

# Summary: Previous Medium-Term Management Plan (Fiscal 2017 - 2019)

In its Medium-Term Management Plan for the fiscal years from 2017 to 2019, the JX Nippon Mining & Metals Group set out to become a global resources and materials company centering on copper, working to achieve a stronger, more stable Group foundation.

## Fundamental Policies and Key Measures

In the previous medium-term management plan, we executed strategies reflecting the plan's policies *making current core businesses more profitable* and *cultivating and strengthening next-generation core businesses*. With regard to the major task of strengthening profitability at the Caserones Copper Mine, we achieved an operating profit in fiscal 2018 and thereafter. With regard to the task of growing

our advanced materials business, we were able to successfully bolster production capacity for sputtering targets used with semiconductors as well as treated rolled copper foils and high-performance copper alloys. For our overall performance, if we exclude the impairment loss booked for the Caserones Copper Mine, we have been generally able to meet our initial targets.

Making Current Core Businesses More Profitable	Cultivating and Strengthening Next-Generation Core Businesses (Developing technology-based business)
<ul style="list-style-type: none"> <li>■ Strengthen profitability of the Caserones Copper Mine                             <ul style="list-style-type: none"> <li>• Maintain high operating rate</li> <li>• Strengthen competitiveness by thoroughly reducing costs</li> </ul> </li> <li>■ Expand the scale of advanced materials businesses                             <ul style="list-style-type: none"> <li>• Expand production capacity</li> <li>• Utilize IoT/AI to strengthen competitiveness</li> </ul> </li> <li>■ Copper smelting and refining, recycling                             <ul style="list-style-type: none"> <li>• Safe, stable operations</li> <li>• Strengthen cost competitiveness and pursue efficiency</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Develop markets, strengthen sales, and develop technologies in anticipation of the arrival of the IoT society</li> <li>■ Actively invest in management resources in promising areas                             <ul style="list-style-type: none"> <li>• Execute strategic investment in inhouse development projects</li> <li>• Actively utilize Group-owned technologies, M&amp;A, corporate venture capital</li> </ul> </li> </ul>

### Operating Profits per Fiscal Year (excl. Inventory Impact) and Underlying Assumptions

	FY2017	FY2018	FY2019	Total
Functional Materials, Thin Film Materials, Other Businesses (Focus Businesses)	33.8	33.1	14.5	81.3
Mineral Resources Business (Base Business)	15.9	25.1	14.7	55.7
Metals & Recycling Business (Base Business)	19.4	19.4	22.9	61.7
Common Business Expenses	▲2.7	▲9.4	▲4.2	▲16.4
<b>Total</b>	<b>66.4</b>	<b>68.1</b>	<b>47.9</b>	<b>182.4</b>

\* Results for fiscal 2017 exclude impairment loss of ¥128.6 billion recorded for the Caserones Copper Mine.  
 \* Figures are based on segment classifications in the Medium-Term Management Plan from fiscal 2020 to fiscal 2022.

#### Underlying Assumptions

Exchange Rate (USD/JPY)	111	111	109
LME Copper Price (US cents/GBP)	292	288	266

## Summary of Business Results for Fiscal 2019

The global economy continued to grow at a moderate pace in 2019 amid the deterioration of bilateral relations due to U.S.-China trade friction and uncertainty about the future of Britain's withdrawal from the EU. However, after January 2020, economic activity fell sharply due to the global spread of COVID-19. On the other hand, the Japanese economy began to fall versus the previous year in the latter half of fiscal 2019 due to the consumption tax hike in October, and further deteriorated due to the spread of COVID-19.

Copper prices trended around 290 to 300 US cents per pound at the beginning of the year; however, since May 2019, these have changed to a downward trend due to trade frictions between the United States and China, falling to the 250 cent range in August. Though they recovered to the 280 cent level at the end of the year, copper prices plummeted again in late January 2020 due to the spread of COVID-19

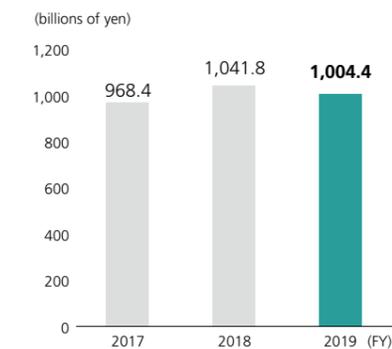
in China, reaching 218 cents at the end of the fiscal year. As a result, the average price during the year was 266 cents, a little less than 22 cents lower than in the previous year. The electronics market was in an inventory adjustment phase during the first half of fiscal 2019. This inventory adjustment period concluded in the second half of the year, and fifth-generation communications (5G) were more actively being introduced. Despite these gradual signs of recovery, the rapid spread of COVID-19 in the beginning of the calendar year exerted a major impact on demand.

The yen's exchange rate against the US dollar was 109 yen, up 2 yen from the previous year on average.

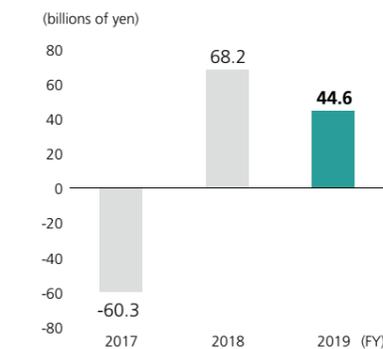
Amid this business environment, the Group's net sales in fiscal 2019 decreased 3.6% year-on-year to ¥1,004.4 billion, with operating income at ¥44.6 billion due to the impact of falling copper prices.

### Financial Performance (Consolidated, IFRS)

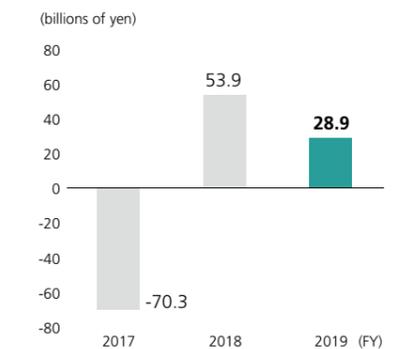
#### Revenue



#### Operating Profit

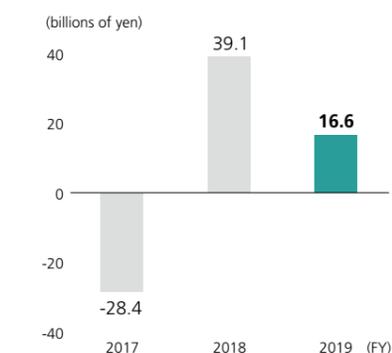


#### Profit before Tax

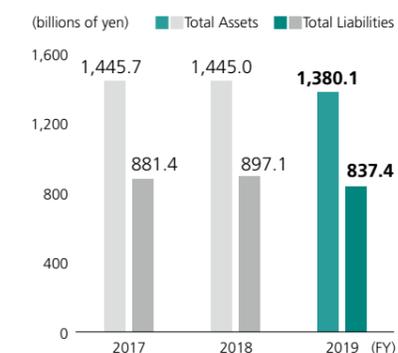


\* Data for fiscal 2017 includes impairment loss of ¥128.6 billion recorded for the Caserones Copper Mine.  
 \* Includes impact from inventory.

#### Net Income Attributable to Owners of Parent



#### Total Assets and Total Liabilities



# Overview: Fiscal 2020 - 2022 Medium-Term Management Plan

We are executing a medium-term management plan that positions the three years from fiscal 2020 as a period of sowing the seeds for transformation into a technology-based company toward achievement of the Long-Term Vision.

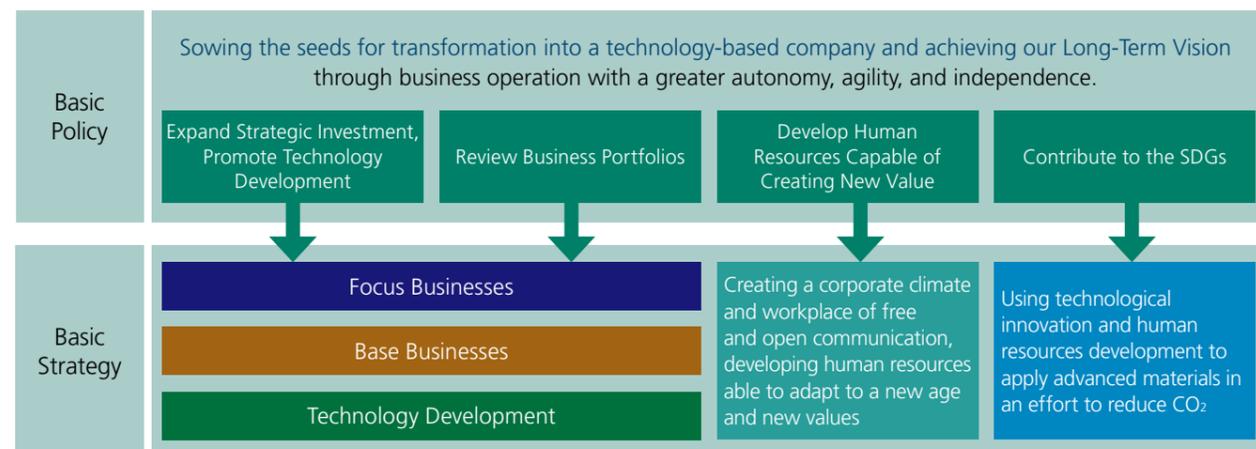
## Role of the Current Medium-Term Plan



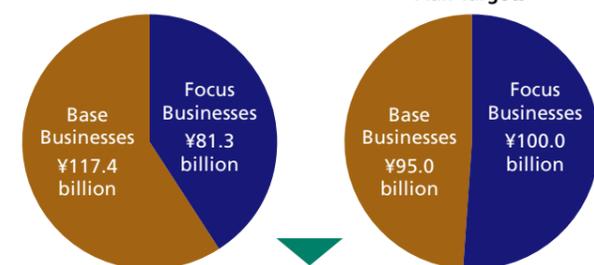
## Basic Policies and Strategies

In the current medium-term plan, our fundamental strategies in the interest of transforming into a technology-based company, as set forth in the JX Nippon Mining & Metals Group Long-Term Vision 2040, includes expanding strategic investments, promoting technological development, reviewing business portfolios, developing human resources capable of creating new value, and contributing to the

SDGs. Under these, we will accelerate various actions, including human resources development and measures matched with the various business characteristics, and work to develop our organizational culture. In order to take speedy, decisive action, we will engage with business management with greater autonomy, agility, and independence.



### Current Medium-Term Plan Targets: Operating Income



Enhance focus business product lines with high profit margins

### Fundamental Data

		2019	2020	2021	2022
Exchange Rate	(USD/JPY)	108.7	105	105	105
Price of copper	(EUR/GBP)	266	250	270	270

## Business Strategies under the Current Medium-Term Plan

### Focus Businesses

Be sure to capture demand growth from arrival of the data-driven society

- **Dynamic increases in production capacity with eye on market trends**
  - Sputtering targets
  - Treated rolled copper foils, high-functionality copper alloys (thin)
- **Create a more robust supply chain**
  - Strengthen overseas sites in readiness for disasters and geopolitical risks
  - Collaborate with other firms in securing raw materials

Facilities bolstered through fiscal 2019. We will continue flexible enhancement of these in response to growing market demand.



Expanded production equipment for treated rolled copper foils and advanced copper alloy (Kurami Works)



Expanded production equipment for sputtering targets for semiconductors (Isohara Works)

### Base Businesses

Boost profitability of the Caserones Copper Mine and become more adaptable to changes in the market environment

- **Mineral Resources: Improvement of operations at the Caserones Copper Mine and ongoing cost reductions in all processes**
  - Target recording a net profit and production of 171,000 tons in fiscal 2022 (vs. fiscal 2019 performance of 152,000 tons)
- **Metals and Recycling: Strengthen competitiveness through integrated management of smelting, refining, and recycling**
  - Saganoseki Smelter & Refinery made wholly owned subsidiary in April 2020; Metals and Recycling businesses integrated



Physical sorting equipment (HMC Department, Hitachi Works) Leveraging IoT and AI to increase treatment of recycled raw materials

### Technology Development

Establish a mechanism for creating new businesses as a technology-based company

- **Build an organization able to handle growth in cross-division projects**
  - Toward a system more mindful of function
- **Promote development through co-creation between our core technologies and outside resources**
- **Discover and pursue new topics**
  - E.g. OI (Open Innovation), cross-organizational marketing, industry-academia collaboration, the Stage-Gate® process, etc.
- **Promote adoption of IoT and AI**
  - Support for digital transformation, implementation at production sites
- **Develop human resources**
  - Dispatching employees to universities/research institutes, AI support

### Specific Successes

- **Launch of new products** (To become profitable on/after FY2023)
  - Metal powders for additive manufacturing
  - CVD precursor base materials
  - Shielding materials and more
- **Intensive area cultivation**
  - Lithium battery recycling for electric vehicles (ongoing)
  - Next-generation telecommunications materials (under examination)



Bench scale equipment for EV lithium battery recycling



A research facility donated to Tohoku University



Pure copper powder for additive manufacturing