



# FY2022 1H Financial Results

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# Agenda

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## Highlights of Financial Results

# Highlights of Financial Results (Actual)

## FY2022 1H Actual (Apr.–Sep. Cumulative Total)

- Inventory Valuation : Significant increase YoY due mainly to a rise in oil prices and the weak yen (+¥109.0bn)
- Operating Income : Decrease in profits YoY due to a significant decline in energy segment profits (–¥52.0bn)  
excl. Inventory valuation
  - ✓ Energy segment : Decrease of ¥76.3bn in profits YoY
    - Despite the high level of fuel oil margins, mainly in exporting, profits declined significantly due mainly to a rise in fuel cost owing to higher oil prices, deterioration of naphtha / petrochemical market conditions and an increase in electricity procurement cost.
    - Furthermore, there was high number of refinery troubles in the previous year, however the recovery in refinery operations was limited. ( ➡ see page 5 for details)
- ✓ Oil and Natural Gas E&P and Metals Segments : Increase in profits due mainly to the weak yen

(¥bn)	1H21	Changes	1H22	Main Index	
Operating Income	337.8	+ 57.0	<b>394.8</b>	1H21	<b>1H22</b>
Inventory Valuation	169.2	+ 109.0	<b>278.2</b>	Exchange rate ¥ / \$	110 / <b>134</b>
Net Income Attributable to owners of the parent	211.4	+ 37.4	<b>248.8</b>	Crude Oil (Dubai) \$ / B	69 / <b>102</b>
Operating Income Excl. inventory valuation	168.6	<u>–52.0</u>	<b>116.6</b>	Copper Price (LME) ¢/lb	433 / <b>392</b>
Energy	27.3	<u>–76.3</u>	<b>–49.0</b>	Apr. - Jun. Actual	Difference
Oil and Natural Gas E&P	38.8	+ 21.6	<b>60.4</b>	39.3	[ –127.6 ]
Metals	78.7	+ 2.3	<b>81.0</b>	Jul. - Sep. Actual	<b>–88.3</b>
Other	23.8	+ 0.4	<b>24.2</b>		

① Time-lag  
② Deterioration of petrochemical/  
export margins  
③ Improvement in clean fuel  
margins, etc.

# Highlights of Financial Results (Forecast)

## FY2022 Forecast (Apr. 2022 - Mar. 2023)

- Operating Income : Upward revision due to the expected increase in inventory valuation due to the weak yen (vs. the May forecast +¥220.0bn)
- Operating Income excl. inventory valuation **No change from the May forecast**
  - ✓ Energy Segment : Downward revision of - ¥20.0bn
    - Based on the severe financial results in the 1H, after factoring in the recovery of refinery operations owing to the reduction of troubles in the 2H and profit improvement measures, the current forecast vs. the May forecast remains at -¥20.0bn.
  - ✓ Oil and Natural Gas E&P Segment : Upward revision of +¥20.0bn (Improvement due to a rise in resource prices and the weak yen )
  - ✓ Metals Segment : No change from the May forecast ( Deterioration due to a fall in copper prices vs. improvement owing to the weak yen )

(¥bn)	May Forecast	Changes	Current Forecast	Main Index									
				May Forecast		Current Forecast							
				Full-Year	2H	Full-Year	2H						
Operating Income	340.0	+ 220.0	560.0	Exchange rate ¥ / \$	120	120	137	140					
Inventory Valuation	0.0	+ 220.0	220.0	Crude Oil (Dubai) \$ / B	90	90	96	90					
Net Income				Copper Price (LME) ¢/lb	420	410	366	340					
Attributable to owners of the parent	170.0	+ 160.0	330.0										
Operating Income Excl. inventory valuation	340.0	±0.0	340.0	<table border="1"> <thead> <tr> <th>1H Actual</th> <th>Difference</th> <th>2H Plan</th> </tr> </thead> <tbody> <tr> <td>-49.0</td> <td>+ 168.0</td> <td>119.0</td> </tr> </tbody> </table>				1H Actual	Difference	2H Plan	-49.0	+ 168.0	119.0
1H Actual	Difference	2H Plan											
-49.0	+ 168.0	119.0											
Energy	90.0	-20.0	70.0	In addition to the recovery of refinery operations, <ul style="list-style-type: none"> <li>✓ Electric power business implemented reviews of unprofitable contracts, etc.</li> <li>( The ceiling price of the fuel cost adjustment system was abolished from Nov. 1. )</li> <li>✓ Considering asset sales (partly factored in the plan)</li> </ul>									
Oil and Natural Gas E&P	70.0	+20.0	90.0										
Metals	130.0	±0.0	130.0										
Other	50.0	±0.0	50.0										

# For Stable Refinery Operation

## Factor analysis & Action plan

Developing and Executing trouble reduction measures from FY2021

Analyze equipment failure factors  
(Cross company-wide / all refineries project)

Categorize the identified factors  
(Operation / Construction quality /  
Inspection / Maintenance-related)

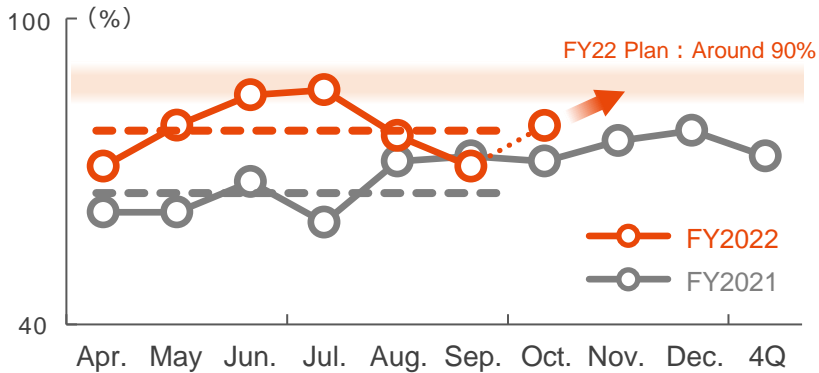
Formulate and execute trouble  
reduction measures

## Status and effectiveness of countermeasures in the 1H

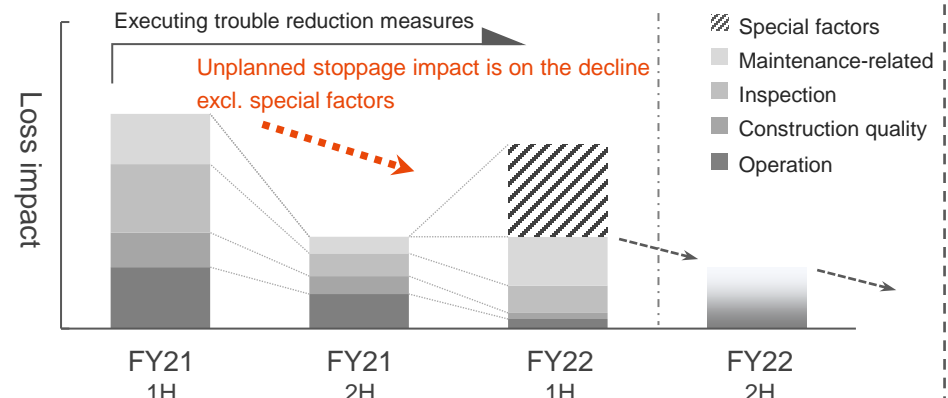
- ✓ Several troubles caused by special factors with large impacts occurred mainly in 2Q in 1H22 (e.g. recurrence of defects caused by emergency repaired parts during earthquake shutdowns).
  - ➔ Countermeasures have already been implemented (expansion of the scope of repairs, etc.).
- ✓ Operation / construction quality troubles(excl. special factors) have been reduced through execution of trouble reduction measures.
- ✓ Inspection troubles are improving. For some troubles, it will take time to realize the improvements, but priority is being given to equipment having large operational impacts, and these measures are being implemented ahead of schedule.
- ✓ Maintenance-related troubles have not yet reached a sufficient level of improvement, thus steady efforts continue
  - ➔ Reviewing the priorities of key equipment, accelerating enhancement of cooperation between operation and maintenance, reinforcement of response personnel / organization, etc.

▶ The entire company will work together to achieve the planned level of operations as soon as possible, and restore the earning power of base businesses

CDU<sup>1</sup> utilization rate<sup>2</sup>



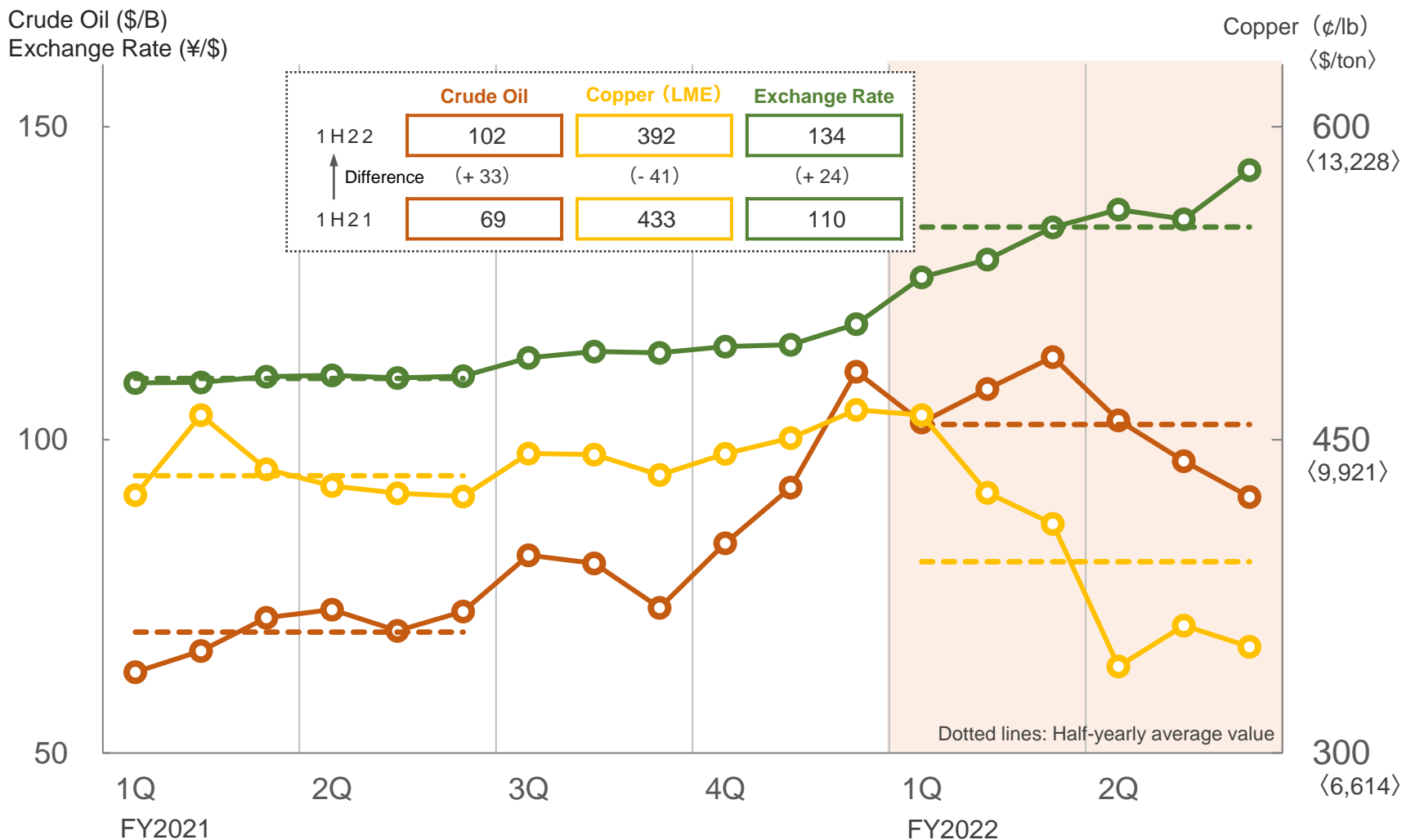
Trend In loss impact due to unplanned stoppage



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# Business Environment

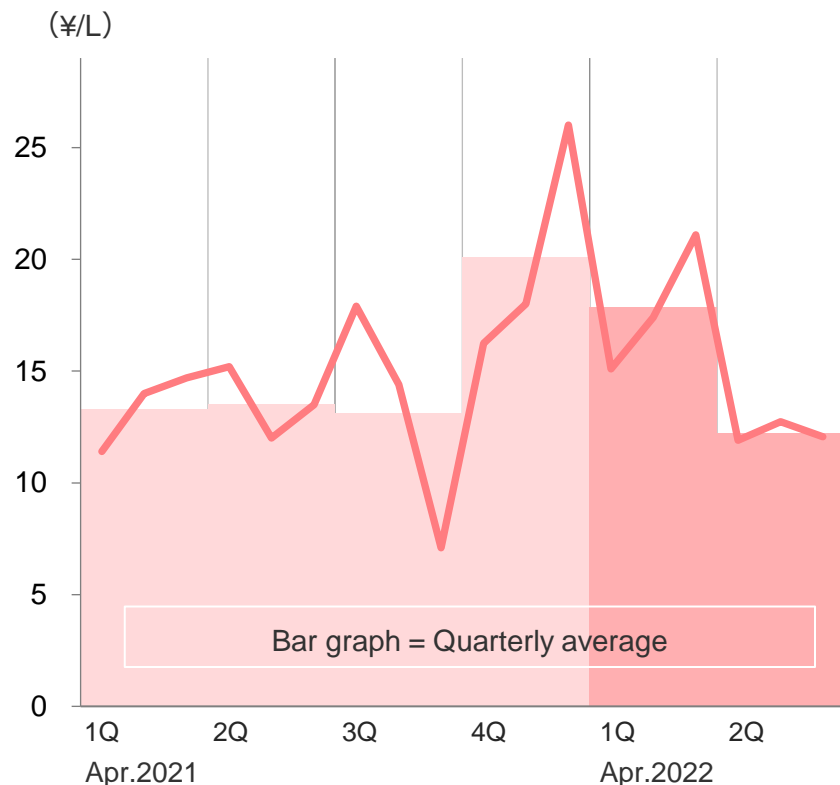
# Crude Oil (Dubai), Copper (LME), Exchange Rate





# Clean Fuel<sup>1</sup> and Paraxylene Margin Indexes

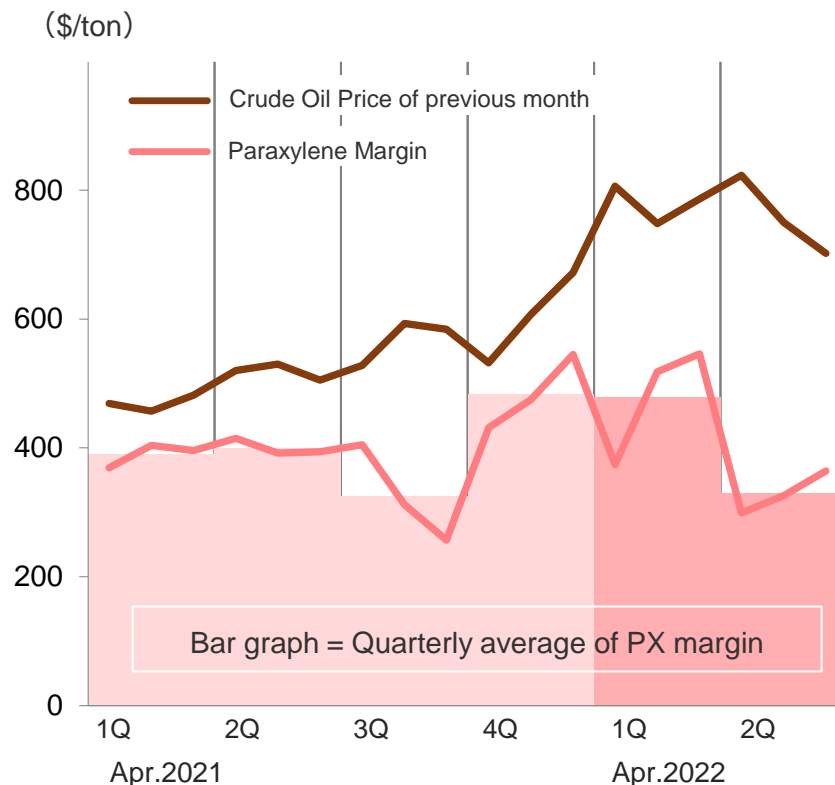
Clean Fuel Margin Index <sup>2</sup>



<sup>1</sup> Clean fuel: gasoline, kerosene, diesel fuel and fuel oil A

<sup>2</sup> Calculated using the following formula as a reference for domestic market conditions  
 $\text{Spot Price} - \text{All Japan Crude CIF (including petroleum tax and interest)}$

Paraxylene Margin Index<sup>3</sup>



<sup>3</sup> Calculated using the following formula as a reference for Asian market conditions  
 $\text{ACP (Asian Contract Price)} - \text{Crude Oil Price of previous month}$   
 If ACP is undecided, average spot market price is used.

Note: The indexes above are different from our margins (Our selling price – Our cost)

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Financial Results for FY2022 1H  
(April 1, 2022 – September 30, 2022)

# Overview of 1H22 Financial Results vs 1H21

		1H21 (Actual)	1H22 (Actual)	Difference	
<b>■ Index</b>					
Crude Oil (Dubai)	(\$/B)	69	102	+33	+48%
Copper (LME)	(¢/lb)	433	392	-41	-9%
Exchange Rate	(¥/\$)	110	134	+24	+22%
<b>■ Profit and Loss Statement</b>					
Net Sales	(¥bn)	4,731.4	7,394.0	+2,662.6	+56%
Operating Income	(¥bn)	337.8	394.8	+57.0	+17%
Inventory Valuation	(¥bn)	169.2	278.2	+109.0	+64%
<b>Operating Income Excl. Inventory Valuation</b>	<b>(¥bn)</b>	<b>168.6</b>	<b>116.6</b>	-52.0	-31%
Income before tax	(¥bn)	328.2	397.7	+69.5	+21%
Profit attributable to owners of the parent	(¥bn)	211.4	248.8	+37.4	+18%

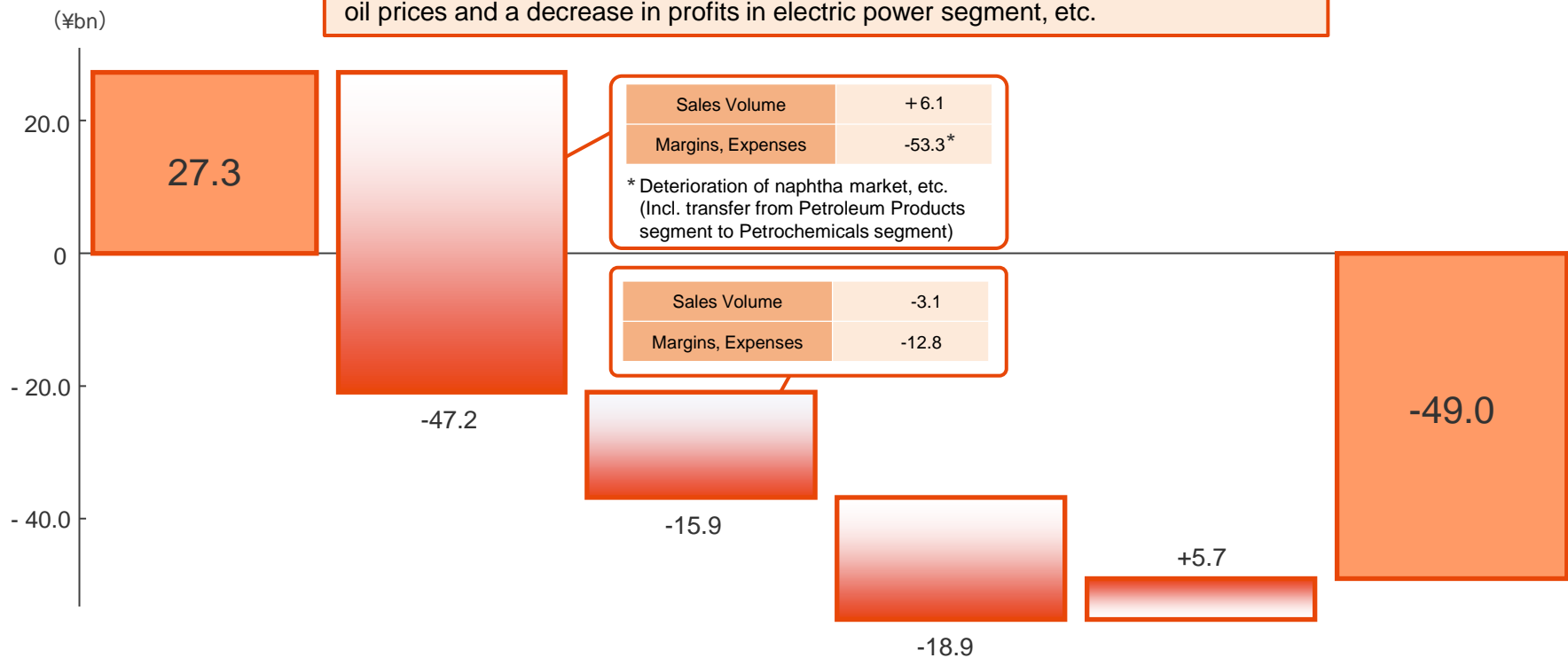
# Changes in Operating Income by Segment vs 1H21

		1H21 (Actual)	1H22 (Actual)	Difference	
(¥bn)					
<b>Total Operating Income Excl. Inventory Valuation</b>		<b>168.6</b>	<b>116.6</b>	<b>-52.0</b>	<b>-31%</b>
Segments	Energy	196.5	229.2	+32.7	+17%
	Inventory Valuation	169.2	278.2	+109.0	+64%
	Excl. Inventory Valuation	27.3	-49.0	-76.3	-
	Petroleum Products	10.3	-36.9	-47.2	-
	Petrochemicals	6.5	-9.4	-15.9	-
	Electric Power	2.0	-16.9	-18.9	-
	Materials	8.5	14.2	+5.7	+67%
	Oil and Natural Gas E&P	38.8	60.4	+21.6	+56%
	Metals	78.7	81.0	+2.3	+3%
	Functional Mats, Thin Film Mats and other	27.4	40.6	+13.2	+48%
	Mineral Resources	29.2	11.4	-17.8	-61%
	Smelting and Recycling	20.0	24.0	+4.0	+20%
	Non-allocated corporate expenses and other	2.1	5.0	+2.9	+138%
Other	23.8	24.2	+0.4	+2%	

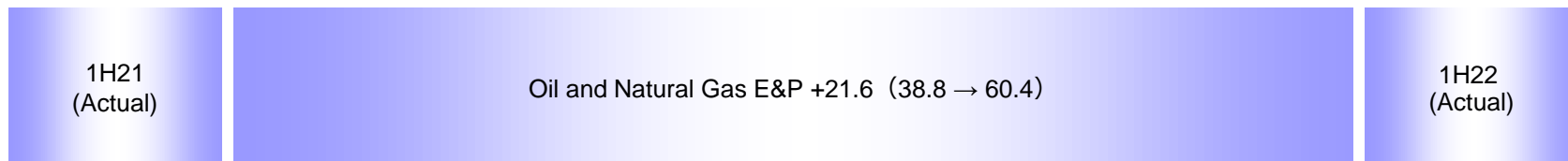
# - Energy Segment - Changes in Operating Income excl. inventory valuation effects vs 1H21

1H21 (Actual)	Energy -76.3 (27.3→-49.0)				1H22 (Actual)
	Petroleum Products -47.2 (10.3 → -36.9)	Petrochemicals -15.9 ( 6.5 → -9.4)	Electric power -18.9 ( 2.0 → -16.9)	Materials +5.7 ( 8.5 → 14.2)	

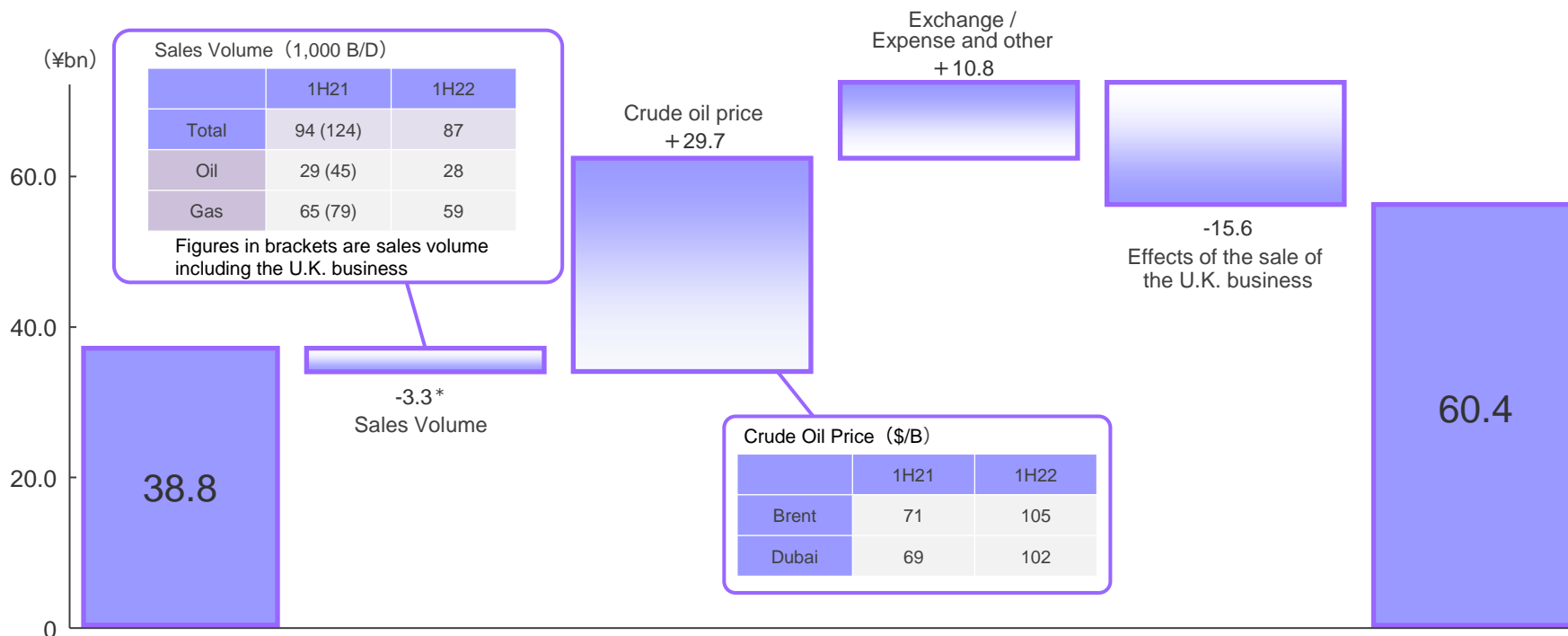
Significant decrease in profits due mainly to the following.  
 Could not fully achieve profits from high margin exporting environment owing to limited improvement in refinery troubles. Other factors include a deterioration in naphtha / petrochemicals market conditions, an increase in fuel cost due to a rise in oil prices and a decrease in profits in electric power segment, etc.



# - Oil and Natural Gas E&P Segment - Changes in Operating Income vs 1H21



Increase in profits due mainly to a rise in resource prices and weak yen, partly offset by absence of profit recorded in the previous fiscal year owing to the sale of the U.K. business.



	1H21	1H22
Total	94 (124)	87
Oil	29 (45)	28
Gas	65 (79)	59

Figures in brackets are sales volume including the U.K. business

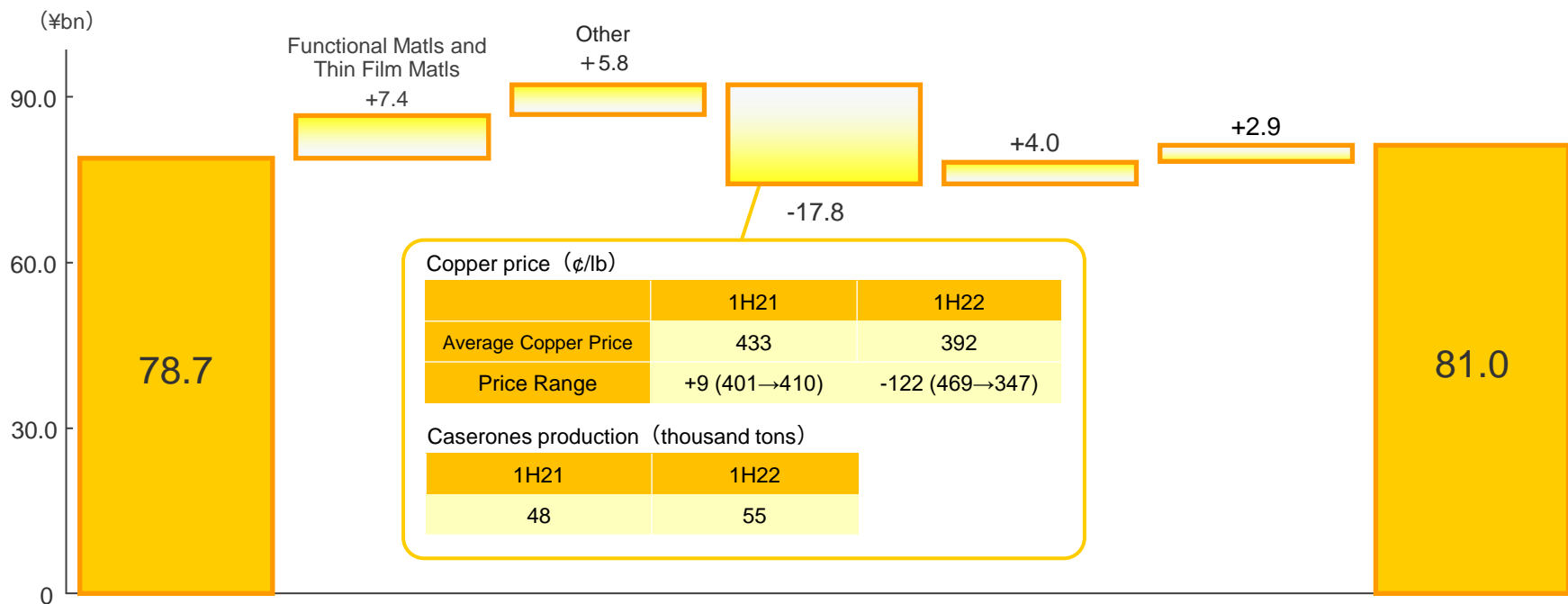
	1H21	1H22
Brent	71	105
Dubai	69	102

\* Excl. sales volume of the U.K. business

# - Metals Segment - Changes in Operating Income vs 1H21

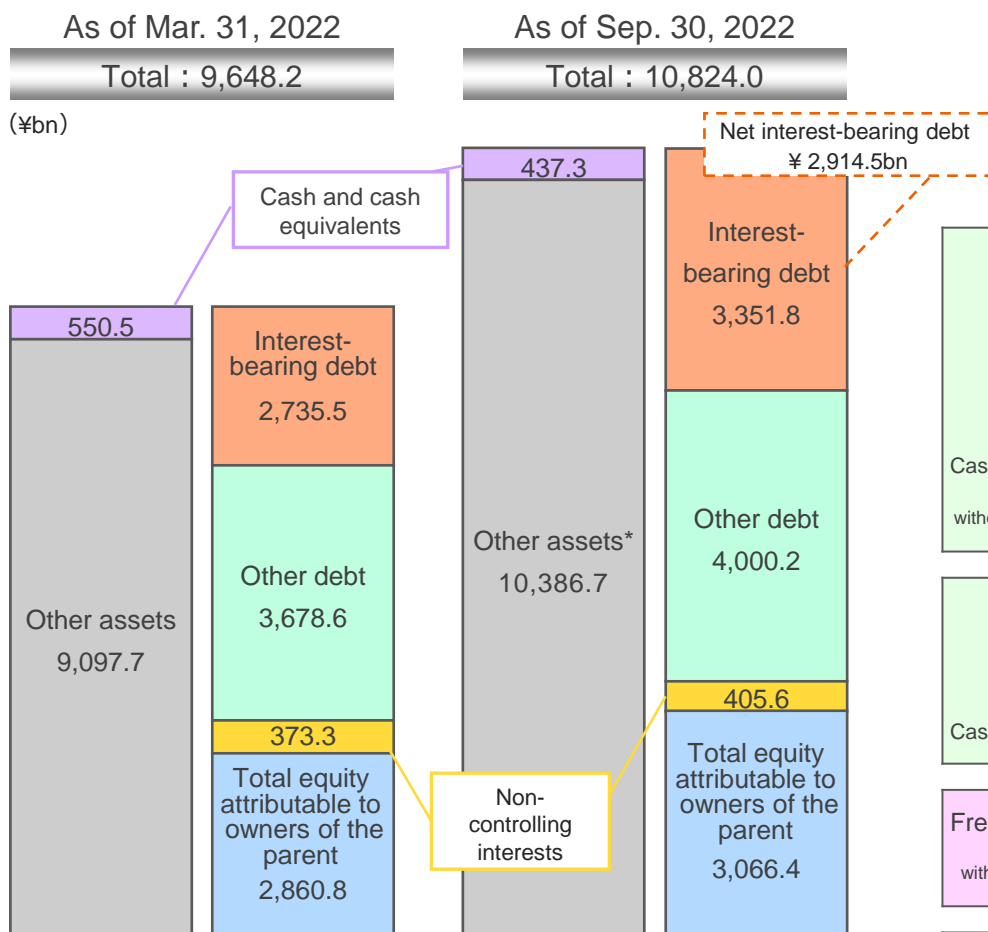
1H21 (Actual)	Metals +2.3 ( 78.7 → 81.0)				1H22 (Actual)
	Functional Mats, Thin Film Mats and other +13.2 ( 27.4 → 40.6 )	Mineral Resources -17.8 ( 29.2 → 11.4 )	Smelting & Recycling +4.0 ( 20.0 → 24.0 )	Non-allocated corporate expenses and other +2.9 ( 2.1 → 5.0 )	

Increase in profits due mainly to weak yen, production increase of Caserones Copper Mine, and better sulfuric market conditions, despite a fall in copper prices and a rise in fuel / electricity cost.



# Consolidated Balance Sheets / Consolidated Cash Flows

## Consolidated Balance Sheets



## Consolidated Cash Flows

1H22 (Actual)

(¥bn)

	1H22 (Actual)	Excl. IFRS 16 Leases
Operating income (Excl. inventory valuation)	116.6	116.6
Depreciation and amortization	173.2	131.8
Working capital and other	-693.6	-693.6
Cash flows from operating activities without the effects of non-business days	-403.8	-445.2
	-483.5	-524.9
Capital investment	-276.9	-276.9
Asset sales and other	219.3	219.3
Cash flows from investing activities	-57.6	-57.6
Free cash flows without the effects of non-business days	-461.4	-502.8
	-541.1	-582.5
Dividends and other	-196.0	-154.6
Net cash flows without the effects of non-business days	-657.4	-657.4
	-737.1	-737.1

	As of Mar. 31, 2022	As of Sep. 30, 2022
Equity ratio attributable to owners of the parent	29.7 %	28.3 %
Net D/E ratio (capital total basis)	0.68 0.60	0.84 0.76



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## Forecast for FY2022 (April 1, 2022 – March 31, 2023)

Key factors from Oct. 2022: Crude Oil (Dubai) : 90 \$/B, Copper Price (LME) : 340¢/lb, Exchange Rate: 140 yen/\$

# Overview of FY2022 Forecast vs May 2022 Forecast

		FY2022 Forecast (May 2022)	FY2022 Forecast (Nov. 2022)		Difference		Ref. FY2021 (Actual)
			2H				
Crude Oil (Dubai)	(\$/B)	90	90	96	+6	+7%	78
Copper (LME)	(¢/lb)	420	340	366	-54	-13%	440
Exchange Rate	(¥/\$)	120	140	137	+17	+14%	112

Apr.-Jun. 450¢/lb  
From Jul. 410¢/lb

## Profit and Loss Statement

Net Sales	(¥bn)	12,800.0	14,900.0		+2,100.0	+16%	10,921.8
Operating Income	(¥bn)	340.0	560.0		+220.0	+65%	785.9
Inventory Valuation	(¥bn)	0.0	220.0		+220.0	-	370.3
<b>Operating Income Excl. Inventory Valuation</b>	<b>(¥bn)</b>	<b>340.0</b>	<b>340.0</b>		<b>±0.0</b>	<b>±0%</b>	<b>415.6</b>
Income before tax	(¥bn)	310.0	540.0		+230.0	+74%	771.8
Profit attributable to owners of the parent	(¥bn)	170.0	330.0		+160.0	+94%	537.1

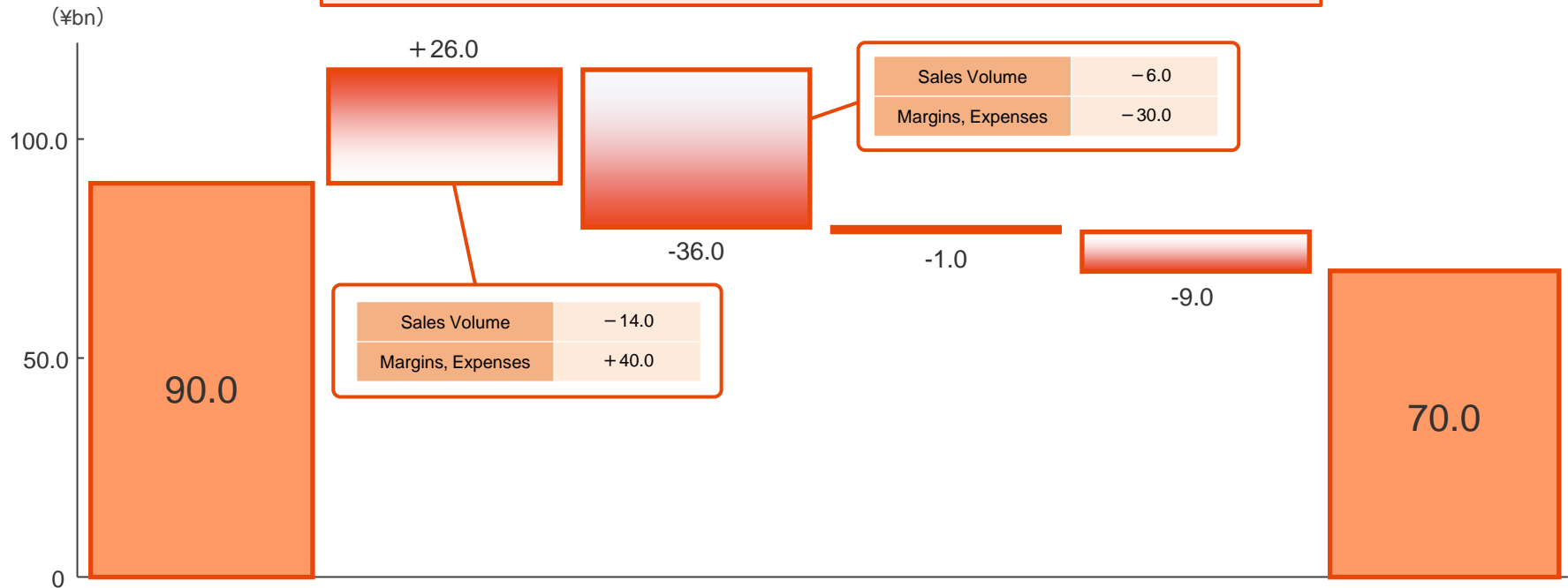
# Changes in Operating Income by Segment vs May 2022 Forecast

		FY2022 Forecast (May 2022)	FY2022 Forecast (Nov. 2022)	Difference		Ref. FY2021 (Actual)
(¥bn)						
<b>Total Operating Income Excl. Inventory Valuation</b>		<b>340.0</b>	<b>340.0</b>	<b>±0.0</b>	<b>±0%</b>	<b>415.6</b>
Segments	Energy	90.0	290.0	+200.0	+222%	477.5
	Inventory Valuation	0.0	220.0	+220.0	–	370.3
	Excl. Inventory Valuation	90.0	70.0	-20.0	-22%	107.2
	Petroleum Products	83.0	109.0	+26.0	+31%	126.2
	Petrochemicals	- 2.0	-38.0	-36.0	–	- 6.8
	Electric Power	- 26.0	-27.0	-1.0	–	- 19.0
	Materials	35.0	26.0	-9.0	-26%	6.8
	Oil and Natural Gas E&P	70.0	90.0	+20.0	+29%	97.0
	Metals	130.0	130.0	±0.0	±0%	158.2
	Functional Mats, Thin Film Mats and other	57.0	70.0	+13.0	+23%	54.5
	Mineral Resources	80.0	34.0	-46.0	-58%	72.1
	Smelting and Recycling	32.0	31.0	-1.0	-3%	41.0
Non-allocated corporate expenses and other	- 39.0	-5.0	+34.0	–	- 9.4	
Other	50.0	50.0	±0.0	±0%	53.2	

# - Energy Segment - Changes in Operating Income excl. inventory valuation effects vs May 2022 Forecast

FY2022 Forecast (May 2022)	Energy -20.0 (90.0→70.0)				FY2022 Forecast (Nov. 2022)
	Petroleum Products +26.0 (83.0 → 109.0)	Petrochemicals -36.0 (-2.0 → -38.0)	Electric power -1.0 (-26.0 → -27.0)	Materials -9.0 (35.0 → 26.0)	

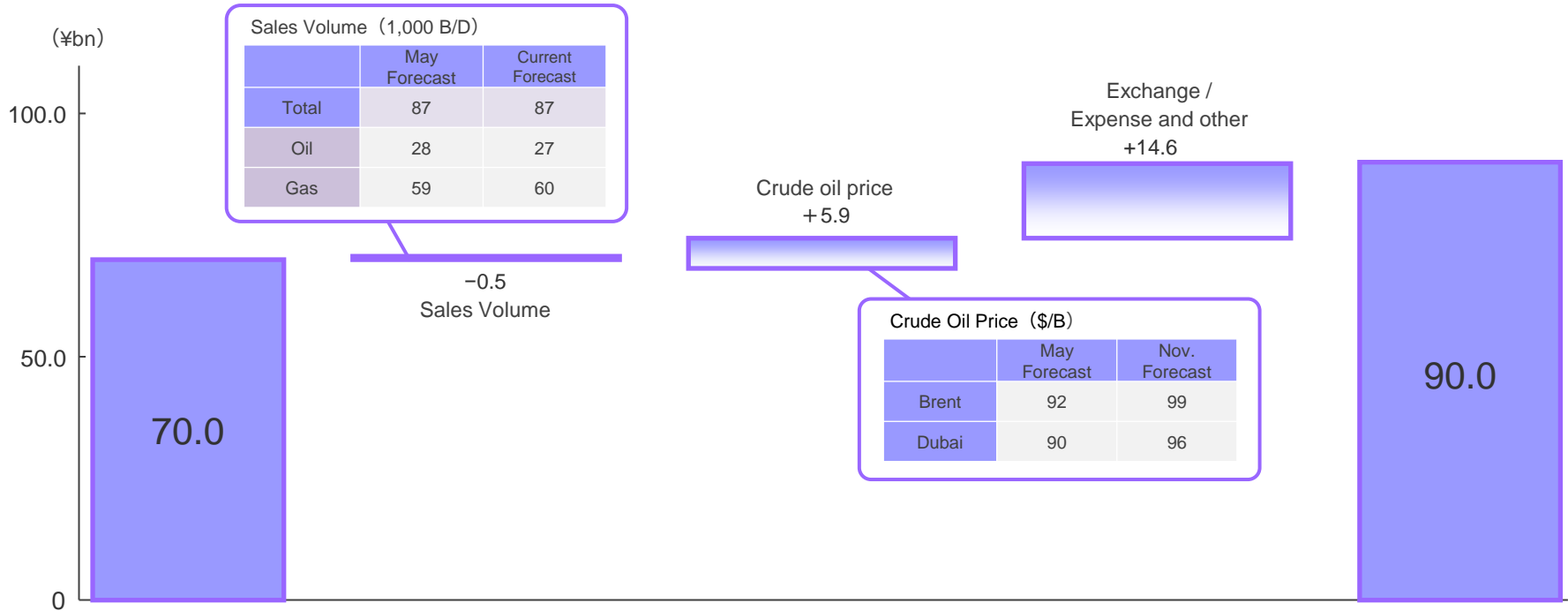
Despite refinery trouble impacts in 1H and a decrease in profits in Naphtha / Petrochemicals segment, profits are expected to remain at -¥20.0bn vs. the May forecast through recovery of refinery troubles in 2H and implementation of profit improvement measures.



# - Oil and Natural Gas E&P Segment - Changes in Operating Income vs May 2022 Forecast

FY2022 Forecast (May 2022) Oil and Natural Gas E&P +20.0 (70.0 → 90.0) FY2022 Forecast (Nov. 2022)

Expect increase in profits due mainly to a rise in resource prices and the weak yen.



Sales Volume (1,000 B/D)

	May Forecast	Current Forecast
Total	87	87
Oil	28	27
Gas	59	60

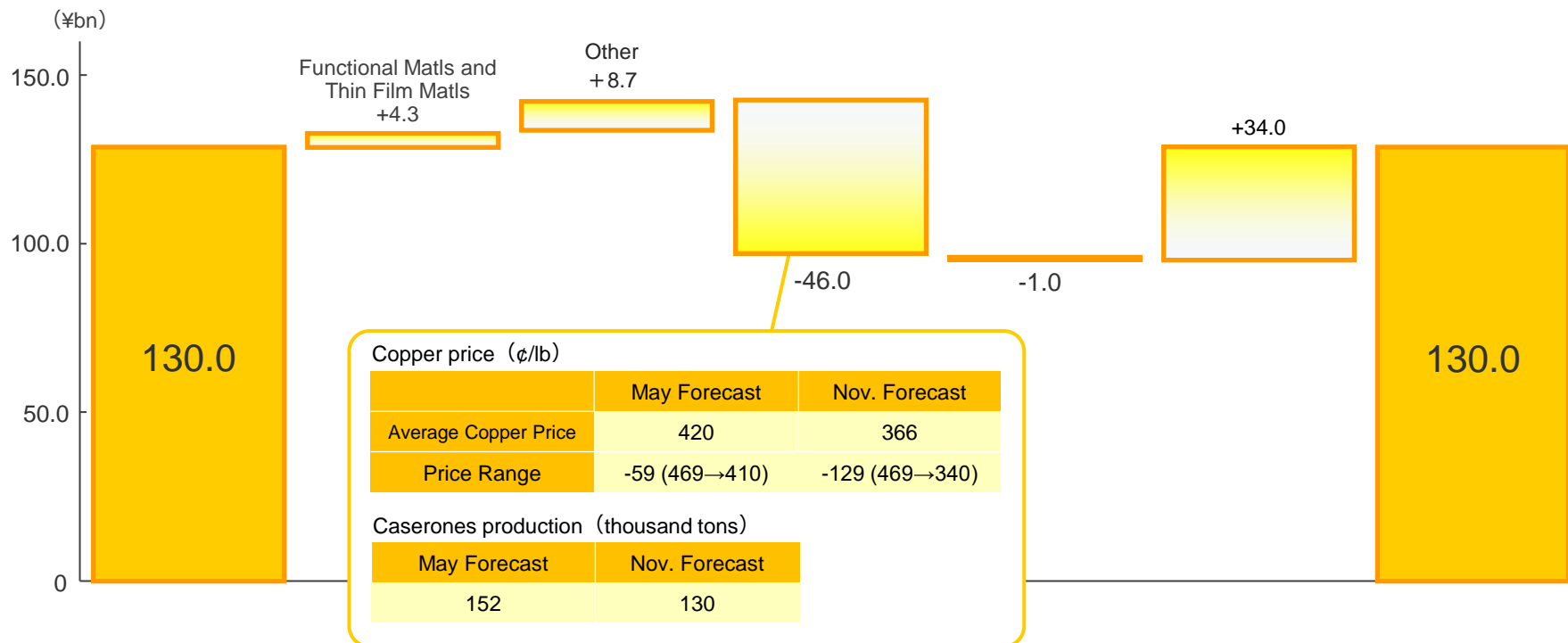
Crude Oil Price (\$/B)

	May Forecast	Nov. Forecast
Brent	92	99
Dubai	90	96

# - Metals Segment - Changes in Operating Income vs May 2022 Forecast

FY2022 Forecast (May 2022)	Metals $\pm 0.0$ ( 130.0 $\rightarrow$ 130.0)				FY2022 Forecast (Nov. 2022)
	Functional Mats, Thin Film Mats and other +13.0 ( 57.0 $\rightarrow$ 70.0 )	Mineral Resources -46.0 ( 80.0 $\rightarrow$ 34.0 )	Smelting & Recycling -1.0 ( 32.0 $\rightarrow$ 31.0 )	Non-allocated corporate expenses and other +34.0 ( -39.0 $\rightarrow$ -5.0 )	

Despite sales decrease of advanced materials, a decline in copper prices and production decrease of Caserones Copper Mine, profits are expected to remain at the same level as the May forecast owing mainly to weak yen and cost review.



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## Reference

# Key Factors

			FY2021			FY2022		
			1Q	1H	Full Year	1Q	1H	Full Year
			Actual	Actual	Actual	Actual	Actual	Forecast (Nov. 2022)
All segments	Exchange rate	(¥/\$)	109	110	112	130	134	137
Energy	Crude oil (Dubai)	(\$/B)	67	69	78	108	102	96
Oil and Natural Gas E&P	Sales volume (Crude oil equivalent) <sup>1</sup>	(1,000 B/day)	98	94	93	88	87	87
	Crude oil (Brent)	(\$/B)	69	71	80	112	105	99
Metals	Copper (LME)	(¢/lb)	440	433	440	432	392	366
	Equity entitled copper mine production <sup>2</sup>	(1,000 tons/year)	48	90	195	50	92	213
	PPC copper cathode sales	(1,000 tons/year)	148	306	586	150	322	646
	Precision rolled products sales	(1,000 tons/month)	3.9	3.9	3.9	3.7	3.6	3.5

1 Excl. the U.K. sales volume from FY2021

2

	Full-Year
Caserones	Apr. ~ Mar.
Los Pelambres	Apr. ~ Mar.
Escondida	Jan. ~ Dec.



# Sensitivity Analysis

## ■ Impact of index change on operating income in FY2022 (From Oct. 2022)

Index	Change	Segment	Impact	(¥bn)
Crude Oil (Dubai)	+ 5\$/B	Energy	-	1.0
		Oil & Natural Gas E&P	+	2.0
		Subtotal	+	1.0
		Inventory Valuation	+	47.0
		Total	+	48.0
Copper (LME)	+ 10¢/lb	Metals	+	4.0
		Total	+	4.0
Exchange Rate	5¥/\$ Yen Depreciation	Energy	+	2.0
		Oil & Natural Gas E&P	+	2.0
		Metals	+	3.0
		Subtotal	+	7.0
		Inventory Valuation	+	30.0
Total	+	37.0		

# Major Progress in 2022 1H

<p><b>Base businesses</b></p> <p>Enhance competitiveness</p>	<p><b>Divestiture of non-core businesses</b></p> <ul style="list-style-type: none"> <li>✓ Decided to withdraw from the E&amp;P business in Myanmar <span style="float: right;">Announced in May 2022</span></li> <li>✓ Decided to sell the copper smelting business (LS – Nikko Copper Inc.) in South Korea <span style="float: right;">Announced in May 2022</span></li> </ul>
<p><b>Petrochemicals</b></p> <p><b>Materials</b></p>	<p><b>Expansion / Acquisition of technology-based businesses</b></p> <ul style="list-style-type: none"> <li>✓ Decided to invest in Nano Wired GmbH for development of nanowire growth technology and manufacturing equipment <span style="float: right;">Announced in Jul. 2022</span></li> </ul> <p><b>Pursue new services</b></p> <ul style="list-style-type: none"> <li>✓ Started collaborative study on plant maintenance and inspection business utilizing robotics with iXs Corporation <span style="float: right;">Announced in Jun. 2022</span></li> </ul>
<p><b>Next-Generation Energy Supply</b></p>	<p><b>Establish supply bases and network for next-generation energy</b></p> <ul style="list-style-type: none"> <li>✓ Started operation of electric vehicle charging service business taken over from NEC Corporation <span style="float: right;">Start from Jun. 2022</span></li> <li>✓ Decided to build a next-generation energy supply platform at location of former Shimizu refinery <span style="float: right;">Announced in Aug. 2022</span></li> <li>✓ Started offshore wind turbine assembly off the coast of Goto City to realize a floating offshore wind power generator <span style="float: right;">Announced in Oct. 2022</span></li> </ul> <p><b>Establish a CO2-free hydrogen supply chain</b></p> <ul style="list-style-type: none"> <li>✓ Formed a joint study to evaluate development of clean hydrogen supply chain between UAE and Japan <span style="float: right;">Announced in Jun. 2022</span></li> <li>✓ Large-scale green hydrogen SC development research in Hokkaido / Hydrogen utilization research at Haneda Airport and surrounding area selected as projects commissioned by NEDO <span style="float: right;">Announced in Oct. 2022</span></li> <li>✓ Research on BECCS<sup>1</sup> integrated demonstration model for CO2-negative hydrogen production from domestic biomass selected as project commissioned by NEDO <span style="float: right;">Announced in Oct. 2022</span></li> </ul> <p><b>Enhance environmentally conscious businesses</b></p> <ul style="list-style-type: none"> <li>✓ Participated in LiB recycling technology development consortium, “HVBatCycle,” in Germany <span style="float: right;">Announced in Jun. 2022</span></li> <li>✓ Acquisition of all shares of eCycle Solutions Inc., an E-waste (waste home appliances and electronic equipment) collection and processing company <span style="float: right;">Announced in Aug. 2022</span></li> <li>✓ Signed a MoU with JGC HD and PETRONAS on Joint Collaboration Study, which aims to study the potential of CCS development in Malaysia <span style="float: right;">Announced in Oct. 2022</span></li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>✓ Formulated a new carbon neutrality plan <span style="float: right;">Announced in May 2022</span></li> <li>✓ Decided to issue Japan's first transition-linked bonds to achieve newly formulated carbon neutrality plan <span style="float: right;">Announced in May 2022</span></li> </ul>

## Cautionary Statement Regarding Forward-Looking Statements

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This notice contains certain forward-looking statements, however, actual results may differ materially from those reflected in any forward-looking statement, due to various factors, including but not limited to, the following:

- (1) macroeconomic conditions and changes in the competitive environment in the energy, resources and materials industries;
- (2) the impact of COVID-19 on economic activity;
- (3) changes in laws and regulations; and
- (4) risks related to litigation and other legal proceedings.