

# DOWA HOLDINGS CO., LTD.

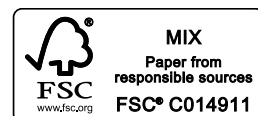
14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-0021, Japan  
URL: [http://www.dowa.co.jp/index\\_e.html](http://www.dowa.co.jp/index_e.html)

DOWA HOLDINGS CO., LTD. Annual Report 2019

# DOWA



Cover Photo:  
Employee of DOWA THERMOENGINEERING CO., LTD.



Printed in Japan

DOWA HOLDINGS CO., LTD.

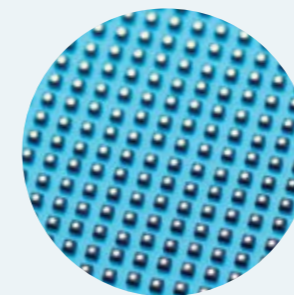
# Annual Report 2019

For the year ended March 31, 2019

## Corporate Philosophy

# DOWA Helps Create an Affluent, Recycling-Oriented Society through its Business Activities Worldwide.

Based on technologies and experience accumulated through the mining and smelting business, the DOWA Group operates unique, recycling-oriented businesses ranging from the production of metals and the manufacturing of high-value-added materials to the recycling of waste.



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### Cautionary Note Regarding Forward-Looking Statements

Within this report, present plans, forecasts, strategies, beliefs, and other statements relating to the Company and the Group that are not historical facts are forward-looking statements about future performance. These forward-looking statements are based on assessments by the Company's management using information available at the time of writing, and many assumptions and opinions that form the basis for these statements derive from information that carries significant risk and uncertainty. Due to a variety of factors, actual performance may differ materially from the performance expressed or implied in these statements.

Actual performance may be influenced by such factors as economic conditions, particularly changes in consumer trends and exchange rates, changes in legal and administrative systems, pressure due to competitors' price and product strategies, a reduction in the salability of the Company's existing and new products, interruption of production, infringement of the Company's intellectual property rights, rapid technological innovation, and damaging court rulings in major lawsuits. However, factors that may influence performance are not only limited to those listed here.

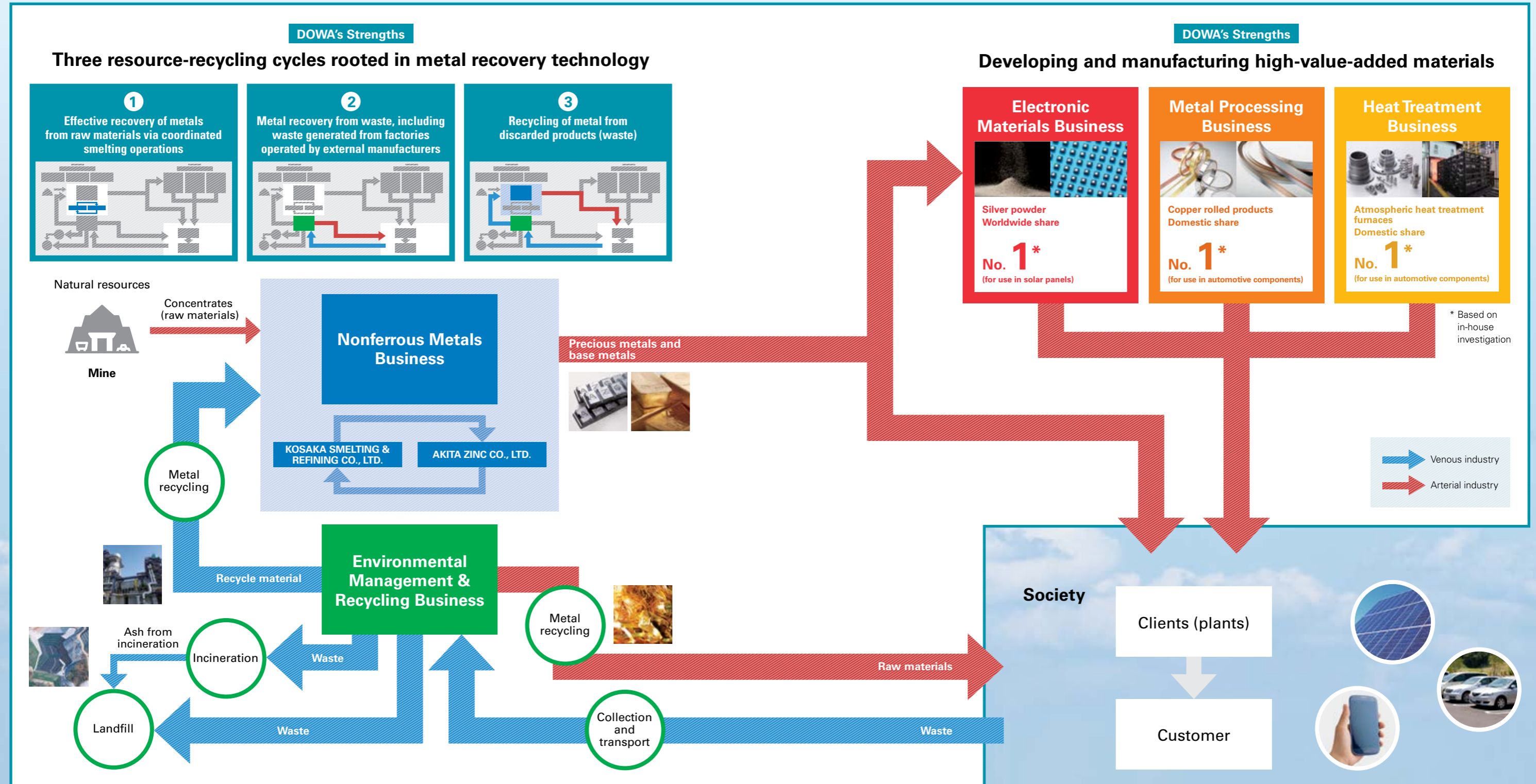
In this report, fiscal 2018 represents the year ended March 31, 2019.

# Business Model

The DOWA Group plays a key functional role in the venous industry by employing three resource-recycling cycles rooted in its metal recovery technology. At the same time, the Group is helping create a more convenient society by developing and manufacturing high-value-added materials. Through the utilization of this resource-recycling business model, we will contribute to achieving a sustainable society.

## DOWA's Businesses and the SDGs

In September 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development that includes the 17 Sustainable Development Goals (SDGs). For DOWA, which aims to operate resource-recycling-style businesses, the most relevant of these goals is SDG 12, "Ensure sustainable consumption and production patterns." DOWA views the effective use of resources as an important social issue and strives to make progress in this area.



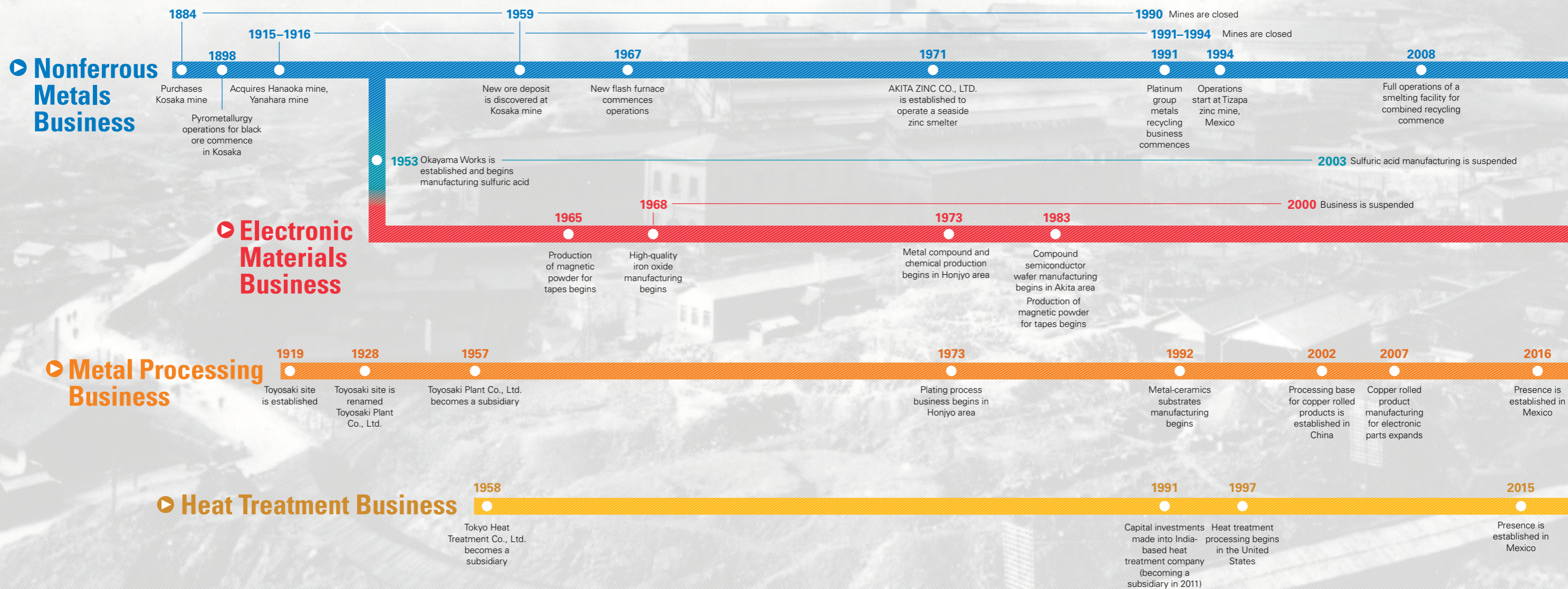
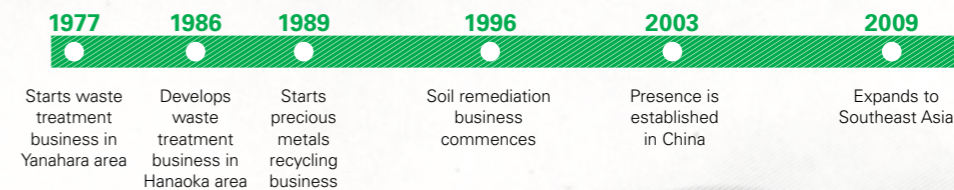
## Corporate History

Since its founding as a nonferrous metal mining and smelting company following the purchase of the Kosaka mine in Akita Prefecture, the DOWA Group has worked from the field of basic materials to support economic development, in line with the modernization of Japan.

Later, as the Company was a witness to a turning point in Japan's domestic mining industry, it took steps toward business diversification, with the environmental conservation technologies and infrastructure accumulated in the Nonferrous Metals business becoming a cornerstone of the Environmental Management & Recycling business.

Together with the utilization of recovered metals and initiatives taken to raise the added value of metals, these efforts have become the source of the Electronic Materials business, the Metal Processing business, and the Heat Treatment business.

## Environmental Management & Recycling Business



**1884**  
Founding

**1945-**  
The End of World War II and Rising Demand for Basic Materials

**1970-**  
An Evolving Business Environment Leads to Business Diversification

**2000-**  
Concentration on Core Business Segments and Global Development

The DOWA Group was established as a nonferrous metal mining and smelting company through the purchase from the Meiji government of the Kosaka mine in Akita Prefecture, which was Japan's leading silver mine at the time. Just over a decade later, the Company fell into financial crisis due to the depletion of silver ore reserves. Nonetheless, it succeeded in developing a technology for refining a complex sulfide ore, known as "black ore," which helped revive Kosaka mine as a copper mine.

When the war ended, the Company sought a fresh start, changing its corporate name to DOWA MINING CO., LTD. Then, responding to the boom in agricultural products, the Company boosted production at its Yanahara mine in Okayama Prefecture by expanding its output of iron sulfide ore, which is the raw material for sulfuric acid in fertilizers. In addition, in the high-growth period of the Japanese economy, when demand for basic materials increased due to rapid industrialization, DOWA steadily grew its mining operations and Nonferrous Metals business.

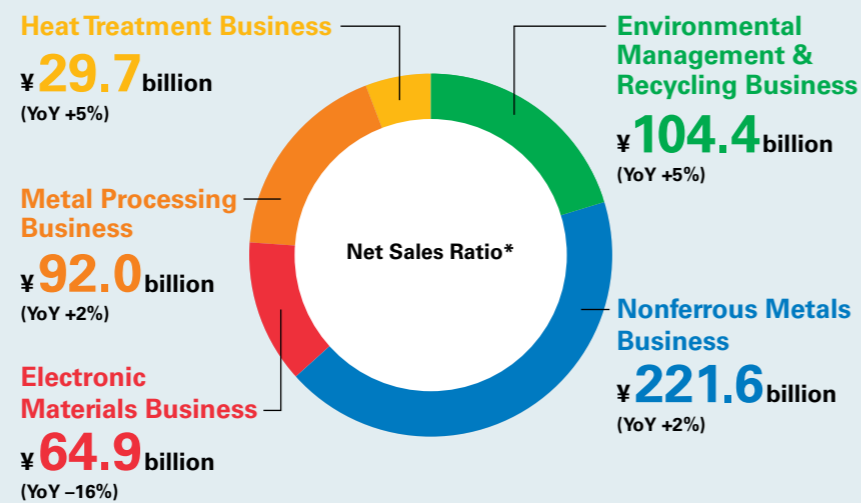
The impact of yen appreciation, a result of the shift to the floating exchange rate system, caused domestic metal prices to decline precipitously, forcing the discontinuation of the mining business. This was a turning point in this business, which until then had been the Company's mainstay business. Faced with this situation, the Company bolstered its competitiveness in the smelting and processing businesses, and also took measures to develop its businesses further to downstream sectors, sought new businesses, and commenced manufacturing overseas in its efforts to advance its diversification in its business operations.

Economic activities have become globalized, and corporate activities have undergone dramatic change, such as with the shift of manufacturing sites to locations around the world. The Company has positioned five of its diversified business divisions as core business segments, and together with concentrating its management resources in those divisions, thereby improving its competitiveness, it has been expanding its business areas in and outside of Japan.

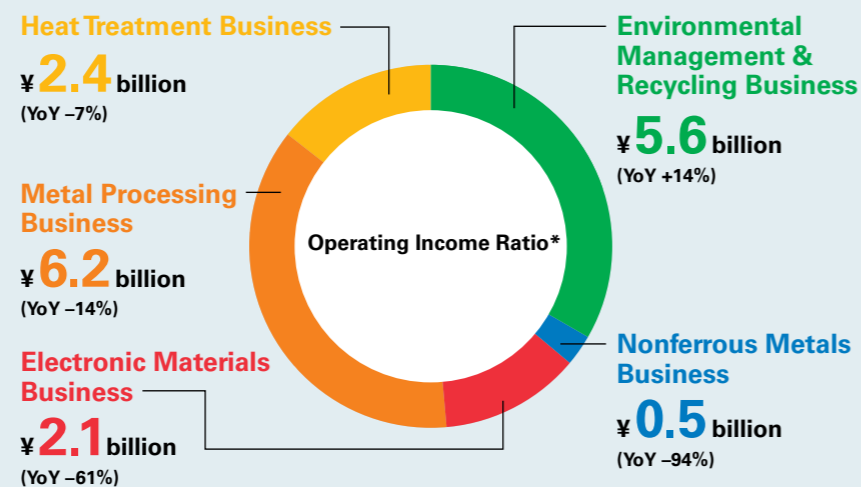
## Our Five Core Business Segments

## Fiscal 2018 Results

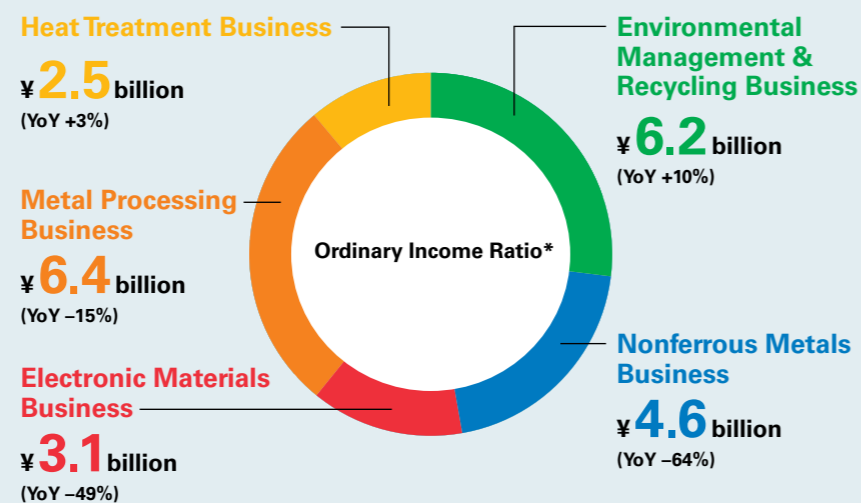
Net Sales  
¥**452.9** billion  
(YoY -0.4%)



Operating Income  
¥**18.6** billion  
(YoY -39.7%)



Ordinary Income  
¥**24.3** billion  
(YoY -33.1%)



\* Excluding adjustments

## Operating Companies and Main Products and Services

## Environmental Management &amp; Recycling Business

P.16

## ► Overview

Based on the technologies it cultivated in mining and smelting, the DOWA Group was one of the pioneer enterprises to engage in environmental and recycling businesses in the 1970s. Besides waste treatment, recycling, and soil remediation, our strengths as part of one-stop services include the transportation of waste from generators to controlled landfill facilities both in Japan and overseas.

## DOWA ECO-SYSTEM CO., LTD.

Waste Treatment	Soil Remediation	Recycling
-----------------	------------------	-----------

## ► Main Services

Waste treatment, landfill disposal, soil remediation, metal recycling, household appliance recycling, automobile recycling, consulting on environmental matters, and logistics

## Nonferrous Metals Business

P.18

## ► Overview

Black ore, a complex sulfide ore that was mined at the Kosaka mine in Akita Prefecture, the birthplace of the DOWA Group, is rich in precious metals such as gold and silver. However, the ore also contains various impurities that make it very hard to refine. The Nonferrous Metals business was founded on a technology developed from refining this complex sulfide ore. Coupled with its network of copper and zinc smelting facilities, the Group is able to recover over 20 types of metals from various raw materials.

## DOWA METALS &amp; MINING CO., LTD.

Precious Metals and Copper Smelting	Platinum Group Metals Smelting	Zinc Smelting
-------------------------------------	--------------------------------	---------------

## ► Main Products

Gold, silver, copper, zinc, zinc alloy, lead, platinum, palladium, indium, gallium, germanium, tin, antimony, nickel, bismuth, tellurium, and sulfuric acid

## Electronic Materials Business

P.20

## ► Overview

The Electronic Materials business started with the exploration of new applications for the metallic by-products produced in mining and smelting, through pulverization, purity improvement, and many other processing procedures. Today, The DOWA Group supplies a wide range of materials to the electronics industry, namely, semiconductor materials, electrical conducting materials, magnetic materials, and various electronic materials of high performance and quality. We currently have a substantial market share of electronic materials worldwide.

## DOWA ELECTRONICS MATERIALS CO., LTD.

Semiconductors	Electronic Materials	Advanced Fine Materials
----------------	----------------------	-------------------------

## ► Main Products

High-purity gallium, indium, compound semiconductor wafers, light-emitting diodes (LEDs), silver powders, copper powders, silver oxide powders, metal powders, carrier powders, and ferrite powders

## Metal Processing Business

P.22

## ► Overview

Starting from the manufacture of copper rolled products, the Metal Processing business has expanded along with the markets for automobiles and electronic devices and now provides a lineup of products that are made principally from high-performance copper alloys. In addition to copper alloys, we engage in electroplating processes for automotive components using gold and tin and provide metal-ceramics substrates, which are used in electric power management devices such as industrial machinery.

## DOWA METALTECH CO., LTD.

Copper Rolled Products	Electroplating	Metal-Ceramics Substrates
------------------------	----------------	---------------------------

## ► Main Products and Services

Copper / brass / copper alloy strips, nickel alloy strips, reflow tin-plated strips, brass rods, forged brass products, electroplating, and metal-ceramics substrates

## Heat Treatment Business

P.24

## ► Overview

The metal parts of engines and transmissions are subjected to harsh environments and therefore require heat treatment to improve their durability. The Heat Treatment business was developed to meet demand from the automobile industry, which uses many such components. Our comprehensive engineering services include the design, construction, and maintenance of heat treatment facilities. In addition, we provide various heat treatment processing services on commission.

## DOWA THERMOTECH CO., LTD.

Industrial Furnaces	Heat Treatment Processing
---------------------	---------------------------

## ► Main Products and Services

Heat treatment, surface treatment, design, manufacture, marketing, and maintenance of heat treatment facilities and ancillary equipment

**We will showcase our founding spirit and achieve a sustainable society through each of our five core businesses.**

**Akira Sekiguchi**

President and Representative Director

## Looking Back on One Year as President

In June 2018, I assumed the position of president and representative director of DOWA, after becoming chairman of Japan Mining Industry Association (JMIA) two months prior. Fiscal 2018 was also a year for addressing the issues facing the DOWA Group and the nonferrous metals industry as a whole. Taking into account numerous geopolitical problems, the year was certainly eventful. I now have a true sense of the scale of the changes that have taken place in the external environment, and how these changes exert their influence with great speed, with each passing moment, and from every angle.

That being said from a Groupwide perspective, I also felt a major response in the face of these changes. While the five operating companies of the DOWA Group operate our core businesses under Group initiatives, each company has also drafted an independent medium-term business plan and implemented measures to ensure these plans materialize. In addition to DOWA METALS & MINING Co., Ltd., which operates the Nonferrous Metals business, where I worked for many years, each operating company is making steady progress.

Moreover, the Group possesses many superior and earnest human resources. Even in the age of globalization, people are still paramount, and the companies that will win the trust of society are those that devote themselves to honest business. While we have set a policy to increase our overseas sales ratio, I do not want us to lose sight of the corporate environment and culture we have put in place. To ensure that does not happen, I hope to actively carry out appropriate governance in regard to our overseas subsidiaries.

## Conditions in Fiscal 2018

### Financial Performance in Fiscal 2018

Fiscal 2018 marked the first year of our three-year medium-term business plan, Midterm Plan 2020, which is driven by two basic policies: "Expand businesses in growth markets" and "Increase competitiveness of existing businesses." We implemented a variety of measures in line with these policies.

Looking at the financial performance of the Group, income in particular was impacted by worsening conditions for purchasing raw materials for smelting, a drop in prices for zinc and silver, and an economic downturn in Chinese markets. As a result, consolidated net sales stayed relatively level compared with the previous fiscal year, at ¥452.9 billion, but operating income fell 40%, to ¥18.6 billion, and ordinary income decreased 33%, to ¥24.3 billion. Net income attributable to owners of the parent also fell 39%, to ¥14.9 billion.

### Financial Condition

With regard to our financial condition, total assets were up ¥38.1 billion compared with the previous fiscal year, to ¥494.6 billion. This is primarily due to an increase in fixed assets from growth investment. Interest-bearing debt rose ¥25.4 billion compared with the previous fiscal year, to ¥135.2 billion, due to the growing need for funds spurred by mine development and expansion of waste treatment and metal processing facilities. Total equity decreased ¥1.6 billion, to ¥246.1 billion, for reasons including an unrealized loss on available-for-sale securities. As a result, the equity ratio dropped 4.4 percentage points, to 48.0%, and ROA dropped 3.3 percentage points, to 5.1%.

## President's Message

In addition, the Group has applied ASBJ Statement No.28, which lists Partial Amendments to Accounting Standard for Tax Effect Accounting, to its consolidated financial statements, beginning in fiscal 2018. The changes outlined in the statement, which was issued on February 16, 2018, have been applied retroactively to figures for the previous fiscal year for comparison purposes.

### Reasons for Profit Decrease and Our Future Outlook

Foreign exchange rates and metal market prices were both factors in the decrease in profits in fiscal 2018, but we do not believe that these will affect the prerequisites for Midterm Plan 2020.

For one, metal prices tend to be cyclical by nature, and if we compare this downturn with others in the past, the most recent fluctuations have been relatively mild. Operating income is rather sensitive to zinc prices, but since these prices are bottoming out, there is no major cause for concern.

As for foreign exchange rates, in November 2017, when we formulated Midterm Plan 2020, we forecast a rate of ¥115 to US\$1. While the yen appreciated more than expected, the disparity is not wide enough to suggest high volatility. We need to maintain a close eye on the strong yen since it does play a role in revenue management; however, under current conditions, it should not alter the course upon which the Company is embarking.

Looking at the intensification of trade friction between China and the U.S., we believe that even the imposition of full-blown trade tariffs will not impact Group performance too greatly. Fundamentally, we provide the raw materials used in the early stages of finished products and parts, most of which are manufactured in Japan. Supposing one of our client companies were to move their manufacturing bases outside of China, we could simply change delivery points. I believe that, much like our handling of the problems presented by current foreign exchange rates and metal market prices, we have taken these trade issues into consideration to some degree.

Another factor affecting Group performance was that some of the flagship products produced by DOWA ELECTRONICS MATERIALS CO., LTD reached the end of their life cycles. This is an inherent aspect of these products that requires consistent investment in research and development, as opposed to short-sighted measures. This amounts to a harsh environment for earnings in the Electronic Materials business, but with the support of our other four operating companies, which are relatively stable, our objective is to have the next generation of mainstay products ready in three to four years' time.

## Making Progress with Midterm Plan 2020 (Fiscal 2018–Fiscal 2020)

As I stated earlier, Midterm Plan 2020 does not necessitate a course correction. While we were unable to reach the plan's stated goals in its first year, this was primarily due to temporary external factors. In addition, we enacted responses to issues from the perspective of the entire three-year span. In fiscal 2019, the second year of the plan, each operating company will continue to move forward with their respective measures. In other words, the first and second years of the plan are the preparatory stage. To make sure that we can reap rich rewards in the third year, we will make sure our present endeavors are carried out wholeheartedly.

### Basic Policy 1: Expand Businesses in Growth Markets

As part of Midterm Plan 2020, we have positioned the automotive, information communication, environment and energy, and healthcare fields as growth markets, and are actively investing our management resources into these four fields.

In the automotive field, current demand is as strong as ever. In particular, demand for copper rolled products for next-generation vehicles is growing as a result of the onset of electric and intelligent vehicles. Because such highly functional materials require an extraordinary level of thinness and strength, there can be disparity in yields at certain stages of production, possibly causing bottlenecks. In light of this problem, the Group has been making capital investments to reduce these bottleneck processes since the plan came into effect. These investments will continue in fiscal 2019. We are making steady efforts toward improving the supply capacity by 20% in the final year of the plan.

In the information communication field, the number of smartphones shipped decreased beginning in the autumn of 2018, and it is unclear whether the market for new products will pick up at projected speeds. However, we recognize that the market's potential, centered on demand for 5G, is very high. We are focused on making technological developments so as not to fall behind rival companies, and will construct a system that will allow us to enter the market at the optimal time, with the goal of gaining the recognition of client manufacturers.

In the environment and energy field, we will contribute to the realization of a resource-recycling society, through material recycling, thermal product recycling, and landfilling, while being mindful of detoxification and stabilization. We have already begun construction of a new landfill site in Japan, and will promote infrastructure development that utilizes the strengths of the Group.

We also plan to reroute the technologies and know-how we have cultivated in Japan toward expanding our environmental businesses in Southeast Asia. We have started expanding our waste treatment methods in Indonesia and Thailand, where we have built trust relationships with local governments. In addition to conventional landfills, we will enable waste reduction and detoxification through thermal treatment, recycling, and other waste management processes.

The healthcare field offers a new challenge for us, and we are exploring a variety of possibilities to increase our presence in this growth market. Some of our products, such as deep ultraviolet LEDs for use in sterilization, have already gained the attention of client manufacturers. While future business expansion contains some hitherto unknown variables, our objective is to continuously strengthen our research and development efforts, with the Electronic Materials business serving as a reliable pillar of support.

### Basic Policy 2: Increase Competitiveness of Existing Businesses

In mature domestic markets, we are working to implement the following three measures.

The first is to utilize the latest technological knowledge to renovate, improve, and enhance aging, large-scale facilities. If we shirk necessary investments in facility maintenance and renewal in order to curtail short-term costs, the damage will make itself fully apparent in two to three years. The end result will be a complete and unavoidable overhaul with an even higher total cost. To ensure stable operations, it is crucial that we extend the lives of our facilities and maintain the conservation know-how contained therein, and that requires regular maintenance and renewal.

The second involves waste treatment. We are exploring new business models that go beyond straightforward incineration and cannot be adopted by other companies. To this point, the Environmental Management & Recycling business and the Nonferrous Metals business are working together to examine the feasibility of implementing a concrete business model in the next medium-term business plan.

As for the third measure, which involves the Electronic Materials and Metal Processing businesses, we will ramp up our shift from quantity to quality. Rather than making facilities larger, we will support the move toward higher-value-added, high-performance products through specification changes and the introduction of the latest equipment.

### Forecast for Fiscal 2019

In fiscal 2019, the second year of Midterm Plan 2020, power consumption and depreciation costs are expected to rise. However, temporary factors that negatively impacted the first year of the plan—

## President's Message

such as poor conditions for purchasing raw materials for smelting—are expected to turn around or disappear. Furthermore, we expect increased sales of new and existing products stemming from the results of the measures I stated earlier. In terms of numerical targets for fiscal 2019, we are planning for profit growth compared with the previous fiscal year, which amounts to consolidated net sales of ¥455.0 billion, operating income of ¥24.5 billion, ordinary income of ¥30.0 billion, and net income attributable to owners of the parent of ¥20.0 billion.

## ESG Initiatives and Philosophy

### Environmental and Social Solutions That Date Back to Our Founding

The concept of ESG (environmental, social, and governance) is not something new to the DOWA Group. Since our founding, providing solutions to environmental and social issues has been a central task, but I will also talk about our governance later in this message. The Group's five core businesses are all contributing toward solving the problems facing the environment and society in some way. The Environmental Management & Recycling business has made efforts to reduce waste and promote recycling, and the Electronic Materials, Metal Processing, and Heat Treatment businesses provide high-performance materials that aid in saving energy and reducing CO<sub>2</sub> emissions. These are just examples of our tangible efforts.

The history of our Group stretches back to the end of the 19th century, beginning with the development of “black ore” at the Kosaka mine in the northern part of Akita Prefecture. This ore was thought to be basically worthless because of its many impurities. Defying conventional thinking of the time, we moved forward with technological development for realizing a refining process that turned this ore, which had no value as it was, into a useful resource. This marked the start of DOWA's venture into smelting and refining, and the beginning of the Nonferrous Metals business.

Kosaka Smelting & Refining Co., Ltd., which draws from the history of the Kosaka mine, has now switched to smelting recyclable raw materials, which does not require natural ore. In addition, DOWA also owns Akita Zinc Co., Ltd., the world's only zero emissions zinc smelter. Since its establishment in 1970, Akita Zinc, in addition to supplying zinc to client companies, has supplied Kosaka Smelting & Refining with its by-products, which allows Akita Zinc to continue waste-free operations. The “Kosaka-Akita combination” boasts cutting-edge environmental technology currently deployed in recovering 20 types of metals from various raw materials.

Our mine development efforts overseas constitute a serious business, but are prone to misconceptions. I believe that if a company shows that it pays careful attention to environmental conservation, places importance on maintaining a dialogue with local communities, and contributes to raising the standard of living, it can do much to erase these misconceptions. Mine development cannot exist today as a business unless it provides an appropriate package of benefits to local people. In addition to creating local jobs and raising income levels, the package must include efforts to preserve water resources, protect wild flora and fauna, and improve infrastructure, which involves paving roads and setting up schools and hospitals, mitigating mine dumps by covering them with soil, or by implementing greenification and tree planting projects.

### DOWA's Governance—Committed to Global Expansion

Our governance works on the basic premise that management will execute its overall duties correctly while applying well-balanced common sense. However, as the Group's overseas expansion picks up speed, we recognize that a more systematic approach is necessary to apply DOWA Group standards to the governance of overseas subsidiaries.



In this regard, it is important to at once strengthen the functions of control companies in an area while improving the awareness of these standards among local subsidiaries. Looking at the latter issue, it is not enough to dispatch Japanese employees to these areas. Over time, I believe that we need to promote talented local personnel who have an understanding of the Group's spirit and corporate culture as well as a grasp of the situation on the ground.

The topic of Group governance, which includes governance of overseas businesses, often comes up at Board meetings. Our Board of Directors comprises eight directors, two of whom are outside directors. One of the outside directors is an environmental economics researcher and an active member of the Central Environmental Council, while the other is a lawyer with a deep knowledge of corporate law. These outside directors provide us with frank observations regarding overseas investment risks and add a useful layer of awareness to the entire management structure.

To foster the next generation of leaders, we are promoting employees with strong management skills and an understanding of and affinity with the Group's direction and businesses. It all comes down to personality. We are looking for people who lead others in a naturally flexible way.

## To Our Shareholders and Investors

Several of the businesses operated by the DOWA Group have incredibly high social significance, and are constructed in such a way that the pursuit of profits naturally leads to social contributions. I cannot say that our efforts to fully communicate this aspect have been truly sufficient. Upon reflection, we will actively call attention to our actual role in society as we go forward, and do so in an easier-to-understand manner. In the next medium-term business plan, in particular, I would like to focus on creating more integrated value that is not restricted by financial and non-financial classifications. With the same spirit that existed at our founding, I would like to make a sincere request for your warm support as we strive to help realize a sustainable society.

May 2019

**Akira Sekiguchi**

President and Representative Director



## Consolidated Financial Highlights

For the years ended March 31	15.3	16.3	17.3	18.3	(Billions of yen) 19.3* <sup>1</sup>	(Millions of U.S. dollars* <sup>7</sup> ) 19.3
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## Financial Performance

Net Sales	¥464.2	¥406.5	¥410.5	¥454.7	¥452.9	\$4,080
Operating Income	39.0	35.0	33.9	30.9	18.6	168
Ordinary Income	42.0	35.0	36.5	36.3	24.3	219
Net Income Attributable to Owners of the Parent	26.5	21.8	26.1	24.6	14.9	135
Capital Expenditures	17.2	22.9	26.5	24.6	24.0	217
R&D Expenses	5.3	5.5	5.6	5.3	5.8	53

## Financial Condition

Equity	¥195.6	¥203.3	¥227.8	¥247.7	¥246.1	\$2,217
Total Assets* <sup>2</sup>	379.1	364.4	404.6	456.5	494.6	4,457
Interest-Bearing Debt* <sup>3</sup>	86.6	81.1	79.8	109.8	135.2	1,218

## Cash Flows

Cash Flows from Operating Activities	¥ 38.3	¥ 45.7	¥ 29.3	¥ 11.1	¥ 37.5	\$ 338
Cash Flows from Investing Activities	(20.3)	(23.4)	(25.9)	(34.0)	(51.0)	(459)
Free Cash Flow	18.0	22.2	3.4	(22.8)	(13.4)	(121)

## Ratios

Return on Assets* <sup>4</sup> (%)	11.39	9.43	9.49	8.44	5.11
Return on Equity* <sup>5</sup> (%)	15.37	11.43	12.64	10.78	6.30
Equity Ratio* <sup>6</sup> (%)	49.35	53.49	54.20	52.31	47.95
Debt / Equity Ratio (Times)	0.46	0.42	0.36	0.46	0.57

\*1 The years stated in the table are ended March 31. Thus, "19.3" refers to the fiscal year that ran from April 1, 2018 through March 31, 2019.

\*2 Changes put forth in the Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28, issued February 16, 2018) have been applied to the consolidated financial results for the fiscal year under review. These amendments have been retroactively applied to the consolidated financial results for fiscal 2017, and the amount of total assets has been adjusted accordingly.

\*3 Interest-bearing debt does not include lease obligations.

\*4 Ordinary income divided by the average of total assets at the start and end of the year.

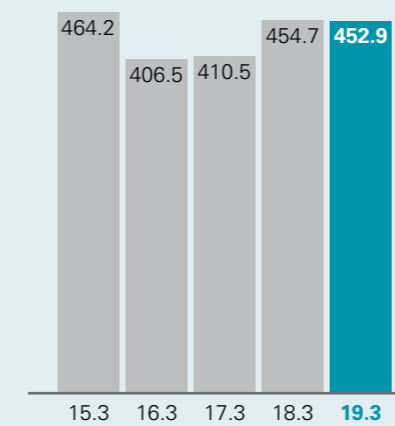
\*5 Net income attributable to owners of the parent divided by the average of shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts) at the start and end of the year.

\*6 The ratio has been calculated using shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts).

\*7 ¥110.99=US\$1, the rate of exchange on March 31, 2019, is used.

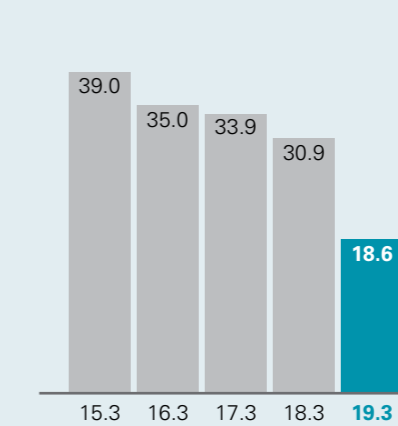
## Net Sales

(Billions of yen)



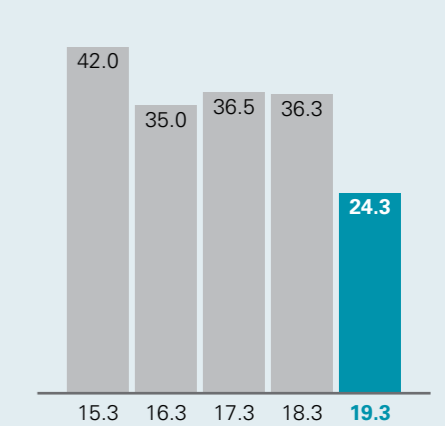
## Operating Income

(Billions of yen)



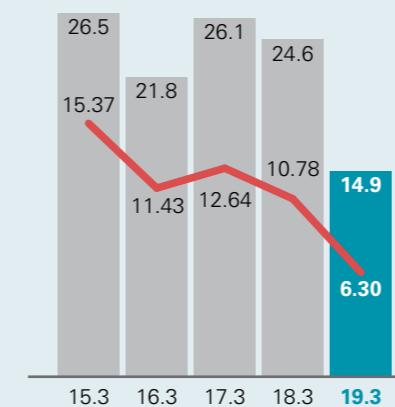
## Ordinary Income

(Billions of yen)



## Net Income Attributable to Owners of the Parent, ROE

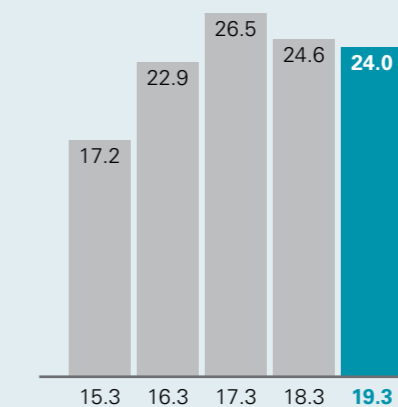
(Billions of yen / %)



■ Net income attributable to owners of the parent  
— ROE

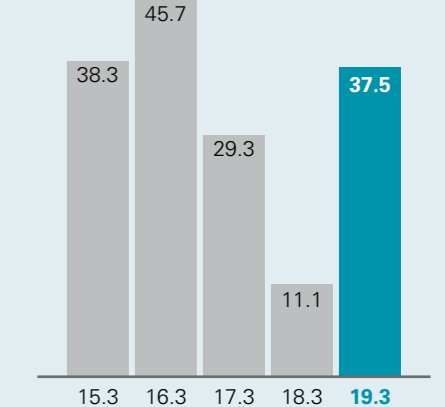
## Capital Expenditures

(Billions of yen)



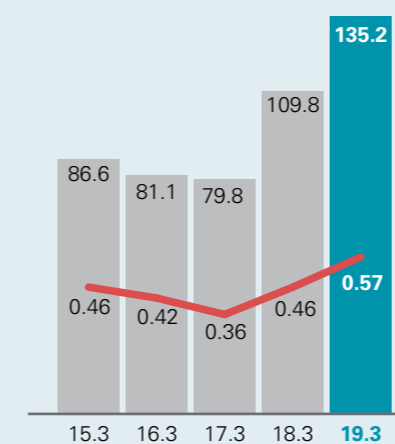
## Cash Flows from Operating Activities

(Billions of yen)



## Interest-Bearing Debt, Debt / Equity Ratio

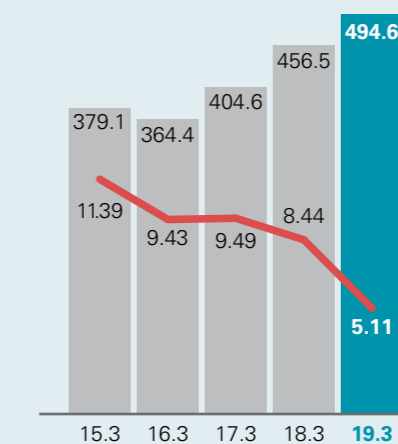
(Billions of yen / Times)



■ Interest-bearing debt — Debt / equity ratio

## Total Assets, ROA

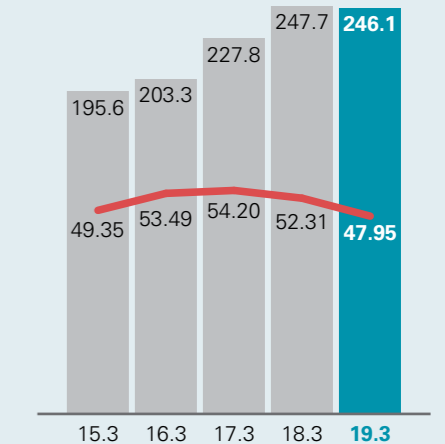
(Billions of yen / %)



■ Total assets — ROA

## Equity, Equity Ratio

(Billions of yen / %)



■ Equity — Equity ratio

## Business Review

## Environmental Management &amp; Recycling Business

## DOWA ECO-SYSTEM CO., LTD.



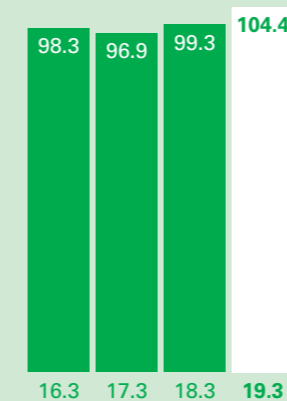
DOWA ECO-SYSTEM offers one-stop integrated services with high traceability. These services range from the collection and transport of waste, contaminated soil, and metal recycling materials to waste treatment, such as compacting / detoxification of waste products from incineration and metal recycling or landfilling. By expanding into the consultation business, including conducting environmental impact assessments, we aim to help solve a wide range of environmental problems both in Japan and overseas.

We also aim to increase the competitiveness of our existing businesses, gain market share in all business fields and regions, and accelerate new development in order to secure the top position in Asia. By scoping out future global environmental trends, we will also create new businesses that will play a pivotal role in the future of our industry.

**Minoru Tobita** President

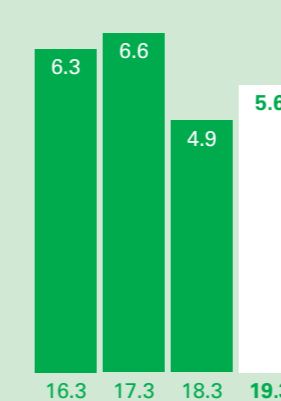
### Net Sales

(Billions of yen)



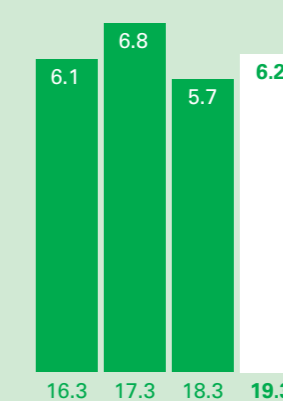
### Operating Income

(Billions of yen)



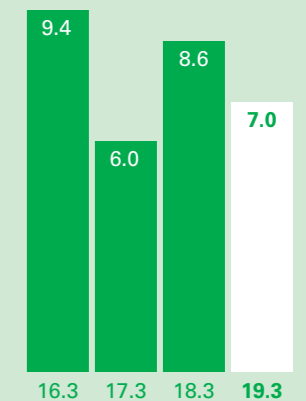
### Ordinary Income

(Billions of yen)



### Investment\*

(Billions of yen)



\* The total of investments and R&D

## Midterm Plan 2020 (Fiscal 2018 through Fiscal 2020)

### Business Strategies

- Increase competitiveness of existing businesses to establish a position as No.1 in Asia and accelerate increase in market share and launch new businesses in each field and region.
- Build the foundation of new businesses that will be the next mainstay businesses in light of global trends in environmental management.

### Financial Data

Operating Income	Ordinary Income	Investment	R&D
¥ <b>10.0</b> billion (Fiscal 2020)	¥ <b>10.0</b> billion (Fiscal 2020)	¥ <b>29.4</b> billion (Total for 3 years)	¥ <b>1.4</b> billion (Total for 3 years)

### Major Initiatives

- **Waste Treatment:** Increase cost competitiveness of low-contaminated PCB waste treatment; Expand melting and waste recycling business.
- **Soil Remediation:** Construct new landfill facility in Japan; Promote naturally contaminated soil remediation.
- **Recycling:** Increase overseas collection of materials for recycling; Strengthen metal recycling by enhancing the separation facilities.
- **Southeast Asia:** Expand waste treatment business by constructing new facilities and increasing treatment capacity.
- **New Business Development:** Promote commercialization of food waste recycling.

## Business Conditions and Financial Performance in Fiscal 2018

In the waste treatment business, waste generation in Japan remained steady, with waste treatment roughly at the same level as the previous fiscal year. In the soil remediation business, the Company worked to increase orders utilizing new remediation methods. The recycling business, meanwhile, saw an increase in the amount of automobile components and home electronics processed. In overseas businesses, the amount of waste treatment orders remained high, at roughly the same level as the previous fiscal year. As a result of these factors, segment consolidated net sales increased 5% year on year, to ¥104.4 billion, segment operating income increased 14%, to ¥5.6 billion, and segment ordinary income increased 10%, to ¥6.2 billion.

## Key Initiatives for the Future

In the waste treatment business, we are going forward with plans to expand treatment of low-contaminated PCB and other hazardous waste, as well as waste melting and recycling efforts. In the soil remediation business, we are working to increase orders that utilize our remediation methods to deal with naturally contaminated soil. In the recycling business, we will expand global collection of recyclable materials and continue full-capacity operation in our automobile and home electronics fields. In overseas businesses, we are expanding hazardous waste treatment operations in addition to building new waste treatment facilities while expanding existing ones.



Waste melting and recycling facility



Automobile recycling facility



Landfill site in Indonesia

## Nonferrous Metals Business

# DOWA METALS & MINING CO., LTD.



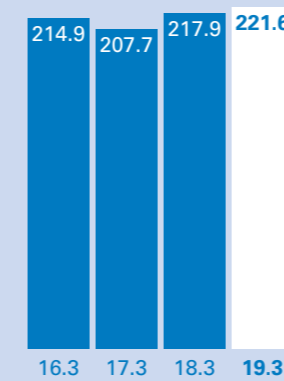
Utilizing its engineering capabilities honed over many years, DOWA METALS & MINING recovers over 20 kinds of valuable metals from a variety of raw materials, such as from ore and metal recycling materials, at its proprietary recycling and smelting complexes that focus mainly on the smelting and refining of copper and zinc.

In the years to come, in order to further improve the functionality of our recycling and smelting complexes and strengthen our businesses, we will improve our capabilities in terms of handling impurities in raw materials and work to develop mines overseas.

**Toshiaki Suyama** President

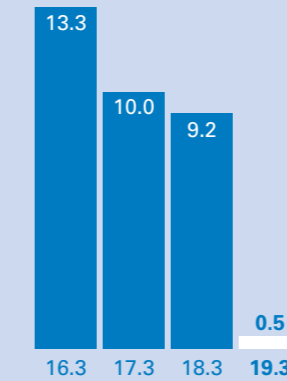
### Net Sales

(Billions of yen)



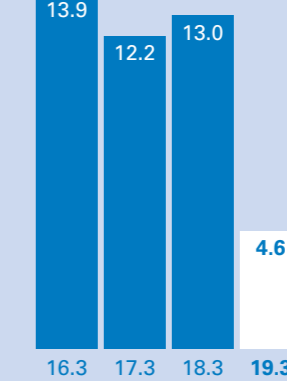
### Operating Income

(Billions of yen)



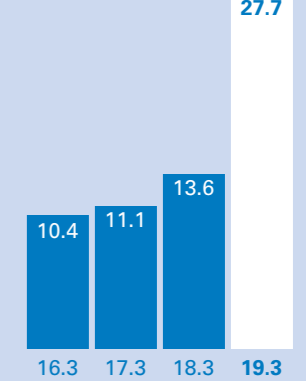
### Ordinary Income

(Billions of yen)



### Investment\*

(Billions of yen)



\* The total of investments and R&D

## Midterm Plan 2020 (Fiscal 2018 through Fiscal 2020)

### Business Strategy

- Strengthen the business by improving the functions in the recycling and smelting complex.

### Financial Data

Operating Income	Ordinary Income	Investment	R&D
¥ <b>10.0</b> billion (Fiscal 2020)	¥ <b>15.0</b> billion (Fiscal 2020)	¥ <b>40.1</b> billion (Total for 3 years)	¥ <b>2.9</b> billion (Total for 3 years)

### Major Initiatives

- Precious Metals and Copper Smelting:** Increase production of tin by Kosaka Smelting & Refining Co., Ltd.; Improve treatment capabilities.
- Platinum Groups Metals:** Increase collection of resources by expanding overseas bases; Improve ability to handle difficult-to-treat materials.
- Zinc Smelting:** Expand the annual zinc production at Akita Zinc Co., Ltd. to 220,000 tons by increasing ability to treat impurities; Strengthen processing plant in Thailand and expand sales in Southeast Asia.
- Resource Development:** Start construction and operation of new zinc mine in Mexico.

## Business Conditions and Financial Performance in Fiscal 2018

In the precious metals and copper smelting business, we are working to improve extraction rate of tin and other by-product metals. In the platinum group metals business, metal recovery from used automobile exhaust gas catalysts fell short of expectations. The zinc smelting business was adversely affected by less favorable conditions for purchasing raw materials and rising prices for electric power. In addition, profits decreased for equity-method affiliates such as Onahama Smelting & Refining Co., Ltd. As a result of these factors, segment consolidated net sales increased 2% year on year, to ¥221.6 billion, segment operating income decreased 94%, to ¥0.5 billion, and segment ordinary income decreased 64%, to ¥4.6 billion.

## Key Initiatives for the Future

In the precious metals and copper smelting business, we will increase treatment volume of recycling materials, and will continue our efforts to improve tin purification methods. In the platinum group metals business, we will expand our collection and sampling points for raw materials overseas. In the zinc smelting business, we are establishing impurity from raw material treatment facilities with the aim of increasing production. In addition, we are working to boost production in Thailand and increase sales in Southeast Asia. Furthermore, we have begun operations of our mine in Los Gatos, Mexico, in a move to procure a long-term, stable supply of raw zinc materials.



Tin ingots

Metal recovery plant (platinum group metals business)

Los Gatos mine

## Electronic Materials Business

# DOWA ELECTRONICS MATERIALS CO., LTD.



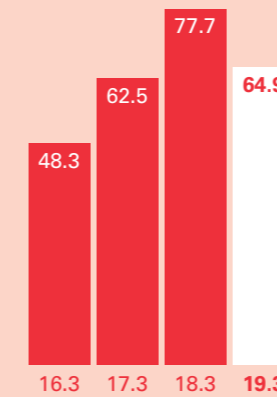
DOWA ELECTRONICS MATERIALS leverages its technological prowess to supply a wide range of top niche products in the semiconductors, electronic materials, and advanced fine materials fields. In order to meet the ever-changing needs of the electronic materials market, we continuously invest management resources in research and development in order to maintain the competitive advantage of our products.

By speeding up the development of new products, we will create new top niche products that will form the linchpin for future earnings. We will also work to grow our businesses in areas where we expect market growth, such as the automotive and medical treatment / healthcare fields.

**Koji Suzuki** President

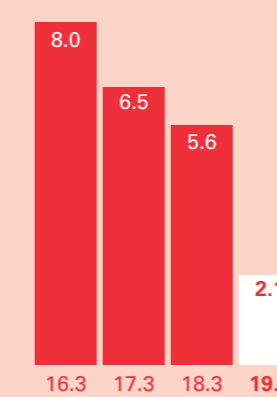
### Net Sales

(Billions of yen)



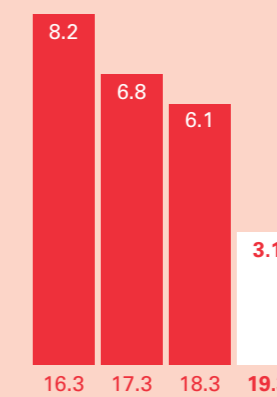
### Operating Income

(Billions of yen)



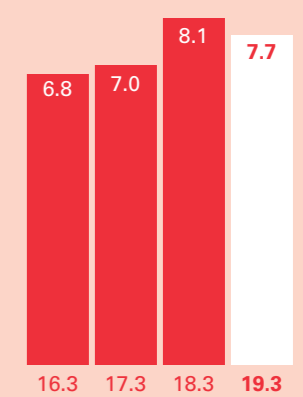
### Ordinary Income

(Billions of yen)



### Investment\*

(Billions of yen)



\* The total of investments and R&D

## Midterm Plan 2020 (Fiscal 2018 through Fiscal 2020)

### Business Strategies

- Launch new businesses, develop new top niche products, and make them major sources of earnings.
- Expand business domains further to growth markets such as automobiles and healthcare fields.

### Financial Data

Operating Income	Ordinary Income	Investment	R&D
¥ <b>10.0</b> billion (Fiscal 2020)	¥ <b>10.5</b> billion (Fiscal 2020)	¥ <b>11.6</b> billion (Total for 3 years)	¥ <b>12.3</b> billion (Total for 3 years)

### Major Initiatives

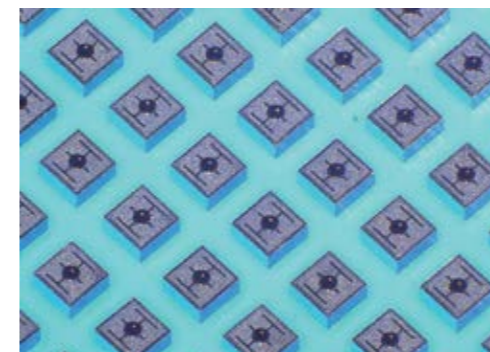
- Semiconductors:** Develop and mass produce LEDs for healthcare businesses.
- Electronic Materials:** Maintain a high market share of silver powder for solar panels.
- Advanced Fine Materials:** Increase market shares and production capacity for recording materials, carrier powder, and ferrite powder.
- New Development:** Expand sales of deep ultraviolet LEDs for healthcare / sterilization and increase line of conductive materials. Commercialize new magnetic materials for automobiles.

## Business Conditions and Financial Performance in Fiscal 2018

In the semiconductors business, there was a drop in demand for LEDs for smartphones. The electronic materials business saw lower demand in the Chinese market for silver powder for use in solar panels. In the advanced fine materials business, our customers continued their inventory adjustment for magnetic powder for data storage tapes. To facilitate the launch of new products, we increased our investment in research and development related to deep ultraviolet LEDs for sterilization equipments. As a result of these factors, segment consolidated net sales dropped 16% year on year, to ¥64.9 billion, segment operating income dropped 61%, to ¥2.1 billion, and segment ordinary income decreased 49%, to ¥3.1 billion.

## Key Initiatives for the Future

The smartphone and solar panel markets are in a period of stunted growth. Amid these conditions, we are working in the semiconductors business to expand sample work for new products related to short wave infrared LEDs. In the electronic materials business, we will work to expand sales of silver powder for use in new, highly efficient, next-generation solar panels. In addition, we will work to expand sales of conductive atomized powder to be used in condensers and other electronic devices. In the advanced fine materials business, we will expand sales of magnetic powder for data storage tapes. In addition to the above, the Company is working toward the prompt commercialization of nano silver powders for use in semiconductor bonding materials and other new products.



Short wave infrared LEDs



Silver powder for solar panels



Data storage tapes

## Metal Processing Business

## DOWA METALTECH CO., LTD.



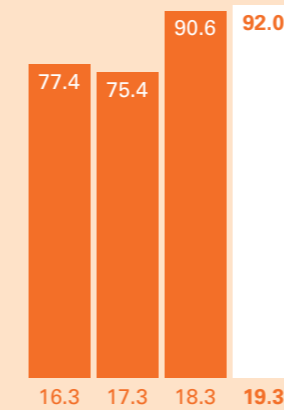
DOWA METALTECH's mainstay products and services—high-performance copper rolled products and electroplating as well as metal-ceramics substrates—are used in a wide range of fields such as automobiles and smartphones. In order to further expand our businesses, we are also developing new products, increasing production capacity in Japan, and expanding our production facilities in other Asian countries, where growth continues.

We will continue to focus on the automotive and IoT fields and further increase our earnings potential by building a solid management base that can withstand changes in operating environments.

**Akira Sugawara** President

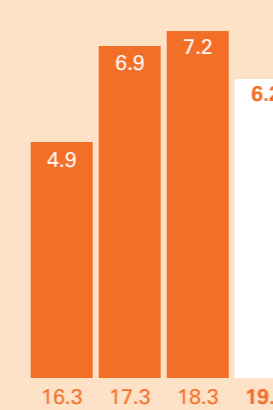
## Net Sales

(Billions of yen)



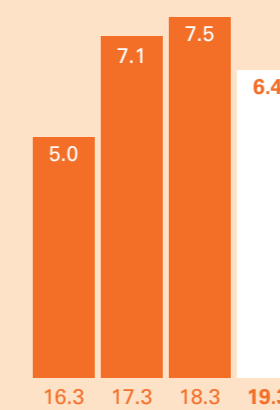
## Operating Income

(Billions of yen)



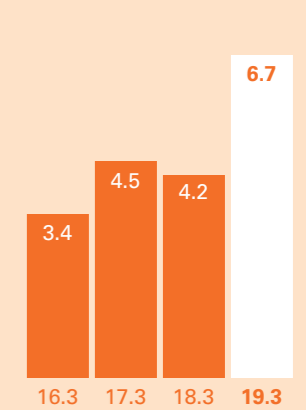
## Ordinary Income

(Billions of yen)



## Investment\*

(Billions of yen)



\* The total of investments and R&amp;D

## Midterm Plan 2020 (Fiscal 2018 through Fiscal 2020)

## Business Strategies

- Expand businesses by focusing efforts on automobiles and IoT-related fields.
- Increase earning potential further by establishing a business base resistant to changes in the business environment.

## Financial Data

Operating Income	Ordinary Income	Investment	R&D
¥ <b>9.0</b> billion (Fiscal 2020)	¥ <b>9.0</b> billion (Fiscal 2020)	¥ <b>17.7</b> billion (Total for 3 years)	¥ <b>2.5</b> billion (Total for 3 years)

## Major Initiatives

- Copper Rolled Products:** Increase production and expand sales of copper alloys to meet growing demand for electric vehicles, intelligent vehicles, and IoT; Enhance the processing businesses in China, Thailand, and Taiwan.
- Electroplating:** Establish a plant in Mexico; Improve competitiveness by optimizing lines of a plant in Japan.
- Metal-Ceramics Substrates:** Expand sales of substrates for railways and automobiles as well as industrial machinery and develop new products.

## Business Conditions and Financial Performance in Fiscal 2018

While the copper rolled products business benefited from strong demand for automobiles, demand for smartphones decreased in the Chinese market near the end of calendar 2018. In the electroplating business, we were able to capture demand for in-vehicle electronics. In the metal-ceramics substrates business, sales to the rail transport and automotive industry remained strong, but demand for industrial machinery decreased. As a result of these factors, segment consolidated net sales increased 2% year on year, to ¥92.0 billion, segment operating income decreased 14%, to ¥6.2 billion, and segment ordinary income dropped 15%, to ¥6.4 billion.

## Key Initiatives for the Future

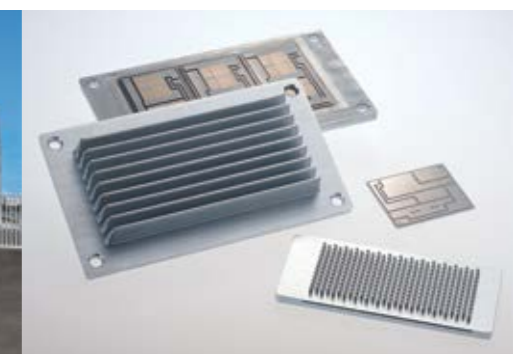
In the copper rolled products business, we will enhance facilities at domestic plants and increase sales in Asia to meet growing demand for mainstay products, in light of the shift toward electric vehicles and intelligent vehicles, and multifunctional, high-speed information communication equipment. In the electroplating business, we will continue full-scale operations at our Mexico and Thailand plants and work to improve productivity and overall production on our electroplating lines in Japan and Thailand. In the metal-ceramics substrates business, we will work to increase sales to automotive and rail transport companies.



Equipment for manufacturing copper alloy strips



New electroplating plant in Mexico



Metal-ceramics substrates

## Heat Treatment Business

## DOWA THERMOTECH CO., LTD.



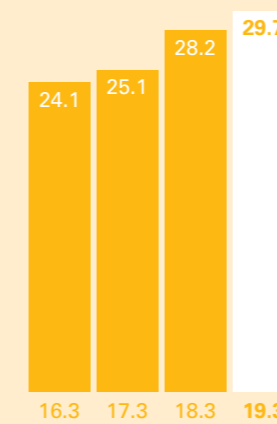
In the field of heat treatment, which increases the durability of metal parts, such as automobile components, DOWA THERMOTECH undertakes the manufacture, sale, and maintenance of heat treatment facilities as well as contracted heat treatment processing. In addition, we are advancing overseas business expansion in geographical areas where growth in automobile production is expected in the years ahead, such as Southeast Asia and India.

One of our strengths is that we not only conduct contracted heat treatment processing but also build heat treatment processing facilities. We will strive to achieve further earnings growth by taking full advantage of this strength in the global market. In addition, we will anticipate changes in the automotive industry and work to develop new business fields to take advantage of these changes.

Ryuji Tsuji President

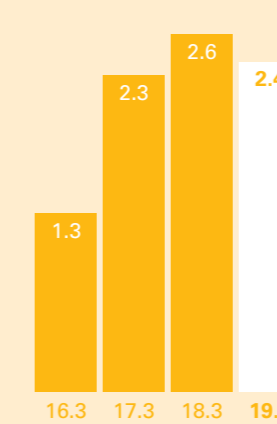
## Net Sales

(Billions of yen)



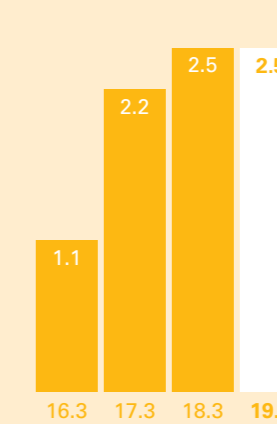
## Operating Income

(Billions of yen)



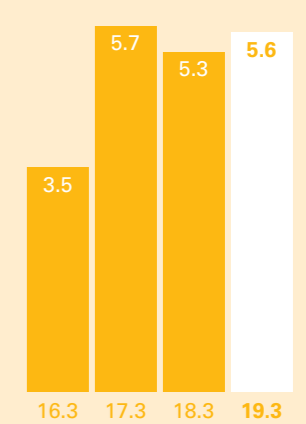
## Ordinary Income

(Billions of yen)



## Investment\*

(Billions of yen)



\* The total of investments and R&D

## Midterm Plan 2020 (Fiscal 2018 through Fiscal 2020)

## Business Strategies

- Increase earnings further by taking advantage of the strengths of the current business model.
- Pursue initiatives in new business domains.

## Financial Data

Operating Income

¥4.0 billion

(Fiscal 2020)

Ordinary Income

¥4.0 billion

(Fiscal 2020)

Investment

¥8.7 billion

(Total for 3 years)

R&D

¥0.9 billion

(Total for 3 years)

## Major Initiatives

- **Industrial Furnaces:** Boost sales of new industrial furnaces in India and North America. Enhance the manufacturing network in Japan, India, and China; Expand the industrial furnace maintenance business and develop new products.
- **Heat Treatment Processing:** Increase domestic production capacity and establish new plants in India to meet growing demand for automobile-related products; Increase the production capacity of plants in Thailand and Indonesia; Promote automation and labor-saving at plants in Japan.

## Business Conditions and Financial Performance in Fiscal 2018

The industrial furnaces business saw an increase in orders for new equipment from manufacturers in the automotive industry. In addition, there was increased demand for equipment maintenance both in Japan and overseas. In the heat treatment processing business, orders at domestic plants decreased at the end of calendar 2018 due to falling automobile production in China. As a result of these factors, segment consolidated net sales increased 5% year on year, to ¥29.7 billion, segment operating income decreased 7%, to ¥2.4 billion, and segment ordinary income rose 3%, to ¥2.5 billion.

## Key Initiatives for the Future

In the industrial furnaces business, we will expand our product lineup and increase the earnings potential of the equipment maintenance business to meet the capital investment demand of manufacturers in the automotive industry. In the heat treatment processing business, we will increase production and productivity at our domestic facilities in order to raise competitiveness within the business. We will also begin operations at our new factory in India while enhancing our facilities in China and working to improve profitability in Thailand and Indonesia.



New factory in India



Heat treatment processing



Components that have undergone heat treatment processing

## ESG Initiatives

### Basic Approach

The DOWA Group has identified medium-term objectives as part of its “Vision for 2020” in the four key fields of corporate governance, safety, the environment, and society. We have crafted this vision with feasible, achievable goals, with priority issues that need addressing consolidated into key measures. To realize this vision, we have established an action plan promoting repeated action, evaluation, and the appropriate steps to carry out our single-year initiatives and goals.

For details on our initiatives, please refer to our CSR Report at <http://www.dowa-csr.jp/en/report/index.html>.

### “Vision for 2020”

“S+ESG” management based on the CSR Policy is established in all DOWA Group companies, and we are able to contribute to resolving global social concerns, by simultaneously minimizing management risks and improving corporate value.



Area	CSR Policy	Medium-Term Plan “Vision for 2020”	Focus Measures	Indicator	Goal for 2020
Corporate Governance	<ul style="list-style-type: none"> <li>We will aim to be an open and transparent company.</li> <li>We will endeavor in anti-corruption efforts, including anti-bribery measures, taking into consideration the international agreement.</li> <li>We will take CSR into consideration in our procurement.</li> </ul>	<ul style="list-style-type: none"> <li>Sound business management is promoted by ensuring sufficient functions, appropriate information disclosure, and transparency in internal control systems.</li> <li>Business management that does not give rise to fraud and corruption of any kind is promoted by individual employees carrying out appropriate activities based on the DOWA Group’s Values and Standards of Conduct.</li> <li>CSR is promoted throughout the supply chain by building partnerships with business connections.</li> </ul>	Strengthening of internal controls and governance	Number of important deficiencies to be disclosed	0
			Strengthening of compliance and risk management	Implementation rate of internal education and briefings	100%
			CSR procurement promotion	Supplier survey coverage rate* * Excludes contractors	Transaction amount base 80%
Safety	<ul style="list-style-type: none"> <li>All employees will take part spontaneously in safety activities to improve the level of health and safety in the workplace, based on our basic philosophy of “Safety is the top priority.”</li> <li>We are committed to preventing accidents at work and to supporting the health of our employees.</li> </ul>	<ul style="list-style-type: none"> <li>The occupational safety risks of the workplace are managed and minimized appropriately, and a comfortable and safe working environment is realized.</li> </ul>	Heightening of the Companywide safety level	Frequency rate	0.7 or less
			Strengthening of safety education in subsidiaries outside Japan	Severity rate	0.01 or less
				Number of times education is implemented	Total 20 times
The Environment	<ul style="list-style-type: none"> <li>We will provide customers with products and services that contribute to building a resource-recycling society.</li> <li>We will reduce environmental burdens and risks in our business activities.</li> <li>The management and employees together take part in environmental conservation activities.</li> <li>We will promote business activities that take into consideration biodiversity.</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for the core of the international resource-recycling network in Asia and the Pacific Rim area.</li> <li>Effective reduction of CO<sub>2</sub> emissions per unit has been achieved by various energy-saving measures and the active use of renewable energy.</li> <li>The environmental risks of the workplace are managed properly, and environmental accident-generation risks are minimized.</li> <li>Biodiversity conservation activities are promoted in collaboration with the upstream and downstream of the supply chain.</li> </ul>	Strengthening of recycling business: Collection volume / Recycling volume / Increase in no. of elements, etc.	Collection volume of materials for recycling	Increase from the preceding fiscal year
			Improvement of the utilization rate of renewable energy Strengthening of energy-saving initiatives	Emission amount of CO <sub>2</sub> emissions per unit	15% reduction as compared with fiscal 1990
			Minimization of environmental accident risks and strengthening of response capabilities <small>* Environmental accidents: Incidents whose impact is felt outside the Company, and reported to the competent administration</small>	Number of environmental accident occurrences	0
			Understanding of biodiversity risks of suppliers Status confirmation of biodiversity considerations in mines	Suppliers and mine survey rate	100%
			Society	<ul style="list-style-type: none"> <li>We will aim to create a workplace where diversity and the human rights of employees are respected, and each person can demonstrate their maximum potential with satisfaction and pride.</li> </ul>	<ul style="list-style-type: none"> <li>While diverse human resources mutually respect each other, employees themselves select the diverse work styles commensurate with their respective life stages and styles, and the Company and teams support each other.</li> <li>A culture of fair evaluation and treatment, and fostering, is established, and employees experience growth, results, and satisfaction. And, an organization in which employees compete with each other and support each other is created by the employees themselves.</li> </ul>
Promoting work-life balance	Attendance rate of education in the promotion of participation by women	100%			
	Annual paid leave acquisition rate	70%			
Training of both appraisers and persons being appraised Strengthening of in-house education of human resources Voluntary career development support for employees	Employee satisfaction (Individual business planning system)	90%			
Society	<ul style="list-style-type: none"> <li>We will work to contribute to society in line with the attributes of each region together with local communities.</li> </ul>	<ul style="list-style-type: none"> <li>Social contributions reflecting each local community are deployed in and outside Japan.</li> </ul>	Promotion of social contributions	(Education system and content)	70%
				—	—

## Corporate Governance

The DOWA Group has made the strengthening of corporate governance one of its most important management priorities and is engaged in contributing to society and developing and operating effective and efficient internal controls.

### Basic Approach

The DOWA Group and the companies of which it consists meet a wide variety of needs from society, drawing from its corporate philosophy: "DOWA helps to create an affluent, recycling-oriented society through its business activities worldwide." As the Group makes social contributions, strengthening corporate governance is one of its priorities, thus it is making Groupwide efforts to establish effective internal control systems with efficient composition and management, based on the DOWA Group's Values and Standards of Conduct.

The Company employs a holding company structure. The structure gives us a deeper grasp of customer needs at the



ground level of the market and enables us to make swift decisions with authority. This structure also allows us to split our business divisions into subsidiaries—which in turn facilitates more flexible and bolder management in accordance with the characteristics of each business division—and to also allocate management resources to Group companies in an optimal manner, thereby working to maximize corporate value by realizing the sustainable growth of the Group. Furthermore, the Company has established an Audit & Supervisory Board and appoints outside directors to ensure sound management.

### Outline of Corporate Governance

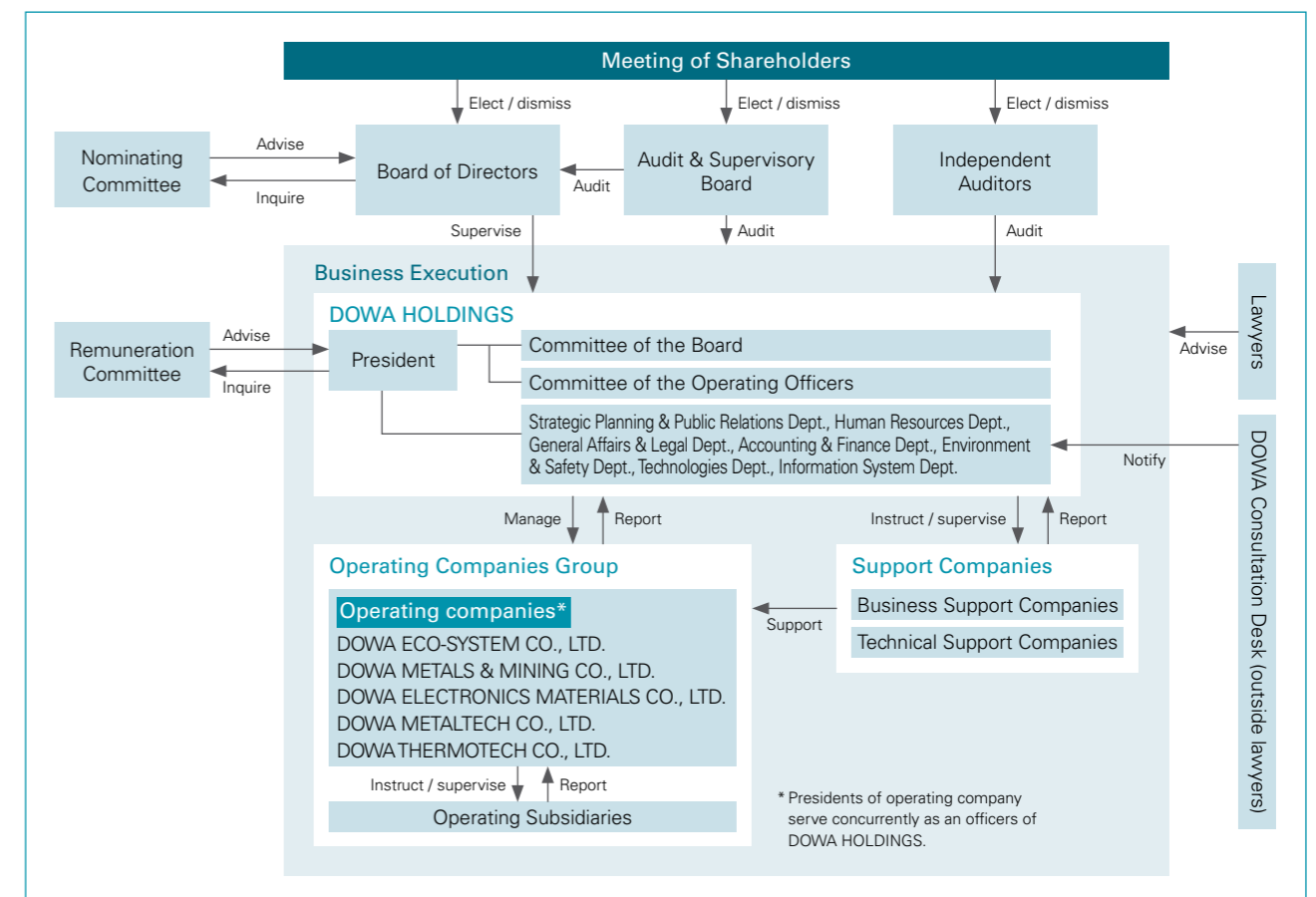
DOWA is a Company with an Audit & Supervisory Committee. Moreover, the Company uses a system of executive officers and a holding company structure that separates business divisions as subsidiaries in order to expedite decision-making and improve management efficiency. In addition, the maximum number of directors has been set at 13 to further improve the supervisory function of the Board of Directors. Management responsibilities are clearly maintained by keeping the term of office at one year.

As of June 26, 2019, there were eight directors (including two outside directors). The Board of Directors' meeting is held once every month, in principle. There are also seven executive officers (none of whom are also directors), with a Committee of the Operating Officers held once every month, in principle, for directors to share information regarding the status of business execution. We also have an Audit & Supervisory Board comprising four Audit & Supervisory Board members (including three outside Audit & Supervisory Board members), each of whom conducts audits of business execution by directors, and report to the Audit & Supervisory Board meeting, held once every month, in principle, ensuring audit effectiveness and efficiency.

### Corporate Governance System (As of June 26, 2019)

Organization Form	Company with Audit & Supervisory Committee
Number of Directors	8 (Number of the Company's Articles of Incorporation: 13)
	 <input type="checkbox"/> Outsider Directors <input type="checkbox"/> Independent Officers
Articles of Incorporation	1 year
Chairperson of the Board of Directors	Chairman
Number of Audit & Supervisory Board Members	4 (Number of the Company's Articles of Incorporation: 5)
	 <input type="checkbox"/> Outsider Audit & Supervisory Board members <input type="checkbox"/> Independent Officers

### The DOWA Group Corporate Governance Structure (As of June 26, 2019)



### Board of Directors and Officers

The Board of Directors consists of eight directors (seven men and one woman), including two outside directors, and its meetings are also attended by four Audit & Supervisory Board member, three of whom are outside Audit & Supervisory Board member. In fiscal 2018, the Board of Directors met 16 times, with attendance by all outside directors at every meeting.

We believe that, at meetings of the Board of Directors, there is a lively exchange of opinions during the deliberation of each proposal and regarding the supervision of the execution of business and that decision-making and supervision are conducted effectively. In addition, outside directors and outside Audit & Supervisory Board member also contribute by meeting regularly to exchange opinions.

The directors select a nominee for president and

representative director and, in consultation with the Board of Directors, submit the nominee proposal to the General Meeting of Shareholders for approval. When selecting nominees for the position of director, care is taken to ensure that the nominee is of excellent character, has established a good track record in the work he or she has done thus far, is well-versed in corporate management, and has a high level of specialized knowledge. In addition, because each director has different principal duties, nominees for the position of director must have not only comprehensive knowledge and abilities suitable to the position, but also knowledge and experience suitable to the carrying out of his or her principal duties. Director nominees must therefore have well-balanced job experience and knowledge that are not overly concentrated in one area.

### Execution of Business

By appointing executive officers, the Company separates executive functions from the Board of Directors and strengthens the supervisory function of the Board. In addition, in accordance with applicable laws and Company rules, regarding matters other than important business activities to be decided upon by the Board of Directors, upon consideration of transaction size, etc., authority is delegated to executive officers concurrently serving as presidents of each operating company.

The directors and executive officers will hold meetings of the management and executive committee in order for executive officers to share information regarding the status of business execution. Also, items important to the management of the Group are discussed by the Committee of the Operating Officers and then presented to the Board of Directors.



## Corporate Governance

### Audit & Supervisory Board and Corporate Auditors

The Audit & Supervisory Board comprises four members, also regarded as corporate auditors, one of whom has accounting and financial knowledge from working in the banking industry. In accordance with the audit policies and audit plans for the term stipulated by the Audit & Supervisory Board, members attend Board of Directors' meetings and

other important meetings, and audit the execution of directors' duties, such as reviewing status reports on such tasks from directors. They also monitor the independence of the independent accounting auditors and work with them to explain the audit plans of the independent accounting auditors and report audit findings.

### Selection of Nominees for the Position of Independent Accounting Auditor

The Company has a policy of appointing independent accounting auditors based on their audit expertise, quality control system, suitability, independence, audit system, and remuneration framework. The Company has appointed Deloitte Touche Tohmatsu LLC as its accounting auditor after

determining it suitably met these criteria. After a review based on the independent selection standards for appointing accounting auditors set by the Audit & Supervisory Board, corporate auditors also determined that Deloitte was suitable as the accounting auditor of the Company.

### The Nominating Committee and the Remuneration Committee

The DOWA Group has established discretionary committees. The Remuneration Committee, one such committee, consists of outside directors and outside experts. In addition to the advice of the Remuneration Committee, the director compensation system takes into account other objective factors, such as the Group's consolidated financial performance, dividends distributed to shareholders, and remuneration levels outside of the Company. Furthermore,

we have established the Nominating Committee to provide objective advice regarding the important matter of appointing and dismissing management personnel. Each committee is composed of two outside directors, one outside advisor, and one outside Audit & Supervisory Board member. Also, these committees are chaired by an individual by the Board of Directors. In principle, each committee meets once a year.

### Remuneration for Directors and Auditors

The compensation system for directors comprises basic remuneration and performance-based remuneration. Remuneration amount for all directors and Audit & Supervisory Board members is determined by resolution of the General Meeting of Shareholders. Basic remuneration for directors shall be based on the director's position and results, while performance-based remuneration shall be paid reflecting individual performance in conformity with the "standard performance-based remuneration," which is determined in accordance with net income attributable to owners of the parent and dividends distributed to shareholders.

These two items have been highlighted as performance criteria as a means to link Company profits with compensation and thereby increase motivation to contribute to business growth. Furthermore, linking dividend payouts with compensation will promote shared value growth with shareholders.

The remuneration system has been designed with objective input from the Remuneration Committee.

In principle, the committee meets once a year to deliberate and provide advice regarding system objectivity, as well as the validity of compensation levels. Decisions concerning individual director compensation are entrusted to the representative directors who assess each director's performance and assigns an appropriate compensation amount.

Regarding outside directors, in order to ensure the independence and objectivity of their work, remuneration shall not be paid reflecting individual performance.

In order to ensure the independence of their work, Audit & Supervisory Board member remuneration consists of fixed remuneration only and is determined by deliberation among the Audit & Supervisory Board members within the limits approved by the General Meeting of Shareholders.

### Total Remuneration for Directors and Audit & Supervisory Board Members with Subtotals for Each Type of Remuneration and Numbers of Recipients

Classification	Total Remuneration Paid (Millions of yen)	Remuneration Paid by Type (Millions of yen)			Recipients (People)
		Basic Remuneration	Performance-based remuneration	Retirement bonuses	
Directors* <sup>1</sup>	329	214	114	—	6
Audit & Supervisory Board Members* <sup>2</sup>	26	26	—	—	1
Outside Directors and Outside Audit & Supervisory Board Members	70	60	9	—	5

\*1 Excluding outside directors

\*2 Excluding outside Audit & Supervisory Board members

### Cross-Shareholdings

The Company's cross-shareholdings serve as a means to maintain and strengthen ties with business partners and form solid trust relationships with issuing companies, which in turn lead to improved corporate value.

With regard to each individual issuance of major shares held, the Company makes comprehensive judgments on the worthwhileness of continued possession based on whether each share holding fulfills its intended purpose, and whether the benefits and risks of such possession are commensurate with the capital cost. The substance of these judgments is routinely examined by the Board of Directors. If it is determined that continued possession of a cross-shareholding will not improve corporate value, we will gradually sell it, taking into consideration market impact.

When voting rights are exercised to approve or reject a proposal related to a cross-shareholding, a determination is made after considering all the pros and cons, such as whether the decision to conduct a cross-shareholding will improve the corporate value of the issuing company, and whether it will improve the corporate value of the Company.

In fiscal 2018, decisions to continue or discontinue holdings of all listed shares under possession were verified by the Board of Directors. These decisions were arrived at by weighing dividend results, transaction status, materiality, and other factors against capital costs, based on book value at the time of acquisition and market value, respectively. As a result of this process, we sold all shares of six issuing companies and a partial number of shares of one issuing company held by consolidated subsidiaries.

### Internal Control Systems

In accordance with the DOWA Group's Values and Standards of Conduct, the Company and Group companies have made a collective effort to design and operate effective and efficient internal controls to contribute to society, maximize corporate value, and carry out the responsibilities of management entrusted to us by our shareholders. At the same time, laws are being revised and the public's general stance toward compliance is hardening, so we expect even stronger demands to be placed on the Group going forward.

In response, the Company has adopted a holding company structure. While this raises the level of specialization of each business group and the speed at which policies can be

executed, it also carries the risk that internal control systems will become localized and overall governance will suffer.

As a result, at the DOWA Group, basic policies and systems for internal control are shared among Group companies. Additionally, individual companies can utilize their own unique characteristics for specific activities in order to develop an effective and efficient internal control system suited to our holding company structure. Moreover, internal control systems must continuously be revised in line with changes in business activities and the social environment, so we are working to further strengthen these systems.

### Disclosure Based on Corporate Governance Code Regulations

For disclosure based on Corporate Governance Code regulations, please see our Corporate Governance Report here: [http://www.dowa.co.jp/en/about\\_dowa/governance.html](http://www.dowa.co.jp/en/about_dowa/governance.html) (in Japanese only)

## Board of Directors and Officers

As of June 26, 2019

### Directors



**Masao Yamada**

Chairman and Representative Director

Apr. 1978 Joined the Company  
Jun. 2003 Officer  
Apr. 2005 Officer, President of Environmental Management & Recycling Company  
Oct. 2006 Officer, President and Representative Director of Dowa Eco-System Co., Ltd.  
Apr. 2008 President and Representative Director of Kosaka Smelting & Refining Co., Ltd., Director of Dowa Metals & Mining Co., Ltd.  
Jun. 2009 President and Representative Director  
Jun. 2018 Chairman and Representative Director (current position)  
Mar. 2019 Outside Director of Fujita Kanko Inc. (current position)  
Jun. 2019 Outside Director of CK SAN-ETSU Co., Ltd. (current position)



**Akira Sekiguchi**

President and Representative Director

Apr. 1983 Joined the Company  
Oct. 2006 Director of Dowa Metals & Mining Co., Ltd.  
Apr. 2011 President and Representative Director of Kosaka Smelting & Refining Co., Ltd.  
Apr. 2013 Officer, President and Representative Director of Dowa Metals & Mining Co., Ltd.  
Apr. 2018 Chairman of Japan Mining Industry Association (until March 2019)  
Jun. 2018 President and Representative Director (current position)



**Yutaka Mitsune**

Director

Apr. 1980 Joined the Company  
Apr. 2003 Chief of Environmental Protection Laboratory, Environmental Management & Recycling Company  
Apr. 2013 President and Representative Director of Kosaka Smelting & Refining Co., Ltd., Director of Dowa Metals & Mining Co., Ltd.  
Apr. 2016 Officer, responsible for Technology, Environment, and Safety  
Apr. 2016 Director of Dowa Metals & Mining Co., Ltd., Director of Dowa Technology Co., Ltd. (current positions)  
Jun. 2016 Director (current position)  
Jun. 2016 Director of Dowa Metaltech Co., Ltd. (current position)



**Katsuji Matsushita**

Director

Apr. 1980 Joined the Company  
Jun. 2011 President and Representative Director of MODERN ASIA ENVIRONMENTAL HOLDINGS INC.  
Apr. 2013 Officer, responsible for Accounting, Finance and Labor Relations, President and Representative Director of Dowa Management Service Co., Ltd.  
Apr. 2013 Director of Dowa Eco-System Co., Ltd.  
Jun. 2013 Director (current position)  
Jun. 2013 President and Representative Director of Dowa Management Service Co., Ltd. (current position)  
Jul. 2013 Audit & Supervisory Board Member of Konoshima Chemical Co., Ltd. (current position)  
Apr. 2016 Director of Dowa Metals & Mining Co., Ltd. (current position)



**Susumu Kagaya**

Director

Dec. 1985 Joined the Company  
Apr. 2003 President and Representative Director of DOWA Semiconductor Co., Ltd. (currently Dowa Semiconductor Akita Co., Ltd.)  
Oct. 2006 Director of Dowa Electronics Materials Co., Ltd.  
Oct. 2008 President and Representative Director of Dowa Semiconductor Akita Co., Ltd.  
Apr. 2013 President and Representative Director of Dowa Electronics Materials Okayama Co., Ltd.  
Apr. 2016 Officer, responsible for Business Development and Research and Development of the Company  
Apr. 2016 Director of Dowa Electronics Materials Co., Ltd., Director of Dowa Thermotech Co., Ltd. (current positions)  
Jun. 2016 Director (current position)



**Jun Kawaguchi**

Director

Apr. 1980 Joined the Company  
Apr. 2010 President and Representative Director of PT. PRASADHA PAMUNAH LIMBAH INDUSTRI  
Apr. 2013 Director of Dowa Metals & Mining Co., Ltd.  
Apr. 2016 President and Representative Director of Kosaka Smelting & Refining Co., Ltd.  
Apr. 2018 Officer, responsible for Strategic Planning and Public Relations, General and Legal Affairs  
Apr. 2018 Director of Dowa Eco-System Co., Ltd. (current position)  
Jun. 2018 Director (current position)



**Eiji Hosoda**

Outside Director\*

Professor at Faculty of Business Administration and Information Science, Chubu University

Apr. 1994 Professor at Faculty of Economics, Keio University (until March 2019)  
Jul. 2001 Dean of Faculty of Economics, Keio University (until September 2005)  
Jan. 2009 Special Council member of Central Environment Council, Ministry of the Environment (until January 2011)  
Apr. 2009 Expert Council member of the Regulatory Reform Council, Cabinet Office (until March 2010)  
Dec. 2009 Special Council member of Industrial Structure Council, Ministry of Economy, Trade and Industry (until January 2016)  
Jun. 2010 Director (current position)  
Jan. 2011 Council member of Central Environmental Council, Ministry of the Environment (current position)  
Mar. 2017 Representative Director of Japan Foundation for Advanced Auto Recycling (current position)  
Apr. 2019 Professor at Faculty of Business Administration and Information Science, Chubu University (current position)



**Yoshiko Koizumi**

Outside Director\*

Attorney  
Partner of City-Yuwa Partners

Apr. 1972 Registered as an attorney  
May. 2000 Chair of Women Business Lawyers Committee, Inter-Pacific Bar Association (until May 2002)  
Apr. 2009 Partner of City-Yuwa Partners (current position)  
Oct. 2012 Deputy Chair of Government Procurement Review Board (until October 2014)  
Apr. 2013 Director of Japan Bar Association (current position)  
Jun. 2015 Director (current position)  
Jun. 2015 Outside Director of Taiheiyo Cement Corporation (current position)  
Jun. 2016 Outside Audit & Supervisory Board member of Sumitomo Bakelite Co., Ltd. (until June 2019)  
Sep. 2017 Outside Audit & Supervisory Board member of Nippon Koei Co., Ltd. (current position)

### Audit & Supervisory Board Members



**Katsuya Yukitake**

Corporate Auditor  
(Full-Time)

Apr. 1978 Joined Tokyo Heat Treating Co., Ltd. (currently Dowa Thermotech Co., Ltd.)  
Apr. 1991 Joined the Company  
Oct. 2006 Director of Dowa Thermotech Co., Ltd., President and Representative Director of Dowa Thermoengineering Co., Ltd.  
Apr. 2007 President and Representative Director of Dowa Thermotech Co., Ltd. and President and Representative Director of Dowa Thermoengineering Co., Ltd.  
Jun. 2007 Officer, Vice President of Dowa Thermotech Co., Ltd., President and Representative Director of Dowa Thermoengineering Co., Ltd.  
Feb. 2009 Officer, Vice President and Director of Dowa Technology Co., Ltd.  
Apr. 2009 President and Representative Director of Dowa Techno Engineering Co., Ltd.  
Dec. 2011 Vice President and Director of HIGHTEMP FURNACES LTD.  
Apr. 2016 Audit & Supervisory Board member (current position)



**Hidefumi Kobayashi**

Outside Corporate Auditor  
(Full-Time)

Apr. 1981 Joined the Industrial Bank of Japan, Limited (currently Mizuho Bank, Ltd.)  
Apr. 2010 Executive Officer of Mizuho Corporate Bank, Ltd. (currently Mizuho Bank, Ltd.)  
Apr. 2012 Managing Officer of Mizuho Securities Co., Ltd.  
Apr. 2013 Managing Officer of Mizuho Financial Group, Inc., Managing Officer of Mizuho Securities Co., Ltd.  
Apr. 2014 Managing Officer of Mizuho Financial Group, Inc., Managing Director and Managing Officer of Mizuho Securities Co., Ltd.  
Jun. 2017 Audit & Supervisory Board member (current position)



**Jin Takeda**

Outside Corporate Auditor  
(Part-Time)\*

Attorney  
Partner of Marunouchi Sogo Law Office

Apr. 1986 Registered as an attorney  
Apr. 1986 Joined Marunouchi Sogo Law Office  
Jul. 1996 Partner of Marunouchi Sogo Law Office (current position)  
Jun. 2011 Audit & Supervisory Board member (current position)  
Jun. 2013 Outside Audit & Supervisory Board member of Sanken Electric Co., Ltd. (until June 2017)  
Apr. 2014 Executive Governor of Japan Federation of Bar Associations (until March 2015)  
Apr. 2014 Vice Chairman, Daini Tokyo Bar Association (until March 2015)  
Jun. 2018 Outside Audit & Supervisory Board member of Japan Aviation Electronics Industry Ltd. (current position)



**Shigeru Egawa**

Outside Corporate Auditor  
(Part-Time)\*

Audit & Supervisory Board member of Fujita Kanko Inc.

Apr. 1981 Joined Fujita Kanko Inc.  
Apr. 2001 General Affairs Manager of Tokyo Bay Ariake Washington Hotel  
Apr. 2004 Leader of Finance Group of Tokyo BPS  
Jan. 2009 General Manager of Legal and General Affairs Department, Management Division of Fujita Kanko Inc.  
Mar. 2015 Representative Director and President of Fairton Corporation  
Mar. 2019 Audit & Supervisory Board member of Fujita Kanko Inc. (current position)  
Jun. 2019 Audit & Supervisory Board member (current position)

### Officers



**Minoru Tobita**

Officer (Part-Time)  
President and Representative Director, DOWA ECO-SYSTEM CO., LTD.



**Toshiaki Suyama**

Officer (Part-Time)  
President and Representative Director, DOWA METALS & MINING CO., LTD.



**Koji Suzuki**

Officer (Part-Time)  
President and Representative Director, DOWA ELECTRONICS MATERIALS CO., LTD.



**Akira Sugawara**

Officer (Part-Time)  
President and Representative Director, DOWA METALTECH CO., LTD.



**Ryuji Tsuji**

Officer (Part-Time)  
President and Representative Director, DOWA THERMOTECH CO., LTD.



**Kiyoshi Yamada**

Officer (Part-Time)  
President and Representative Director, DOWA TECHNOLOGY CO., LTD.



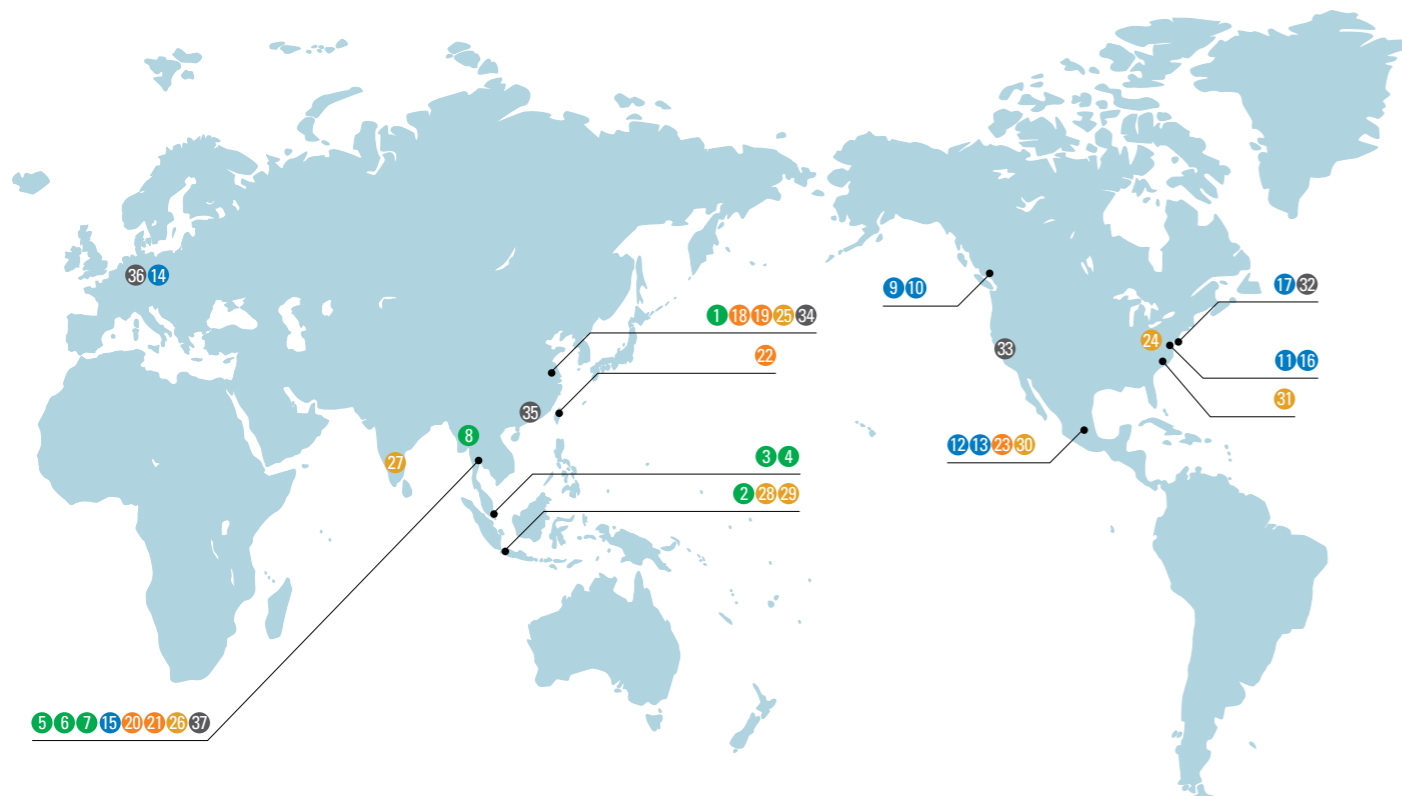
**Eiichi Wakabayashi**

Officer (Part-Time)  
President and Representative Director, DOWA MANAGEMENT SERVICES CO., LTD.

\* Independent Officer

## Global Network

## Overseas

**DOWA ECO-SYSTEM CO., LTD.**

- ① DOWA ENVIRONMENTAL MANAGEMENT CO., LTD. (China)
- ② PT. PRASADHA PAMUNAH LIMBAH INDUSTRI (PPLI) (Indonesia)
- ③ TECHNOCHEM ENVIRONMENTAL COMPLEX PTE. LTD. (TEC) (Singapore)
- ④ DOWA ECO-SYSTEM SINGAPORE PTE. LTD. (Singapore)
- ⑤ WASTE MANAGEMENT SIAM LTD. (WMS) (Thailand)
- ⑥ BANGPOO ENVIRONMENTAL COMPLEX LTD. (BPEC) (Thailand)
- ⑦ EASTERN SEABOARD ENVIRONMENTAL COMPLEX CO., LTD. (ESBEC) (Thailand)
- ⑧ GOLDEN DOWA ECO-SYSTEM MYANMAR COMPANY LIMITED (Myanmar)

**DOWA METALS & MINING CO., LTD.**

- ⑨ Vancouver Office (Canada)
- ⑩ Cariboo Copper Corporation (Canada)
- ⑪ NIPPON PGM AMERICA, INC. (U.S.A.)
- ⑫ Mexico Office (Mexico)
- ⑬ MINERA TIZAPA, S.A. DE C.V. (Mexico)
- ⑭ Nippon PGM Europe s.r.o. (Czech Republic)
- ⑮ DOWA METALS & MINING (THAILAND) CO., LTD. (Thailand)
- ⑯ KEY METAL REFINING, LLC (U.S.A.)
- ⑰ DOWA METALS & MINING AMERICA INC. (U.S.A.)

**DOWA METALTECH CO., LTD.**

- ⑱ DOWA ADVANCED MATERIALS (SHANGHAI) CO., LTD. (China)
- ⑲ DOWA NEW MATERIALS (SHANGHAI) CO., LTD. (China)
- ⑳ DOWA METALTECH (THAILAND) CO., LTD. (Thailand)
- ㉑ Dowa Precision (Thailand) Co., Ltd. (Thailand)
- ㉒ DOWALI PRECISION CO., LTD. (Taiwan)
- ㉓ DOWA METALTECH MEXICO, S.A. de C.V. (Mexico)

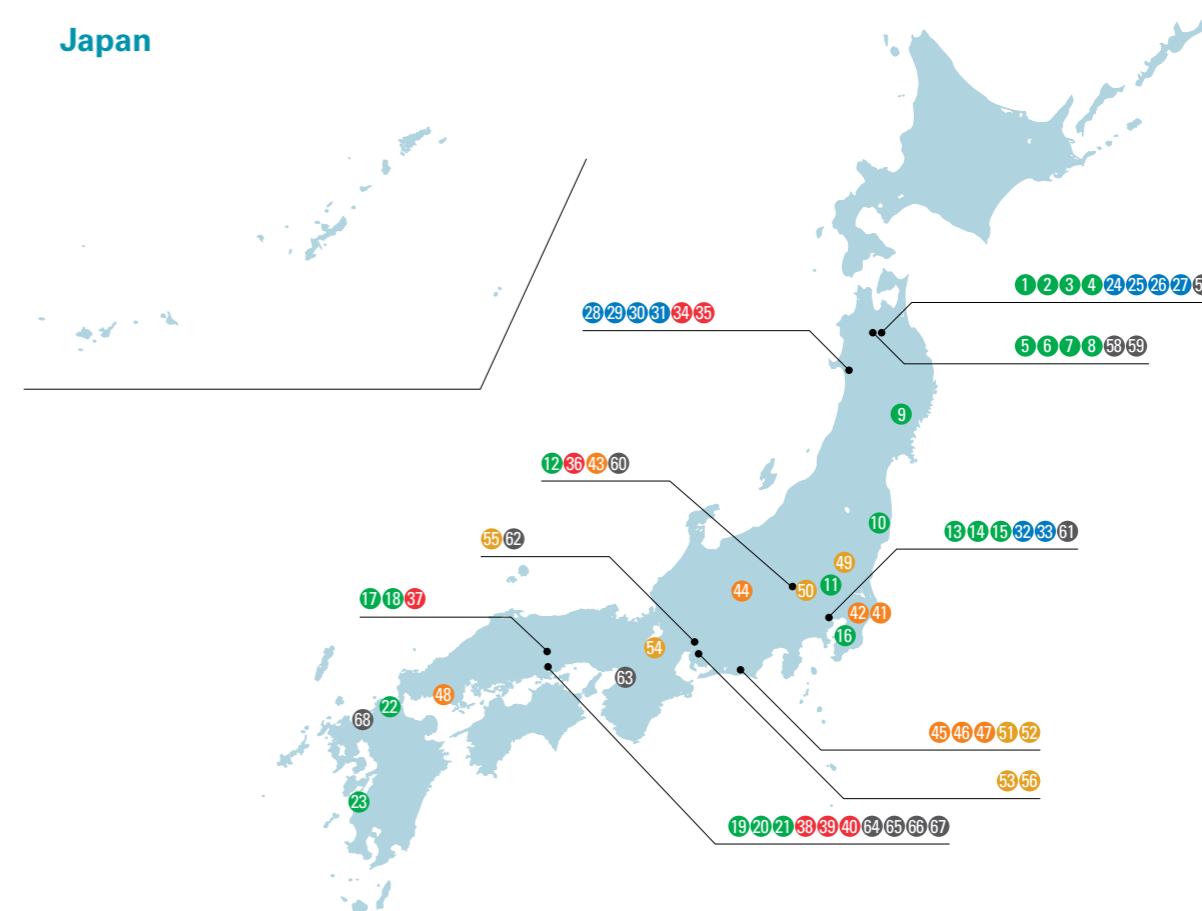
**DOWA THERMOTECH CO., LTD.**

- ㉔ DOWA THT AMERICA, INC. (U.S.A.)
- ㉕ KUNSHAN DOWA THERMO FURNACE CO., LTD. (China)
- ㉖ Dowa Thermotech (Thailand) Co., Ltd. (Thailand)
- ㉗ HIGHTEMP FURNACES LTD. (India)
- ㉘ PT. DOWA THERMOTECH INDONESIA (Indonesia)
- ㉙ PT. DOWA THERMOTECH FURNACES (Indonesia)
- ㉚ DOWA THERMOTECH MEXICO, S.A. DE C.V. (Mexico)
- ㉛ DOWA THERMOTECH NORTH CAROLINA, INC. (U.S.A.)

**Headquarters, Others**

- ㉜ DOWA INTERNATIONAL CORPORATION (U.S.A.)
- ㉝ DOWA INTERNATIONAL CORPORATION San Jose Branch (U.S.A.)
- ㉞ DOWA HOLDINGS (SHANGHAI) CO., LTD. (China)
- ㉟ DOWA HOLDINGS (SHANGHAI) CO., LTD. Shenzhen Branch (China)
- ㊱ DOWA HD Europe GmbH (Germany)
- ㊲ DOWA HOLDINGS (THAILAND) CO., LTD. (Thailand)

## Japan

**DOWA ECO-SYSTEM CO., LTD.**

- ① GREEN FILL KOSAKA CO., LTD.
- ② ECO-SYSTEM RECYCLING CO., LTD. Northern Japan Plant
- ③ ECO-SYSTEM KOSAKA CO., LTD.
- ④ AUTO RECYCLE AKITA CO., LTD.
- ⑤ Research and Development Center
- ⑥ ECO-SYSTEM AKITA CO., LTD.
- ⑦ ECO-SYSTEM HANAOKA CO., LTD.
- ⑧ ECO-RECYCLE CO., LTD.
- ⑨ DOWA-TSUUN CO., LTD.
- ⑩ MELTEC IWAKI Co., Ltd.
- ⑪ MELTEC Ltd.
- ⑫ ECO-SYSTEM RECYCLING CO., LTD. East Japan Plant
- ⑬ ECO-SYSTEM JAPAN CO., LTD.
- ⑭ GEOTECHNOS CO., LTD.
- ⑮ E & E Solutions Inc.
- ⑯ ECO-SYSTEM CHIBA CO., LTD.
- ⑰ ECO-SYSTEM SANYO CO., LTD.
- ⑱ OKAYAMA KOYU CO., LTD.
- ⑲ ECO-SYSTEM RECYCLING CO., LTD. West Japan Plant
- ⑳ ECO-SYSTEM OKAYAMA CO., LTD.
- ㉑ BIODIESEL OKAYAMA CO., LTD.
- ㉒ KOWA SEIKO CO., LTD.
- ㉓ Act-B Recycling Co., Ltd.

**DOWA METALS & MINING CO., LTD.**

- ㉔ Metallurgical Laboratory
- ㉕ KOSAKA SMELTING & REFINING CO., LTD.
- ㉖ NIPPON PGM CO., LTD.

- ㉗ AKITA RECYCLE & FINEPACK CO., LTD.
- ㉘ AKITA ZINC CO., LTD.
- ㉙ AKITA ZINC SOLUTIONS CO., LTD.
- ㉚ AKITA RARE METALS CO., LTD.
- ㉛ AKITA ZINC RECYCLING CO., LTD.
- ㉜ Acids Co., Ltd.
- ㉝ ZINC EXCEL CO., LTD.

**DOWA ELECTRONICS MATERIALS CO., LTD.**

- ㉞ Semiconductor Materials Laboratory
- ㉟ DOWA SEMICONDUCTOR AKITA CO., LTD.
- ㊱ Electronics Materials Laboratory
- ㊲ DOWA F-TEC CO., LTD.
- ㊳ Advanced Fine Materials Laboratory
- ㊴ DOWA ELECTRONICS MATERIALS OKAYAMA CO., LTD.
- ㊵ DOWA IP CREATION CO., LTD.

**DOWA METALTECH CO., LTD.**

- ㊶ NEW NIPPON BRASS CO., LTD.
- ㊷ HOEI SHOJI CO., LTD.
- ㊸ DOWA HIGHTECH CO., LTD.
- ㊹ DOWA POWER DEVICE CO., LTD.
- ㊺ Technology Center
- ㊻ DOWA METAL CO., LTD.
- ㊼ DOWA METANIX CO., LTD.
- ㊽ TOKUYAMA-DOWA POWER MATERIAL CO., LTD.

**DOWA THERMOTECH CO., LTD.**

- ㊾ DOWA THERMOENGINEERING CO., LTD. Moka Plant
- ㊿ DOWA THERMOENGINEERING CO., LTD. Ota Plant
- ① DOWA THERMOENGINEERING CO., LTD. Hamamatsu Plant
- ② DOWA THERMOENGINEERING CO., LTD. Hamamatsu-kita Plant
- ③ DOWA THERMOENGINEERING CO., LTD. Chukyo-Handa Plant
- ④ DOWA THERMOENGINEERING CO., LTD. Shiga Plant
- ⑤ CEMM CO., LTD.
- ⑥ TONETSU KOHSAN CO., LTD.

**Headquarters, Others**

- ⑦ DOWA TECHNO RESEARCH CO., LTD.
- ⑧ UNEKURA MINING CO., LTD.
- ⑨ AKITA ENGINEERING CO., LTD.
- ⑩ DOWA TECHNOLOGY CO., LTD. Kanto Techno Center
- ⑪ Headquarters
- ⑫ DOWA Group Nagoya Branch
- ⑬ DOWA Group Osaka Branch
- ⑭ DOWA TECHNOLOGY CO., LTD. Seibu Techno Center
- ⑮ DOWA TECHNO ENGINEERING CO., LTD.
- ⑯ YOWA ENGINEERING CO., LTD.
- ⑰ DOWA KOHSAN CO., LTD.
- ⑱ DOWA Group Kyushu Branch

## Subsidiaries and Affiliates

82 Consolidated Subsidiaries and 18 Affiliates Accounted for by the Equity Method

(As of March 31, 2019)

Name	Issued Share Capital (Millions of Yen)	Percentage Owned Directly or Indirectly by the Company*1 (%)	Principal Business
<b>Environmental Management &amp; Recycling</b>			
DOWA ECO-SYSTEM CO., LTD.	1,000	100.0	Waste treatment, soil remediation, and recycling
ECO-SYSTEM HANAOKA CO., LTD.	300	100.0	Soil remediation and landfilling
ECO-SYSTEM RECYCLING CO., LTD.	300	100.0	Recycling of precious and nonferrous metals
Act-B Recycling Co., Ltd.	200	60.0	Recovery of discarded household appliances, personal computers
ECO-RECYCLE CO., LTD.	150	66.7	Recovery of discarded household appliances, personal computers
GREEN FILL KOSAKA CO., LTD.	100	100.0	Waste landfilling
ECO-SYSTEM OKAYAMA CO., LTD.	100	100.0	Industrial waste treatment, recycling of ferrous and nonferrous metals
ECO-SYSTEM SANYO CO., LTD.	100	100.0	Waste incineration and resource recycling
E & E Solutions Inc.	100	100.0	Comprehensive technological consulting in environmental management and energy
GEOTECHNOS CO., LTD.	100	100.0	Soil surveys and remediation projects and environmental consulting
OKAYAMA KOYU CO., LTD.	100	100.0	Industrial waste intermediate treatment, real-estate leasing
AUTO RECYCLE AKITA CO., LTD.	100	70.0	Collection, scrapping, and recycling of used cars
BIODIESEL OKAYAMA CO., LTD.	99	100.0	Manufacturing of biodiesel
ECO-SYSTEM CHIBA CO., LTD.	90	100.0	Waste incineration
MELTEC Ltd.	90	100.0	Waste treatment and metals recovery
MELTEC IWAKI Co., Ltd	90	100.0	Waste treatment and metals recovery
ECO-SYSTEM AKITA CO., LTD.	50	100.0	Waste incineration and resource recycling
ECO-SYSTEM KOSAKA CO., LTD.	50	100.0	Industrial waste treatment, recycling of ferrous and nonferrous metals
Soso Smart Eco-Company Co., Ltd.	50	64.0	Resource recovery of non-combustible waste
ECO-SYSTEM JAPAN CO., LTD.	30	100.0	Sale of waste treatment and resources recycling, collection and transportation of waste
DOWA-TSUUN CO., LTD.	20	100.0	Vehicle transportation, forwarding, and warehousing
EASTERN SEABOARD ENVIRONMENTAL COMPLEX CO., LTD.	275 million Thai baht	100.0	Landfill of non-hazardous waste
BANGPOO ENVIRONMENTAL COMPLEX LTD.	420 million Thai baht	100.0	Incineration of non-hazardous waste
WASTE MANAGEMENT SIAM LTD.	635 million Thai baht	100.0	Sale and transport of waste and recycled resources
TECHNOCHEM ENVIRONMENTAL COMPLEX PTE. LTD.	11 million Singapore dollars	100.0	Incineration of hazardous waste
PT. PRASADHA PAMUNAH LIMBAH INDUSTRI	49,578 million Indonesia rupiah	95.0	Landfill for hazardous and non-hazardous waste
DOWA ENVIRONMENTAL MANAGEMENT CO., LTD.	13,200 thousand U.S. dollars	90.0	Industrial waste treatment, recycling of precious and nonferrous metals, recycling of discarded household appliances and electronic devices
DOWA ECO-SYSTEM SINGAPORE PTE. LTD.	3 million Singapore dollars	100.0	Recycling of precious and nonferrous metals
GOLDEN DOWA ECO-SYSTEM MYANMAR COMPANY LIMITED	36,040 thousand U.S. dollars	100.0	Landfill for hazardous and non-hazardous waste
<b>Nonferrous Metals</b>			
DOWA METALS & MINING CO., LTD.	1,000	100.0	Manufacturing and sale of nonferrous, precious, and rare metals
AKITA ZINC CO., LTD.	5,000	86.0	Refining of zinc, manufacturing of sulfuric acid
KOSAKA SMELTING & REFINING CO., LTD.	4,700	100.0	Smelting and refining of copper and lead, recovery of precious metals
DMM Palmer Co., Ltd.	3,430	68.2	Nonferrous metal resource development
AKITA ZINC SOLUTIONS CO., LTD.	375	100.0	Processing of zinc alloy, zinc wire, and other products
NIPPON PGM CO., LTD.	300	60.0	Recovery of platinum group metals from disposable catalysts
ZINC EXCEL CO., LTD.	200	100.0	Sale of zinc, cadmium, zinc alloy, zinc wire, and other products
AKITA ZINC RECYCLING CO., LTD.	100	100.0	Recovery of zinc from steel dust, processing of zinc secondaries
AKITA RECYCLE & FINEPACK CO., LTD.	40	100.0	Pretreatment of nonferrous recycling metals
AKITA RARE METALS CO., LTD.	20	100.0	Recovery of indium
DOWA METALS & MINING ALASKA LTD.	30,600 thousand U.S. dollars	100.0	Nonferrous metal resource exploration
NIPPON PGM AMERICA, INC.	1,000 thousand U.S. dollars	51.0	Spent catalyst shredding and sampling
DOWA METALS & MINING (THAILAND) CO., LTD.	520 million Thai baht	100.0	Processing and sale of zinc products
Nippon PGM Europe s.r.o.	22 million Czech koruna	60.0	Spent catalyst shredding and sampling
DOWA METALS & MINING AMERICA, INC.	1,500 thousand U.S. dollars	100.0	Spent catalyst collecting and sales
KEY METAL REFINING, LLC	388 thousand U.S. dollars	51.0	Spent catalyst collecting and sales
<b>Electronic Materials</b>			
DOWA ELECTRONICS MATERIALS CO., LTD.	1,000	100.0	Manufacturing and sale of semiconductors, electronic, and advanced fine materials
DOWA HIGHTECH CO., LTD. (Conductive materials and battery materials)	450	100.0	Manufacturing of metal compounds, chemical products
DOWA SEMICONDUCTOR AKITA CO., LTD.	300	100.0	Manufacturing of high-purity metals, compound semiconductor wafers, and light-emitting diodes
DOWA IP CREATION CO., LTD.	300	70.0	Manufacturing of iron powders and carrier powders
DOWA F-TEC CO., LTD.	300	100.0	Manufacturing of ferrite powders
DOWA ELECTRONICS MATERIALS OKAYAMA CO., LTD.	100	100.0	Manufacturing of metal powders

Name	Issued Share Capital (Millions of Yen)	Percentage Owned Directly or Indirectly by the Company*1 (%)	Principal Business
<b>Metal Processing</b>			
DOWA METALTECH CO., LTD.	1,000	100.0	Metal processing and metal plating
DOWA HIGHTECH CO., LTD. (Electroplating)	450	100.0	Metal electroplating
DOWA METAL CO., LTD.	400	100.0	Manufacturing of copper, brass, and copper alloys
DOWA METANIX CO., LTD.	400	90.0	Manufacturing of nickel alloys, copper alloys, and electronics parts
HOEI SHOJI CO., LTD.	110	100.0	Processing and sale of copper strip and aluminum products
DOWA POWER DEVICE CO., LTD.	100	100.0	Manufacturing of metal-ceramics substrates
NEW NIPPON BRASS CO., LTD.	100	100.0	Manufacturing of brass bars and forged products
DOWA ADVANCED MATERIALS (SHANGHAI) CO., LTD.	2,500 thousand U.S. dollars	100.0	Processing and sale of copper strip products
DOWA METALTECH (THAILAND) CO., LTD.	475 million Thai baht	100.0	Processing and sale of copper strip products
DOWA NEW MATERIALS (SHANGHAI) CO., LTD.	1,000 thousand Chinese yuan	100.0	Sale of copper strip products
Dowa Precision (Thailand) Co., Ltd.	70 million Thai baht	100.0	Processing of copper strip products
<b>Heat Treatment</b>			
DOWA THERMOTEC CO., LTD.	1,000	100.0	Heat treatment processing
DOWA THERMOENGINEERING CO., LTD.	100	100.0	Design, manufacturing, and maintenance of heat treatment equipment, heat treatment processing, surface processing, and surface improvement
CEMM CO., LTD.	55	100.0	Heat treatment processing and surface processing
TONETSU KOHSAN CO., LTD.	30	100.0	Heat treatment processing
KUNSHAN DOWA THERMO FURNACE CO., LTD.	12,000 thousand U.S. dollars	100.0	Design, manufacturing, and maintenance of heat treatment equipment, heat treatment processing, and surface processing
DOWA THT AMERICA, INC.	5,000 thousand U.S. dollars	100.0	Heat treatment processing, surface processing, maintenance of heat treatment equipment
DOWA Thermotech (Thailand) Co., Ltd.	270 million Thai baht	100.0	Heat treatment processing, surface processing, maintenance of heat treatment equipment
PT. DOWA THERMOTEC INDONESIA	278,256 million Indonesia rupiah	100.0	Heat treatment processing and surface processing
PT. DOWA THERMOTEC FURNACES	11,666 million Indonesia rupiah	100.0	Imports and sale and maintenance of heat treatment equipment
HIGHTEMP FURNACES LTD.	90 million Indian rupees	93.3	Design, manufacturing, and maintenance of heat treatment equipment, heat treatment processing, surface processing, and processing of machine components
<b>Others</b>			
DOWA TECHNO ENGINEERING CO., LTD.	400	100.0	Plant construction
DOWA KOSAN CO., LTD.	100	100.0	Management of golf courses and real estate
DOWA MANAGEMENT SERVICE CO., LTD.	100	100.0	Providing of general business services
AKITA ENGINEERING CO., LTD.	95	100.0	Construction of machinery and maintenance of plants
YOWA ENGINEERING CO., LTD.	20	100.0	Construction and maintenance of machinery, heavy weight concrete work
DOWA TECHNOLOGY CO., LTD.	10	100.0	Technological development support, providing of analysis and evaluation services
DOWA TECHNO RESEARCH CO., LTD.	10	100.0	Providing of analysis and evaluation services, environmental measurement
Four Other Companies			
<b>Affiliates Accounted for by the Equity Method</b>			
KOWA SEIKO CO., LTD.	1,000	50.0	Industrial waste treatment, recycling of ferrous and nonferrous materials
AKAGI KOUYU CO., LTD.	99	20.0	Waste treatment
OKAYAMA RINKO CO., LTD.	98	32.7	Warehousing
ONAHAMA SMELTING & REFINING CO., LTD.	7,000	31.6	Copper smelting and refining, waste treatment
Acids Co., Ltd.	150	50.0	Sale of sulfuric acid
Cariboo Copper Corporation	9,100 thousand Canadian dollars	25.0	Mining and sale of products from mines
MINERA TIZAPA, S.A. DE C.V.	10,285 thousand Mexican pesos	39.0	Nonferrous metal resource mining
ARRENDADORA MINERA ZACAZONAPAN, S.A. DE C.V.	8,000 thousand Mexican pesos	39.0	Nonferrous metal resource mining
EXPLORACIONES Y DESARROLLOS MINEROS TIZAPA, S.A. DE C.V.	728 thousand Mexican pesos	39.0	Nonferrous metal resource mining
MINERA PLATA REAL, S. DE R.L. DE C.V.	168,867 thousand U.S. dollars	30.0	Nonferrous metal resource mining
OPERACIONES SAN JOSÉ DE PLATA, S. DE R.L. DE C.V.	100 thousand U.S. dollars	30.0	Nonferrous metal resource mining
SERVICIOS SAN JOSÉ DE PLATA, S. DE R.L. DE C.V.	1,317 thousand U.S. dollars	30.0	Nonferrous metal resource mining
CONSTANTINE MINING LLC.	5,098 thousand U.S. dollars	49.0	Nonferrous metal resource development
KYOTO ELEX CO., LTD.	80	49.9	Manufacturing and sale of conductive pastes
TOKUYAMA-DOWA POWER MATERIALS CO., LTD.	250	35.0	Manufacturing of ceramic substrates
JAPAN COPPER CASTING CO., LTD.	200	30.0	Manufacturing and sale of copper products
Fujita Kanko Inc.*2	12,081	31.8	Lodging and hotel management, real estate agent
NIPPON ANFO MANUFACTURING Co., Ltd.	91	29.1	Manufacturing and sale of industrial explosives

\*1 The ratios for the percentage owned by the Company include indirect ownership by the Company.

\*2 The shares of this company are listed on the Tokyo Stock Exchange.

## Financial Review

Fiscal year ended March 31, 2019

### Financial Performance

Looking at the business environment in which the DOWA Group operates, in fiscal 2018, the fiscal year ended March 31, 2019, sales of some automotive-related products were affected by an economic slowdown in the Chinese market. Demand for products related to electronic components for smartphones also decreased, while new energy-related products were impacted by lower demand in China.

As for the commodities markets, foreign exchange rates and prices of metals generally moved in accordance with international conditions, but exchange rates were level compared with the previous fiscal year overall, while metal prices for zinc and silver fell.

This fiscal year marked the beginning of our Midterm Plan 2020. We are moving forward with various measures under the basic policies of this plan to “expand businesses in growth markets” and “increase competitiveness of existing businesses.”

Under the aforementioned circumstances, in fiscal 2018, consolidated net sales remained roughly level compared with the previous fiscal year, at ¥452,928 million, while consolidated operating income dropped 40%, to ¥18,671 million. Consolidated ordinary income decreased 33%, to ¥24,309 million, and net income attributable to owners of the parent decreased 39%, to ¥14,986 million.

### Analysis of Financial Position

#### Assets

Total assets at the end of the fiscal year under review stood at ¥494,683 million, up ¥38,152 million compared with the end of the previous fiscal year. Current assets were up ¥9,672 million and fixed assets increased ¥28,479 million. Current assets increased mainly due to increases of ¥11,569 million in raw materials and supplies, and ¥3,182 million in cash and time deposits. However, other current assets fell ¥3,925 million. Fixed assets increased due to a ¥23,189 million rise in long-term loans and a ¥10,040 million increase in tangible fixed assets, despite a ¥6,909 million drop in investments in securities.

#### Liabilities

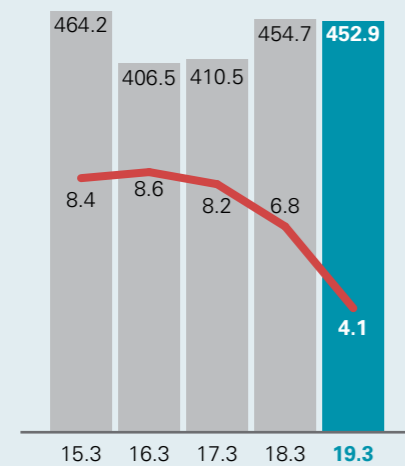
Liabilities increased ¥39,756 million compared with the previous fiscal year-end. This increase was largely due to rises in interest-bearing debt of ¥25,414 million, in other current liabilities of ¥8,979 million, and in notes and accounts payable of ¥6,111 million.

#### Equity

While net income attributable to owners of the parent came in at ¥14,986 million, the payment of cash dividends and other factors meant that the increase in equity was held to ¥8,415 million. Accumulated other comprehensive income decreased ¥10,016 million due to unrealized losses on available-for-sale securities, and total equity was ¥1,603 million lower than the balance as of the end of the previous fiscal year, with the equity ratio at 48.0%

#### Net Sales, Operating Income to Net Sales

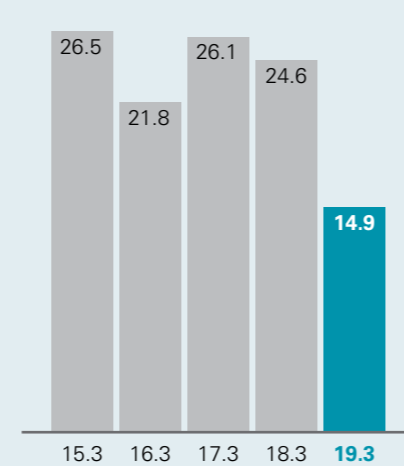
(Billions of yen / %)



■ Net sales — Operating income to net sales

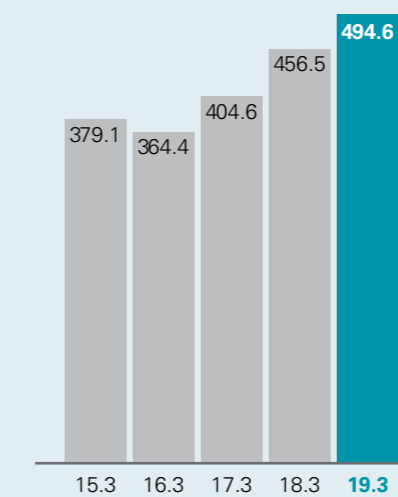
#### Net Income Attributable to Owners of the Parent

(Billions of yen)



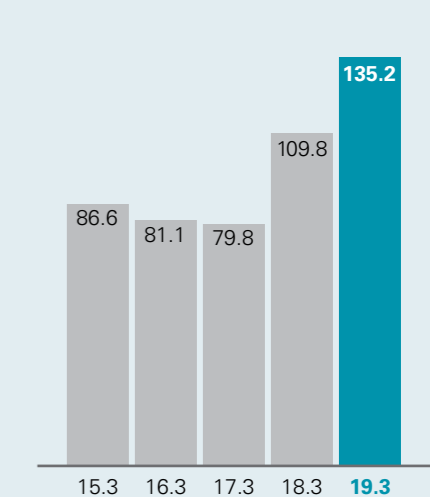
#### Total Assets

(Billions of yen)



#### Interest-Bearing Debt

(Billions of yen)



## Financial Review

### Analysis of Cash Flows

Net cash provided by operating activities came to ¥37,555 million (up ¥26,429 million year on year). Principal cash inflows were income before income taxes and minority interests of ¥23,499 million, the non-financial expenses of depreciation and amortization of ¥18,628 million, and the increase in trade payables of ¥5,883 million. Major cash outflows were an increase in inventories of ¥13,471 million and income taxes paid of ¥7,904 million.

Net cash used in investing activities was ¥51,025 million (up ¥17,015 million). This was primarily due to capital expenditures of ¥23,684 million, mainly in the Environmental Management & Recycling business, and payment of loans receivable amounting to ¥23,818 million.

Net cash provided by financing activities was ¥15,944 million (compared with net cash provided by financing activities of ¥8,143 million in the previous fiscal year). This reflected an increase in interest-bearing debt of ¥21,930 million and cash dividends paid of ¥5,641 million.

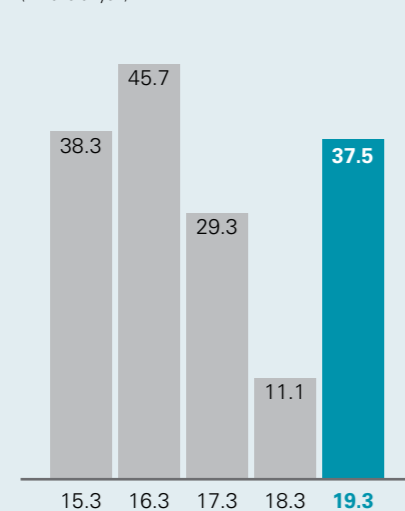
### Basic Dividend Policy and Dividends for the Fiscal Year under Review and the Next Fiscal Year

DOWA views the payment of dividends to shareholders as one of its most important management issues. The Company's fundamental policy is to maintain stable payment of dividends and, in that light, it pays a dividend commensurate with performance, having appropriated a sufficient amount of retained earnings to bolster the Group's business position and support future business development. As part of Midterm Plan 2020, which covers fiscal 2018–fiscal 2020, we aim to increase dividends according to profit levels, maintaining a stable dividend of at least ¥90 per share.

Based on the above, the annual dividend paid for the fiscal year under review was ¥90 per share, the same amount as in the previous fiscal year.

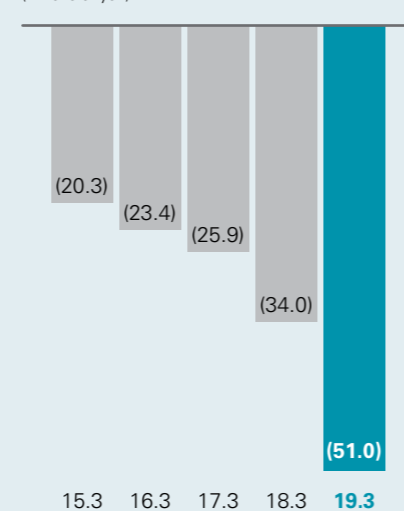
#### Cash Flows from Operating Activities

(Billions of yen)



#### Cash Flows from Investing Activities

(Billions of yen)



### Business Risks

The Group faces a variety of risks such as those described below that could potentially and adversely impact its operating results, stock price, and financial position.

Forward-looking statements among the risk items that follow reflect the opinion of the Group as of March 31, 2019.

#### Economic Conditions

The Group's business performance and financial condition may be negatively affected by economic recessions in its principal markets, which include Japan, North America, Asia, and Europe, or by shrinking demand accompanying such changes.

#### Metal and Currency Markets

Among its products, the Group handles gold, silver, copper, and zinc, the prices for which are set by international markets. The unprocessed ore for these metals is also procured from overseas. For these reasons, the Group is confronted with risks due to changes in international market conditions and fluctuations in currency exchange rates. The Group employs a variety of hedging measures, including nonferrous metal commodity forward contracts and forward exchange contracts, in an attempt to mitigate these risks.

#### Public Regulations

The Group is subject to a variety of legal regulations. In Japan, these include laws pertaining to the environment and recycling, as well as anti-trust laws. Overseas, the Group must comply with legal regulations present in the countries where it operates, for example, regulations regarding customs, imports and exports, and laws concerning the control of foreign currency. The Group, for its part, takes every legal precaution to protect its rights with respect to these laws. Nevertheless, business performance may be adversely affected if Group business operations are restricted as a result of mandates stipulated by the establishment of presently unforeseen regulations.

#### Stock Price Fluctuations

The Group is subject to risks due to fluctuations in stock prices stemming from the approximately ¥24.4 billion in marketable securities it held as of March 31, 2019. These securities primarily represent stock held in Group business partners.

#### Interest Rate Fluctuations

As of March 31, 2019, the Group's balance of interest-bearing debt was ¥135.2 billion, with external fund procurement accounting for 27% of total assets. Consequently, a sharp rise in interest rates could adversely affect business performance.

#### Disasters and Power Outages

The Group conducts disaster prevention and equipment inspections at all of its facilities in an attempt to minimize any possible negative effects that could result from sudden production line stoppages. Nevertheless, the Group may experience a dramatic decline in production capacity should a disaster, power outage, or other type of interruption occur at its production facilities.

## Consolidated Performance Trends

	(Millions of yen)											
For the years ended March 31	19.3*1	18.3	17.3	16.3	15.3	14.3	13.3	12.3	11.3	10.3	09.3	
<b>Financial Performance</b>												
Net Sales.....	¥ 452,928	¥ 454,754	¥410,503	¥406,598	¥464,219	¥443,985	¥419,390	¥392,468	¥379,816	¥307,462	¥346,885	
Cost of Sales.....	396,495	387,831	341,177	337,314	391,509	382,079	365,963	343,015	330,380	268,738	329,340	
Selling, General and Administrative Expenses.....	37,761	35,975	35,335	34,216	33,616	30,111	28,863	27,443	26,511	25,022	26,042	
Operating Income (Loss).....	18,671	30,948	33,990	35,067	39,094	31,794	24,564	22,009	22,924	13,701	(8,497)	
Operating Income by Segment.....												
Environmental Management & Recycling (%).....	30.46	16.06	19.50	18.01	18.80	29.86	26.37	20.34	12.22	15.35	—	
Nonferrous Metals (%).....	3.17	29.74	29.58	38.00	34.69	22.20	19.09	19.25	22.56	21.95	—	
Electronic Materials (%).....	11.66	18.17	19.36	22.89	22.55	21.12	23.58	24.95	31.16	35.12	—	
Metal Processing (%).....	33.74	23.54	20.49	14.01	14.85	16.96	19.89	20.59	23.66	24.00	—	
Heat Treatment (%).....	13.05	8.47	7.00	3.86	6.02	7.12	6.33	8.95	6.18	1.07	—	
Others and Elimination (%).....	7.92	4.01	4.06	3.24	3.09	2.74	4.74	5.92	4.21	2.51	—	
Ordinary Income (Loss).....	¥ 24,309	¥ 36,355	¥ 36,504	¥ 35,056	¥ 42,037	¥ 35,055	¥ 27,277	¥ 20,918	¥ 23,371	¥ 13,809	¥ (13,350)	
EBITDA*2.....	37,301	48,161	49,787	50,213	54,667	48,000	41,551	40,354	41,410	32,978	10,114	
Net Income (Loss) Attributable to Owners of the Parent.....	14,986	24,693	26,169	21,826	26,543	23,310	15,213	10,610	8,521	4,359	(28,138)	
Capital Expenditures.....	24,087	24,608	26,526	22,936	17,247	16,549	18,422	15,910	17,820	10,763	24,213	
Depreciation.....	18,628	17,212	15,796	15,145	15,572	16,205	16,987	18,344	18,486	19,276	18,612	
R&D Expenses.....	5,888	5,380	5,670	5,594	5,320	4,651	4,604	4,623	4,266	4,099	4,980	
<b>Exchange Rate and Metal Prices</b>												
Copper (Price Quoted, Average).....	¥ 746,608	¥ 756,683	¥603,917	¥675,483	¥765,775	¥757,633	¥696,375	¥717,816	¥738,200	¥609,483	¥657,408	
Zinc (Price Quoted, Average).....	353,725	386,733	305,633	269,383	285,983	240,325	208,675	211,683	231,858	222,575	202,725	
U.S. Dollar (Average).....	110.91	110.85	108.38	120.14	109.93	100.23	83.11	79.08	85.72	92.85	100.53	
<b>Financial Position</b>												
Equity.....	¥ 246,158	¥ 247,762	¥227,821	¥203,370	¥195,649	¥166,987	¥142,400	¥121,807	¥113,785	¥111,667	¥103,830	
Non-Controlling Interests.....	8,944	8,946	8,518	8,449	8,528	8,733	8,807	7,999	6,942	5,663	5,263	
Total Assets*3.....	494,683	456,530	404,604	364,420	379,193	358,717	349,787	319,665	340,161	330,720	343,208	
Interest-Bearing Debt.....	135,241	109,827	79,883	81,135	86,668	99,663	107,138	117,670	138,119	149,371	180,496	
<b>Per Share** (Yen)</b>												
Basic Net Income (Loss).....	¥ 253.22	¥ 417.21	¥ 88.43	¥ 73.75	¥ 89.69	¥ 78.77	¥ 51.41	¥ 35.86	¥ 28.80	¥ 14.96	¥ (94.36)	
Fully Diluted Equity.....	4,008.03	4,035.06	741.06	658.66	632.30	534.75	451.41	384.55	361.18	358.33	339.93	
Cash Dividends.....	90.00	90.00	18.00	18.00	18.00	15.00	12.00	10.00	10.00	10.00	10.00	
<b>Cash Flows</b>												
Cash Flows from Operating Activities.....	¥ 37,555	¥ 11,125	¥ 29,389	¥ 45,751	¥ 38,345	¥ 30,189	¥ 34,970	¥ 31,499	¥ 23,955	¥ 25,011	¥ 33,593	
Cash Flows from Investing Activities.....	(51,025)	(34,010)	(25,954)	(23,486)	(20,321)	(18,689)	(19,354)	(19,491)	(19,257)	(14,602)	(36,477)	
Cash Flows from Financing Activities.....	15,944	24,087	(7,155)	(11,159)	(16,905)	(12,341)	(14,982)	(24,134)	(15,070)	(33,888)	49,303	
Free Cash Flow.....	(13,470)	(22,884)	3,434	22,265	18,024	11,499	15,615	12,007	4,698	10,408	(2,883)	
Cash and Cash Equivalents at End of Year.....	19,002	16,472	15,126	18,902	8,044	5,823	6,129	4,788	16,741	27,115	50,681	
<b>Ratios</b>												
Return on Assets*5 (%).....	5.11	8.44	9.49	9.43	11.39	9.90	8.15	6.34	6.97	4.10	(3.75)	
Return on Equity*6 (%).....	6.30	10.78	12.64	11.43	15.37	15.97	12.30	9.62	8.01	4.26	(23.18)	
Operating Income (Loss) to Net Sales (%).....	4.12	6.81	8.28	8.62	8.42	7.16	5.86	5.61	6.04	4.46	(2.45)	
Equity Ratio*7 (%).....	47.95	52.31	54.20	53.49	49.35	44.12	38.19	35.60	31.41	32.05	28.72	
Operating Income Growth (%).....	(39.67)	(8.95)	(3.07)	(10.30)	22.96	29.43	11.60	(3.99)	67.31	—	—	
Interest Coverage (Times).....	20.71	55.47	43.12	39.04	34.23	21.41	14.82	11.52	10.55	5.12	(2.79)	
Debt / Equity Ratio*7 (Times).....	0.57	0.46	0.36	0.42	0.46	0.63	0.80	1.03	1.29	1.41	1.83	
Debt / Capacity Ratio (Times).....	1.29	1.05	0.83	1.00	1.06	1.28	1.37	1.83	1.90	1.91	2.11	
Return on Invested Capital*7 (%).....	4.02	7.08	8.75	7.91	9.70	9.04	6.32	4.58	3.48	1.71	(10.08)	

\*1 The years stated in the table are ended March 31. Thus, "19.3" refers to the fiscal year that ran from April 1, 2018 through March 31, 2019.

\*2 EBITDA is calculated by adding operating income (loss) and depreciation.

\*3 Changes put forth in the Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28, issued February 16, 2018) have been applied to the consolidated financial results for the fiscal year under review. These amendments have been retroactively applied to the consolidated financial results for fiscal 2017, and the amount of total assets has been adjusted accordingly.

\*4 On October 1, 2017, the Company conducted a 5-for-1 reverse stock split.

\*5 Ordinary income (loss) divided by the average of total assets at the start and end of the year.

\*6 Net income (loss) attributable to owners of the parent divided by the average of shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts) at the start and end of the year.

\*7 The ratios have been calculated using shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts).

## Consolidated Balance Sheet

DOWA HOLODINGS CO., LTD. and Its Consolidated Subsidiaries  
For the years ended March 31, 2019 and 2018

Assets	Millions of yen		Thousands of U.S. dollars (Note 1)
	2019	2018	2019
<b>Current Assets:</b>			
Cash and time deposits (Notes 3, 6, and 14) .....	¥ 20,118	¥ 16,935	\$ 181,259
Notes and accounts receivable: (Note 14)			
Trade .....	82,330	85,718	741,778
Nonconsolidated subsidiaries and associates .....	2,350	2,728	21,173
Others .....	3,561	5,447	32,088
Subtotal .....	88,241	93,894	795,040
Inventories: (Note 13)			
Merchandise and finished products .....	29,461	27,550	265,445
Work in process .....	5,769	5,663	51,986
Raw materials and supplies .....	84,696	73,127	763,103
Subtotal .....	119,928	106,341	1,080,536
Other current assets .....	9,866	11,354	88,895
Allowance for doubtful accounts .....	(147)	(191)	(1,329)
Total current assets .....	238,007	228,334	2,144,402
<b>Property, Plant, and Equipment (Notes 5 and 6):</b>			
Land .....	24,977	24,638	225,040
Buildings and structures .....	126,589	119,288	1,140,549
Machinery and equipment .....	250,856	242,390	2,260,175
Construction in progress .....	8,183	8,491	73,731
Others .....	17,459	16,602	157,307
Subtotal .....	428,066	411,412	3,856,805
Accumulated depreciation .....	(293,701)	(287,087)	(2,646,195)
Net property, plant, and equipment .....	134,365	124,324	1,210,609
<b>Investments and Other Assets:</b>			
Investments in securities (Notes 4, 6, and 14) .....	27,158	30,669	244,694
Investments in and advances to nonconsolidated subsidiaries and associates (Notes 4, 6, and 14) .....	74,098	54,306	667,611
Deferred tax assets (Note 9) .....	7,689	6,430	69,279
Goodwill .....	4,620	5,250	41,629
Other assets .....	8,835	7,314	79,606
Allowance for doubtful accounts .....	(91)	(100)	(827)
Total investments and other assets .....	122,310	103,871	1,101,993
<b>Total assets</b> .....	¥ 494,683	¥ 456,530	\$ 4,457,005

\*1 The accompanying notes are an integral part of these consolidated financial statements.

2 ¥110.99 = U.S. \$1, the rate of exchange on March 31, 2019.

Liabilities and Equity	Millions of yen		Thousands of U.S. dollars (Note 1)
	2019	2018	2019
<b>Current Liabilities:</b>			
Short-term borrowings (Notes 6 and 14).....	¥ 28,777	¥ 37,613	\$ 259,284
Commercial paper (Notes 6 and 14) .....	29,000	25,000	261,284
Current maturities of long-term debt (Notes 6 and 14) .....	18,271	7,094	164,623
Notes and accounts payable: (Note 14)			
Trade .....	43,445	36,655	391,440
Nonconsolidated subsidiaries and associates .....	4	715	36
Others .....	5,979	5,309	53,877
Subtotal .....	49,429	42,680	445,353
Accrued expenses .....	8,655	7,983	77,988
Accrued income taxes .....	2,135	2,680	19,242
Accrued bonuses .....	4,110	4,050	37,031
Accrued directors' bonuses .....	249	232	2,246
Other current liabilities .....	22,826	15,466	205,663
Total current liabilities .....	163,456	142,800	1,472,718
<b>Long-term Liabilities:</b>			
Long-term debt (Notes 6 and 14) .....	59,662	40,659	537,549
Liability for employees' retirement benefits (Note 12) .....	17,967	17,411	161,880
Retirement allowance for directors and audit & supervisory board members .....	621	719	5,597
Deferred tax liabilities (Note 9) .....	2,064	2,666	18,600
Other long-term liabilities .....	4,751	4,509	42,814
Total long-term liabilities .....	85,067	65,967	766,442
Total liabilities .....	248,524	208,767	2,239,160
<b>Contingent Liabilities (Note 7)</b>			
<b>Equity: (Note 8)</b>			
Common stock:			
Authorized: 200,000 thousand shares in 2019 and 2018			
Issued: 61,989 thousand shares in 2019 and 2018	36,437	36,437	328,294
Capital surplus .....	26,044	26,222	234,654
Retained earnings .....	173,624	165,029	1,564,322
Treasury stock, at cost (2,804 thousand shares in 2019 and 2,804 thousand shares in 2018) ..	(5,710)	(5,708)	(51,446)
<b>Accumulated Other Comprehensive Income:</b>			
Unrealized gain (loss) on available-for-sale securities .....	9,992	14,164	90,033
Deferred gain (loss) on derivatives under hedge accounting (Note 15) .....	(2,787)	1,199	(25,111)
Foreign currency translation adjustments .....	(27)	2,124	(244)
Defined retirement benefit plans (Note 12) .....	(360)	(653)	(3,245)
Total .....	237,214	238,815	2,137,257
<b>Noncontrolling interests</b> .....	8,944	8,946	80,588
Total equity .....	246,158	247,762	2,217,845
<b>Total liabilities and equity</b> .....	¥ 494,683	¥ 456,530	\$ 4,457,005



## Consolidated Statement of Income

DOWA HOLODINGS CO., LTD. and Its Consolidated Subsidiaries  
For the years ended March 31, 2019 and 2018

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2019	2018	2019
<b>Net Sales</b> .....	¥ 452,928	¥454,754	\$ 4,080,805
<b>Cost of Sales</b> (Notes 11 and 13) .....	396,495	387,831	3,572,355
Gross profit (loss) .....	56,432	66,923	508,449
<b>Selling, General, and Administrative Expenses</b> (Notes 10 and 11) ...	37,761	35,975	340,221
Operating income (loss) .....	18,671	30,948	168,227
<b>Other Income (Expenses):</b>			
Interest and dividend income .....	2,204	1,148	19,864
Interest expense .....	(1,008)	(578)	(9,082)
Gain (loss) on sales and disposals of property, plant and equipment, net .....	(860)	(665)	(7,752)
Foreign exchange gain (loss) .....	(27)	(159)	(245)
Share of profit (loss) of entities accounted for using equity method .....	2,470	3,723	22,259
Commission income .....	583	—	5,257
Royalty income .....	1,154	1,074	10,399
Gain (loss) on sales of investments in securities, net .....	158	96	1,425
Environmental expenses .....	(522)	(466)	(4,705)
Loss on impairments (Note 5) .....	(212)	(270)	(1,912)
Loss from natural disaster .....	(184)	(165)	(1,661)
Compensation for loss .....	—	(409)	—
Settlement package .....	(206)	—	(1,856)
Reversal of foreign currency translation adjustment .....	227	—	2,049
Other, net .....	1,050	698	9,461
Subtotal .....	4,828	4,026	43,500
Income (loss) before income taxes .....	23,499	34,974	211,728
<b>Income Taxes:</b> (Note 9)			
Current .....	7,148	9,329	64,409
Deferred .....	1,240	381	11,179
Total income taxes .....	8,389	9,710	75,589
Net Income (loss) .....	15,110	25,264	136,138
<b>Net Income (Loss) Attributable to Noncontrolling Interests</b> .....	123	570	1,110
Net income (loss) attributable to owners of the parent .....	¥ 14,986	¥ 24,693	\$ 135,027

<b>Per Share:</b> (Notes 8 and 17)	Yen		U.S. dollars (Note 1)
	2019	2018	2019
Basic net income .....	¥ 253.22	¥ 417.21	\$ 2.28
Cash dividends .....	90.00	90.00	0.81

\*1 The accompanying notes are an integral part of these consolidated financial statements.

2 ¥110.99= U.S. \$1, the rate of exchange on March 31, 2019.

## Consolidated Statement of Comprehensive Income

DOWA HOLODINGS CO., LTD. and Its Consolidated Subsidiaries  
For the years ended March 31, 2019 and 2018

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2019	2018	2019
<b>Net Income (loss)</b> .....	¥ 15,110	¥ 25,264	\$ 136,138
<b>Other comprehensive income:</b> (Note 16)			
Unrealized gain (loss) on available-for-sale securities .....	(3,872)	(449)	(34,893)
Deferred gain (loss) on derivatives under hedge accounting .....	(4,016)	1,122	(36,184)
Foreign currency translation adjustments .....	(1,672)	(604)	(15,064)
Defined retirement benefit plans .....	307	40	2,774
Share of other comprehensive income in affiliates .....	(833)	182	(7,505)
Total other comprehensive income .....	(10,086)	291	(90,874)
<b>Comprehensive income</b> .....	¥ 5,023	¥ 25,555	\$ 45,264
<b>Total comprehensive income attributable to:</b>			
Owners of the parent .....	¥ 4,969	¥ 25,119	\$ 44,777
Noncontrolling interests .....	54	435	487

\*1 The accompanying notes are an integral part of these consolidated financial statements.

2 ¥110.99= U.S. \$1, the rate of exchange on March 31, 2019.

## Consolidated Statement of Changes in Equity

DOWA HOLODINGS CO., LTD. and Its Consolidated Subsidiaries  
For the years ended March 31, 2019 and 2018

	Thousands	Millions of yen			
		Shareholders' Equity			
	Number of Shares of Common Stock Outstanding (Note 8)	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock, at Cost
<b>Balance, April 1, 2017</b> .....	59,186	¥ 36,437	¥ 26,350	¥ 145,809	¥ (5,703)
Cash dividends paid .....	—	—	—	(5,409)	—
Net Income (loss) attributable to owners of the parent .....	—	—	—	24,693	—
Purchases of treasury stock .....	(1)	—	—	—	(5)
Disposal of treasury stock .....	0	—	0	—	0
Change of scope of consolidation .....	—	—	—	(65)	—
Change in the parent's ownership interest due to transactions with noncontrolling interests....	—	—	(128)	—	—
Net changes of items other than shareholders' equity .....	—	—	—	—	—
<b>Balance, April 1, 2018</b> .....	<b>59,185</b>	<b>¥ 36,437</b>	<b>¥ 26,222</b>	<b>¥ 165,029</b>	<b>¥ (5,708)</b>
Cash dividends paid .....	—	—	—	(5,409)	—
Net Income (loss) attributable to owners of the parent .....	—	—	—	14,986	—
Purchases of treasury stock .....	(0)	—	—	—	(1)
Change of scope of consolidation .....	—	—	—	(982)	—
Change in the parent's ownership interest due to transactions with noncontrolling interests .....	—	—	(178)	—	—
Net changes of items other than shareholders' equity .....	—	—	—	—	—
<b>Balance, March 31, 2019</b> .....	<b>59,184</b>	<b>¥ 36,437</b>	<b>¥ 26,044</b>	<b>¥ 173,624</b>	<b>¥ (5,710)</b>

	Thousands	Thousands of U.S. dollars (Note 1)			
		Shareholders' Equity			
	Number of Shares of Common Stock Outstanding (Note 8)	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock, at Cost
<b>Balance, April 1, 2018</b> .....	59,185	\$ 328,294	\$ 236,259	\$ 1,486,883	\$ (51,434)
Cash dividends paid .....	—	—	—	(48,735)	—
Net Income (loss) attributable to owners of the parent .....	—	—	—	135,027	—
Purchases of treasury stock .....	(0)	—	—	—	(12)
Change of scope of consolidation .....	—	—	—	(8,854)	—
Change in the parent's ownership interest due to transactions with noncontrolling interests .....	—	—	(1,604)	—	—
Net changes of items other than shareholders' equity .....	—	—	—	—	—
<b>Balance, March 31, 2019</b> .....	<b>59,184</b>	<b>\$ 328,294</b>	<b>\$ 234,654</b>	<b>\$ 1,564,322</b>	<b>\$ (51,446)</b>

\*1 The accompanying notes are an integral part of these consolidated financial statements.

2 ¥110.99= U.S. \$1, the rate of exchange on March 31, 2019.

	Millions of yen						
	Accumulated Other Comprehensive Income				Total	Non- controlling Interests	Total Equity
	Unrealized Gain (Loss) on Available- for-Sale Securities	Deferred Gain (Loss) on Derivatives under Hedge Accounting	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans			
<b>Balance, April 1, 2017</b> .....	¥ 14,466	¥ 139	¥ 2,516	¥ (713)	¥ 219,303	¥ 8,518	¥ 227,821
Cash dividends paid .....	—	—	—	—	(5,409)	—	(5,409)
Net Income (loss) attributable to owners of the parent .....	—	—	—	—	24,693	—	24,693
Purchases of treasury stock .....	—	—	—	—	(5)	—	(5)
Disposal of treasury stock .....	—	—	—	—	0	—	0
Change of scope of consolidation .....	—	—	—	—	(65)	—	(65)
Change in the parent's ownership interest due to transactions with noncontrolling interests ..	—	—	—	—	(128)	—	(128)
Net changes of items other than shareholders' equity .....	(302)	1,060	(392)	60	426	428	854
<b>Balance, April 1, 2018</b> .....	<b>¥ 14,164</b>	<b>¥ 1,199</b>	<b>¥ 2,124</b>	<b>¥ (653)</b>	<b>¥ 238,815</b>	<b>¥ 8,946</b>	<b>¥ 247,762</b>
Cash dividends paid .....	—	—	—	—	(5,409)	—	(5,409)
Net Income (loss) attributable to owners of the parent .....	—	—	—	—	14,986	—	14,986
Purchases of treasury stock .....	—	—	—	—	(1)	—	(1)
Change of scope of consolidation .....	—	—	—	—	(982)	—	(982)
Change in the parent's ownership interest due to transactions with noncontrolling interests .....	—	—	—	—	(178)	—	(178)
Net changes of items other than shareholders' equity .....	(4,171)	(3,986)	(2,151)	293	(10,016)	(2)	(10,019)
<b>Balance, March 31, 2019</b> .....	<b>¥ 9,992</b>	<b>¥ (2,787)</b>	<b>¥ (27)</b>	<b>¥ (360)</b>	<b>¥ 237,214</b>	<b>¥ 8,944</b>	<b>¥ 246,158</b>

	Thousands of U.S. dollars (Note 1)						
	Accumulated Other Comprehensive Income				Total	Non- controlling Interests	Total Equity
	Unrealized Gain (Loss) on Available- for-Sale Securities	Deferred Gain (Loss) on Derivatives under Hedge Accounting	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans			
<b>Balance, April 1, 2018</b> .....	\$ 127,621	\$ 10,806	\$ 19,141	\$ (5,886)	\$ 2,151,685	\$ 80,609	\$ 2,232,295
Cash dividends paid .....	—	—	—	—	(48,735)	—	(48,735)
Net Income (loss) attributable to owners of the parent .....	—	—	—	—	135,027	—	135,027
Purchases of treasury stock .....	—	—	—	—	(12)	—	(12)
Change of scope of consolidation .....	—	—	—	—	(8,854)	—	(8,854)
Change in the parent's ownership interest due to transactions with noncontrolling interests .....	—	—	—	—	(1,604)	—	(1,604)
Net changes of items other than shareholders' equity .....	(37,587)	(35,918)	(19,385)	2,641	(90,250)	(21)	(90,272)
<b>Balance, March 31, 2019</b> .....	<b>\$ 90,033</b>	<b>\$ (25,111)</b>	<b>\$ (244)</b>	<b>\$ (3,245)</b>	<b>\$ 2,137,257</b>	<b>\$ 80,588</b>	<b>\$ 2,217,845</b>

## Consolidated Statement of Cash Flows

DOWA HOLODINGS CO., LTD. and Its Consolidated Subsidiaries  
For the years ended March 31, 2019 and 2018

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2019	2018	2019
<b>Cash Flows from Operating Activities</b>			
Income (loss) before income taxes.....	¥ 23,499	¥ 34,974	\$ 211,728
Adjustments for:			
Income taxes (paid) refund .....	(7,904)	(12,462)	(71,222)
Depreciation and amortization .....	19,138	17,740	172,435
Loss (gain) on sales and disposals of property, plant, and equipment, net.....	860	665	7,752
Share of (profit) loss of entities accounted for using the equity method .....	(2,470)	(3,723)	(22,259)
Loss (gain) on sales of investment securities, net .....	(158)	(96)	(1,425)
Loss on impairments (Note 5) .....	212	270	1,912
Changes in assets and liabilities			
Decrease (increase) in notes and accounts receivable .....	2,435	(7,308)	21,947
Decrease (increase) in inventories .....	(13,471)	(23,936)	(121,371)
Increase (decrease) in notes and accounts payable .....	5,883	2,646	53,013
Increase (decrease) in allowance for doubtful accounts .....	(42)	86	(385)
Increase (decrease) in net defined benefit liability .....	722	883	6,508
Decrease (increase) in interest and dividend receivables .....	2,967	2,426	26,733
Increase (decrease) in interest payable .....	143	46	1,292
Other, net .....	5,738	(1,086)	51,707
Net cash provided by operating activities .....	37,555	11,125	338,366
<b>Cash Flows from Investing Activities:</b>			
Acquisition of property, plant, and equipment .....	(23,395)	(23,680)	(210,789)
Proceeds from sales of property, plant, and equipment .....	338	516	3,046
Acquisition of intangible fixed assets.....	(288)	(356)	(2,599)
Acquisition of investments in securities .....	(1,835)	(7)	(16,541)
Proceeds from sales of investments in securities .....	39	35	357
Acquisition of investments in subsidiaries and associates .....	(2,798)	(2,881)	(25,212)
Proceeds from sales of shares of subsidiaries and associates .....	196	—	1,773
Purchase of shares of subsidiaries resulting in change in scope of consolidation .....	—	(171)	—
Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation.....	—	14	—
Payments for loans .....	(23,818)	(8,444)	(214,601)
Proceeds from collection of loans .....	590	825	5,321
Proceeds from subsidies .....	882	448	7,951
Other, net .....	(936)	(309)	(8,435)
Net cash used in investing activities .....	(51,025)	(34,010)	(459,732)
<b>Cash Flows from Financing Activities:</b>			
Net increase (decrease) in short-term loans payable .....	(8,858)	8,200	(79,809)
Net increase (decrease) in commercial papers .....	4,000	13,000	36,039
Proceeds from long-term debt .....	23,601	18,351	212,643
Repayment of long-term debt .....	(6,811)	(9,179)	(61,373)
Proceeds from issuance of bonds.....	10,000	—	90,098
Cash dividends paid .....	(5,641)	(5,555)	(50,828)
Repayment of lease obligations .....	(343)	(723)	(3,099)
Purchases of treasury stock .....	(1)	(5)	(11)
Proceeds from sales of treasury stock .....	—	0	—
Other, net .....	(0)	—	(0)
Net cash provided by financing activities .....	15,944	24,087	143,660
<b>Foreign Currency Translation Adjustment on Cash and Cash Equivalents</b> .....	(58)	(115)	(524)
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b> .....	2,416	1,088	21,770
<b>Cash and Cash Equivalents of Newly Consolidated Subsidiaries</b> ..	112	257	1,017
<b>Cash and Cash Equivalents at Beginning of Year</b> .....	16,472	15,126	148,418
<b>Cash and Cash Equivalents at End of Year (Note 3)</b> .....	¥ 19,002	¥ 16,472	\$ 171,206

\*1 The accompanying notes are an integral part of these consolidated financial statements.

2 ¥110.99= U.S. \$1, the rate of exchange on March 31, 2019.

## Report of Independent Auditors

# Deloitte.

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### INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of Dowa Holdings Co., Ltd.:

We have audited the accompanying consolidated balance sheet of Dowa Holdings Co., Ltd. and its consolidated subsidiaries as of March 31, 2019, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

#### Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Dowa Holdings Co., Ltd. and its consolidated subsidiaries as of March 31, 2019, and the consolidated results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

#### Convenience Translation

Our audit also comprehended the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made in accordance with the basis stated in Note 1 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of readers outside Japan.

*Deloitte Touche Tohmatsu LLC*

June 25, 2019

Member of  
Deloitte Touche Tohmatsu Limited

# Corporate Data

As of March 31, 2019

## Company Name

DOWA HOLDINGS CO., LTD.

## Head Office

14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-0021, Japan

## Founded

September 18, 1884

## Incorporated

March 11, 1937

## Common Stock

¥36,437 million

## Main Businesses

Environmental Management & Recycling, Nonferrous Metals, Electronic Materials, Metal Processing, and Heat Treatment

## Main Subsidiaries

DOWA ECO-SYSTEM CO., LTD.  
DOWA METALS & MINING CO., LTD.  
DOWA ELECTRONICS MATERIALS CO., LTD.  
DOWA METALTECH CO., LTD.  
DOWA THERMOTECH CO., LTD.

## Employees

Approx. 6,600

## Authorized Shares

200,000,000 shares

## Shares Issued

61,989,206 shares

## Number of Shares per Unit

100

## Stock Listing

Common stock is listed on the Tokyo, Nagoya, and Sapporo stock exchanges and the Fukuoka Securities Exchange.

## Number of Shareholders

10,848

## Principal Shareholders

	Percentage of Outstanding Shares (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	11.80
Japan Trustee Services Bank, Ltd. (Trust Account)	10.16
FUJITA KANKO INC.	4.79
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	4.04
National Mutual Insurance Federation of Agricultural Cooperatives	3.06
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	2.46
JFE Steel Corporation	1.87
NORTHERN TRUST CO. (AVFC) SUB A/C NON TREATY	1.80
SSBTC CLIENT OMNIBUS ACCOUNT	1.64
Mizuho Bank, Ltd.	1.60

\* 1 The Company holds 1,888 thousand shares of treasury stock.

2 The above percentages are calculated after deducting treasury stock from outstanding shares.

## Fiscal Year-End

March 31

## General Meeting of Shareholders

June

### Financial Section of Annual Report 2019

Please refer to "Financial section of Annual Report 2019" for detailed information on the year ended March 31, 2019.

 URL: <http://www.dowa.co.jp/en/ir/library/annual.html>

### Inquiries

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