the COVID-19, and companies urgently tried to secure inventories, but the COVID-19 has settled down. Under such circumstances, demand has been decreasing a little, and we are now in an adjustment phase due to excess inventory amidst a decrease in demand.

We expect this situation to begin to recover in Q2 of the next fiscal year or later. Basically, we expect gradual improvement from H2 of this year onward.

As a countermeasure, we are temporarily suspending operations at some of our plants and are, of course, proceeding with cost containment. We are also continuing to pass on prices.

On the other hand, we are continuing activities aimed at satisfying specifications for new customers, for future sales expansion or expansion of commercial rights & trade areas. Demand is gradually returning to normal, and although a U-shaped recovery is the image we have in mind, demand itself can sometimes recover rapidly. We will be prepared to handle production in case of such a situation.

In addition, for situations such as this one, where there is excess inventory in the supply chain, we will prepare for such situations by communicating with our customers and by always maintaining an inventory status that is not just for our direct customers but for the entire supply chain beyond that point.

We have also included a forecast of global smartphone shipments, in the lower right-hand corner. As shown, I believe they have decreased in FY2022. This situation will gradually recover from FY2022 onward. The situation will not completely recover, but a certain demand exists. In this situation, the excess inventory resulted in a significant drop in sales, as shown in the graph on the left.

On the other hand, sales of heat dissipation-related products and thermal products are increasing. This indicates that we do not consider the demand situation to be so important because we are selling products very close to end users, especially for data centers in North America, where sales have been strong, and for projects such as AI projects.

Net Sales and Operating Income by Segment (Q3 Cumulative)

(JPY billion)

	Net sales				Operating income			
	FY20	FY21	FY22	YoY	FY20	FY21	FY22	YoY
	a	b	c	c-b	d	e	f	f-e
Infrastructure	185.3	217.3	238.2	+20.9	▲ 3.7	2.3	3.6	+1.3
Communications Solutions	113.4	139.8	159.2	+19.4	▲ 1.6	1.5	2.9	+1.4
Energy infrastructure	71.9	77.5	79.0	+1.5	▲ 2.1	0.8	0.7	▲ 0.1
Electronics & Automotive Systems	290.1	353.7	444.7	+91.0	0.6	▲ 2.1	▲ 1.1	+1.0
Automotive Products & Batteries	156.2	172.4	241.4	+69.0	0.4	▲ 5.7	▲ 4.0	+1.6
Electronics Component Materials	133.8	181.2	203.3	+22.0	0.2	3.6	2.9	▲ 0.6
Functional Products	83.8	98.0	101.2	+3.2	3.7	5.9	5.2	▲ 0.7
Service and Developments, etc.	29.3	26.9	22.1	▲ 4.8	▲ 1.4	▲ 1.0	▲ 1.6	▲ 0.6
Elimination of intra-company transactions	▲ 25.4	▲ 24.9	▲ 20.3	+4.7	0.1	▲ 0.1	▲ 0.0	+0.1
Total	563.0	670.9	785.9	+115.0	▲ 0.7	5.1	6.0	+1.0

Next is page 15. This is sales and operating income by segment through Q3.

Net Sales and Operating Income by Segment (Full-year forecasts)

(JPY billion)

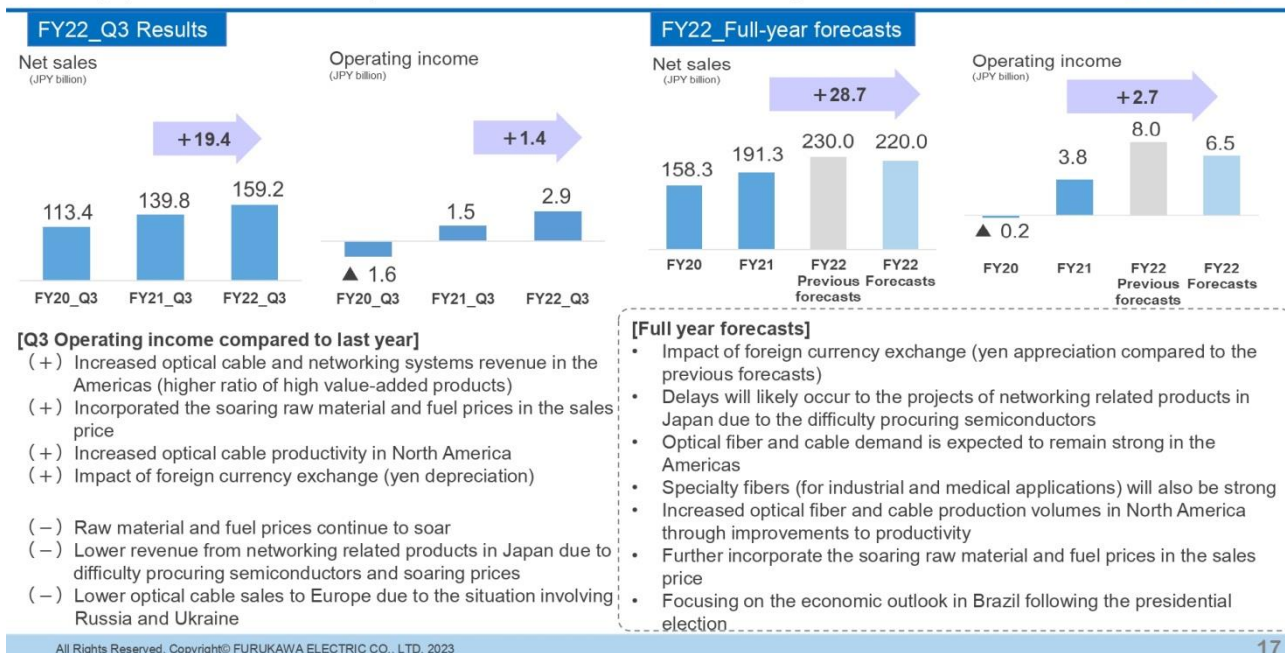
	Net sales						Operating income					
	FY20	FY21	*FY22 Previous Forecasts	FY22	YoY	Change from previous forecasts	FY20	FY21	*FY22 Previous Forecasts	FY22	YoY	Change from previous forecasts
	a	b	c	d	d-b	d-c	e	f	g	h	h-f	h-g
Infrastructure	259.2	297.0	345.0	335.0	+38.0	▲ 10.0	▲ 2.1	5.2	9.5	8.0	+2.8	▲ 1.5
Communications Solutions	158.3	191.3	230.0	220.0	+28.7	▲ 10.0	▲ 0.2	3.8	8.0	6.5	+2.7	▲ 1.5
Energy infrastructure	100.9	105.7	115.0	115.0	+9.3	-	▲ 1.9	1.4	1.5	1.5	+0.1	-
Electronics & Automotive Systems	433.0	500.7	575.0	590.0	+89.3	+15.0	5.9	0.1	7.0	6.5	+6.4	▲ 0.5
Automotive Products & Batteries	235.1	249.9	305.0	330.0	+80.1	+25.0	5.0	▲ 4.6	3.0	3.0	+7.6	-
Electronics Component Materials	198.0	250.8	270.0	260.0	+9.2	▲ 10.0	0.9	4.8	4.0	3.5	▲ 1.3	▲ 0.5
Functional Products	114.7	130.0	140.0	125.0	▲ 5.0	▲ 15.0	6.3	7.6	8.5	3.5	▲ 4.1	▲ 5.0
Service and Developments, etc.	38.7	34.5	30.0	30.0	▲ 4.5	-	▲ 1.7	▲ 1.4	▲ 2.5	▲ 2.5	▲ 1.1	-
Elimination of intra-company transactions	▲ 34.0	▲ 31.6	▲ 40.0	▲ 40.0	▲ 8.4	-	0.1	▲ 0.1	0.0	▲ 0.5	▲ 0.4	▲ 0.5
Total	811.6	930.5	1,050.0	1,040.0	+109.5	▲ 10.0	8.4	11.4	22.5	15.0	+3.6	▲ 7.5

*Announced on November 8, 2022

*Announced on November 8, 2022

The next page, page 16, shows the full-year forecast by segment. Details are explained on page 17 and onwards.

1-(1) Infrastructure (Communications Solutions)



Page 17 shows the status of Communications Solutions business.

The upper left shows the cumulative Q3 results, and the upper right shows the full-year forecast, both of which show increases in both sales and income.

The lower left-hand side compares the Q3 cumulative operating income with the previous year. Although raw material and fuel prices continue to rise, most of the increase has been covered by price pass-through.

As for North America, productivity improvement is progressing as planned. There is also an increase in sales of North American optical cables and networking systems in the Americas, and the ratio of rollable ribbons, a high-value-added product, is rising as planned.

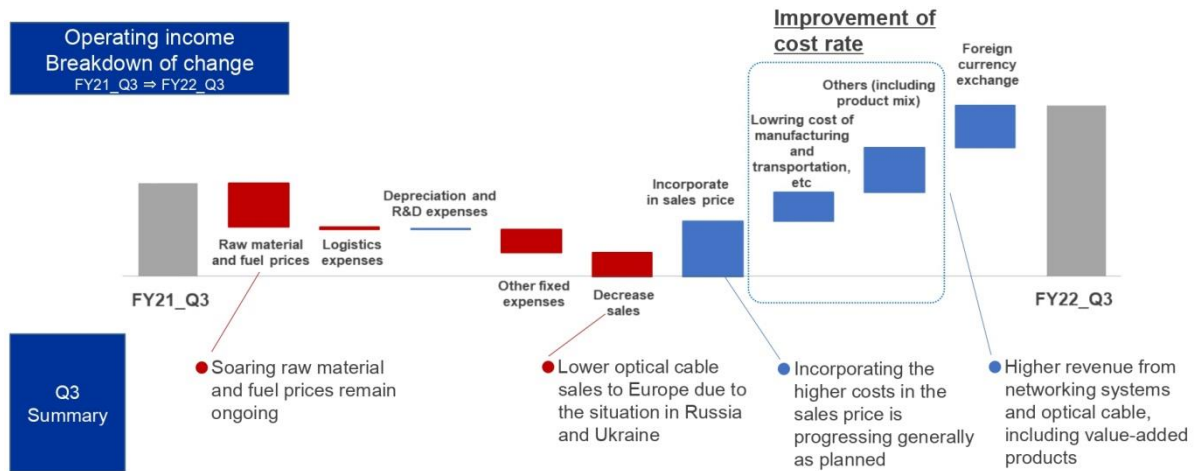
On the other hand, the decline in sales of network-related products in Japan, which I mentioned earlier, and the decrease in sales of optical cables to Europe due to the situation in Russia and Ukraine are negative factors.

As for the outlook for the full year, although there is a negative impact from the strong yen on foreign exchange rates and from network-related products in Japan, we will continue to improve productivity and pass on prices for optical fiber and cables in the Americas, specialty fibers, and optical fiber and cables in North America, as planned.

The previous forecast, made at the beginning of the year, was revised upward from JPY5.0 billion to JPY8.0 billion. This has already been incorporated in the upward revision, and we will proceed as planned.

1-(1) Infrastructure (Communications Solutions) : Optical fiber and cable business

- Increased profit through incorporating the costs in the sales price and improvements to the product mix and productivity.



Next, the waterfall graph on page 18 shows Q3 results for the Optical fiber and Cable business.

Increases were due to price pass-through, product mix improvement, and productivity improvement.

As you can see, we are covering the price increase in raw material and fuel prices and logistics costs by passing on the costs to our customers. As for fixed costs, there is a rise in labor costs. These factors were compensated for by improving the cost of sales ratio through a better product mix and other measures, and the positive impact of foreign exchange rates also contributed to the improvement from the previous year.

1-(2) Infrastructure (Energy Infrastructure)

FY22_Q3 Results



FY22_Full-year forecasts



[Q3 Operating income compared to last year]

- (-) Delays to customer construction projects and lower operating levels at the subsidiary in China due to the COVID-19 lockdowns in China
- (-) Increased depreciation expenses
- (+) Underground cable projects in Japan and transmission components were steady

[Full year forecasts]

- Expect progress as planned in underground cable, submarine cable and water pipe projects in Japan
- Delays to customer construction projects in China caused by COVID-19 will have an impact
- Realize the benefits from incorporating the soaring raw material and fuel costs in the sales price

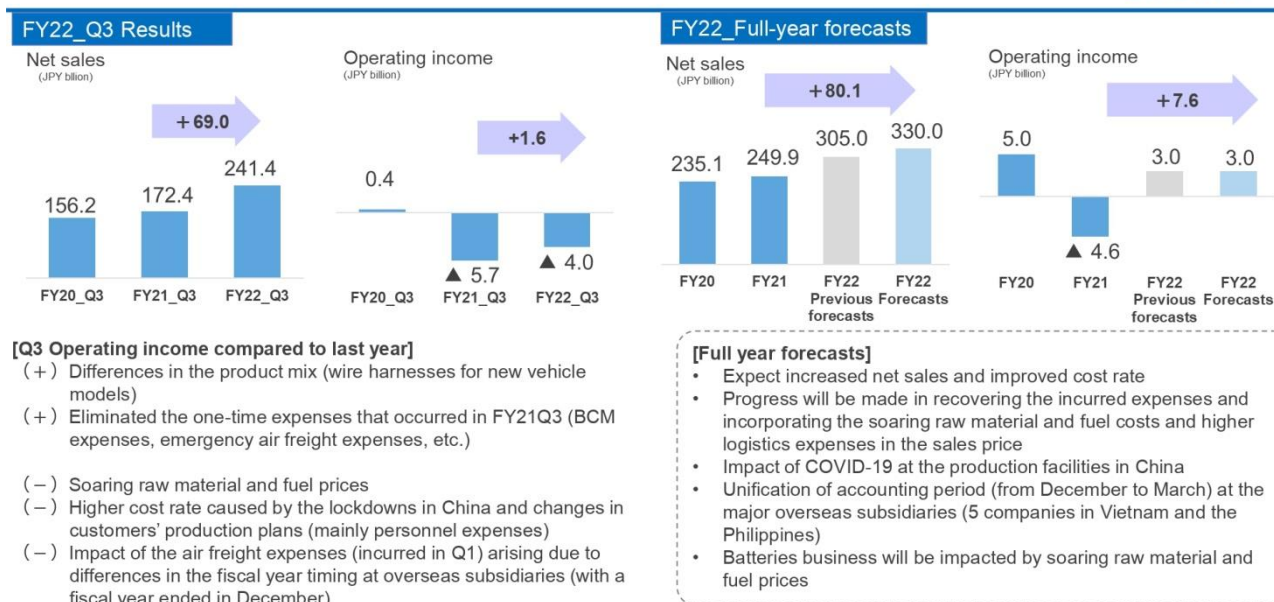
Next, on page 19, is Energy Infrastructure business.

In cumulative results through Q3, sales rose, but income fell slightly. The full-year forecast is for an increase in revenue and a slight increase in profit. These forecasts have not been revised. They are unchanged.

Regarding on-year comparison through Q3, in China we have a January-December accounting period. Consequently, H1 of the year was very difficult, especially since the spread of the COVID-19 in early spring, particularly in Shanghai, had already begun to occur around February. Although there was a slight improvement in Q3, the negative factors are still dragging on. On the other hand, underground cable projects in Japan and transmission components have remained strong, making up for this negative impact.

The outlook for the full year is roughly the same. Since the fiscal year ends in December, China was affected by explosive spread of the COVID-19 in December. We have not revised this because we believe that price pass-throughs will progress and that this will be covered by the steady growth in underground cable, submarine cable, and water pipe projects in Japan.

2-(1) Electronics & Automotive Systems (Automotive Products & Batteries)



Next, on page 21, is Automotive Products & Batteries business.

Both cumulative results and the forecast for the full year show an increase in both sales and income.

As for the situation up to Q3, there was a rise in raw material and fuel prices and an increase in the cost ratio due to changes in the production plan caused by the lockdown in China, especially in labor costs. In addition, for overseas subsidiaries whose fiscal year ends in December, the impact of production disruptions in Vietnam in the previous year was delayed to the January-March term and caused air freight expenses to increase. That is a minus.

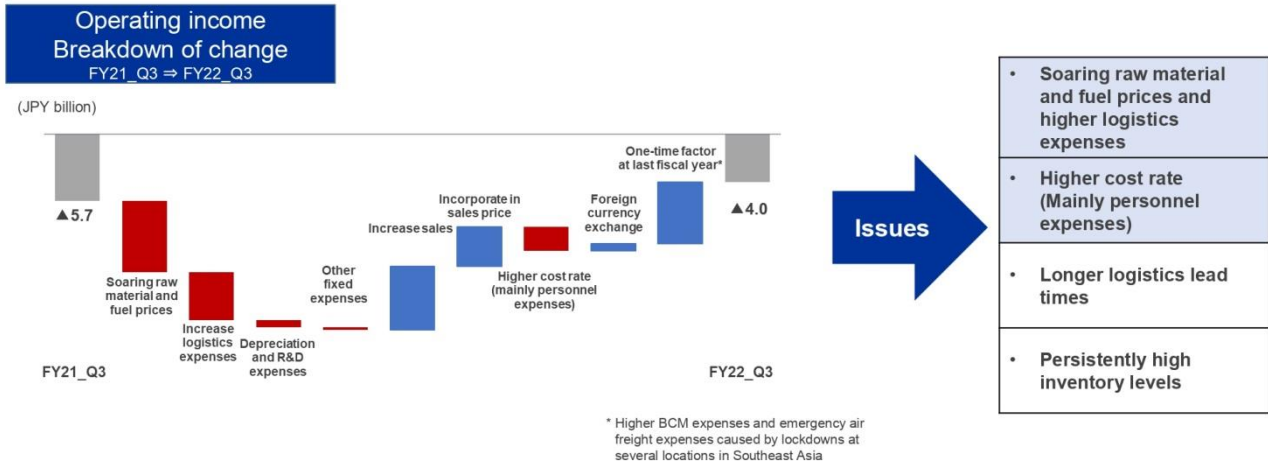
But there are other factors, such as the promotion of price pass-through and the elimination of BCM costs and emergency transportation costs incurred in the previous fiscal year due to the spread of the COVID-19 in Vietnam. In addition, new vehicle models have started to be launched in the market. The fact that production has started is a positive factor for the product mix and for an increase in sales.

For the full year, sales are expected to increase into Q4. Also, the production plan has stabilized a little. Furthermore, the cost ratio will also improve due to the increased ability to respond to changes in demand. In addition, we plan to make a profit in Q4 by making progress in passing on prices and recovering costs for increased raw material, fuel, and distribution costs in Q4.

On the other hand, since the fiscal year there ends in December, our Chinese production bases were affected by the COVID-19. We have also announced today a downward revision for batteries, so there are some negative factors.

This fiscal year we will unify our fiscal periods, which has been an issue in the past that has made our financial results very difficult to understand because the fiscal periods have been staggered. We will not include all of our companies, but we will unify our major five overseas manufacturing subsidiaries in Vietnam and Philippines. This will work as a positive factor since the current fiscal year will have a 15-month accounting period. This positive factor will offset the impact from our China bases and the local impact that I mentioned earlier, so there will be no impact from that. The forecast for the current fiscal year remains unchanged.

- Made progress in the negotiations for incorporating the soaring raw material and fuel prices and higher logistics expenses in the sales price.
- Personnel expense ratio rose due to the impact of COVID-19 in China and changes to customers' production plans.



Next, page 22 shows a waterfall graph for Automotive Products & Batteries business.

As you can see here, the price pass-through has not yet caught up with the increase in raw material and fuel prices and logistics costs. As of Q3, the recovery and pass-through rates were approximately just over 30%. We are now making up for this shortfall by increasing sales.

As shown in the waterfall at the beginning of this report, the cost of sales ratio has been improving, but it is still a negative situation compared to the previous year. As for the exchange rate, there is not much of an impact. In addition, there is a one-time factor of approximately JPY5.0 billion in the previous fiscal year. Improvements here have led to an improvement from the previous year. But it is still a negative situation.

**2-(1) Electronics & Automotive Systems (Automotive Products & Batteries) :
Response to the issues and status of progress**

Issue	Response	Status of progress
Soaring raw material and fuel prices and higher logistics expenses	Incorporate the higher costs in the sales price (application of market based pricing) Discuss and negotiate with customers Invoice the expenses incurred due to changes to the production plan by the customer	<ul style="list-style-type: none"> Incorporating the higher costs in the sales price is progressing generally as planned, including retroactively applying the revised prices to the beginning of the fiscal year Although additional expenses have been incurred, the recovery ratio remains unchanged from the previous forecast (Currently discussing and negotiating with customers) Air freight and warehouse expenses : Already reached agreement with customers that is incurred (Applicable from Q1)
Higher cost rate (Mainly personnel expenses)	Respond in accordance with the changes to the production plan Hire and train personnel in preparation for increased production	<ul style="list-style-type: none"> In addition to preparations for increased production, the labor cost ratio rose due to changes in customers' production plans, but gradually improved Productivity is gradually increasing as a result of securing skilled workers and enhancing training

Forecast for incorporating the higher costs in the sales price and recovering incurred expenses

The chart illustrates the forecast for incorporating higher costs and recovering incurred expenses. The x-axis represents quarters from Q1 to Q4. The y-axis compares the 'Previous forecast' and the 'Current forecast'. The 'Previous forecast' shows a recovery period from Q2 to Q3. The 'Current forecast' shows a longer recovery period extending into Q4. A blue arrow labeled 'Recover' spans from the start of Q2 to the end of Q3. A black arrow labeled 'Higher expenses' spans from the start of Q2 to the end of Q4.

Next is page 23. This details our measures to deal with, and progress in dealing with, the two major issues of soaring raw material and fuel prices and increasing logistics costs, and the rising cost-of-sales ratio.

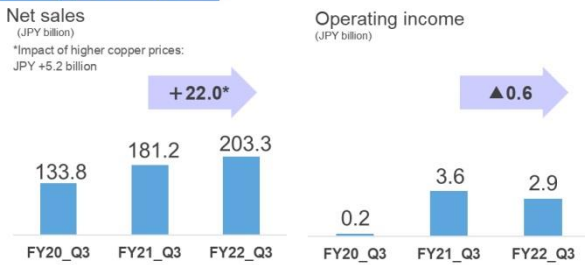
First, as for price hikes, please see the table at the bottom. The upper row of the bar graph is our previous forecast. We had expected to see greater price pass-through in Q3 than in Q2. As you can see in the lower section, recovery of incurred expenses is proceeding almost as planned, or even faster than planned.

On the other hand, the situation is that prices are rising and prices are expanding more than in Q2. This will be covered by an increase in the amount recovered. Roughly, the recovery rate in the previous forecast was about 60%. The latest forecast is slightly above 60%, so we have made a Q4 forecast based on the expectation that the recovery rate will increase a little, and we are using this as our forecast for the current year.

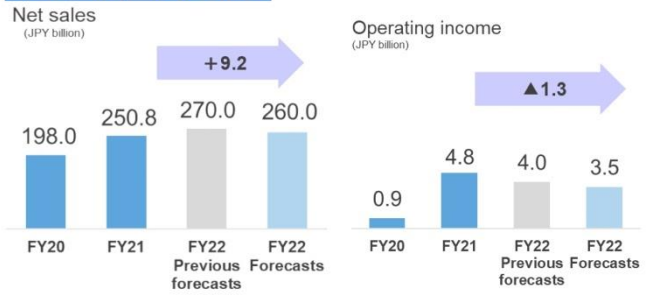
As for the cost ratio, as I mentioned earlier, we are improving our ability to respond to changes in plans. On the other hand, sales are improving slightly, and a positive factor is that productivity improvement is progressing while production itself is stabilizing.

2-(2) Electronics & Automotive Systems (Electronics Component Materials)

FY22_Q3 Results



FY22_Full-year forecasts



[Q3 Operating income compared to last year]

- (-) Lower demand for in-vehicle and electronics products
- (-) Soaring raw material and fuel prices and higher logistics expenses
- (+) Incorporate the soaring raw material and fuel prices and higher logistics expenses in the sales price

[Full year forecasts]

- Weak demand for in-vehicle and electronics products
- Demand for communications infrastructure and power semiconductor products is expected to be steady
- Further incorporate the higher costs in the sales price and improve the product mix

Next is page 24, Electronics Component Materials business.

Here, sales increased while profits decreased from the previous year. Sales were up due to the rise in copper prices, but operating income was down due to the decrease in actual volume. The trend is similar throughout the fiscal year.

The decline in demand for in-vehicle and electronics products is a negative factor, and this trend is almost the same for the cumulative total through Q3 and the full-year forecast.

We are making steady progress in price pass-through. Although we have not been able to cover all of the cost, we are able to recover up to 70% to 80%. Although further price increases are expected, we will further pass on the cost of these products through Q4.

3 Functional Products

FY22_Q3 Results

Net sales
(JPY billion)



Operating income
(JPY billion)

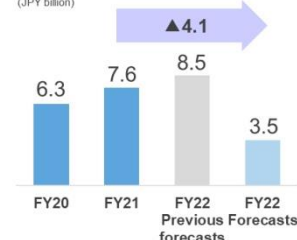


FY22_Full-year forecasts

Net sales
(JPY billion)



Operating income
(JPY billion)



[Q3 Operating income compared to last year]

- (-) Decline global demand for smartphones, PCs and data centers in China and other countries from the second half of Q2
- (-) Rapid and prolonged inventory adjustments in the supply chain
- (-) Soaring raw material and fuel prices and logistics expenses
- (+) Incorporated the soaring raw material and fuel prices in the sales price
- (+) Impact of foreign currency exchange (yen depreciation)

[Full year forecasts]

- Demand noticeably declined from the second half of Q2 due to the start of customer inventory adjustments caused by the impact of the recession in China, global economic slowdown following global inflation and soaring raw material and fuel prices and the worldwide difficulty securing semiconductors
- Impact of customer inventory adjustments will be larger than expected in tape for semiconductor process, aluminum blanks and copper foil
- Impact of foreign currency exchange (yen appreciation compared to the previous forecasts)

※ Following the sale of shares of TOTOKU ELECTRIC CO., LTD., the company will no longer be a consolidated subsidiary from Q4

Page 25 shows Functional Products business.

Although sales increased, income decreased until Q3. Both sales and income will decrease for the full year. However, TOTOKU ELECTRIC CO., LTD. was sold in Q3 and will be excluded from consolidation in Q4. The negative results of this are reflected in the annual forecast.

As the reasons for this are the same as those explained in the first half of this report, I will not discuss them here.

FY2022 Q3 Results – B/S Summary

※ Following the sale of shares of TOTOKU ELECTRIC CO., LTD., the company was no longer be a consolidated subsidiary from the end of Q3

**FURUKAWA
ELECTRIC**

(JPY billion)			
	End of FY21Q4	End of FY22Q3	Change
	a	b	b-a
Current assets	503.0	515.8	+12.8
Cash and bank deposits	65.2	58.4	▲ 6.8
Notes and accounts receivable trade	230.3	223.4	▲ 6.9
Inventories	164.1	193.3	+29.2
Non-current assets	432.9	446.8	+13.9
Tangible fixed assets	260.2	267.1	+6.9
Intangible fixed assets	20.5	19.7	▲ 0.8
Investments and other assets	152.2	160.0	+7.8
Total Assets	935.9	962.5	+26.7
Current liabilities	379.7	408.4	+28.7
Non-current liabilities	242.1	229.8	▲ 12.3
Total Liabilities	621.8	638.2	+16.4
Shareholders' equity	266.0	275.1	+9.1
Accumulated other comprehensive income	13.2	22.2	+9.0
Net income attributable to non-controlling interests	34.8	27.1	▲ 7.7
Total Net assets	314.1	324.4	+10.3
Total Liabilities and Net assets	935.9	962.5	+26.7
Interest-bearing liabilities	342.1	347.3	+5.2
Capital ratio	29.8%	30.9%	+1.1
NET D/E ratio	1.0	1.0	▲ 0.0

Inventories : Increased by JPY 29.2 billion (including the impact of foreign currency exchange and copper prices JPY +6.7 billion)

- Strategic inventory +22.3 billion (Temporary increase in inventories to prepare for changes in the business environment and for periodic repairs of some facilities)
- Improvement of external factors such as lockdown : JPY ▲ 5.7 billion

Property, plant and equipment & Intangible assets Increased by JPY 6.1 billion

- Impact of CAPEX and depreciation : JPY ▲ 2.5 billion
- Application of the new lease accounting standard at affiliates adopting US GAAP : JPY +6.6 billion
- Impact of foreign currency exchange : JPY +11.6 billion

Total assets : Increased by 26.7 billion

- Impact of foreign currency exchange: JPY +39.7 billion
- Impact of new consolidation: JPY +5.5 billion
- Application of the new lease accounting standard at affiliates adopting US GAAP: JPY +6.6 billion
- Impact of the sale of shares of TOTOKU ELECTRIC CO., LTD. : JPY ▲ 26.0 billion (Current assets JPY ▲ 15.7 billion, Non-current assets JPY ▲ 10.3 billion)

Other comprehensive income : Increased by 9.0 billion

- Foreign currency translation adjustments : +13.9 billion (impact of yen depreciation)

Net interest bearing debt : Increased by JPY 11.9 billion (JPY 277.0 billion→ JPY 288.9 billion)

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Page 27 shows the summary of the balance sheet.

As shown in the explanatory section in the middle on the right-hand side, total assets increased by JPY26.7 billion. Foreign exchange, new consolidations, and changes in the accounting system have had a very large increase in total assets. However, the contribution of TOTOKU ELECTRIC CO., LTD. is no longer included then the overall feel of this section is explained by those factors.

Looking more closely, inventories increased by more than JPY20.0 billion, including the impact of exchange rates and copper prices.

The impact of external factors, such as lockdowns, is being resolved. This is a factor of decrease. On the other hand, as I've mentioned about the network-related product in Japan, we are still struggling to procure semiconductors and some materials, and we are also working on holding appropriate necessary inventory in strategic inventory.

In addition, we will be carrying out periodic large-scale repairs on some facilities in Q4, so the main items we will make and store for that period, as well as for automobile-related goods for the Chinese New Year, account for about 70% of this JPY22.3 billion. This portion will decrease as sales are recorded in Q4.

Net interest-bearing debt has increased by JPY11.9 billion from the end of the previous fiscal year, but had increased by JPY20.8 billion as of Q2 with an improvement of JPY9.0 billion in Q3. Free cash flow was also positive in the cumulative Q3 period,

FY2022 Q3 Results and Full-year Forecasts CAPEX, Depreciation & Amortization and R&D Expenses

■ Full-year CAPEX forecast has been revised lower.

(JPY billion)								
	FY20 Q3 Results	FY21 Q3 Results	FY22 Q3 Results	YoY change	*FY22 Previous Forecasts	FY22 Forecasts	Change from previous forecasts	
	a	b	c	c-b	d	e	e-d	
CAPEX	28.2	24.8	26.0	+1.2	47.0	43.0	▲ 4.0	Decrease: Revise CAPEX execution timing based on market trends Limit expenditures by revising the design specifications
Depreciation and amortization	24.0	25.6	28.5	+2.9	38.0	39.0	+1.0	Increase: Unification of accounting period (from December to March) at overseas subsidiaries in the automotive products business
R&D expenses	15.5	15.6	17.9	+2.3	25.0	25.0	—	

*Announced on November 8, 2022

Next is page 28. These are our forecasts for capital investment, depreciation, and R&D expenses for the current fiscal year.

Capital expenditures are being reviewed considering recent conditions. This is forecast at JPY43.0 billion, a decrease of JPY4.0 billion.

Meanwhile, the forecast for depreciation has been increased by JPY1.0 billion to reflect unification of the accounting periods of overseas subsidiaries in the Automotive Products business, which results in a longer accounting period. Research and development expenses are unchanged.

Directed at FY2023

- The timing of the demand recovery is expected to remain uncertain due in part to the semiconductor shortages, impact of COVID-19 and inventory adjustments within the supply chain, but improvements will be made to operating profit in each segment by rapidly and accurately responding to the changes in the external environment.

FY2023 image of operating income

Units : JPY billion		FY21	FY22	FY23	
Segment	Sub-segment	Results	Forecasts	Forecasts	Remarks
Infrastructure	Communications Solutions	3.8	6.5		Steadily capture the demand mainly in the North America Increase sales of high value-added optical fiber and cable products
	Energy Infrastructure	1.4	1.5		Impact of COVID-19 will diminish in China Definitely capture the demand for underground and submarine cable projects in Japan and overseas Increase sales of power supply products (power cable and components) for renewable energy and data centers
Electronics & Automotive Systems	Automotive Products & Batteries	▲4.6	3.0		Recovery is expected in the second half of the year or later due to the continuing impact of the semiconductor shortage Increase in sales volume and productivity
	Electronics Component Materials	4.8	3.5		Recovery in the demand for in-vehicle and electronics products will occur from H2
Functional Products		7.6	3.5		Elimination of the excess inventory in the supply chain and recovery in the smartphones and PCs are expected to occur from Q2

Page 29 is the last page. This looks at FY2023.

Although the timing of demand recovery is expected to remain uncertain due to the shortage of semiconductors, the impact of the COVID-19, and inventory adjustments in the supply chain, we will improve profits in each segment by responding quickly and accurately to changes in the external environment.

Our assumptions are as shown. Basically, we anticipate increases, but we expect demand for Electronics Component Materials business to recover in H2 of the year and beyond in the in-vehicle and electronics products market, so we have left the arrow flat for that.

That concludes my explanation. Thank you very much.