

Year Ended March 31, 2020

Annual Report 2020



ShinDengen /
New power. Your power.

www.shindengen.com/



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ShinDengen /
New power. Your power.

Our Philosophy



Management Philosophy

“Together with society,
our customers, and our employees”

Corporate Mission

“Maximizing energy conversion
efficiency for the benefit of humanity
and society.”

Our Promise

Listen closely, look ahead,
and create a future of value.

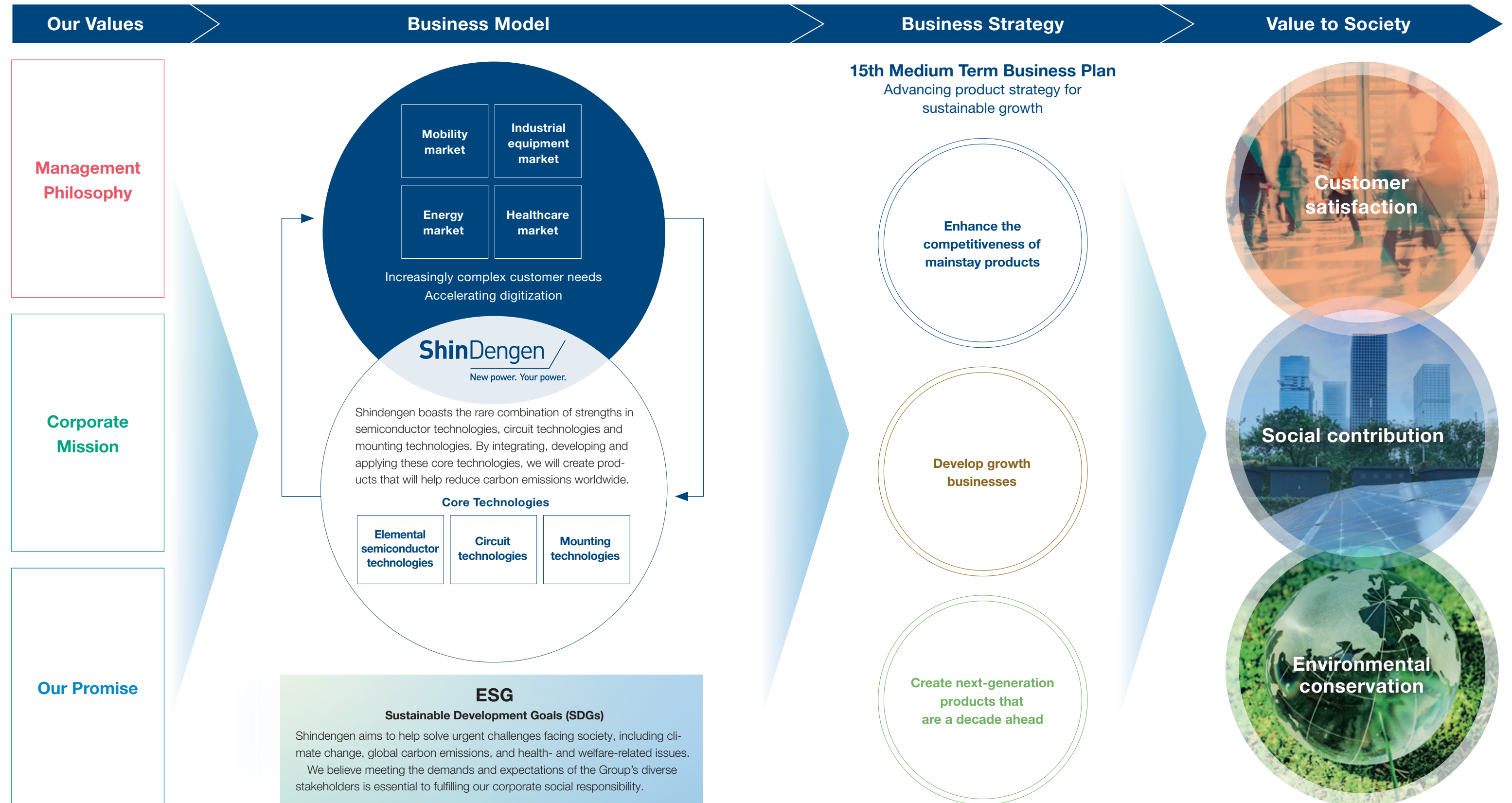
Throughout our history, we have listened closely to our customers, tried to foresee what’s coming in society, and played a significant role in cultivating expertise in our field. This has always been the spirit of our company. Today and tomorrow, we will continue striving to integrate leading technology and our extensive experience into our company spirit so that we can deliver optimum value.

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Value Creation Process

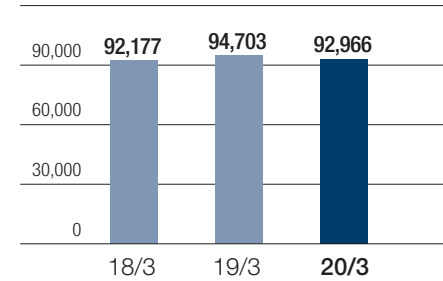
“Together with society, our customers, and our employees”



Financial and Non-financial Highlights

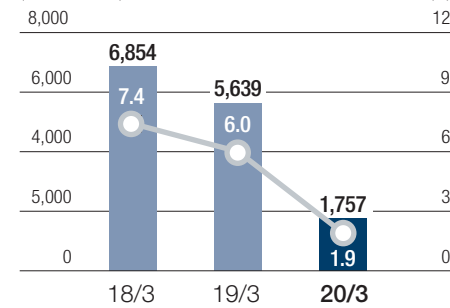
Net Sales

(Millions of Yen)
120,000



Operating Income and Operating Margin

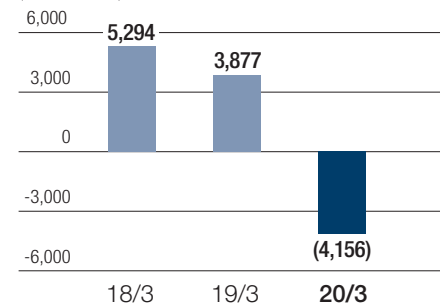
(Millions of Yen)



Profit (loss)

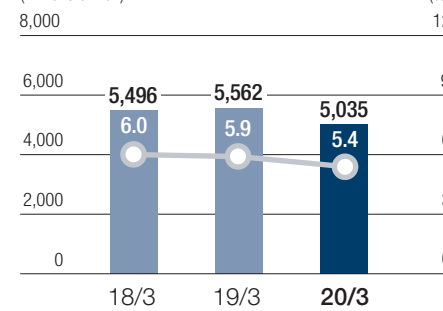
(attributable to owners of parent)

(Millions of Yen)



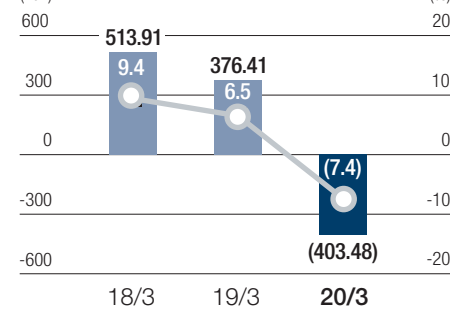
R&D Expenses and Ratio to Net Sales

(Millions of Yen)



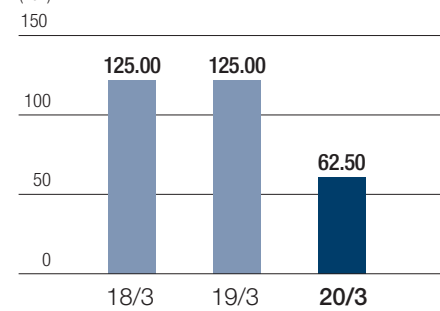
EPS and ROE

(Yen)



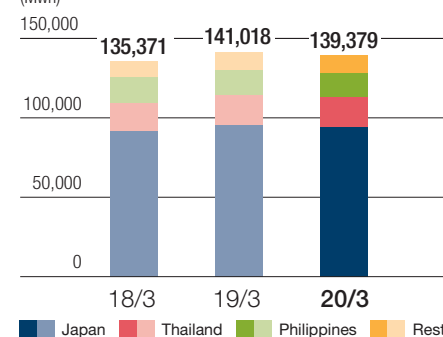
Cash Dividends per Share

(Yen)



Electric Power Consumption

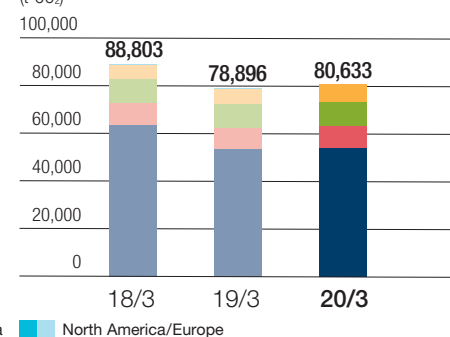
(Mwh)



CO₂ Emissions

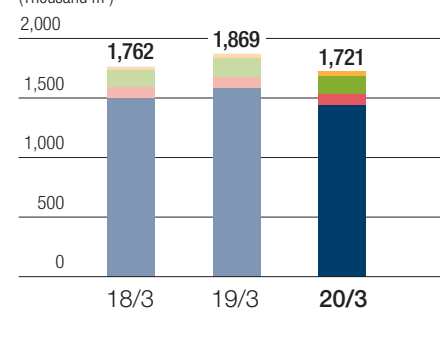
(Scope 1+Scope 2)

(t-CO₂)



Water Consumption

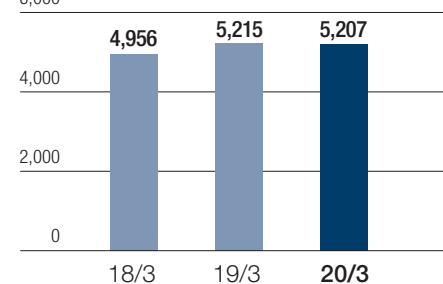
(Thousand m³)



Number of Employees

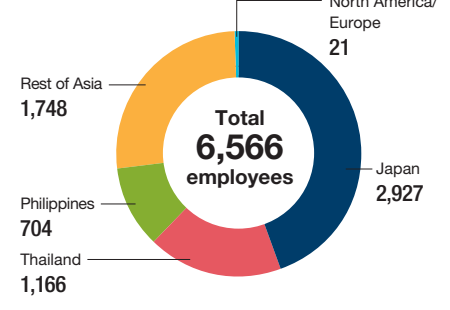
(Only regular employees)

(Millions of Yen)



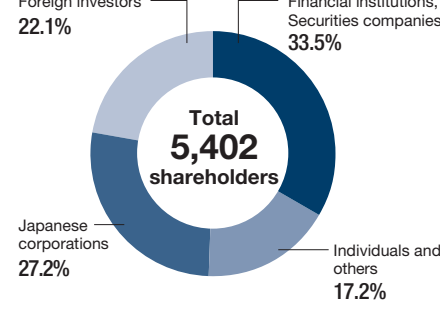
Employees by Region

(As of March 31, 2020)



Composition of Shareholders

(As of March 31, 2020)



15th Medium Term Business Plan

Shindengen has established its 15th Medium Term Business Plan for the three-year period of fiscal 2019 to fiscal 2021.

Shindengen has positioned mobility, industrial equipment, energy and healthcare as its key markets for some time, but going forward, we will focus even more on the mobility market. While aiming to advance product strategy for sustainable growth, we have established key themes to be implemented over three phases as a framework for the three years leading to fiscal 2021 and beyond.

The Key Themes in Three Phases

Key Theme 1

To enhance the competitiveness of mainstay products, as the markets for these products grow steadily more challenging, we will leverage our current leading market positions to further enhance productivity and earnings power.

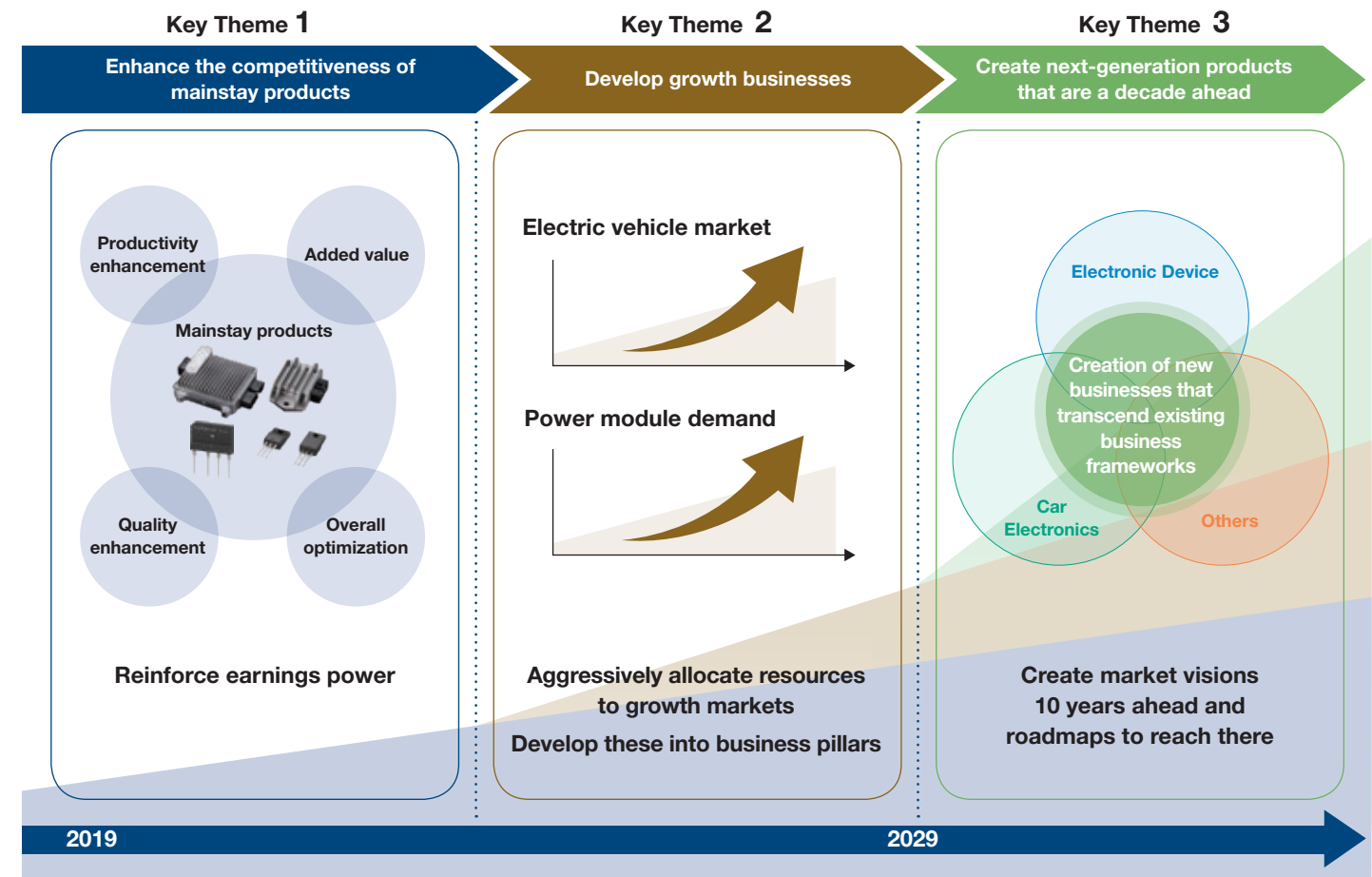
Key Theme 2

To develop growth businesses, we will make effective use of business synergies and external resources to secure revenue several years down the line in such businesses as products for EVs, which are expected to be widely adopted going forward.

Key Theme 3

To create next-generation products that are a decade ahead, we will formulate and implement next-generation product strategy from a long-term perspective.

The Key Themes in Three Phases



Interview with the President

By strategically deploying our core technologies in three phases, the entire Shindengen Group will face these challenging times to ensure ongoing growth.



Yoshinori Suzuki
President

On behalf of the Shindengen Group, I offer my deepest condolences to those who have lost family and loved ones to the novel coronavirus (COVID-19) and wish those still fighting it a swift recovery. I also express my gratitude to the healthcare and other essential workers for all their work helping us get through this difficult time.

Performance

Q1 Please tell us about Shindengen’s fiscal 2019 results.

In fiscal 2019, the year ended March 31, 2020, the Shindengen Group recorded decreases in both sales and profit, ending in a net loss. Net sales came to ¥92,966 million (down 1.8% year on year), with operating income of ¥1,757 million (down 68.8% year on year), ordinary income of ¥1,598 million (down 73.3% year on year) and ¥4,156 million in loss attributable to owners of the parent (compared with ¥3,877 million in profit in the previous fiscal year). This was mainly because semiconductor demand remained weak for longer than we anticipated, and growth in motorcycle markets was sluggish in many regions of Asia.

By segment, the Electronic Device segment saw sales decline year on year in all its principal markets, namely, mobility, household appliances and industrial equipment. In the consumer electronics market, we saw firm demand for new, high-capacity bridge diodes with inverter functions for air

conditioners, which combine several of our core technologies. However, in the industrial machinery market, the U.S.-China trade friction, which has continued since 2018, had a significant impact, leading to net sales that were down 20% from their peak in fiscal 2017. Sales in the mobility and consumer electronics markets also fell about 7% each year on year.

In the Car Electronics segment, looking at mainstay Asian motorcycle markets, demand for electronic control units (ECUs) and other main products in Indonesia was brisk, and sales were firm. In India, though market conditions worsened, reflecting slowing economic growth, the release of new products that comply with environmental regulations contributed greatly, and sales increased year on year. However, sales in Vietnam and Thailand, where markets are saturated, were weak overall.

For more information about

- Market composition by segment, please refer to At a Glance on **pages 11–12**.
- Operating results by segment, please refer to Management’s Discussion and Analysis on **pages 28–29**.

Strategy

Q2 Please tell us about the progress of the Medium Term Business Plan.

We have made “Advancing product strategy for sustainable growth” the basic policy of the 15th Medium Term Business Plan. Under this policy, we have established three key themes to be implemented over three phases and are advancing strategic, concentrated allocation of our finite management resources to maximize their effectiveness. Progress under the three themes is as follows.

1. Enhance the competitiveness of mainstay products:

In diodes, which drive the Electronic Device segment, we developed new products with a completely redesigned internal structure that are higher current than previous products while achieving excellent heat dissipation and began sales of these products in the air conditioner market. In addition, we advanced development of products that meet the AEC-Q101 reliability standard for electronic components used in automobiles in order to expand our lineup of power semiconductors for mobility applications that are smaller while realizing low loss and high current. In Car Electronics, for the India market, which is an increasingly large presence in the mainstay motorcycle business, we began production of

ECUs that comply with environmental regulations that came into effect in that country in April 2020 (Bharat stage 6 emission standards, known as BS6). ECUs are already a main product for Shindengen in the ASEAN region, and we expect the new environmental regulations to help us expand our market share for these products in India, as well.

2. Develop growth businesses:

In the Electronic Device segment, we are working to expand sales of power modules, mainly for mobility applications. We expanded our power module lineup by developing high current, smaller products, in which we changed the connection method from wire bonding to copper clips, and by leveraging synergies to develop products with significantly reduced mounting area. We also adopted automated production facilities at our plants, improving productivity. In the Car Electronics segment, we aggressively advanced development of new products targeting the shift to electric technologies in four-wheel vehicles. These are all products that we hope to develop into mainstay products in a few years.

Interview with the President

3. Create next-generation products that are a decade ahead:

The Future Strategy Committee, which brings together mid-level engineers from across the Group's businesses, put forward ideas for each product category, creating a forecast for markets and vision for Shindengen a decade from now as well as a roadmap for getting there. We will further develop these efforts in fiscal 2020.

For more information about

- The Medium Term Business Plan, please refer to 15th Medium Term Business Plan on **page 6**.
- Initiatives by business segment, please refer to Business Segments on **pages 13–16**.

In fiscal 2019, demand for semiconductors and electronic parts was lackluster, with customers cancelling or delaying orders. As a result, sales expansion did not go as scheduled, and some plans were pushed back or pared down. However, the direction in which Shindengen must proceed remains unchanged. We will not waver as we continue to push forward.

ESG

Q3 Please tell us your thoughts on governance and returning profits to shareholders.

The Shindengen Group regards effective corporate governance as an extremely important factor in increasing corporate value over the medium to long term. In terms of Japan's Corporate Governance Code, since changing one item from explain to comply (under the code's "comply or explain" framework) in fiscal 2018, we have not been able to further increase the numbers of comply items, but we continue to advance improvements and deliberations aimed at reinforcing governance, focusing mainly on the duties of the Board of Directors.

To evaluate and analyze the effectiveness of the Board of Directors and enhance its functions, we carry out an annual survey of all directors and Audit & Supervisory Board members. The most recent survey indicated year-on-year improvements

in constructive discussion and exchange of opinions. Tasks remaining, however, include establishing successor development plans and a successor selection process, as well as enhancing training for directors. In addition, we once again saw that the information gap between internal and outside officers has not been fully eliminated, and we are working to take even greater care regarding methods of information provision. Furthermore, although considerations of diversity in terms of gender and nationality, including the appointment of female or non-Japanese directors, have moved forward, this has not yet resulted in action and remains an issue for examination.

I think that enhancing corporate value through direct dialog with stakeholders and improving the efficacy of strategy are also areas for reinforcement going forward.

For more information about

- The corporate governance system, please refer to Corporate Governance on **pages 23–24**.

Q4 Could you tell us about the Shindengen Group's initiatives to help achieve the Sustainable Development Goals?

In fiscal 2019, we created a medium term plan for addressing challenges related to CSR and established a CSR Promotion Office to implement it as a part of proactive CSR activities. Addressing the Sustainable Development Goals (SDGs) is also a part of such activities. In fiscal 2019, we evaluated the SDGs in terms of their impact on our stakeholders and importance to the Shindengen Group, consulting outside experts. As a result of these efforts, we designated target 7.3 of the SDGs, "By 2030, double the global rate of improvement in energy efficiency," as a material issue for the Shindengen Group.

For more information about

- Shindengen's corporate mission, please refer to Our Philosophy on **pages 1–2**.
- Shindengen's CSR activities, please refer to The Shindengen Group's ESG Management on **pages 18–26**.

The Shindengen Group has long offered many environmentally friendly products. For example, in step with the growing use of electronic and electric technologies in the mobility market, the use of Shindengen products greatly reduces CO₂ emissions. In other areas, as well, by leveraging our technologies for making products more efficient, smaller and more lightweight, we will continue to develop and provide products that offer value in terms of solving social problems related to the environment. In this way, we will strengthen initiatives aimed at realizing a low-carbon society in line with our corporate mission.

Outlook & Outcomes

Q5 What are your forecasts for operating results and shareholder returns?

The COVID-19 pandemic has forced a downshift in the global economy, and economic growth is expected to fall significantly. The Shindengen Group's factories in China, the Philippines and India had to temporarily suspend operations due to activity restrictions and lockdowns. All our facilities have now resumed operation, but such restrictions around the world have caused a sharp drop in demand, leading to production adjustments not only at locations directly affected by lockdowns, but also at our factories in Indonesia, Vietnam, Thailand and Japan. Concerns about the impact on supply chains remain, as well, and the outlook is unclear.

In light of the above conditions, Shindengen procured a total of ¥17.5 billion in capital to secure ample liquidity on hand and further stabilize its management foundation. It is currently difficult to rationally calculate a forecast of operating results for the Group, so we have not yet made a forecast for fiscal 2020. We are presently working to formulate a forecast, which we will publish when it is ready.

We position returning profits to shareholders as an important management issue. Our policy is to maintain and reinforce industry competitiveness by distributing profits, mainly through dividends, based on comprehensive consideration of such factors as retained earnings, ROE (as targeted in the Medium Term Business Plan) and performance forecasts. As I said, we recorded a significant net loss for fiscal 2019, and the operating environment in fiscal 2020 is also expected to be extremely harsh due to COVID-19. Given these conditions, for the remaining ten months of fiscal 2020 we will cut executive compensation 10–20%, depending on the individual, and move forward with efforts to get our businesses back on their feet.

We will continue to do our utmost to secure the long-term support of our shareholders. I am very sorry to say, however, that we have decided to reduce the per-share dividend for fiscal 2019 from ¥125 to ¥62.5, per resolution of the general meeting of shareholders.

Message

Q6 Do you have any other message for shareholders and investors?

Over Shindengen's 70-year history, the Company has faced a number of unprecedented crises. Each time, our employees have worked together to pull through. The key to doing so has always been the core technologies we have built up since our founding—those in the areas of semiconductors, circuit design and mounting. Today, by integrating these technologies, we continue to advance our businesses with the goal of achieving our corporate mission, "maximizing energy conversion efficiency for the benefit of humanity and society." From fiscal 2021, we will bring together business operation functions and headquarters functions at our new office. By doing so, we aim to increase employee solidarity, develop and manufacture unrivaled products, and provide irreplaceable value to society.

I hope that our shareholders will consider the Shindengen Group's corporate value from a medium- to long-term perspective and ask for your continued understanding and support.

For more information about

- Shindengen's value creation process, please refer to Value Creation Process on **pages 3–4**.



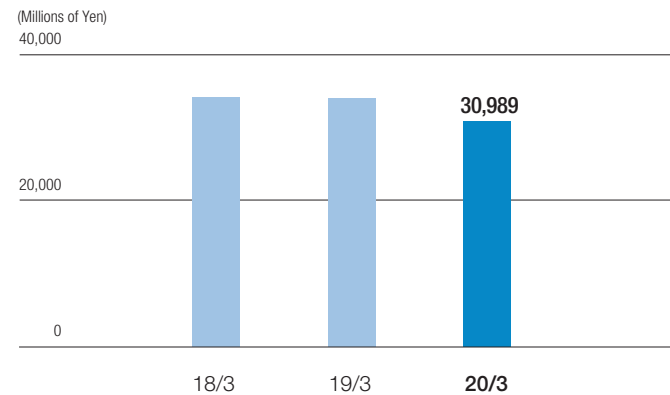
* This interview was conducted on June 18, 2020.

Business Segments At a Glance

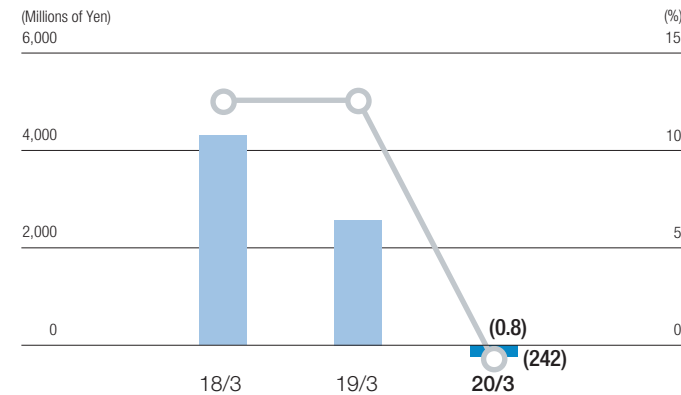
Electronic Device

The Electronic Device segment produces diodes, thyristors, MOSFETs, high voltage power ICs and power modules, among other products.

Net Sales



Operating Income (Loss) and Margin



Main Products and Markets

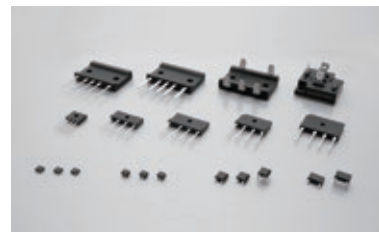
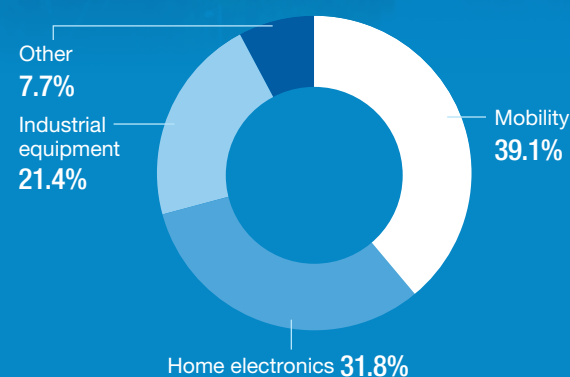
Products

- Bridge diodes
- High-speed rectifier diodes
- Thyristors
- SIDACs
- Power MOSFETs
- Power ICs
- Power modules

Markets

- Mobility (four-wheel vehicles)
- Industrial equipment market (factories)
- Home electronics (air conditioners, lighting, etc.)

Composition of Market



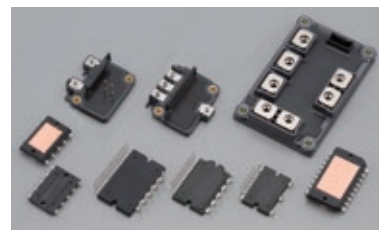
Bridge Diodes



High Speed Rectifier Diodes
and Surge Absorbers



Power MOSFETs &
Power ICs

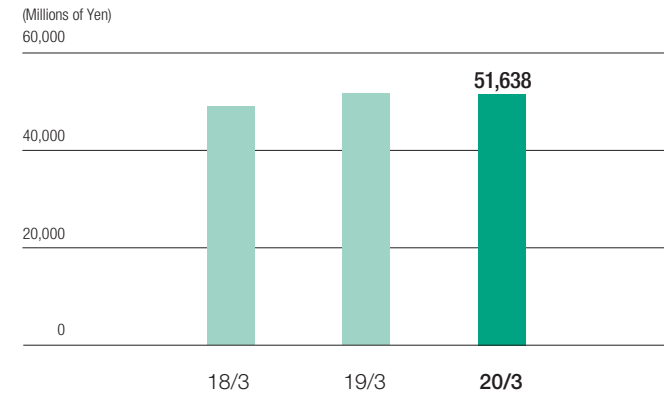


Power Modules

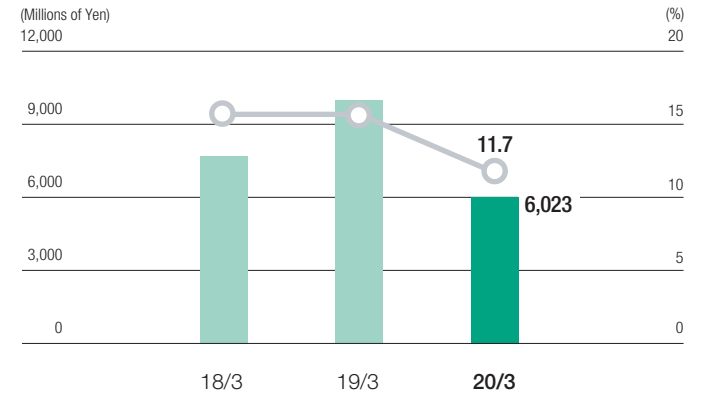
Car Electronics

The Car Electronics segment produces motorcycle products, four-wheel vehicle products and general-purpose inverters, among other products.

Net Sales



Operating Income and Margin



Main Products and Markets

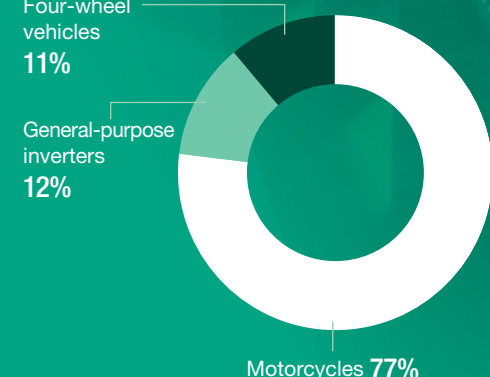
Products

- Motorcycle products
- Four-wheel vehicle products
- General purpose inverters

Markets

- Mobility (motorcycles, four-wheel vehicles)
- Generators

Composition of Market



Motorcycle Products



DC/DC Converters for FCV,
PHEV, HEV, EVs*



DC/AC Inverters
for Four-wheel Vehicles



Sine Wave Inverters
for Portable Generators

* Electric vehicles, hybrid electric vehicles, plug-in hybrid electric vehicles and fuel cell vehicles

Business Segments

Electronic Device



Segment Overview

One of the biggest strengths of this segment is its extensive line-up of semiconductor devices used in high-voltage and high-current controls. Diodes, one of our mainstay products, are used in power supply for automobile electronic control units (ECUs), industrial equipment including factory automations and robots, as well as home electronics. MOSFETs, a type of switching device, are largely used in motorcycle ECUs in the Car Electronics segment. We also supply power modules for industrial machinery and automobiles, power ICs (integrated circuits) for lighting, and other high-performance products.

Percentage of total net sales
(Fiscal 2019)



R&D

In diodes, we advanced development of high -voltage, high-current bridge diodes; high-temperature, halogen-free diodes; and high-performance, low-cost bridge diodes. We also completed development of 650 V and 1,200 V SiC Schottky barrier diodes.

In switching devices, we developed smaller, higher-performance versions of chips for low and high-voltage MOSFETs for mobility applications and multiple types of new packaging for high-current devices. We also commenced mass production of numerous new products that meet the AEC-Q101 reliability standard for electronic components used in automobiles. In terms of next-generation products with new structures, we advanced development of low and high-voltage MOSFETs and began testing in preparation for mass production. We also advanced development of 650 V and 1,200 V SiC MOSFETs.

In IC products, we developed and commenced mass production of control ICs for LED lights used in mobility and consumer electronics as well as control ICs for motor drivers.

In power modules, we expanded the range of modules under development, focusing mainly on the mobility market. In addition, we advanced development of high-current and high-frequency modules using SiC MOSFET and GaN HEMT chips and began testing in preparation for mass production.

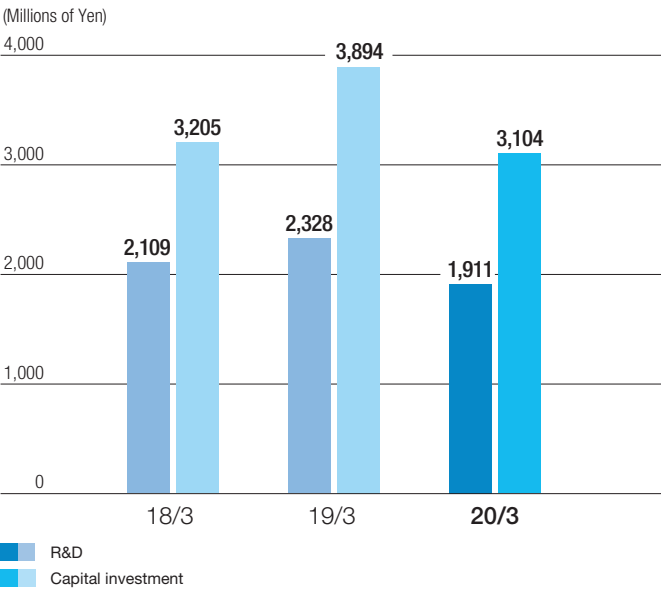
R&D expenses in this segment came to ¥1,911 million.

* SiC stands for silicon carbide, and GaN stands for gallium nitride. Both are next-generation power semiconductor materials.

Capital Investment

Segment capital investment totaled ¥3,104 million. Capital spending went mainly toward expanding production capacity and upgrades at Akita Shindengen Co., Ltd., Higashine Shindengen Co., Ltd. and Lumpun Shindengen Co., Ltd.

R&D and Capital Investment



Progress under the Medium Term Business Plan

① Enhance the competitiveness of mainstay products

- ▶ **Improve productivity:** To enhance the cost competitiveness of mainstay diode products, we conducted capital investment in automated visual inspection systems and measures to improve assembly line efficiency at our factories worldwide.
- ▶ **Accelerate development of high-voltage, high-current products:** We completed development of approximately 50 products, expanding our product lineup in anticipation of growth in demand for products related to motors driven by the growing use of electronic and electric technologies in automobiles.
- ▶ **Other:** We developed MOSFET products, which boast especially outstanding reliability and performance among our products for automobiles, and IC products for automobiles with functions not offered by competitors, providing new added value to customers.

② Develop growth businesses

- ▶ **Reinforce power modules:** To create higher-current modules, we changed the connection method used inside modules from wire bonding to copper clips and reinforced development of smaller power modules.
- ▶ **Improve the competitiveness of power modules:** We advanced the adoption of automated facilities to expand production overseas (in Thailand) and worked to improve productivity and reinforce cost competitiveness.

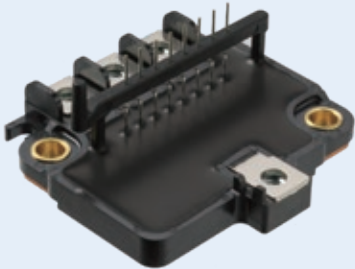
③ Create next-generation products that are a decade ahead

- ▶ **Develop post-silicon devices:** We are performing high-standard reliability assessments of diodes and MOSFETs that use SiC instead of silicon, making sure that our future products will meet standards for usage in automobiles. We are also implementing characteristic assessments of GaN chip power modules.

Highlights

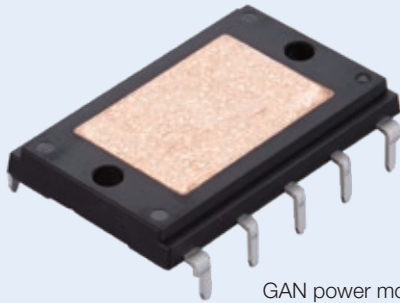
Expanding the Power Module Lineup

The automotive industry is undergoing a technological revolution in the new areas known as CASE (connected, autonomous/automated, shared and electric). Preparing for a boom in demand, Shindengen is focusing efforts on developing power modules for vehicle chargers and vehicle DC/DC converters. We are also working to enhance our lineup of general-purpose power modules while enhancing our production lines to reinforce competitiveness.



Developing Post-Silicon Devices

We are advancing the commercialization of power modules made with SiC and GaN, which hold promise as post-silicon devices, and have launched PR activities. Thanks to displays at exhibitions and coverage of our development activities in various media, we are receiving a great volume of inquiries and sample requests.



Business Segments

Car Electronics



Seiji Niizeki
Senior Officer

Segment Overview

The Car Electronics segment began with the manufacture of regulators used to rectify electricity to stably charge motorcycle batteries. Products for motorcycles still account for more than 80% of segment sales. Our mainstay electronic control units (ECUs), which help to control motorcycle engines, are widely used in motor scooters in Asia, and our regulators are used worldwide. We also manufacture inverters for portable generators, converters used in eco-friendly vehicles and other products. Furthermore, we are working to expand our lineup of products supporting the use of electric and hybrid technologies in the mobility field, such as quick chargers for electric vehicles.

Percentage of total net sales
(Fiscal 2019)

Net sales
55.5%

R&D

In the motorcycle market, Shindengen continued development of smaller, higher-performance, lower-cost ECUs with built-in idle-stop functions to reinforce competitiveness. We also advanced the acquisition of vehicle evaluation technologies to enable system proposals to customers and the construction of a robust framework for sales expansion. Furthermore, we began development of cost-competitive power control units (PCUs) in light of the growing adoption of electric and hybrid motorcycles.

In the four-wheel vehicle field, systems continue to grow more complex and sophisticated. We sought to make it easier and less labor-intensive for our customers to install our products in their products by making our power supply part into a common, versatile platform. In the general-purpose field, development moved forward on product for systems that utilize secondary batteries and fuel cells, leveraging inverter technologies developed for engine generators.

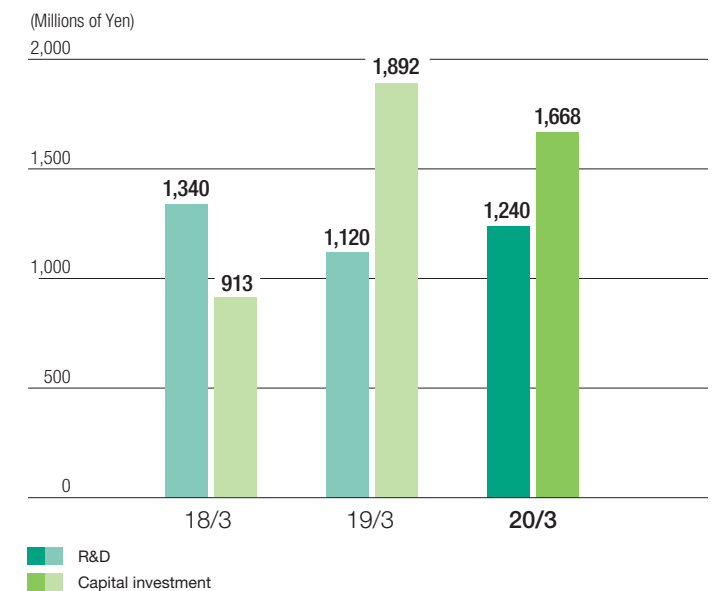
In addition, we reinforced and advanced basic research aimed at incorporating cutting-edge technologies into product development across the segment.

R&D expenses in this segment came to ¥1,240 million.

Capital Investment

Segment capital investment totaled ¥1,668 million. Capital investment was aimed mainly at expanding production capacity at Okabe Shindengen Co., Ltd. and Shindengen India Pvt. Ltd.

R&D and Capital Investment



Progress under the Medium Term Business Plan

① Enhance the competitiveness of mainstay products

- ▶ **Expand our customer base:** We have begun sales of motorcycle regulators to new customers in India, forming new business relationships. Having thus entered this market, we are advancing ECU development accordingly.
- ▶ **Reinforce the Indian market:** We set up a production line for ECUs that meet India's new environmental regulations and commenced mass production for the Indian market, currently the most promising growth market in the mobility sector.

② Develop growth businesses

- ▶ **Expansion in the four-wheel vehicle market:** We are proactively and strategically participating in development planning by automobile manufacturers for multiple types of electric vehicles.

③ Create next-generation products that are a decade ahead

- ▶ **Infrastructure and other power solutions:** In response to the advance of CASE technologies in the automotive industry, a diverse range of changes is accelerating across related industries. We are further reinforcing cooperation with automobile manufacturers in and outside Japan, focusing on developing and supplying quick chargers for EVs and power electronics, an area of strength for Shindengen.

Highlights

Developing Converters for Next-Generation Vehicles

As the realization of self-driving vehicle technologies draws ever closer, the mission of the Car Electronics segment is to realize both convenience and safety. We are leveraging synergies between our development expertise (accumulated as a power source manufacturer) and applied circuit technologies (established as a semiconductor manufacturer) to develop converters for fail-safe systems, which are a key part of reliability design for next-generation vehicles.



DC/DC converter (not a next-generation product)

R&D Section

Technology and Development Center



Overview of the Technology and Development Center

The Technology and Development Center handles the basic research and applied research development stages that come before product commercialization. Technological challenges we are working on include developing elemental and module mounting technologies for low-loss devices as well as IC product process technologies and high-efficiency, low-noise power supply circuits. Using simulations, we determine the properties and key points of technologies in development, accumulating knowledge in order to efficiently pass on the results of our work to the business divisions, shifting from forward-looking elemental technology development to practical mass production design. The product development departments in each segment then coordinate with sales and marketing departments to use these technologies to develop new products optimized for the needs of their markets and customers.

Progress under the Medium Term Business Plan

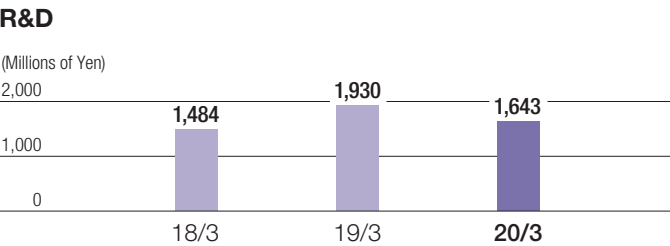
Focusing on the 15th Medium Term Business Plan's strategy of "Create next-generation products that are a decade ahead," we are developing technologies that are needed by our operating departments or across departments.

In electronic devices, we are working to develop low-loss device technologies as quickly as possible, setting clear timetables for transferring them to practical mass production design at business divisions. Such technologies are seen as a key factor in realizing electric vehicles and an environmentally friendly society built on sustainable, efficient energy use.

In mounting technologies, which we seek to apply at the Companywide level, we are investigating and developing technologies to achieve differentiation using our unique approach, which focuses on maximizing the energy conversion rate. We are considering many angles, including electrical properties, heat dissipation and connections. In new circuit technologies, we are drawing on our existing power electronics technologies to develop platform technologies for motor peripherals, an area expected to see accelerating demand growth.

R&D

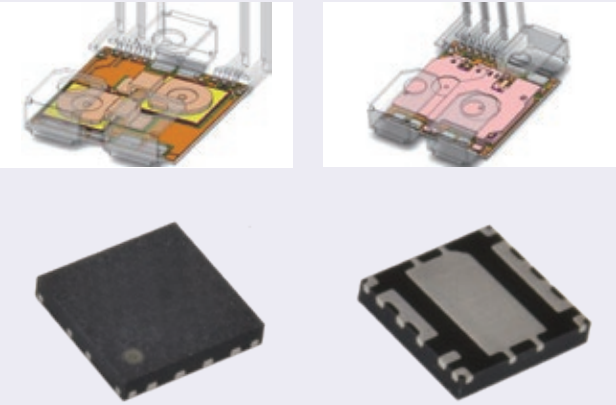
R&D expenses under the medium-term plan were as follows.



Highlights

Creating Unique Products and New Technologies

Making systems smaller, more efficient, and lower noise—these are perennial needs of our customers in all markets. In the development of smaller modules, we combined our unique layering and connection technologies to realize a 25% reduction in mounting area. In electronic devices, we established electrode formation technology that further reduces forward power loss and successfully developed low conduction loss SiC diodes. In power sources, too, we incorporated new development methods and focused on developing compact, low-loss systems. In addition, we are currently advancing development of 40 V ideal diode ICs with built-in reverse voltage and reverse current prevention functions as a new technology with which we are targeting mainly the automobile market.



The Shindengen Group’s ESG Management

The Shindengen Group’s management philosophy is to grow “Together with society, our customers, and our employees,” and its medium-term CSR policy is “Promoting CSR activity along with our business partners.” Based on these, the Group engages in ESG management. As part of these efforts, we have designated target 7.3 of the SDGs as a material issue for the Shindengen Group.

The Shindengen Group’s Material Issue

7 AFFORDABLE AND CLEAN ENERGY

Target 7.3

By 2030, double the global rate of improvement in energy efficiency

CSR Data

For more details on the Shindengen Group’s CSR initiatives, please visit our website.
<https://www.shindengen.com/csr/>

Environmental

The Shindengen Group established the Shindengen Global Environmental Charter in 1992, and has long made addressing environmental issues a key management priority. Going forward, we will give consideration to interna-tional initiatives and targets aimed at creating a sustainable world, such as the Paris Agreement and Sustainable Development Goals (SDGs). The Group will strive to create eco-friendly products and reduce the environmental burden caused by its business activities in order to help address such social issues as climate change.

Focus

Initiatives to Reduce CO₂ Emissions

When replacing its large-scale air conditioning equipment, Akita Shindengen turned its attention to the difference in CO₂ emis-sions between different cooling methods and decided to replace its conventional absorption freezers with turbo electric freezers. This change has resulted in an annual reduction in CO₂ emissions of 225 t per year.

In addition, Shindengen Three E revised its procedures for aging tests (continuous current tests) conducted as part of final inspections of communications equipment power supplies. This revision realized annual reductions in CO₂ emissions of 10.8 t and electricity usage of 23,370 kW.



Initiatives to Realize a Low-Carbon Society

In fiscal 2019, Shindengen was once again selected as one of four companies to purchase cred-its through a project to reduce CO₂ emissions being implemented through the Yamagata prefec-tural government.* The four selected companies are working with the governor of Yamagata on measures to combat global warming. The funds supplied by the purchase of the carbon credits will be used by the prefecture in the coming fiscal year for environmental conservation projects.

* Under this initiative, the national government certifies reductions in CO₂ and other greenhouse gas emissions achieved via the use of renewable energy generating facilities, providing credits ("J-credits"). Companies can purchase these credits and use them toward their targets for realizing a low-carbon society or for carbon offset.

Initiatives at Overseas Locations

The Shindengen Group has been systematically working to completely eliminate the use of ozone-depleting substances since 2012. As part of these efforts, we are replacing old equipment with units that use HFC coolants, which have no ozone depleting effects. In fiscal 2019, Shindengen Philippines and Lumphun Shindengen advanced such replacements.

In addition, to preserve sustainable aquatic resources, since acquiring ISO 14001 certifi-cation in 1999, Shindengen Philippines has been engaged in water recycling. In fiscal 2019, the total volume of water recycled was 26,746 m³.

Finally, to conserve biodiversity, Shindengen Philippines planted trees, and Shindengen Indonesia made a donation (equivalent to approximately 100 mango trees) to tree-planting initiatives.



Energy-Saving Products

Product IC series products	Annual energy savings from use* 78,600,000 kWh	Annual CO₂ reduction 36,300 t-CO₂
<small>* Annual energy savings from use = (Annual energy consumption from use of previous series products – annual energy consumption of new series products) × Annual sales volume</small>		
Product DC/DC converters for hybrid vehicles	Annual fuel consumption reduction (gasoline)* 73,630 kl	Annual CO₂ reduction 171,000 t-CO₂
<small>* Annual gasoline consumption reduction = (Annual fuel consumption of a gasoline-powered vehicle (gasoline) – annual fuel consumption of a hybrid electric vehicle (gasoline)) × Vehicles manufactured</small>		

Social

The Shindengen Group respects international values with regard to human rights and is implementing initiatives to promote human rights, including raising awareness of social issues accompanying economic globalization and employee rights. In accordance with the Group Code of Conduct and internal Group standards, we prioritize work-place safety, the prohibition of harassment, and employee health. We offer career planning support and training for employees while advancing measures to create safer, healthier workplaces that accommodate diverse work styles.

Focus

Countermeasures to the Novel Coronavirus (COVID-19) Pandemic

Shindengen has implemented COVID-19 countermeasures from the perspective of business continuity management (BCM). Specifically, the BCM Committee drafted a manual on preventing the virus's spread and worked to quickly ensure awareness and compliance with related measures. In terms of new work styles, we have also adopted flextime, staggered work hours and remote working systems.

Protecting Human Rights in the Supply Chain

To fulfill its social responsibilities throughout the supply chain, Shindengen works to verify whether or not its products contain conflict minerals* and takes steps to eliminate them. In addition, we issue statements about slave labor and human trafficking based on Section 54 (1) of the UK's Modern Slavery Act.

* Conflict minerals are ores containing gold, tantalum, tin and tungsten mined in the Democratic Republic of the Congo and nearby countries that fund armed groups and anti-government organizations responsible for human rights violations and environmental and other problems.

Response to the Act on Promotion of Women's Participation and Advancement in the Workplace

Shindengen regards diverse human resources, including women, as a source of strength. Accordingly, we have set goals for initia-tives in line with the Act on Promotion of Women's Participation and Advancement in the Workplace and are working toward these goals to improve corporate value. The percentage of women among new graduate hires in fiscal 2019 was 12%, down 18 percentage points from fiscal 2018.

Goals for Initiatives Related to the Act on Promotion of Women's Participation and Advancement in the Workplace	
1	Raise the percentage of women among new graduate hires to 30%.
2	Actively place female employees in a wide range of divisions and positions.
3	Further promote work-life balance.



Health and Safety

Shindengen works to improve employee health and safety and enhance health management. In fis-cal 2018, we carried out standard first-aid training with the help of local fire departments. In addition, to enhance disaster preparedness, Okabe Shindengen held comprehen-sive fire drills for all employees twice during the year.

Dialog with the Outside Directors

Q1

What do you see as the role of an outside director, and how do you approach it?

Outside Director Ichiro Yamada: I think that the basic role of an outside director is to monitor overall management from an objective, outside perspective. Given this, I try to leverage both my corporate and academic experience in research and development to provide advice and suggestions regarding R&D strategies, especially that related to the Shindengen Group's main business domains of power devices and power supply systems. In particular, I try to raise questions to encourage multifaceted discussion about the development of future platform technologies (basic technologies that undergird businesses), which are key to increasing market competitiveness.

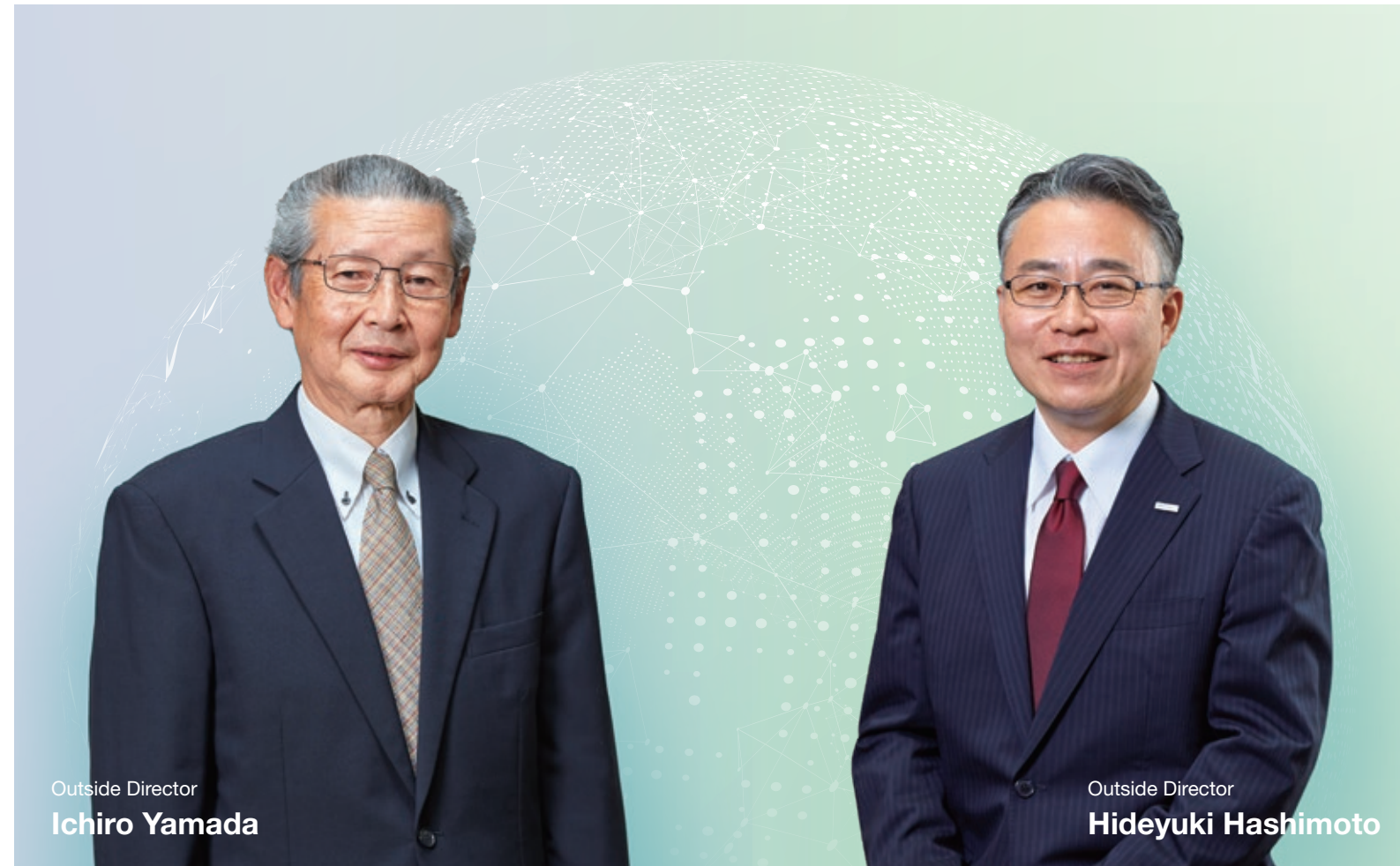
Outside Director Hideyuki Hashimoto: As a certified public accountant and tax accountant, I focus particularly on internal control and corporate governance. Part of my role, for example, is to provide oversight to prevent damage to corporate value from improper accounting and similar issues. I also prioritize monitoring medium- to long-term management and checking it against business strategies and plans to make sure the numbers, logic, and timing all check out. At meetings of the Board of Directors, where decisions are made, I try to make sure that the necessary information is adequately gathered, examined and considered, and that decisions are being reached in a reasonable and timely manner. I also keep an eye on the effectiveness of decision making in line with the principles of management decision making.

Q2

What do you see as the challenges and risks that the Shindengen Group faces with regard to increasing corporate value?

Yamada: The Shindengen Group is a power supply manufacturer whose main products are power devices and power supplies for vehicles. The Group boasts a long track record as an industry leader. Perhaps because of that storied record, its R&D tends to be rather conservative. It seems to me that, even at a time when next-generation technological and product development and entry into new fields are urgently needed, Shindengen's R&D can be overly cautious, which I worry could become a risk in itself. To maintain and increase corporate value, I think it will be necessary to boldly invest management resources to increase forward momentum.

At the same time, with regard to increasing sophistication and innovation in manufacturing technologies, the rapid adoption of cutting-edge technologies, such as those in the areas of IoT, AI and big data, is crucial. Shindengen has adopted such technologies in certain areas but still has a ways to go. Putting IoT, AI and related



technologies to effective use could not only improve productivity, but facilitate the development of systems and services, rapidly expanding the potential of the Shindengen Group. Furthermore, in platform technologies, in addition to next-generation power devices, I think that new sensor devices that leverage the Group's power device development know-how are very promising.

Hashimoto: Shindengen, which is now more than 70 years old, has a warm, serious corporate culture marked by strong interpersonal connections, but this culture can be somewhat conservative. Sometimes a conservative approach can become a source of risk. As such, I think that building enthusiasm for aggressive management and achieving the speed to put such management into action is a task for the Shindengen Group going forward. It will be important to carefully parse diverse data on the conditions surrounding the Group to formulate business strategy based on solid rationale, and to effectively implement a PDCA cycle in line with such strategy. Steadily and thoroughly carrying out the fundamentals like this builds the basis of stakeholder trust.

Also, I think that securing human resources is a constant task. To flexibly respond to changes in the business environment, attracting, retaining and, in various ways, developing outstanding people from in and outside Japan is an absolute necessity.

Q3

Where did you focus your efforts in fiscal 2019, and where are you focusing them in fiscal 2020?

Yamada: Last year, I focused on expressing my opinion on R&D strategies at the Board of Directors and meetings on R&D. In addition to discussing the future platform technologies of next-generation power devices and sensor devices, to bolster the development of technologies that are promising as next-generation products, such as wireless charging systems for EVs, I made suggestions aimed at fostering active discussion, especially incorporating the development trends of competitors.

In fiscal 2020, given that the impact of the novel coronavirus is

expected to stretch on for some time, rather than looking solely at measures to help operating results recover, I hope to focus on advancing the construction of robust corporate structures that will be resilient to crises, including pandemics, as well as the underlying infrastructure to support them.

Hashimoto: In fiscal 2019, I proactively sought opportunities to communicate with the executive directors and standing Audit & Supervisory Board members and focused on keeping tabs on all the information underlying business strategy. In addition, I strove to gather information not only from top management, but also the people at the front lines of business operations.

In fiscal 2020, the COVID-19 pandemic has brought up risks that are distinct from those Shindengen has faced before. Responding effectively to these is crucial. At such a critical time, I will strive to further enhance my contribution to rational and speedy decision making from the perspectives of internal control and corporate governance. I also hope to offer useful input regarding Shindengen's ongoing ESG management efforts.

Q4

Do you have a message you would like to share with Shindengen's stakeholders?

Yamada: As I mentioned, in order to increase the corporate value of the Shindengen Group going forward, I believe that it will be imperative to enhance sophistication and innovation in manufacturing by adopting IoT, AI and big data technologies. In addition to improving productivity in hardware manufacturing, such technologies can be leveraged in service development and sales activities, and I think that they hold great promise in terms of expanding the possibilities of the Shindengen Group. Simultaneously, these technologies will prove useful tools for building a strong company that is resilient to pandemics and other global crises. Shindengen has, in fact, demonstrated its ability to respond quickly during the COVID-19 pandemic. Going forward, I aim to help provide the support and prompting that management needs to take quick, decisive action.

Hashimoto: I think that the Shindengen Group's strength lies in its steady, trusted corporate management. I am sure that Shindengen will seek to efficiently utilize management resources to maximize this strength, implementing aggressive and speedy corporate management to improve corporate value while keeping in mind ESG considerations as a sustainable entity.

When the COVID-19 pandemic finally subsides, dramatic social and economic changes are expected. To adequately respond to such an operating environment, I hope to further engage in long-term, constructive dialog with all of Shindengen's stakeholders.

Corporate Governance

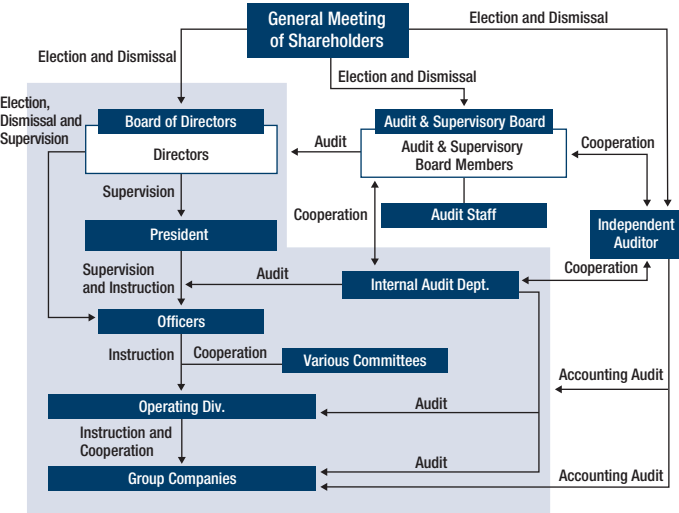
Shindengen positions corporate governance as a central tenet to ensure management transparency, compliance, and a management system able to quickly and accurately adapt to rapid changes in the operating environment. Maintaining and improving this system is one of our fundamental policies.

Corporate Governance System

To ensure that the Board of Directors manages the Company and operates its businesses in a way that serves to increase corporate value over the long term, Shindengen's Articles of Incorporation specify that the Board of Directors must comprise directors with diverse professional backgrounds and insight, and that it is limited to no more than nine directors. In addition, Shindengen ensures that at least two directors, in principle, are outside directors. Furthermore, Shindengen takes steps to strengthen its management system, including limiting director terms to one year and clarifying their responsibilities. We have also introduced an officer system to separate management decision-making and business execution, thereby accelerating these functions and promoting management efficiency while strengthening the supervisory functions of the Board of Directors.

Furthermore, the effectiveness of our internal control system is increased through audits undertaken from an independent standpoint by the Audit & Supervisory Board. Shindengen's management control structure is primarily composed of the Board of Directors, Management Committee, Audit & Supervisory Board, Technology & Quality Control Committee, General Manager Committee and Manager Committee. Through the functional operation of this structure, we seek to accelerate decision-making and promote efficient business activities and thus maintain tightly coordinated management across the entire Group. Furthermore, we have established the CSR Committee and Business Continuity Management (BCM) Committee, each chaired by the president, as part of ongoing efforts to promote social contribution and minimize the impact of disasters and other emergencies. With regard to information disclosure, we work to reinforce IR activities to improve management fairness and transparency.

Corporate Governance System



Audit & Supervisory Board Audits

We have adopted an audit & supervisory board system primarily consisting of outside Audit & Supervisory Board members (one full-time member and two outside members) to ensure independence and verify the execution of operations in a fair manner. We maintain a full-time audit staff to support our auditing system. The Audit & Supervisory Board receives accounting audit results from the independent auditor. This maintains the latter's independence and provides oversight and verification to ensure that the accounting audits are being implemented appropriately.

Internal Audits

Shindengen's Internal Audit Department (comprising the department manager and eight internal auditors) audits the condition and operation of the internal control system in order to ensure effective monitoring of the management activities of the Company and Group companies. The results of these audits are reported to the audited divisions in writing, with requests for improvement where necessary, and compiled into regular reports to the Board of Directors.

The Internal Audit Department and independent auditor have regular quarterly meetings to report on such topics as audit plans and activities, audits of internal controls over financial reporting, and risk management. Through these measures, we strive to maintain and strengthen an appropriate auditing system based on relevant laws and regulations.

The Internal Audit Department determines which sites to audit and the scope of items to evaluate through discussion with the independent auditor before executing internal audits. Based on prior discussions between the two, the independent auditor evaluates internal control over financial reporting and reports its findings to the Internal Audit Department.

In addition, the Audit & Supervisory Board members and independent auditor share information on their respective audit plans to facilitate efficient auditing. The Audit & Supervisory Board members receive information on audits, including quarterly review results and annual audit results, from the independent auditors, which they discuss together.

Accounting Audits

Ernst & Young ShinNihon LLC

Policy and Reasons for Independent Auditor Selection

Ernst & Young ShinNihon LLC was selected after the Audit & Supervisory Board found it well suited in terms of audit performance, audit systems, independence and expertise.

The Audit & Supervisory Board may, by the unanimous consent of its members, dismiss the independent auditor if any of the provisions of Article 340-1 of the Company Law of Japan are deemed to apply. In addition, if the independent auditor is deemed unable to appropriately execute its duties or when other cause warrants, the Company may propose a resolution for the general meeting of shareholders regarding the dismissal of the independent auditor or the non-extension of its audit engagement.

Outside Directors and Outside Audit & Supervisory Board Members

We have two outside directors and two outside Audit & Supervisory Board members. In accordance with the Tokyo Stock Exchange's standards of independence, we select outside directors and outside Audit & Supervisory Board members for their experience, insight and expert knowledge in a variety of fields.

Ichiro Yamada was selected as an outside director for his expert knowledge and rich experience as a university professor, with the expectation that he will be able to provide management with helpful direction and advice.

Hideyuki Hashimoto was selected as an outside director with the expectation that he will use his expert knowledge and rich experience as a certified public accountant and tax accountant to provide management with helpful advice.

Makoto Fujimaki was selected as an outside Audit & Supervisory Board member for his wealth of experience at financial institutions, with the expectation that he will contribute to precise audits based on his broad and sophisticated insight as a seasoned management professional.

Yuichiro Miyake was selected as an outside Audit & Supervisory Board member for his wealth of knowledge and experience in corporate law as an attorney, with the expectation that he will provide management oversight from an objective and impartial standpoint using his experience as an outside director at another Japanese company.

Director and Audit & Supervisory Board Member Compensation

The amounts and methods of calculating the compensation of Shindengen's directors and Audit & Supervisory Board members are decided by the Board of Directors in accordance with internal rules regarding monthly compensation amounts based on such factors as position and years of service, and are set within an upper limit decided by resolution of the general meeting of shareholders.

Director compensation is a fixed monthly amount, but can be reduced if operating performance is severely poor or augmented by bonuses when performance is strong. Furthermore, a compensation system for granting Company shares with a set vesting period to directors (excluding outside directors) was approved at the June 27, 2019 General Meeting of Shareholders.

The annual compensation of directors and Audit & Supervisory Board members in fiscal 2019 was as follows.

Basic compensation for six directors (including two outside directors. Does not include the employee salaries of directors who are concurrently employees)	¥94 million
Basic compensation for three Audit & Supervisory Board members (including two outside Audit & Supervisory Board members)	¥41 million

Constructive Dialog with Shareholders

To foster sustainable growth and improve corporate value over the long term, Shindengen engages in dialog with shareholders within the bounds of practicality. We do the following to facilitate appropriate and constructive dialog with shareholders.

- The Corporate Planning Group handles investor relations (IR) under the supervision of the Board of Directors and the officer of the Corporate Planning Group.
- The Corporate Planning Group, Administration Department, Finance Department and Internal Audit Department coordinate with one another, holding regular liaison meetings to exchange information.
- In addition to individual meetings, means of engaging in dialog with shareholders include semiannual results briefings for institutional investors.
- Shareholder and investor opinions gleaned from individual meetings each accounting period are reported to the relevant directors, and especially important matters are reported to the Board of Directors.
- Shindengen has established regulations to prevent insider trading. These govern the use of non-public information. In accordance with these regulations, we enforce such measures as silent periods in our dialog with investors.

Compliance and Risk Management

We take steps to increase the effectiveness of our compliance and risk management systems. To this end, besides management undertaken by respective management units, cross-functional initiatives are conducted by the Security and Trade Control Committee, the Environment Committee and other standing committees. Moreover, we form committees to address evaluations and audits of our internal control system related to financial reporting in accordance with the Financial Instruments and Exchange Act. We also maintain a crisis management system that promptly reports information on such important risk factors as accidents and disasters to the Board of Directors.

Board of Directors



President
Yoshinori Suzuki

- 1982** Joined Shindengen
- 1996** Managing Director, Shindengen Singapore Pte Ltd.
- 2007** General Manager, Electronic Device Sales Division, Electronic Device Division Group
- 2008** Officer; Deputy Division Director, Electronic Device Division Group
- 2009** Officer, Corporate Planning Group
- 2009** Director
- 2013** Division Director, Sales Division Group
- 2014** Executive Officer
- 2015** President, Shindengen Device Commerce Co., Ltd.
- 2016** President (current position)

Director and Senior Executive Officer
Yasumi Negishi

- 1982** Joined Shindengen
- 2004** Department Manager, Finance Department
- 2009** Department Manager, Personnel Department
- 2012** Director (current position) and Officer
- 2015** Senior Officer
- 2015** President, Shindengen Enterprise Co., Ltd.
- 2016** Executive Officer
- 2018** Senior Executive Officer (current position)

Director and Executive Officer
Kenji Horiguchi

- 1983** Joined Shindengen
- 2003** Associate General Manager, Advanced Power Products Division, Electronic Device Division Group
- 2005** General Manager, Advanced Power Products Division, Electronic Device Division Group
- 2008** General Manager, IC Development Center, Technology & Development Division Group
- 2009** Deputy Division Director, Technology & Development Center
- 2010** Officer and President, Higashine Shindengen Co., Ltd.
- 2013** Director (current position)
- 2016** Senior Officer
- 2018** Executive Officer (current position)



Director and Executive Officer
Nobuyoshi Tanaka

- 1985** Joined Shindengen
- 2006** Department Manager, Planning Department, Corporate Planning Group
- 2010** Department Manager, Administration Department, Electronic Device Management Division, Electronic Device Division Group
- 2011** Officer; Division Director, Electronic Device Division Group
- 2016** Senior Officer
- 2017** Director (current position)
- 2018** Executive Officer (current position)

Outside Director
Ichiro Yamada

- 1974** Joined Nippon Telegraph and Telephone Public Corporation
- 1985** Doctor of Engineering (University of Tokyo)
- 2002** Professor, University of Tokyo School of Engineering
- 2009** Vice President, University of Tokyo
- 2012** Professor, University of Tokyo Graduate School of Frontier Sciences
- 2014** Outside Director, Shindengen (current position)
- 2015** Professor Emeritus, University of Tokyo (current position)
- 2019** Outsider Director, Mimaki Engineering Co., Ltd. (current position)

Outside Director
Hideyuki Hashimoto

- 1991** Joined Chuo Shinkou Audit Corporation
- 1995** Registered as a certified public accountant
- 2000** Opened Hashimoto Public Accounting Office
- 2000** Registered as a certified tax accountant
- 2007** Joined BDO Toyo & Co.
- 2014** Partner, BDO Toyo & Co. (current position)
- 2015** Outside Director, Shindengen (current position)
- 2019** Outsider Director (Audit & Supervisory Committee Member), Silver Life Co., Ltd. (current position)

Financial Section

Five-Year Summary

Shindengen Electric Manufacturing Co., Ltd. and its Subsidiaries
(Years ended March 31)

	Millions of yen				
	2020	2019	2018	2017*	2016
Net sales	¥92,966	¥94,703	¥ 92,177	¥ 90,415	¥ 98,110
Operating income	1,757	5,639	6,854	5,103	799
Profit before income taxes	1,126	5,731	7,098	4,813	166
Profit (loss) attributable to owners of parent	(4,156)	3,877	5,294	3,389	205
Profit (loss) attributable to owners of parent per share—basic	¥(403.48)	¥ 376.41	¥ 513.91	¥ 328.97	¥ 19.90
Cash dividends per share for the period (Common stock)**	62.50	125.00	125.00	125.00	125.00
Total assets	¥121,560	¥128,670	¥133,707	¥128,530	¥133,101
Total current assets	73,494	79,874	83,404***	81,192	85,118
Property, plant and equipment	31,389	27,496	25,937	25,018	26,551
Total shareholders' equity	55,676	61,112	58,525	54,529	52,355
Net cash provided by operating activities	5,829	3,495	9,335	7,612	10,421
Net cash used in investing activities	(9,649)	(5,875)	(4,823)	(3,537)	(5,884)
Net cash used in financing activities	(2,336)	(4,604)	(3,025)	(4,430)	(2,865)
Cash and cash equivalents at end of the year	26,337	32,505	39,626	38,272	38,905

* From the year ended March 31, 2018, the Company is translating the revenue and expenses of its overseas consolidated subsidiaries into Japanese yen using the average exchange rate for each currency over the fiscal period under review. Previously, the exchange rates prevailing at the balance sheet date were used. This change has been applied retrospectively to the figures for the year ended March 31, 2017.

** Shindengen executed a share consolidation on October 1, 2017, at a ratio of 10 common shares to one. Per-share figures have been adjusted accordingly.

*** The Company and its consolidated subsidiaries have adopted "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No.28, February 16, 2018) (hereinafter, the "Partial Amendments") for the beginning of the fiscal year ended March 31, 2019. As such, deferred tax assets and deferred tax liabilities are included within investments and other assets and long-term liabilities, respectively, and related income tax disclosures have been expanded.

As a result, ¥1,058 million of deferred tax assets in current assets in consolidated balance sheet as of March 31, 2018 have been reclassified and included within ¥6,016 million of deferred tax assets in investments respectively.

Management’s Discussion and Analysis

Scope of Consolidation

During the fiscal year ended March 31, 2020 (fiscal 2019), the Shindengen Group included the Company, 18 consolidated subsidiaries, three non-consolidated subsidiaries and two affiliated companies accounted for under the equity method.

Operating Results Performance Overview

Amid weak semiconductor demand and, in many regions, sluggish motor-cycle markets, challenging conditions prevailed in the business environment of the Shindengen Group.

Under these circumstances, consolidated net sales decreased 1.8% year on year to ¥92,966 million. Operating income fell 68.8% to ¥1,757 million, reflecting the weak semiconductor market and an increase in depreciation and amortization, while ordinary income decreased 73.3% to ¥1,598 million. Reflecting reversal of deferred tax assets (recorded as

income taxes—deferred), the Company recorded a loss attributable to owners of the parent of ¥4,156 million, compared with profit attributable to owners of the parent of ¥3,877 million in the previous fiscal year.

Operating Conditions by Business Segment Electronic Device

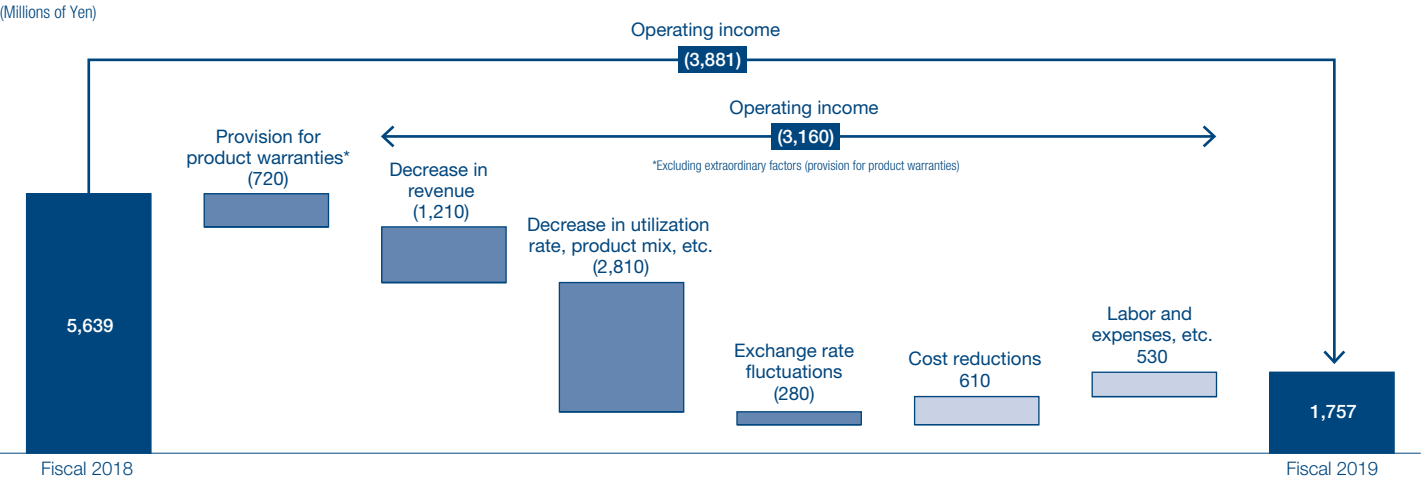
In the Electronic Device segment, net sales amounted to ¥30,989 million, down 8.9% year on year, and operating loss came to ¥242 million, compared with operating income of ¥2,577 million in the previous fiscal year.

Sales in the consumer electronics market were weak on a full-year basis, despite signs of recovery in products for air conditions near the end of the fiscal year. The automobile market and industrial equipment market remained sluggish. As a result, segment revenue decreased year on year. Despite efforts to reduce costs, the decrease in revenue, a decrease in the utilization rate due to lower production volume, and an increase in depreciation and amortization led to an operating loss.

Operating Results

	(Millions of Yen)			
	Fiscal 2019	Fiscal 2018	Change	Change (%)
Net sales	92,966	94,703	(1,737)	(1.8)
Operating income	1,757	5,639	(3,881)	(68.8)
Profit (loss) attributable to owners of the parent	(4,156)	3,877	—	—

Overview of Change in Operating Income (Year on Year)



Car Electronics

In the Car Electronics segment, net sales amounted to ¥51,638 million, down 0.8% year on year, and operating income came to ¥6,023 million, down 39.6%.

Sales of mainstay motorcycle products were firm in Indonesia and India. In the latter, this was due the effect of new products introduced in the second half of the fiscal year, despite persistently sluggish market conditions. However, motorcycle product sales were weak in Vietnam and Thailand. Furthermore, the yen was strong against other Asian currencies. As a result, segment revenue decreased year on year. Earnings also decreased, reflecting the absence of the reversal of operating expenses recorded in the previous fiscal year, changes in the product mix and the impact of weak Asian currencies.

Other

Other net sales amounted to ¥10,339 million, up 19.5% year on year, and operating loss came to ¥122 million, compared with operating loss of ¥2,446 million in the previous fiscal year.

For information on the performance of each business segment (excluding Other), please refer to Business Segments on pages 11–16. Note that, except where otherwise specified, intersegment transactions have been eliminated from segment performance throughout this report.

Earnings and Expenses

Fiscal 2019 operating income decreased 68.8% year on year to ¥1,757 million, and the operating income margin declined from 6.0% to 1.9%. This decrease was mainly due to exchange rate fluctuations in the Car Electronics segment, despite revenue growth in that segment, as well as decreased revenue in the Electronic Device segment and an increase in depreciation and amortization.

Net other income and expense included ¥382 million in dividends income and other factors that rose year on year, but also factors that were down, such as ¥204 million in equity in earnings of affiliates and ¥138 million in interest income, as well as ¥568 million in foreign exchange losses. Under extraordinary losses, the Company recorded impairment loss of ¥473 million. As a result, net other loss amounted to ¥631 million, and profit before income taxes came to ¥1,126 million.

After subtracting income taxes, loss attributable to owners of the parent amounted to ¥4,156 million, and net income per share decreased from ¥376.41 in fiscal 2018 to a loss per share of ¥403.48. As a result, the net income (loss) margin fell from positive 4.1% in fiscal 2018 to negative 4.5%, and ROE fell from positive 6.5% to negative 7.4%.

Comprehensive loss came to ¥4,979 million, compared with comprehensive income of ¥1,592 million in the previous fiscal year.

Segment Operating Income

	(Millions of Yen)			
	Fiscal 2019	Fiscal 2018	Change	Change (%)
Electronic Device	(242)	2,577	(2,819)	—
Car Electronics	6,023	9,973	(3,950)	(39.6)
Other	(122)	(2,446)	2,324	—
Adjustments and eliminations*	(3,902)	(4,465)	563	—
Total	1,757	5,639	(3,882)	(68.8)

* The figures shown above for adjustments and eliminations include corporate expenses not allocated to the reportable segments. Corporate expenses comprise mainly general and administration expenses not attributable to the reportable segments.

Financial Position

Assets, Liabilities and Net Assets

Total assets as of March 31, 2020 stood at ¥121,560 million, down ¥7,110 million year on year. This was mainly due to decreases in marketable securities and deferred tax assets.

Total liabilities at the end of the fiscal year were down ¥851 million year on year to ¥68,348 million. This was mainly attributable to decreases in retirement benefit liability and provision for product warranties.

Total net assets at the end of the fiscal year under review stood at ¥53,212 million, down ¥6,259 million from a year prior. This was mainly because of a decrease in retained earnings.

As a result, net assets per share were ¥5,165.32.

Cash Flows

Cash and cash equivalents (net cash) at the end of the fiscal year under review came to ¥26,337 million, a decrease of ¥6,168 million from the end of fiscal 2018. This was the result of ¥5,829 million in cash provided by operating activities, ¥9,649 million in net cash used in investing activities, and ¥2,336 million in net cash used in financing activities.

Net cash provided by operating activities was ¥5,829 million, compared with ¥3,495 million in the previous fiscal year. This was mainly due to profit before income taxes of ¥1,126 million, along with depreciation and amortization of ¥5,176 million.

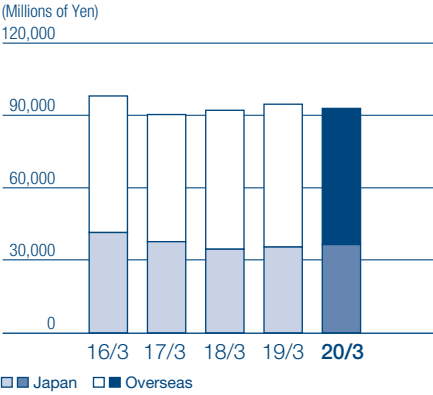
Net cash used in investing activities was ¥9,649 million, compared with ¥5,875 million in the previous fiscal year. This was due mainly to ¥9,048 million used in the purchase of property, plant and equipment.

Net cash used in financing activities was ¥2,336 million, compared with ¥4,605 million in the previous fiscal year. Proceeds of ¥6,000 million from long-term loans payable were offset by the scheduled repayment of ¥5,750 million in long-term loans payable, ¥981 million used for the redemption of bonds and ¥1,288 million in cash dividends paid.

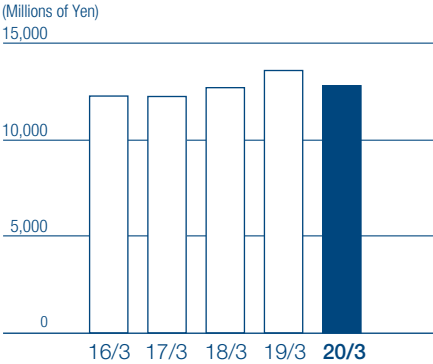
Segment Net Sales

	(Millions of Yen)			
	Fiscal 2019	Fiscal 2018	Change	Change (%)
Electronic Device	30,989	34,016	(3,027)	(8.9)
Car Electronics	51,638	52,033	(395)	(0.8)
Other	10,339	8,654	1,685	19.5
Total	92,966	94,703	(1,738)	(1.8)

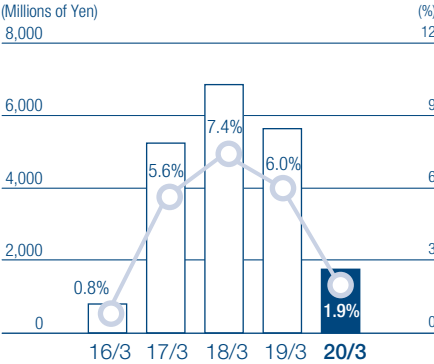
Net Sales



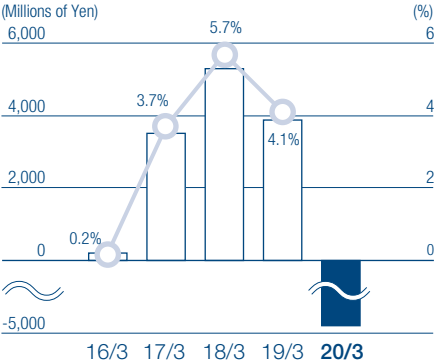
Selling, General and Administrative Expenses



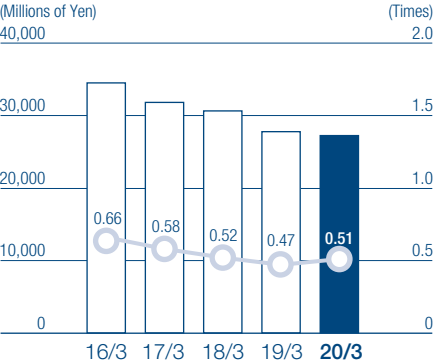
Operating Income Operating Income Margin



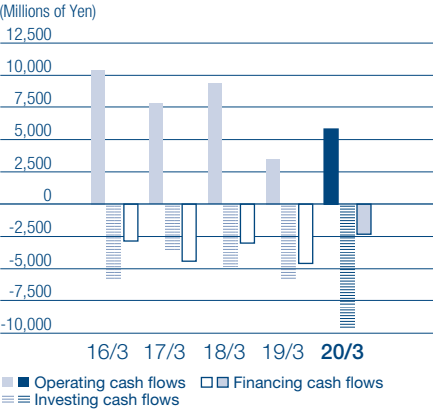
Profit (loss) Attributable to Owners of Parent, Ratio to Net Sales



Interest-Bearing Debt D/E Ratio



Cash Flows



Consolidated Balance Sheets

Shindengen Electric Manufacturing Co., Ltd. and its subsidiaries
At March 31, 2020 and 2019

		Millions of yen	Thousands of U.S. dollars (Note 3)
	2020	2019	2020
ASSETS			
Current assets:			
Cash and deposits (Notes 4, 6)	¥ 26,337	¥ 25,505	\$ 242,005
Notes and accounts receivable-trade (Note 6)	18,958	19,044	174,197
Less: Allowance for doubtful accounts	(19)	(19)	(171)
	18,939	19,025	174,026
Securities (Notes 6, 7)	—	7,000	—
Inventories (Note 5)	23,382	23,760	214,850
Other	4,836	4,584	44,437
Total current assets	73,494	79,874	675,318
Property, plant and equipment:			
Buildings and structures (Note 8)	8,045	8,094	73,923
Machinery, equipment and vehicles (Note 8)	9,948	8,700	91,409
Land	5,372	5,770	49,365
Lease assets-tangible (Notes 8, 20)	1,102	948	10,128
Construction in progress	5,327	2,202	48,944
Other, net (Note 8)	1,595	1,782	14,652
Property, plant and equipment	31,389	27,496	288,421
Investments and other assets:			
Investment securities (Notes 6, 7, 11)	12,456	13,674	114,452
Deferred tax assets (Note 13)	2,138	5,505	19,643
Software	819	955	7,528
Lease assets-intangible (Note 20)	19	1	175
Allowance for doubtful accounts	(48)	(49)	(443)
Other	1,293	1,214	11,878
Total investments and other assets	16,677	21,300	153,233
Total assets	¥121,560	¥128,670	\$1,116,972

The accompanying notes are an integral part of the statements.

		Millions of yen	Thousands of U.S. dollars (Note 3)
	2020	2019	2020
LIABILITIES AND NET ASSETS			
Current liabilities:			
Notes and accounts payable-trade (Note 6)	¥ 16,094	¥ 15,284	\$ 147,883
Short-term loans payable (Notes 6, 9)	4,525	5,750	41,579
Current portion of bonds (Notes 6, 9)	1,475	975	13,553
Lease obligations (Notes 6, 9)	336	281	3,091
Income taxes payable (Note 6)	151	62	1,384
Provision for bonuses	931	1,111	8,557
Other	5,917	6,668	54,368
Total current liabilities	29,429	30,131	270,416
Noncurrent liabilities:			
Bonds payable (Notes 6, 9)	4,825	6,300	44,335
Long-term loans payable (Notes 6, 9)	15,200	13,725	139,667
Lease obligations (Notes 6, 9)	873	745	8,025
Deferred tax liabilities (Note 13)	777	129	7,140
Liability for retirement benefits (Note 10)	14,782	15,305	135,823
Provision for product warranties	2,277	2,691	20,921
Asset retirement obligations	140	141	1,288
Other	45	32	411
Total noncurrent liabilities	38,919	39,068	357,610
Contingent liabilities (Note 12)			
Net assets (Note 22):			
Shareholders' equity:			
Capital stock	17,823	17,823	163,770
Capital surplus	7,738	7,739	71,102
Retained earnings	30,252	35,696	277,975
Treasury stock	(137)	(146)	(1,261)
Total shareholders' equity	55,676	61,112	511,586
Accumulated other comprehensive income (loss):			
Unrealized holding gain on available-for-sale securities	792	1,720	7,281
Foreign currency translation adjustment	(1,759)	(1,659)	(16,167)
Retirement benefits liability adjustments	(1,497)	(1,702)	(13,754)
Total accumulated other comprehensive income (loss)	(2,464)	(1,641)	(22,640)
Total net assets	53,212	59,471	488,946
Total liabilities and net assets	¥ 121,560	¥ 128,670	\$1,116,972
Per share of common stock:			
Net assets (Yen) (U.S. dollars)	¥5,165.32	¥5,774.08	\$ 47.46

Consolidated Statements of Income and Comprehensive Income

Shindengen Electric Manufacturing Co., Ltd. and its subsidiaries
For the years ended March 31, 2020 and 2019

		Millions of yen	Thousands of U.S. dollars (Note 3)
	2020	2019	2020
Net sales	¥92,966	¥94,703	\$854,229
Cost of sales (Note 16)	78,414	75,483	720,516
Gross profit	14,552	19,220	133,713
Selling, general and administrative expenses (Notes 15, 16)	12,795	13,581	117,564
Operating income	1,757	5,639	16,149
Other income (expense):			
Interest income	138	169	1,269
Dividends income	382	371	3,508
Royalty income	19	24	179
Equity in earnings of affiliates	204	420	1,873
Interest expenses	(199)	(238)	(1,833)
Foreign exchange losses	(568)	(340)	(5,217)
Business structure improvement expenses (Note 14)	—	(164)	—
Impairment loss (Note 17)	(473)	(86)	(4,345)
Other, net	(134)	(64)	(1,241)
	(631)	92	(5,807)
Profit before income taxes	1,126	5,731	10,342
Income taxes (Note 13):			
Current	1,004	709	9,226
Deferred	4,278	1,145	39,307
Total income taxes	5,282	1,854	48,533
Profit	(4,156)	3,877	(38,191)
Profit attributable to owners of parent	¥ (4,156)	¥ 3,877	\$ (38,191)

		Millions of yen	Thousands of U.S. dollars (Note 3)
	2020	2019	2020
Profit attributable to owners of parent	¥ (4,156)	¥ 3,877	\$ (38,191)
Other comprehensive income			
Unrealized holding loss (gain) on available-for-sale securities	(928)	(1,912)	(8,520)
Foreign currency translation adjustment	104	(931)	957
Retirement benefits liability adjustments	205	576	1,887
Share of other comprehensive loss of affiliates accounted for using equity method	(204)	(18)	(1,876)
Total other comprehensive income (Note 18)	(823)	(2,285)	(7,552)
Comprehensive income	¥ (4,979)	¥ 1,592	\$ (45,743)

Comprehensive income attributable to:			
Owners of parent	¥ (4,979)	¥ 1,592	\$ (45,743)
Non-controlling interests	—	—	—

		Yen	U.S. dollars (Note 3)
	2020	2019	2020
Per share of common stock [Notes 2 (13), 23]:			
Profit attributable to owners of parent:			
Basic	¥(403.48)	¥376.41	\$(3.71)
Diluted	—	—	—
Cash dividends per share for the period (Common stock)	62.50	125.00	0.57
Weighted average number of ordinary shares (thousands)	10,301	10,300	

Note: A share consolidation of the Company's common stock was implemented at a ratio of 1 share per 10 shares on October 1, 2017.
The accompanying notes are an integral part of the statements.

Consolidated Statements of Changes in Net Assets

Shindengen Electric Manufacturing Co., Ltd. and its subsidiaries
For the years ended March 31, 2020 and 2019

Millions of yen						
Shareholders' equity						
	Number of shares issued (Note 22)	Capital stock	Capital surplus	Retained earnings	Treasury stock (Note 22)	Total shareholders' equity
Balance at March 31, 2018	103,339	¥17,823	¥7,739	¥33,107	¥(143)	¥58,526
Cash dividends paid				(1,288)		(1,288)
Profit attributable to owners of parent				3,877		3,877
Purchase of treasury stock					(3)	(3)
Net changes in items other than those in shareholders' equity						
Balance at March 31, 2019	103,339	17,823	7,739	35,696	(146)	61,112
Cash dividends paid				(1,288)		(1,288)
Profit attributable to owners of parent				(4,156)		(4,156)
Purchase of treasury stock					(1)	(1)
Disposal of treasury stock			(1)		10	9
Net changes in items other than those in shareholders' equity						
Balance at March 31, 2020	103,339	¥17,823	¥7,738	¥30,252	¥(137)	¥55,676

Millions of yen					
Accumulated other comprehensive income (loss)					
	Unrealized holding gain on available-for-sale securities	Foreign currency translation adjustment	Retirement benefits liability adjustments (Note 10)	Total accumulated other comprehensive income (loss)	Total net assets
Balance at March 31, 2018	¥3,632	¥ (710)	¥(2,278)	¥ 644	¥59,169
Cash dividends paid					(1,288)
Profit attributable to owners of parent					3,877
Purchase of treasury stock					(3)
Net changes in items other than those in shareholders' equity	(1,912)	(949)	576	(2,285)	(2,285)
Balance at March 31, 2019	1,720	(1,659)	(1,702)	(1,641)	59,470
Cash dividends paid					(1,288)
Profit attributable to owners of parent					(4,156)
Purchase of treasury stock					(1)
Disposal of treasury stock					9
Net changes in items other than those in shareholders' equity	(928)	(100)	205	(823)	(823)
Balance at March 31, 2020	¥ 792	¥(1,759)	¥(1,497)	¥(2,464)	¥53,212

The accompanying notes are an integral part of the statements.

Thousands of U.S. dollars					
Shareholders' equity					
	Capital stock	Capital surplus	Retained earnings	Treasury stock (Note 22)	Total shareholders' equity
Balance at March 31, 2019	\$163,770	\$71,108	\$327,996	\$(1,338)	\$561,536
Cash dividends paid			(11,830)		(11,830)
Profit attributable to owners of parent			(38,191)		38,190
Purchase of treasury stock				(15)	(15)
Disposal of treasury stock		(6)		92	85
Net changes in items other than those in shareholders' equity					
Balance at March 31, 2020	\$163,770	\$71,102	\$277,975	\$(1,261)	\$511,586

Thousands of U.S. dollars					
Accumulated other comprehensive income (loss)					
	Unrealized holding gain on available-for-sale securities	Foreign currency translation adjustment	Retirement benefits liability adjustments (Note 10)	Total accumulated other comprehensive income (loss)	Total net assets
Balance at March 31, 2019	\$15,801	\$(15,248)	\$(15,641)	\$(15,088)	\$546,449
Cash dividends paid					(11,830)
Profit attributable to owners of parent					(38,190)
Purchase of treasury stock					(15)
Disposal of treasury stock					85
Net changes in items other than those in shareholders' equity	(8,520)	(919)	1,887	(7,552)	(7,552)
Balance at March 31, 2020	\$ 7,281	\$(16,167)	\$(13,754)	\$(22,640)	\$488,946

The accompanying notes are an integral part of the statements.

Consolidated Statements of Cash Flows

Shindengen Electric Manufacturing Co., Ltd. and its subsidiaries
For the years ended March 31, 2020 and 2019

		Millions of yen	Thousands of U.S. dollars (Note 3)
	2020	2019	2020
Operating activities:			
Profit before income taxes	¥ 1,126	¥ 5,731	\$ 10,342
Depreciation and amortization	5,176	4,972	47,561
Bond issuance cost	6	62	54
Impairment loss	473	86	4,345
Decrease (increase) in provision for bonuses	(179)	(21)	(1,649)
Decrease in provision for product warranties	(414)	(1,724)	(3,802)
Increase in liability for retirement benefits	(202)	37	(1,852)
Interest and dividends income	(520)	(540)	(4,777)
Interest expenses	199	238	1,833
Decrease in notes and accounts receivable-trade	110	(10)	1,014
Decrease in inventories	347	(4,059)	3,188
Decrease in consumption taxes refund receivable	242	(379)	2,222
Increase (decrease) in accounts receivable-other	(9)	17	(87)
Increase in notes and accounts payable-trade	933	1,101	8,537
Loss on disposal of property, plant and equipment	28	38	255
Other, net	(921)	(392)	(8,425)
Sub total	6,395	5,157	58,759
Interest and dividends received	517	566	4,751
Interest paid	(204)	(239)	(1,876)
Income taxes paid	(879)	(1,989)	(8,077)
Net cash provided by operating activities	5,829	3,495	53,557
Investing activities:			
Proceeds from sales of investment securities	—	0	—
Purchase of property, plant and equipment	(9,048)	(5,990)	(83,142)
Proceeds from sales of property, plant and equipment	21	5	197
Purchase of intangible assets	(212)	(320)	(1,949)
Other, net	410	430	(3,768)
Net cash used in investing activities	(9,649)	(5,875)	(88,662)
Financing activities:			
Proceeds from long-term loans payable	6,000	2,500	55,132
Repayment of long-term loans payable	(5,750)	(7,475)	(52,835)
Proceeds from issuance of bonds	—	2,438	—
Redemption of bonds	(981)	(500)	(9,013)
Purchase of treasury stock	(1)	(3)	(15)
Repayment for finance lease obligations	(316)	(277)	(2,899)
Cash dividends paid	(1,288)	(1,288)	(11,830)
Net cash used in financing activities	(2,336)	(4,605)	(21,460)
Effect of exchange rate change on cash and cash equivalents	(12)	(137)	(107)
Net decrease (increase) in cash and cash equivalents	(6,168)	(7,121)	(56,673)
Cash and cash equivalents at beginning of the year	32,505	39,626	298,678
Cash and cash equivalents at end of the year (Note 4)	¥26,337	¥32,505	\$242,005

The accompanying notes are an integral part of the statements.

Notes to Consolidated Financial Statements

Shindengen Electric Manufacturing Co., Ltd. and its subsidiaries

1. Basis of presentation

(1) Accounting principles and presentation

The accompanying consolidated financial statement of Shindengen Electric Manufacturing Co., Ltd. (the “Company”) and its subsidiaries (the “Companies”) are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to the applications and disclosure requirements of International Financial Reporting Standards, and are compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Law of Japan.

Certain items presented in the consolidated financial statements submitted to the Director of Kanto Finance Bureau (a regional branch organization of the Ministry of Finance in Japan) have been reclassified in these accounts for the convenience of readers outside Japan.

Certain items in the prior years’ financial statements have been reclassified to conform to the current year’s presentation.

(2) Scope of consolidation

The Company had 21 subsidiaries (controlling companies-companies whose decision-making is controlled, 18 consolidated subsidiaries, 3 non-consolidated subsidiaries, 2 affiliated companies) as of March 31, 2020 and had 20 subsidiaries as of March 31, 2019.

The consolidated financial statements for the years ended March 31, 2020 and 2019 include the accounts of the Company and its 18 subsidiaries, respectively.

The major consolidated subsidiaries were listed below.

	Equity ownership percentage
• Akita Shindengen Co., Ltd.	100.0%
• Higashine Shindengen Co., Ltd.	100.0%
• Okabe Shindengen Co., Ltd.	100.0%
• Lumphun Shindengen Co., Ltd.	100.0%
• Shindengen (Thailand) Co., Ltd.	100.0%

In the accompanying consolidated financial statements, the accounts of the 11 overseas subsidiaries for the year ended December 31, 2019 were consolidated with the accounts of the Company for the year ended March 31, 2020, as their fiscal year ends on December 31.

The remaining 3 unconsolidated subsidiaries as of March 31, 2020 were insignificant in terms of total assets, net sales, profit or loss and retained earnings and therefore have been excluded from consolidation.

The major unconsolidated subsidiary was listed below.

• Shindengen Lao Co., Ltd.

(3) Elimination and consolidation

For the purpose of preparing the consolidated financial statements, all significant inter-company transactions, account balances and unrealized profits among the Companies have been entirely eliminated, and the portion attributable to non-controlling interests is charged (credited) to non-controlling interests.

(4) Investments in unconsolidated subsidiaries and affiliates

The Company had 3 unconsolidated subsidiaries and 2 affiliates (influencing companies-companies whose financial and operating or business

decision making can be influenced to a material degree, and which are not subsidiaries) at March 31, 2020.

The investments in 2 affiliates are accounted for using the equity method. Investments in unconsolidated subsidiaries not accounted for using the equity method are stated at cost less impairment loss, due to their insignificant effect on the consolidated financial statements.

The major affiliate accounted for by the equity method was listed below.

- Shindengen Mechatronics Co., Ltd.

(5) Translation of foreign currency financial statements (accounts of overseas subsidiaries)

Assets, liabilities and net assets of overseas subsidiaries are translated into Japanese yen using the exchange rates prevailing at the balance sheet date except shareholders’ equity, which is translated at the historical rates.

Differences in Japanese yen amounts arising from the use of different exchange rates are presented as “Foreign currency translation adjustment” in the accompanying consolidated financial statements.

(6) Revaluation of assets and liabilities of subsidiaries

The Company adopts the “full fair value method” in which all assets and liabilities of the subsidiaries are remeasured at fair value as of the acquisition of the control.

(7) Cash and cash equivalents

Cash and cash equivalents in the consolidated statements of cash flows are composed of cash in hand, bank deposits, which are able to be withdrawn on demand and short-term investments with an original maturity of three months or less and which represent a minor risk of fluctuation in value.

2. Summary of significant accounting policies

(1) Financial instruments

(A) Securities

Securities held by the Company and its subsidiaries are classified into two categories: “held-to maturity”, or “other securities”. Held-to maturity securities are carried at cost.

Mark-to-market accounting is adopted for other securities. In accordance with this method, these securities with market quotations are carried at fair value that is reasonably determinable based on current market quotes on the balance sheet date, with net unrealized gains and losses, net of related tax, reported separately in net assets. Realized gains or losses on securities sold are determined based on the moving-average method. If fair value is not available, securities are carried at cost, which is determined by the moving-average method.

In cases where the fair value of equity securities issued by unconsolidated subsidiaries and affiliates or other securities has declined significantly and such impairment of the value is not deemed temporary, these securities are written down to the fair value and the resulting losses are included in net profit or loss for the period.

(B) Derivatives

All derivatives are carried at fair value, with changes in fair value included in net profit or loss for the period in which they arise, except for derivatives that are designated as “hedging instruments”.

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Significant finance lease transactions without cash flow for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
		2020
Lease assets	¥493	¥385
Lease obligations	527	409
		4,841

5. Inventories

Inventories held by the Companies as of March 31, 2020 and 2019 consisted of the following:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
		2020
Finished products	¥ 7,638	¥ 8,431
Raw materials	11,184	10,625
Work in process	4,560	4,704
	¥23,382	¥23,760
		\$214,850

The cost of sales includes write-downs of inventories of ¥642 million (\$5,899 thousand), and ¥395 million for the years ended March 31, 2020 and 2019, respectively, reflecting reduced profitability of inventory held for normal sales purposes.

6. Financial instruments

① Overview

(1) Policy for financial instruments

The Companies raise funds mainly through bank borrowings and issuing bonds. The Companies manage temporary cash surpluses through low-risk and short-term financial assets. The Companies uses derivatives for the purpose of reducing risks, and does not enter into derivatives for speculative purposes.

(2) Types of financial instruments and related risk

Trade receivables (notes and accounts receivable-trade) are exposed to credit risk in relation to customers. In addition, the Companies are exposed to foreign currency exchange risk arising from receivables denominated in foreign currencies.

Held-to-maturity securities (certificate of deposit) are exposed to credit risk, but the Companies believe that it is insignificant as it enters only with financial institutions which have a sound credit profile.

Investment securities (mainly composed of the shares of common stock) are exposed to market risk.

Trade payables (notes and accounts payable-trade) have payment due dates within 1 year. Trade payables denominated in foreign currency are exposed to foreign currency exchange risk.

Short-term loans payables are raised mainly in connection with funding the working capital. Long-term loans payable, bonds payable, and lease obligations are taken out mainly for the purpose of making capital investments, settled within 7 years from the balance sheet date, and partially exposed to interest rate fluctuation risk.

Regarding derivatives, the Companies enter into forward foreign exchange contracts to reduce future foreign currency exchange risk arising from the receivables and payables denominated in foreign currencies. The forward exchange contracts volume is limited to the balance of each asset or liability denominated in foreign currencies. The Companies enter into interest rate swap transactions to reduce future interest rate risks deriving from financial assets or liabilities. The amount of the swap contracts is limited to the balance of the underlying financial assets or liabilities. Forward foreign exchange contracts are exposed to currency rate fluctuation risks. Interest rate swap transactions are exposed to interest rate risks.

Information regarding the method of hedge accounting, hedging instruments, hedged items, and hedging policy is disclosed in “Hedge accounting”.

(3) Risk management for financial instruments

(A) Monitoring of credit risks (default of the customers, or other)

In accordance with the Company’s internal rule “Management rule of operating receivables”, the Sales Dept. and Finance Dept. periodically monitor the balance of transactions involving main customers, as a part of balance management, and grasp at an early stage any increase in customer credit risks from deterioration in financial condition or other phenomenon. In the subsidiary companies, there are almost the same management systems according to “Management rule of operating receivables”. The Companies also believe that the credit risk of derivatives is insignificant as it enters into derivative transactions only with financial institutions which have a sound credit profile.

(B) Monitoring of market risks (the risks arising from fluctuations in foreign exchange rates, interest rates and others)

The Company has “Management rule of derivatives” that sets forth basic policy, procedures, and upper position limits on derivative transactions. Based on this rule, the Finance Dept. executes derivative contracts. The status of each transaction is reported at the board of director’s meeting on a quarterly basis. The same rule is adopted and followed by its subsidiaries. For marketable securities and investment securities, the Company periodically reviews the fair values of such financial instruments and the financial position of the issuers. In addition, the Company monitors the market price for stocks with market values on a quarterly basis.

(C) Monitoring of liquidity risk (the risk that the Companies may not be able to meet their obligations on scheduled due dates)

The Company prepares and updates its cash flow plans on a timely basis, and maintains the liquidity on hand to manage liquidity risk.

(4) Supplementary explanation of the estimated fair value of financial instruments

The fair value of financial instruments is based on their quoted market price, if available. When there is no quoted market price available, fair value is reasonably estimated. Since various assumptions and factors are reflected in estimating the fair value, different assumptions and factors could result in different fair value. In addition, the notional amounts of derivatives in Note 18, Derivatives and hedging activities, are not necessarily indicative of the actual market risk involved in derivative transactions.

② Estimated fair value of financial instruments

Carrying value, estimated fair value, and unrealized gain (loss) of financial instruments on the consolidated financial balance sheets as of March 31, 2020, and 2019 are as follows. Financial instruments for which it is extremely difficult to determine the fair value are not included (Please refer to Note 2 below).

	Millions of yen		
	2020		
	Carrying value	Estimated fair value	Unrealized gain (loss)
(1) Cash and deposits	¥26,337	¥26,337	¥ —
(2) Notes and accounts receivable-trade	¥18,958	¥18,958	—
(3) Securities (Certificate of deposit)	—	—	—
(4) Income taxes receivable	860	860	—
(5) Investment securities	9,125	9,125	—
Assets total	¥55,280	¥55,280	¥ —
(1) Notes and accounts payable-trade	16,094	16,094	—
(2) Short-term loans payable	4,525	4,525	—
(3) Current portion of bonds	1,475	1,475	—
(4) Lease obligations (short-term)	336	336	—
(5) Income taxes payable	151	151	—
(6) Bonds payable	4,825	4,751	(74)
(7) Long-term loans payable	15,200	15,150	(50)
(8) Lease obligations (long-term)	873	799	(74)
Liabilities total	¥43,478	¥43,280	¥(198)
Derivatives (Note)	¥ 36	¥ 36	¥ —

	Millions of yen		
	2019		
	Carrying value	Estimated fair value	Unrealized gain (loss)
(1) Cash and deposits	¥25,505	¥25,505	¥ —
(2) Notes and accounts receivable-trade	19,044	19,044	—
(3) Securities (Certificate of deposit)	7,000	7,000	—
(4) Income taxes receivable	883	883	—
(5) Investment securities	10,436	10,436	—
Assets total	¥62,868	¥62,868	¥ —
(1) Notes and accounts payable-trade	15,284	15,284	—
(2) Short-term loans payable	5,750	5,750	—
(3) Current portion of bonds	975	975	—
(4) Lease obligations (short-term)	281	281	—
(5) Income taxes payable	62	62	—
(6) Bonds payable	6,300	6,266	(34)
(7) Long-term loans payable	13,725	13,789	64
(8) Lease obligations (long-term)	745	690	(55)
Liabilities total	¥43,122	¥43,097	¥(25)
Derivatives (Note)	¥ (11)	¥ (11)	¥ —

	Thousands of U.S. dollars		
	2020		
	Carrying value	Estimated fair value	Unrealized gain (loss)
(1) Cash and deposits	\$242,006	\$242,006	\$ —
(2) Notes and accounts receivable-trade	174,197	174,197	—
(3) Securities (Certificate of deposit)	—	—	—
(4) Income taxes receivable	7,899	7,899	—
(5) Investment securities	83,850	83,850	—
Assets total	\$507,952	\$507,952	—
(1) Notes and accounts payable-trade	147,883	147,883	—
(2) Short-term loans payable	41,579	41,579	—
(3) Current portion of bonds	13,553	13,553	—
(4) Lease obligations (short-term)	3,091	3,091	—
(5) Income taxes payable	1,384	1,384	—
(6) Bonds payable	44,335	43,659	(676)
(7) Long-term loans payable	139,667	139,208	(459)
(8) Lease obligations (long-term)	8,025	7,340	(685)
Liabilities total	\$399,517	\$397,697	\$(1,820)
Derivatives (Note)	\$ 329	\$ 329	\$ —

Note: The value of assets and liabilities arising from derivatives is shown at net value, and with the amount in parentheses representing net liability position.

Note 1. Methods to determine the estimated fair value of financial instruments and other matters related to securities and derivative transactions.

(Assets)

- (1) Cash and deposits
- (2) Notes and accounts receivable-trade
- (3) Securities (Certificate of deposit)
- (4) Income taxes receivable
 - Since these items are settled in a short period of time, their carrying value approximates fair value.
- (5) Investment securities
 - The fair value of stocks held as other securities is based on quoted market prices. Information of marketable securities and investments classified by holding purpose are disclosed in “securities”.

(Liabilities)

- (1) Notes and accounts payable-trade
- (2) Short-term loans payable
- (3) Current portion of bonds
- (4) Lease obligations (short term)
- (5) Income taxes payable
 - Since these items are settled in a short period of time, their carrying value approximates fair value.
- (6) Bonds payable
- (8) Lease obligations (long-term)
 - The fair values of bonds payable and lease obligations are based on the present values of the total of principal and interest discounted by an interest rate determined, taking into account their remaining period, and credit risks of the Company itself.

(7) Long-term loans payable

The fair values of long-term loans payable are based on the present value of the total of principal and interest discounted by an interest rate determined, taking into account their remaining period, and credit risks of the Company itself. Since the deferral hedge accounting has been applied, the market value of interest swap contracts is included in fair value of the long-term loans payable with floating interest rates.

(Derivatives)

Disclosed in “Derivatives and hedging activities”

Note 2. Financial instruments for which it is extremely difficult to determine the fair value.

	Millions of yen	Thousands of U.S. dollars	
	2020	2019	2020
Unlisted stocks	¥3,330	¥3,238	\$30,602

Because no quoted market price is available and it is extremely difficult to determine the fair value, the above financial instruments are not included in the above “(5) Investment securities”.

Note 3. Redemption schedule for receivables.

	Millions of yen			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
March 31, 2020				
Cash and deposits	¥26,332	¥—	¥—	¥—
Notes and accounts receivable-trade	18,958	—	—	—
Securities (Certificate of deposit)	—	—	—	—
Total	¥45,290	¥—	¥—	¥—

Note 4. The redemption schedule for bonds payable, long-term loans payable, lease obligations (long-term), and other liabilities.

	Millions of yen					
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 year through 3 years	Due after 3 year through 4 years	Due after 4 year through 5 years	Due after 5 years
March 31, 2020						
Short-term loans payable	¥4,525	¥ —	¥ —	¥ —	¥ —	¥ —
Current portion of bonds	1,475	—	—	—	—	—
Lease obligations (short-term)	336	—	—	—	—	—
Bonds payable	—	1,525	1,450	1,100	625	125
Long-term loans payable	—	4,625	4,050	2,625	2,075	1,825
Lease obligations (long-term)	—	414	179	135	133	12
Total	¥6,336	¥6,564	¥5,679	¥3,860	¥2,833	¥1,962

	Millions of yen					
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 year through 3 years	Due after 3 year through 4 years	Due after 4 year through 5 years	Due after 5 years
March 31, 2019						
Short-term loans payable	¥5,750	¥ —	¥ —	¥ —	¥ —	¥ —
Current portion of bonds	975	—	—	—	—	—
Lease obligations (short-term)	281	—	—	—	—	—
Bonds payable	—	1,475	1,525	1,450	1,100	750
Long-term loans payable	—	4,475	3,850	2,850	1,475	1,075
Lease obligations (long-term)	—	249	325	92	75	4
Total	¥7,006	¥6,199	¥5,700	¥4,392	¥2,650	¥1,829

	Millions of yen			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
March 31, 2019				
Cash and deposits	¥25,464	¥—	¥—	¥—
Notes and accounts receivable-trade	19,044	—	—	—
Securities (Certificate of deposit)	7,000	—	—	—
Total	¥51,508	¥—	¥—	¥—

	Thousands of U.S. dollars			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
March 31, 2020				
Cash and deposits	\$242,006	\$—	\$—	\$—
Notes and accounts receivable-trade	174,197	—	—	—
Securities (Certificate of deposit)	—	—	—	—
Total	\$416,202	\$—	\$—	\$—

	Thousands of U.S. dollars					
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 year through 3 years	Due after 3 year through 4 years	Due after 4 year through 5 years	Due after 5 years
March 31, 2020						
Short-term loans payable	\$41,579	\$ —	\$ —	\$ —	\$ —	\$ —
Current portion of bonds	13,553	—	—	—	—	—
Lease obligations (short-term)	3,091	—	—	—	—	—
Bonds payable	—	14,013	13,323	10,107	5,743	1,149
Long-term loans payable	—	42,498	37,214	24,120	19,066	16,769
Lease obligations (long-term)	—	3,803	1,644	1,243	1,225	110
Total	\$58,223	\$60,314	\$51,181	\$35,470	\$26,034	\$18,028

7. Securities

Information regarding securities classified as held-to-maturity securities and other securities (stock) as of March 31, 2020 and 2019 are as follows:

Held-to-maturity securities (Certificate of deposit)

	Millions of yen		
	2020		
	Carrying value	Fair value	Unrealized gain (loss)
Securities with carrying value exceeding fair value	¥—	¥—	¥—
Securities with carrying value not exceeding fair value	—	—	—
Total	¥—	¥—	¥—

	Millions of yen		
	2019		
	Carrying value	Fair value	Unrealized gain (loss)
Securities with carrying value exceeding fair value	¥ —	¥ —	¥—
Securities with carrying value not exceeding fair value	7,000	7,000	—
Total	¥7,000	¥7,000	¥—

	Thousands of U.S. dollars		
	2020		
	Carrying value	Fair value	Unrealized gain (loss)
Securities with carrying value exceeding fair value	\$—	\$—	\$—
Securities with carrying value not exceeding fair value	—	—	—
Total	\$—	\$—	\$—

Other securities (stock)

	Millions of yen		
	2020		
	Carrying value	Acquisition cost	Unrealized gain (loss)
Other securities with carrying values exceeding acquisition costs	¥3,453	¥1,531	¥1,922
Other securities with carrying values not exceeding acquisition costs	5,673	6,488	(815)
Total	¥9,126	¥8,019	¥1,107

	Millions of yen		
	2019		
	Carrying value	Acquisition cost	Unrealized gain (loss)
Other securities with carrying values exceeding acquisition costs	¥10,250	¥7,819	¥2,431
Other securities with carrying values not exceeding acquisition costs	186	200	(14)
Total	¥10,436	¥8,019	¥2,417

	Thousands of U.S. dollars		
	2020		
	Carrying value	Acquisition cost	Unrealized gain (loss)
Other securities with carrying values exceeding acquisition costs	\$31,724	\$14,064	\$17,660
Other securities with carrying values not exceeding acquisition costs	52,126	59,618	(7,492)
Total	\$83,850	\$73,682	\$10,168

Unlisted stocks are not included in the above tables because there are no quoted market prices available and it is extremely difficult to determine the fair value.

Carrying values of securities without fair value as of March 31, 2020 and 2019 are summarized as follows:

	Millions of yen	Thousands of U.S. dollars	
	2020	2019	2020
Unlisted stocks	¥78	¥78	\$717

8. Accumulated depreciation

The accumulated depreciation of property, plant and equipment as of March 31, 2020 and 2019 is as follows:

	Millions of yen	Thousands of U.S. dollars	
	2020	2019	2020
Property, plant and equipment	¥86,879	¥87,602	\$798,301

9. Short-term borrowings and long-term debt

Short-term borrowings and long-term debt at March 31, 2020 and 2019 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Current portion of long-term debt	¥ 4,525	¥ 5,750	\$ 41,579
Current portion of bonds	1,475	975	13,553
Current portion of lease obligations	336	281	3,091
Long-term debt	20,898	20,770	192,027
	¥27,234	¥27,776	\$250,250

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Long-term loans from banks and other financial institutions	¥19,725	¥19,475	\$181,245
0.55% bonds due June 30, 2021	125	225	1,149
0.49% bonds due September 30, 2022	250	350	2,297
0.23% bonds due June 30, 2023	325	425	2,986
0.14% bonds due March 31, 2023	450	600	4,135
0.14% bonds due June 30, 2023	525	675	4,824
0.051% bonds due March 29, 2024	800	1,000	7,351
0.059% bonds due June 28, 2024	900	1,000	8,270
0.25% bonds due June 28, 2024	425	500	3,905
0.330% bonds due June 30, 2025	500	500	4,594
0.072% bonds due March 29, 2025	1,000	1,000	9,189
0.082% bonds due June 28, 2025	1,000	1,000	9,189
Lease obligations	1,209	1,026	11,116
	27,234	27,776	250,250
Less: Current portion	(6,336)	(7,006)	(58,223)
	¥20,898	¥20,770	\$192,027

The approximate weighted average interest rate of long-term loans from banks as of March 31, 2020 is 0.7%.

The aggregate annual maturity of long-term debt outstanding as of March 31, 2020 during the succeeding five-year period (except within one year) is as follows:

Years ending March 31,	Millions of yen	Thousands of U.S. dollars
2021	¥6,564	\$60,314
2022	5,679	52,181
2023	3,860	35,470
2024	2,833	26,034

10. Retirement plans and severance indemnities

The Company and its consolidated domestic subsidiaries have a funded pension program to cover the employees’ retirement benefits. The amount of such retirement benefits is determined by reference to the latest rate of pay, length of service and conditions under which retirement occurs. Certain overseas subsidiaries provide defined contribution pension plans or defined benefit plans.

The changes in the retirement benefit obligation during the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen	Thousands of U.S. dollars	
	2020	2019	2020
Balance at the beginning of the year	¥28,475	¥28,066	\$261,643
Service cost	1,508	1,445	13,853
Interest cost	82	83	755
Past service cost	—	—	—
Actuarial gain or loss	(139)	(271)	(1,273)
Retirement benefit paid	(1,136)	(812)	(10,439)
Other	(18)	(36)	165
Balance at the end of the year	¥28,808	¥28,475	\$264,704

Certain subsidiaries provide in the retirement benefit obligation of simple method.

The changes in plan assets during the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Balance at the beginning of the year	¥13,169	¥11,981	\$121,009
Expected return on plan assets	46	38	425
Actuarial gain or loss	(163)	188	(1,493)
Contributions by the Company	1,636	1,410	15,030
Retirement benefits paid	(662)	(432)	(6,087)
Other	(1)	(16)	(3)
Balance at the end of the year	¥14,026	¥13,169	\$128,881

Certain subsidiaries provide simple method.

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheet as of March 31, 2020 and 2019 for the Company's and consolidated subsidiaries' defined benefit plans.

	Millions of yen	Thousands of U.S. dollars	
	2020	2019	2020
Funded retirement benefit obligation	¥15,930	¥15,745	\$146,378
Plan assets as fair value	(14,026)	(13,169)	(128,881)
	1,904	2,576	17,497
Unfunded retirement benefit obligation	12,878	12,729	118,326
Net liability for retirement benefits in the balance sheet	14,782	15,305	135,823
Liability for retirement benefits	14,782	15,305	135,823
Net liability for retirement benefits in the balance sheet	¥14,782	¥15,305	\$135,823

The components of retirement benefit expense for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Service cost	¥1,508	¥1,445	\$13,853
Interest cost	82	83	755
Expected return on plan assets	(46)	(38)	(425)
Amortization of actuarial difference	374	347	3,441
Amortization of prior service cost	8	8	70
Other	8	(1)	75
Retirement benefit expense	¥1,934	¥1,844	\$17,769

The components of retirement benefits liability adjustments (before tax effect), included in other comprehensive income (loss) for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Actuarial difference	¥340	¥797	\$3,124
Prior service cost	8	8	70
Total	¥348	¥805	\$3,194

The components of retirement benefits liability adjustments included in accumulated other comprehensive income (before tax effect) as of March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unrecognized prior service cost	¥ 78	¥ 86	\$ 720
Unrecognized actuarial difference	2,014	2,354	18,502
Total	¥2,092	¥2,440	\$19,222

The fair value of plan assets, by major categories, as a percentage of total plan assets as of March 31, 2020 and 2019 are as follows:

	2020	2019
Bonds	72%	65%
Stocks	6%	22%
Cash on hand and in banks	13%	6%
Other	9%	7%
Total	100%	100%

The expected return on assets has been estimated based on the anticipated allocation to each asset class and the expected long-term returns on assets held in each category.

The assumptions used in accounting for the above plans were as follows:

	2020	2019
Discount rates	0.2%-0.3%	0.2%-0.3%
Expected rates of return on plan assets	0.2%-0.3%	0.2%-0.3%
Expected future salary increases rates	2.5%-4.2%	2.6%-4.2%

The Company and certain consolidated subsidiaries' contributions for defined contribution plans are as of March 31, 2020 and 2019 are as follows:

	Millions of yen	Thousands of U.S. dollars	
	2020	2019	2020
Defined contribution plans	¥183	¥151	\$1,689

11. Investments in unconsolidated subsidiaries and affiliates

Investments in unconsolidated subsidiaries and affiliates as of March 31, 2019 and 2020 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Investments in securities (Stocks)	¥3,252	¥3,160	\$29,885
Other (Investments in capital)	103	103	943

12. Contingent liabilities

The Companies were contingently liable for guarantees of housing loans of employees as of March 31, 2020 and 2019 as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
Housing loans of employees	¥26	¥36

13. Income taxes

Income taxes in Japan applicable to the Company and its domestic consolidated subsidiaries consist of corporation tax, inhabitants' taxes and enterprise tax, which, in the aggregate, resulted in a statutory rate of approximately 30.6% for the years ended March 31, 2020 and 2019. Income taxes of the foreign consolidated subsidiaries are based generally on the tax rates applicable in their countries of incorporation.

The reconciliation between the effective tax rates reflected in the consolidated statement of income and the effective statutory tax rate for the years ended March 31, 2020 and 2019 as follows:

	2020	2019
Statutory tax rate	30.6%	30.6%
Effect of:		
Non-deductible items such as entertainment	1.1	0.8
Non-deductible items such as entertainment, dividend received	(49.8)	(7.6)
Dividend received from overseas consolidated subsidiaries	46.8	—
Foreign tax credit	21.0	2.0
Different tax rate applied to overseas consolidated subsidiaries	(19.3)	(3.2)
Unrealized inventory	22.7	0.7
Gain (loss) of valuation allowance	414.4	12.1
Others	1.8	(3.0)
Effective tax rate	469.3%	32.4%

The significant components of deferred tax assets and liabilities at March 31, 2020 and 2019 as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
Deferred tax assets:		
Liability for retirement benefits	¥4,360	¥4,598
Provision for product warranties	697	824
Depreciation and amortization	433	372
Provision for bonuses	284	340
Allowance for doubtful accounts	14	14
Loss on valuation of inventories	500	295
Impairment loss	298	197
Loss carried forward for tax purposes	719	158
Other	1,094	1,198
Subtotal of deferred tax assets	8,399	7,996
Valuation allowance for net operating loss carryforwards (Note 2)	(659)	(158)
Valuation allowance for deductible temporary differences (Note 1)	(5,585)	(1,528)
Less valuation allowance	(6,244)	(1,686)
Total of deferred tax assets	2,155	6,310
Deferred tax liabilities:		
Valuation difference on available-for-sale securities	(314)	(698)
Asset retirement obligations	(2)	(2)
Other	(478)	(233)
Total of deferred tax liabilities	(794)	(933)
Net deferred tax assets	¥1,361	¥5,377

Notes: 1. The movement in valuation allowances is largely due to the deferred tax assets recorded by the Company being fully applied to valuation allowance in the current period.
2. A breakdown of net operating loss carryforwards and valuation allowance by expire dates as of March 31, 2020 is as follows;

	Millions of yen						
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years	Total
March 31, 2020							
Net operating loss carryforwards (a)	¥—	¥ 1	¥ 2	¥ 4	¥ 1	¥711	\$719
Valuation allowance	—	—	—	—	—	(659)	(659)
Deferred tax asset	—	1	2	4	1	52	60
	Thousands of U.S. dollars						
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years	Total
March 31, 2020							
Net operating loss carryforwards (a)	\$—	\$ 5	\$19	\$33	\$12	\$6,538	\$6,607
Valuation allowance	—	—	—	—	—	(6,058)	(6,058)
Deferred tax asset	—	5	19	33	12	480	549

(a) The amount is determined by multiplying the corresponding net operating loss carryforwards by the effective statutory tax rate.

14. Business structure improvement expenses

Business structure improvement expenses for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
Special severance payment	¥—	¥164

15. Major items in selling, general and administrative expenses

Major items in selling, general and administrative expenses for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
Freight and transportation	¥1,867	¥2,102
Employees' salaries and wages	2,734	2,956
Provision for bonuses	145	196
Net pension expenses related to retirement benefits	419	419
Research and development expenses	2,628	2,880

16. Research and development expenses

Research and development expenses charged to income for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2019
Research and development expenses	¥5,035	¥5,562

17. Impairment loss

For the years ended March 31, 2020 and 2019, the Company recognized impairment loss on the following asset groups.

(Summary of assets group which recognized impairment loss)

For the year ended March 31, 2020

Use	Type of assets	Location	Millions of yen	Thousands of U.S. dollars
Company housing for employees	Land Buildings, etc.	Hanno-shi Saitama-ken	¥409	\$3,763
Idle assets	Buildings, etc.	Hanno-shi Saitama-ken	¥ 27	\$ 250
Idle assets	Land Buildings, etc.	Katsuura-shi Chiba-ken	¥ 22	\$ 203
Energy Systems business	Machinery, etc.	Koufu-shi Yamanashi-ken	¥ 14	\$ 129

For the year ended March 31, 2019

Use	Type of assets	Location	Millions of yen
Energy System business	Building, Machinery, etc.	Hanno-shi Saitama-ken	¥86

(Recognition of impairment loss)

For the year ended March 31, 2020, the Company housing for employees were disposed through sale due to establishment of the new office. The carrying amount of idle assets were reduced to the recoverable amount, due to a decline in the fair value, while the carrying amount for manufacturing equipment “Energy Systems business” product, was also reduced to the recoverable amount, due to a significant decline in the profitability of the assets group. As a result of the above, the Company recognized impairment loss in the current period. The detail of the impairment loss is as follows;

For the year ended March 31, 2020

Type of assets	Millions of yen	Thousands of U.S. dollars
Land	¥334	\$3,066
Building	125	1,149
Machinery	10	96
Equipment	4	34
Total	¥473	\$4,345

For the year ended March 31, 2019, the carrying amount of the manufacturing equipment of “Energy System business” product was reduced to the recoverable amount, due to the significant decline of the profitability of the assets group. As a result, the Company recognized the impairment loss. The detail of the impairment loss is as follows;

For the year ended March 31, 2019

Type of assets	Millions of yen
Equipment	¥59
Machinery	21
Software	5
Building	1
Total	¥86

(Assets grouping)

The assets grouping was based on the management accounting classification, taking into account the cash flow interaction from the similarity of manufacturing processes.

(Calculation of recoverable amount)

For the years ended March 31, 2020 and 2019, the recoverable amount of the idle assets was measured at the net sales value primarily calculated in accordance with “Japanese Real Estate Appraisal Standards” and adjusted by “assessed value of fixed assets under property tax”.

18. Comprehensive income

Reclassifications adjustments and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unrealized holding gain on available-for-sale securities			
Amount arising during the year	¥(1,310)	¥(2,753)	\$(12,039)
Reclassification adjustments to profit or loss	—	4	—
Amount before income tax effect	(1,310)	(2,749)	(12,039)
Income tax effect	382	837	3,519
Total	(928)	(1,912)	(8,520)
Foreign currency translation adjustment			
Amount arising during the year	104	(931)	957
Retirement benefits liability adjustments			
Amount arising during the year	(35)	450	(317)
Reclassification adjustments to profit or loss	382	355	3,511
Amount before income tax effect	347	805	3,194
Income tax effect	(142)	(229)	(1,307)
Total	205	576	1,887
Share of other comprehensive income (loss) of affiliates accounted for using equity method			
Amount arising during the year	(204)	(18)	(1,876)
Reclassification adjustments to profit or loss	—	—	—
Amount before income tax effect	(204)	(18)	(1,876)
Income tax effect	0	0	0
Total	(204)	(18)	(1,876)
Total other comprehensive income	¥ (823)	¥(2,285)	\$ (7,552)

19. Derivatives and hedging activities

Outstanding forward currency exchange contracts at March 31, 2020 and 2019 are shown below, except transactions accounted for using hedge accounting.

	Millions of yen		
	Notional amount	Fair value	Unrealized gain (loss)
At March 31, 2020			
Forward currency exchange contracts:			
Sell			
Thai Baht	¥923	¥37	¥37
Indonesia rupiah	225	(1)	(1)
Vietnamese dong	—	—	—
At March 31, 2019			
Forward currency exchange contracts:			
Sell			
Thai Baht	¥655	¥(1)	¥(1)
Indonesia rupiah	604	(5)	(5)
Vietnamese dong	347	(6)	(6)

	Thousands of U.S. dollars		
	Notional amount	Fair value	Unrealized gain (loss)
At March 31, 2020			
Forward currency exchange contracts:			
Sell			
Thai Baht	\$8,481	\$342	\$342
Indonesia rupiah	2,065	(14)	(14)
Vietnamese dong	—	—	—

(Calculation of fair value)

- Forward currency exchange contracts

The estimated fair value of these forward currency exchange contracts was determined using forward foreign exchange rate at March 31, 2020 and 2019.

Interest rate swap contracts accounted for using hedge accounting at March 31, 2020 and 2019 are as follows:

	Millions of yen		
	Notional amount	Maturing after one year	Fair value
At March 31, 2020			
Interest rate swap contracts:			
Receive floating and pay fixed: (Note)			
Long-term loans payable	¥9,975	¥7,425	¥—
At March 31, 2019			
Interest rate swap contracts:			
Receive floating and pay fixed: (Note)			
Long-term loans payable	¥10,175	¥6,975	¥—

	Thousands of U.S. dollars		
	Notional amount	Maturing after one year	Fair value
At March 31, 2020			
Interest rate swap contracts:			
Receive floating and pay fixed: (Note)			
Long-term loans payable	\$91,657	\$68,226	\$—

Note: Interest rate swap contracts which qualify for hedge accounting and meet specific matching criteria were not re-measured at market value and the fair value of such interest rate swap contracts were included in that of the long-term loans payable.

20. Leases

(Finance lease transactions which do not transfer ownership of the assets)

The leased tangible assets were principally research and development equipment (machinery), and the leased intangible asset was software. Depreciation method of leased assets is calculated as disclosed in Note 2 (5).

21. Segment information

(1) Reportable segment overview

The Company's reportable operating segments are components of an entity for which separate financial information is available, and they are evaluated regularly by the board of directors in determining the allocation of management resources and in assessing performance.

(3) Net sales and income or loss and assets by reportable segment

	Millions of yen					
	Device business	Car Electronics business	Total	Other (Note 1)	Adjustments and Eliminations (Note 2)	Consolidated (Note 3)
For the year ended March 31, 2020						
Sales						
Outside customers	¥30,989	¥51,638	¥82,627	¥10,339	¥ —	¥92,966
Inter-segment	6,495	3	6,498	—	(6,498)	—
Total	37,484	51,641	89,125	10,339	(6,498)	92,966
Segment income (loss)	(242)	6,023	5,781	(122)	(3,902)	1,757
Segment assets	37,680	33,554	71,234	6,717	43,609	121,560
Depreciation and amortization	2,986	1,648	4,634	203	339	5,176
Increase in property, plant and equipment and intangible assets	3,103	1,668	4,771	68	4,563	9,402

The Company formulates comprehensive domestic and overseas strategies for the products that its business divisions provide.

The classification of the reportable segment has changed from the current fiscal year. Going forward, the reporting segments will consist of two segments, Device business and Car Electronics business, from the previous reportable segments which were Device business and Car Electronics business, and Energy Systems business. This is due to the change in organizational structure to align with revenue scale, which resulted in Energy Systems business to be included in the “Other” category.

The Company's business is organized into two reportable segments—Device business and Car Electronics business—which form the base of its business divisions.

The Device business manufactures diodes, thyristors, MOSFET, high-withstand voltage power ICs and power modules. The Car Electronics business mainly manufactures electronics components for motorcycles and automobiles, along with general purpose inverters.

(2) Method of calculating sales, income (loss), identifiable assets/liabilities and other items by reportable segment

The accounting method for calculating sales, income (loss), identifiable assets/liabilities and other items by reportable segment is based on the same method applied to consolidated financial statements. Income by reportable segment is based on operating income. In addition, inter-segment sales and transfers are primarily based on market prices or manufacturing costs.

Thousands of U.S. dollars						
	Device business	Car Electronics business	Total	Other (Note 1)	Adjustments and Eliminations (Note 2)	Consolidated (Note 3)
For the year ended March 31, 2020						
Sales						
Outside customers	\$284,751	\$474,478	\$759,229	\$95,001	\$ —	\$854,229
Inter-segment	59,679	25	59,704	—	(59,704)	—
Total	344,430	474,503	818,933	95,001	(59,704)	854,229
Segment income (loss)	(2,223)	55,340	53,117	(1,116)	(35,852)	16,149
Segment assets	346,230	308,313	654,543	61,723	400,706	1,116,972
Depreciation and amortization	27,443	15,141	42,584	1,861	3,116	47,561
Increase in property, plant and equipment and intangible assets	28,518	15,327	43,845	624	41,925	86,394

Notes: 1. The “Other” category includes business activities not included in the reportable segments, such as Energy Systems business and solenoid business.

2. Details of “Adjustments and eliminations” are below:

(1) Segment loss totaling ¥3,902 million (\$35,852 thousand) posted under “Adjustments and eliminations” includes “Corporate expenses” that have not been allocated to the reportable segment. “Corporate expenses” are primarily general and administrative expenses that cannot be attributed to any reportable segments.

(2) Segment assets totaling ¥43,609 million (\$400,706 thousand) posted under “Adjustments and eliminations” comprise corporate assets of ¥43,581 million (\$400,452 thousand) not allocated to the reportable segments and other adjustments of ¥28 million (\$253 thousand).

(3) Depreciation and amortization totaling ¥339 million (\$3,116 thousand) posted under “Adjustments and eliminations” mainly comprises corporate expenses not attributable to the reportable segments.

(4) The increases in property, plant and equipment and intangible assets amounting to ¥4,563 million (\$41,925 thousand) posted under “Adjustments and eliminations” mainly comprises corporate assets not attributable to the reportable segments.

3. Segment income (loss) is adjusted to operating income stated on the Consolidated Statement of Income and Comprehensive Income for the year ended March 31, 2020

Millions of yen						
	Device business	Car Electronics business	Total	Other (Note 1)	Adjustments and Eliminations (Note 2)	Consolidated (Note 3)
For the year ended March 31, 2019						
Sales						
Outside customers	¥34,016	¥52,033	¥86,049	¥8,654	¥ —	¥94,703
Inter-segment	6,458	44	6,502	—	(6,502)	—
Total	40,474	52,077	92,551	8,654	(6,502)	94,703
Segment income (loss)	2,577	9,973	12,550	(2,446)	(4,465)	5,639
Segment assets	38,926	32,263	71,189	6,456	51,025	128,670
Depreciation and amortization	2,851	1,421	4,272	228	472	4,972
Increase in property, plant and equipment and intangible assets	3,894	1,892	5,786	304	886	6,976

Notes: 1. The “Other” category includes business activities not included in the reportable segments, such as Energy Systems business and solenoid business.

2. Details of “Adjustments and eliminations” are below:

(1) Segment loss totaling ¥4,465 million posted under “Adjustments and eliminations” includes “Corporate expenses” that have not been allocated to the reportable segment. “Corporate expenses” are primarily general and administrative expenses that cannot be attributed to any reportable segments.

(2) Segment assets totaling ¥51,025 million posted under “Adjustments and eliminations” comprise corporate assets of ¥50,742 million not allocated to the reportable segments and other adjustments of ¥283 million.

(3) Depreciation and amortization totaling ¥472 million posted under “Adjustments and eliminations” mainly comprises corporate expenses not attributable to the reportable segments.

(4) The increases in property, plant and equipment and intangible assets amounting to ¥886 million posted under “Adjustments and eliminations” mainly comprises corporate assets not attributable to the reportable segments.

3. Segment income (loss) is adjusted to operating income stated on the Consolidated Statement ofIncome and Comprehensive Income for the year ended March 31, 2019

(Related Information)

1. Information by finished product and service

The corresponding information is identical to data disclosed under “Segment Information.” Accordingly, this information has been omitted.

2. Information by geographic segment

(1) Net sales

For the year ended March 31, 2020

Millions of yen						
Japan	Thailand	Indonesia	Vietnam	Asia (other)	Other area	Total
¥36,600	¥9,297	¥13,840	¥9,587	¥19,330	¥4,312	¥92,966

For the year ended March 31, 2019

Millions of yen						
Japan	Thailand	Indonesia	Vietnam	Asia (other)	Other area	Total
¥35,571	¥9,399	¥12,910	¥10,593	¥21,367	¥4,863	¥94,703

For the year ended March 31, 2020

Thousands of U.S. dollars						
Japan	Thailand	Indonesia	Vietnam	Asia (other)	Other area	Total
\$336,301	\$85,426	\$127,167	\$88,088	\$177,621	\$39,626	\$854,229

Note: Net sales are based on the location of customers classified according to country or region.

(2) Property, plant and equipment

As of March 31, 2020

Millions of yen					
Japan	Thailand	Indonesia	Asia (other)	Other area	Total
¥21,579	¥3,795	¥1,626	¥4,379	¥10	¥31,389

As of March 31, 2019

Millions of yen					
Japan	Thailand	Indonesia	Asia (other)	Other area	Total
¥18,366	¥3,353	¥1,694	¥4,074	¥9	¥27,496

(Information of impairment loss on property, plant and equipment by reportable segment)

For the year ended March 31, 2020

Millions of yen				
	Device business	Car Electronics business	Other	Adjustments and Eliminations
Impairment loss	¥—	¥—	¥14	¥459

For the year ended March 31, 2019

Millions of yen				
	Device business	Car Electronics business	Other	Adjustments and Eliminations
Impairment loss	¥—	¥—	¥86	¥—

For the year ended March 31, 2020

Thousands of U.S. dollars				
	Device business	Car Electronics business	Other	Adjustments and Eliminations
Impairment loss	\$—	\$—	\$129	\$4,216

As of March 31, 2020

Thousands of U.S. dollars					
Japan	Thailand	Indonesia	Asia (other)	Other area	Total
\$198,282	\$34,875	\$14,940	\$40,234	\$90	\$288,421

(3) Information by major customer

For the years ended March 31, 2020 and 2019, the major customer that accounted for 10% or more of total net sales recorded in the Consolidated Statements of Income and Comprehensive Income is as follows.

For the year ended March 31, 2020

Millions of yen		
Major Customer	Net Sales	Segment
PT Astra Honda Motor	¥12,307	Car Electronics business
Honda Vietnam Co., Ltd	¥ —	Car Electronics business

For the year ended March 31, 2019

Millions of yen		
Major Customer	Net Sales	Segment
PT Astra Honda Motor	¥11,364	Car Electronics business
Honda Vietnam Co., Ltd	¥ 9,946	Car Electronics business

For the year ended March 31, 2020

Thousands of U.S. dollars		
Major Customer	Net Sales	Segment
PT Astra Honda Motor	\$113,087	Car Electronics business
Honda Vietnam Co., Ltd	\$ —	Car Electronics business

(Information of amortization and balance of goodwill by reportable segment)

For the year ended March 31, 2020

No current report

For the year ended March 31, 2019

No current report

For the year ended March 31, 2020

No current report

22. Consolidated statements of changes in net assets

(1) Categories and numbers of stock issued

For the year ended March 31, 2020

Thousands of shares				
	Number of shares at beginning of the year	Increase in numbers of shares	Decrease in numbers of shares	Number of shares at end of the year
(Shares issued)				
Common stock	10,339	—	—	10,339
Total	10,339	—	—	10,339

For the year ended March 31, 2019

Thousands of shares				
	Number of shares at beginning of the year	Increase in numbers of shares	Decrease in numbers of shares	Number of shares at end of the year
(Shares issued)				
Common stock	10,339	—	—	10,339
Total	10,339	—	—	10,339

Note: The decrease in the number of shares is due to the consolidation of shares.

(2) Categories and numbers of treasury stock

For the year ended March 31, 2020

Thousands of shares				
	Number of shares at beginning of the year	Increase in numbers of shares	Decrease in numbers of shares	Number of shares at end of the year
(Shares of treasury stock)				
Common stock	39	0	2	37
Total	39	0	2	37

Note: The increase in the number of shares is due to purchase of fractional shares.

The decrease in the number of share is due to disposal of treasury stock with restricted stock compensation.

For the year ended March 31, 2019

Thousands of shares				
	Number of shares at beginning of the year	Increase in numbers of shares	Decrease in numbers of shares	Number of shares at end of the year
(Shares of treasury stock)				
Common stock	39	0	—	39
Total	39	0	—	39

Note: The increase in the number of shares is due to purchase of fractional shares.

(3) Dividends

(A) Dividends paid for the year ended March 31, 2020

Resolution	Share class	Cash dividends paid	Cash dividends per share	Year ended	Dividend effective date
Ordinary general meeting of shareholders on June 27, 2019	Common stock	¥1,288 million	¥125.00	March 31, 2019	June 28, 2019

(B) Dividends paid for the year ended March 31, 2019

Resolution	Share class	Cash dividends paid	Cash dividends per share	Year ended	Dividend effective date
Ordinary general meeting of shareholders on June 28, 2018	Common stock	¥1,288 million	¥125.00	March 31, 2018	June 29, 2018

(C) Dividends with the cut-off date in the year ended March 31, 2019 and the effective date in the year ending March 31, 2020

Resolution	Share class	Cash dividends paid	Cash dividends per share	Year ended	Dividend effective date
Ordinary general meeting of shareholders on June 26, 2020	Common stock	¥643 million	¥62.50	March 31, 2020	June 29, 2020

(D) Dividends with the cut-off date in the year ended March 31, 2019 and the effective date in the year ended March 31, 2020

Resolution	Share class	Cash dividends paid	Cash dividends per share	Year ended	Dividend effective date
Ordinary general meeting of shareholders on June 27, 2019	Common stock	¥1,288 million	¥125.00	March 31, 2019	June 28, 2019

23. Profit attributable to owners of parent per share

The calculation of profit attributable to owners of parent per share for the years ended March 31, 2020 and 2019 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Profit attributable to owners of parent	¥ (4,156)	¥ 3,877	\$(38,191)
Amounts not attributable to common stock	—	—	—
Profit attributable to owners of parent to common stock	(4,156)	3,877	(38,191)
Weighted average number of ordinary shares (thousands)	10,301	10,300	94,655

Diluted profit attributable to owners of parent per share was not calculated herein since the Company had no dilutive securities, such as convertible bonds or warrants.

24. Subsequent event

(Borrowing funds)

Due to the global COVID-19 epidemic and the potential risk of long-term impact, the Company has decided to borrow funds on a short-term basis at the board meeting held on May 28, 2020. The aim of the Company is to increase the amount of liquidity on hand, and to further stabilize business.

Operations the Company has borrowed a combined total of ¥ 17,500 million (\$160,801 thousand) from Mizuho Bank, Saitama Resona Bank, Sumitomo Mitsui Bank, Mitsubishi UFJ Bank, Yamagata Bank, and Akita Bank. The loan repayment terms range from 1 month to 1 year, and interest rates are variable interest rates linked to market interest rates. Further there is no collateral or guarantee attached to these loans.



Independent Auditor's Report

The Board of Directors
Shindengen Electric Manufacturing Co., Ltd.

Opinion

We have audited the accompanying consolidated financial statements of Shindengen Electric Manufacturing Co., Ltd and its subsidiaries , which comprise the consolidated balance sheet as at March 31, 2020, and the consolidated statements of income and comprehensive income, changes in net assets, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management, the Corporate Auditor and the Board of Corporate Auditors 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.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as required by accounting principles generally accepted in Japan, matters related to going concern.

The Corporate Auditor and the Board of Corporate Auditors are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we

conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with accounting principles generally accepted in Japan.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Corporate Auditor and the Board of Corporate Auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Corporate Auditor and the Board of Corporate Auditors with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Conflicts of Interest

We have no interest in the Group which should be disclosed in accordance with the Certified Public Accountants Act.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2020 are presented solely for convenience. Our audit also included the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 3 to the consolidated financial statements.

Ernst & Young ShinNihon LLC

Tokyo, Japan

June 26, 2020


Kazutaka Aso
Designated Engagement Partner
Certified Public Accountant


Takashi Sadatome
Designated Engagement Partner
Certified Public Accountant

Corporate Information

As of March 31, 2020

Corporate Data

Company Name	Shindengen Electric Manufacturing Co., Ltd.	
Established	August 16, 1949	
Capital	¥17,823,148,008	
Number of Employees	5,207 (Consolidated basis)	1,359 (Nonconsolidated basis)

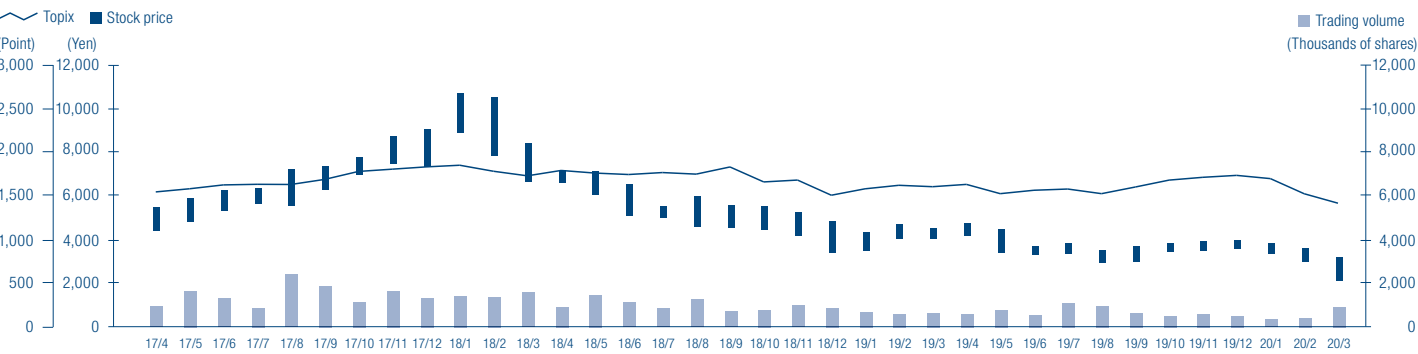
Corporate History

1949	Established as Shindengen Electric Manufacturing Co., Ltd.	1994	Acquired ISO 9000 certification
1950	Adopted the first corporate logo	1999	Acquired ISO 14001 certification
1955	Began delivery of selenium rectifiers for telephone switching stations	2000	Developed ECUs for motorcycles
1957	Developed silicon diodes	2001	Launched official corporate website
1961	Listed on the Second Section of the Tokyo Stock Exchange	2002	Developed DC/DC converters for eco-friendly vehicles
1968	Listed on the First Section of the Tokyo Stock Exchange	2010	Developed high-frequency insulation power conditioners Developed SiC Schottky barrier diodes
1972	Developed glass passivation technology		
1976	Developed regulators for motorcycles	2012	Fully entered the power module business
1986	Developed power MOSFETs	2016	Renewed the corporate logo
1987	Commercialized power ICs	2018	Developed 90 kW DC quick chargers
1988	Established the Group's first overseas production site (wholly owned) Shindengen (THAILAND) Co., Ltd.		

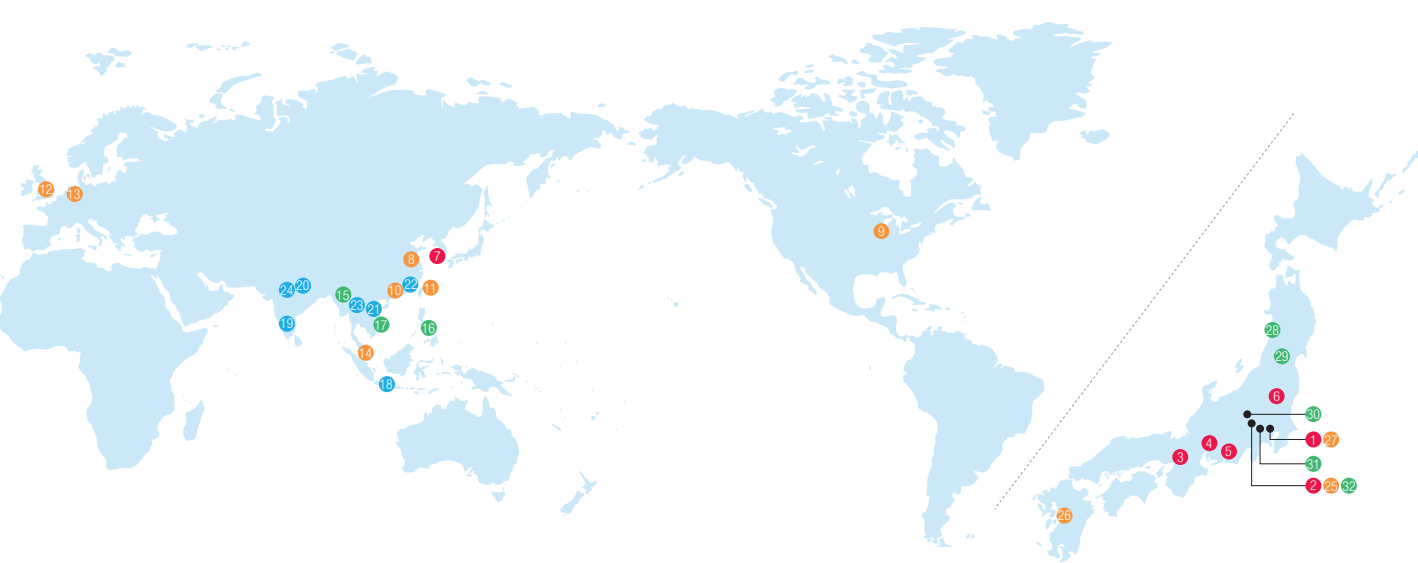
Stock Information

Stock Exchange Listing	June 2, 1958 (Tokyo Stock Exchange, First Section since 1968)
Security Code	6844
Total Number of Issued Shares	10,338,884
Ordinary General Meeting of Shareholders	June
Independent Auditor	Ernst & Young ShinNihon LLC
Number of Shareholders	5,402

Stock Price And Trading Volume



Network



SHINDENGEN ELECTRIC
MANUFACTURING CO., LTD.

- Head Office:**
New-Ohtemachi Bldg., 2-1,
Ohtemachi 2-chome, Chiyoda-ku,
Tokyo 100-0004, Japan
Phone: +81-3-3279-4431
- Hanno R&D Center:**
10-13, Minamicho, Hanno-shi,
Saitama 357-8585, Japan
Phone: +81-42-973-3111
- Osaka Branch Office:**
Minami Senba Heart Bldg., 3-2,
Minami Senba, 2-chome, Chuo-ku,
Osaka-shi, Osaka 542-0081, Japan
Phone: +81-6-6264-7770
- Nagoya Branch Office:**
Nagoya Daiichi Bldg., 19-24,
Nishiki 1-chome, Naka-ku,
Nagoya-shi, Aichi 460-0003, Japan
Phone: +81-52-221-1361
- Hamamatsu Office**
Hamamatsu Daiichiseimei Nittsu Bldg.,
110-5, Itaya-machi, Naka-ku,
Hamamatsu-shi,
Shizuoka 430-0928, Japan
Phone: +81-53-450-3800
- Utsunomiya Office:**
Flora Bldg., 9-15, Higashi Syukugou
1-chome, Utsunomiya-shi,
Tochigi 321-0953, Japan
Phone: +81-28-637-3615
- Seoul Office:**
B701-4. 230, Simin-daero,
Dongan-gu, Anyang-si, Gyeonggi-do,
14067 Korea
Phone: +82-31-385-1431

SUBSIDIARIES & AFFILIATES

Overseas

Sales and Service

- Shindengen (Shanghai) Electric Co., Ltd.**
(Share ownership: 100%)
Phone: +86-21-6270-8000
- Shindengen America, Inc.**
(Share ownership: 100%)
Phone: +1-847-444-1363
- Shindengen (H.K.) Co., Ltd.**
(Share ownership: 100%)
- Head Office (Hong Kong)**
Phone: +852-2317-1884
- Taiwan Representative Office**
Phone: +886-2-2321-3990
- Shindengen UK Ltd.**
(Share ownership: 100%)
- Head Office**
Phone: +44-20-3829-6980
- German Branch**
Phone: +49-211-5206590
- Shindengen Singapore Pte Ltd.**
(Share ownership: 100%)
Phone: +65-6445-0082

Manufacturing

- Lumphun Shindengen Co., Ltd.**
(Share ownership: 100%)
- Shindengen Philippines Corp.**
(Share ownership: 100%)
- Shindengen Lao Co., Ltd.**
(Share ownership: 100%)

Manufacturing and Sales

- PT. Shindengen Indonesia**
(Share ownership: 100%)

Shindengen India Pvt. Ltd.
(Share ownership: 100%)

- Head Office**
- Gurugram Office**

Shindengen Vietnam Co., Ltd.
(Share ownership: 100%)

Guangzhou Shindengen Electronic Co., Ltd.
(Share ownership: 100%)

Shindengen (Thailand) Co., Ltd.
(Share ownership: 100%)

Napino Auto & Electronics Ltd.
(Share ownership: 22.57%)

Japan

Sales and Service

- Shindengen Enterprise Co., Ltd.**
(Share ownership: 100%)
Phone: +81-42-974-5721
- Shindengen Kumamoto
Technoresearch Co., Ltd.**
(Share ownership: 100%)
Phone: +81-96-337-5200
- Hermes Systems Inc.**
(Share ownership: 100%)
Phone: +81-3-6824-9717

Manufacturing

- Akita Shindengen Co., Ltd.**
(Share ownership: 100%)
- Higashine Shindengen Co., Ltd.**
(Share ownership: 100%)
- Okabe Shindengen Co., Ltd.**
(Share ownership: 100%)
- Shindengen Three E Co., Ltd.**
(Share ownership: 100%)
- Shindengen Mechatronics Co., Ltd.**
(Share ownership: 35%)