

Shin-Etsu Chemical Co., Ltd.

Annual Report 2019

Financial Section

Ten-Year Summary

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

For the fiscal years ended March 31, 2010 through 2019

Millions of yen

| | 2010 | 2011 | 2012 | 2013 |
|--|------------|------------|------------|------------|
| For the year: | | | | |
| Net sales | ¥916,837 | ¥1,058,257 | ¥1,047,731 | ¥1,025,409 |
| Cost of sales | 700,902 | 803,574 | 798,592 | 769,427 |
| Selling, general and administrative expenses | 98,718 | 105,460 | 99,505 | 98,938 |
| Operating income | 117,215 | 149,221 | 149,632 | 157,043 |
| Ordinary income | 127,019 | 160,338 | 165,237 | 170,207 |
| Net income attributable to owners of parent | 83,852 | 100,119 | 100,643 | 105,714 |
| Capital expenditures | 123,793 | 119,884 | 87,165 | 86,841 |
| R&D costs | 33,574 | 37,321 | 35,725 | 37,671 |
| Depreciation and amortization | 87,722 | 93,732 | 82,868 | 80,961 |
| At year-end: | | | | |
| Total assets | ¥1,769,139 | ¥1,784,166 | ¥1,809,841 | ¥1,920,903 |
| Working capital (Current assets - Current liabilities) | 612,447 | 638,493 | 694,803 | 832,878 |
| Common stock | 119,419 | 119,419 | 119,419 | 119,419 |
| Net assets | 1,474,212 | 1,469,429 | 1,494,573 | 1,623,176 |
| Interest-bearing debt | 20,052 | 14,574 | 15,732 | 13,929 |
| Per share (Yen and U.S. dollars): | | | | |
| Net income per share—basic | ¥197.53 | ¥235.80 | ¥237.03 | ¥248.94 |
| Net income per share—fully diluted (Note 2) | 197.50 | 235.80 | — | 248.92 |
| Cash dividends | 100.00 | 100.00 | 100.00 | 100.00 |
| Payout ratio (%) | 50.6 | 42.4 | 42.2 | 40.2 |
| Net assets | 3,370.56 | 3,360.39 | 3,422.93 | 3,709.19 |
| General: | | | | |
| Operating income to net sales ratio (%) | 12.8 | 14.1 | 14.3 | 15.3 |
| Net income attributable to owners of parent to net sales ratio (%) | 9.1 | 9.5 | 9.6 | 10.3 |
| ROE (%) | 6.0 | 7.0 | 7.0 | 7.0 |
| ROA (%) | 7.4 | 9.0 | 9.2 | 9.1 |
| Equity ratio (%) | 80.9 | 80.0 | 80.3 | 82.0 |
| Number of employees | 16,955 | 16,302 | 16,167 | 17,712 |
| Number of shares issued (Thousands) | 432,106 | 432,106 | 432,106 | 432,106 |

- Notes: 1. The U.S. dollar amounts represent conversion of yen, for convenience only, at the rate of ¥111 = US\$1, the approximate rate of exchange on March 31, 2019.
2. Diluted net income per share for the fiscal year ended March 31, 2012 is not presented as there were no securities with dilutive effect.
3. "Partial Amendments to 'Accounting Standard for Tax-Effect Accounting'", etc. (ASBJ Statement No. 28, February 16, 2018) were applied from the beginning of the fiscal year ended March 31, 2019. Accordingly, the main management indicators, etc., for the previous fiscal year are those after retroactive application of said Accounting Standard, etc.

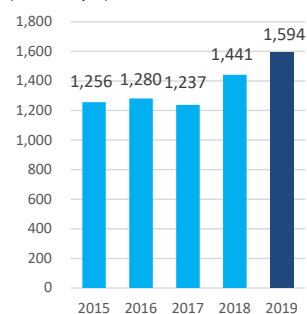
| Millions of yen | | | | | | Thousands of U.S. dollars (Note 1) |
|-----------------|------------|------------|------------|------------|------------|------------------------------------|
| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2019 |
| ¥1,165,819 | ¥1,255,543 | ¥1,279,807 | ¥1,237,405 | ¥1,441,432 | ¥1,594,036 | \$14,360,693 |
| 873,879 | 940,399 | 930,019 | 868,404 | 963,008 | 1,039,979 | 9,369,186 |
| 118,130 | 129,814 | 141,262 | 130,383 | 141,601 | 150,352 | 1,354,525 |
| 173,809 | 185,329 | 208,525 | 238,617 | 336,822 | 403,705 | 3,636,982 |
| 180,605 | 198,025 | 220,005 | 242,133 | 340,308 | 415,311 | 3,741,543 |
| 113,617 | 128,606 | 148,840 | 175,912 | 266,235 | 309,125 | 2,784,916 |
| 83,155 | 109,903 | 134,753 | 145,647 | 176,283 | 240,618 | 2,167,729 |
| 43,546 | 47,165 | 53,165 | 49,020 | 51,768 | 56,436 | 508,438 |
| 91,445 | 96,918 | 100,466 | 93,087 | 112,016 | 137,570 | 1,239,376 |
| ¥2,198,912 | ¥2,452,306 | ¥2,510,085 | ¥2,655,636 | ¥2,903,137 | ¥3,038,717 | \$27,375,835 |
| 981,667 | 1,100,999 | 1,170,679 | 1,232,607 | 1,324,495 | 1,358,614 | 12,239,769 |
| 119,419 | 119,419 | 119,419 | 119,419 | 119,419 | 119,419 | 1,075,853 |
| 1,822,135 | 2,012,711 | 2,080,465 | 2,190,082 | 2,413,025 | 2,532,556 | 22,815,821 |
| 15,638 | 14,328 | 13,470 | 14,642 | 15,814 | 14,920 | 134,422 |
| ¥267.20 | ¥302.05 | ¥349.46 | ¥412.86 | ¥624.28 | ¥725.99 | \$6.540 |
| 267.07 | 301.98 | 349.42 | 412.83 | 624.10 | 725.92 | 6.540 |
| 100.00 | 100.00 | 110.00 | 120.00 | 140.00 | 200.00 | 1.802 |
| 37.4 | 33.1 | 31.5 | 29.1 | 22.4 | 27.5 | 27.5 |
| 4,165.28 | 4,602.80 | 4,761.48 | 5,002.16 | 5,511.98 | 5,915.47 | 53.293 |
| 14.9 | 14.8 | 16.3 | 19.3 | 23.4 | 25.3 | 25.3 |
| 9.7 | 10.2 | 11.6 | 14.2 | 18.5 | 19.4 | 19.4 |
| 6.8 | 6.9 | 7.5 | 8.5 | 11.9 | 12.8 | 12.8 |
| 8.8 | 8.5 | 8.9 | 9.4 | 12.2 | 14.0 | 14.0 |
| 80.6 | 79.9 | 80.8 | 80.3 | 81.0 | 81.1 | 81.1 |
| 17,892 | 18,276 | 18,407 | 19,206 | 20,155 | 21,735 | 21,735 |
| 432,106 | 432,106 | 432,106 | 432,106 | 432,106 | 427,606 | 427,606 |

Management's Discussion and Analysis

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

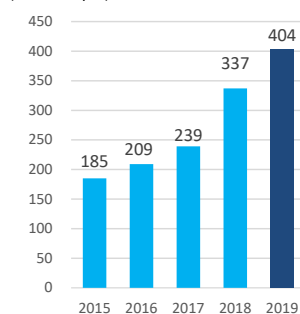
Net Sales

(Billions of yen)



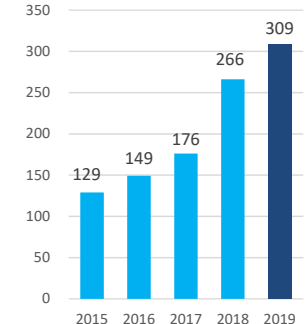
Operating Income

(Billions of yen)



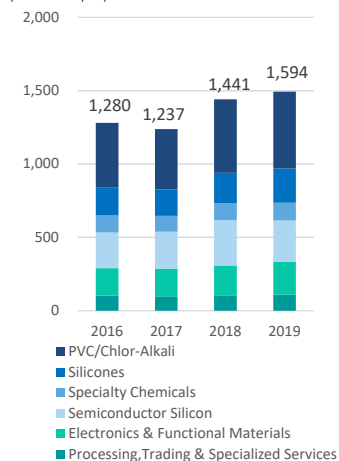
Net Income Attributable to Owners of Parent

(Billions of yen)



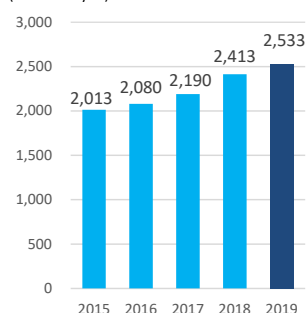
Net Sales by Business Segment

(Billions of yen)



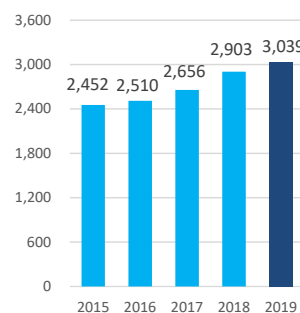
Total Net Assets

(Billions of yen)



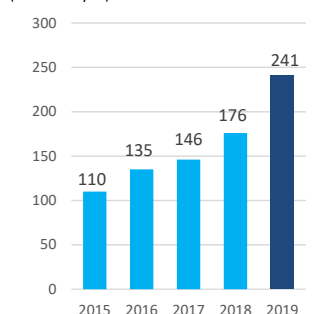
Total Assets

(Billions of yen)



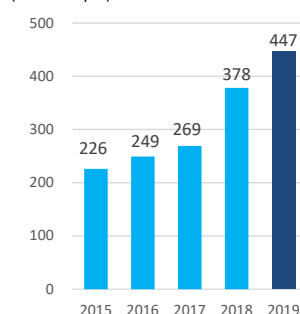
Capital Expenditures

(Billions of yen)



Net Cash Flow*

(Billions of yen)



* Net cash flow =
Net income attributable to owners of parent + Depreciation and amortization

Overview of the Shin-Etsu Group

The Shin-Etsu Group (the "Group") comprises Shin-Etsu Chemical Co., Ltd. (the "Company"), 129 subsidiaries and 13 affiliates (as of March 31, 2019) engaged in the manufacture and sales of PVC and caustic soda as the core of the PVC/Chlor-Alkali Business, the manufacture and sales of silicones as the core of the Silicones Business, the manufacture and sales of cellulose derivatives and silicon metals as the core of the Specialty Chemicals Business, the manufacture and sales of semiconductor silicon as the core of the Semiconductor Silicon Business, the manufacture and sales of rare earth magnets and synthetic quartz products as the core of the Electronics & Functional Materials Business and the Processing, Trading & Specialized Services Business, which conducts Shin-Etsu Polymer Group business and engages in construction, repairs and the provision of a variety of other services. The Group conducts business activities including manufacturing and sales through mutual cooperation among all Group companies.

Consolidated Operating Performance

The global economy during FY2018 (from April 1, 2018 to March 31, 2019) is, as stated in the beginning of the IMF's World Economic Outlook, April 2019, that "One year ago economic activity was accelerating in almost all regions of the world and the global economy was projected to grow at 3.9 percent in 2018 and 2019. One year later, much has changed."

Under these circumstances, the Shin-Etsu Group strove to cope with changes speedily at all times without insisting on forecasts and went forward with executing the following for continuous business growth. We deepened our customer relationships and expanded our customer base while we constantly developed products in line with customer needs, improved quality and differentiated our technologies from the competition. We also continued precise and on-time delivery and strict cost control, and made capital investments appropriately in order to satisfy our customers and markets.

As a result, compared with the previous fiscal year, net sales in FY 2019 increased 10.6% (¥152,604 million) to ¥1,594,036 million. Operating income was ¥403,705 million, an increase of 19.9% (¥66,883 million) from the previous fiscal year. Ordinary income increased 22.0% (¥75,003 million) to ¥415,311 million over the previous fiscal year. Net income attributable to owners of parent was ¥309,125 million, an increase of 16.1% (¥42,890 million) compared with the previous fiscal year.

Business Segment Overview

PVC/Chlor-Alkali Business

Mainly comprising the manufacture and sales of PVC and caustic soda

With regard to the PVC/Chlor-Alkali business, Shintech Inc. in the U.S. continued its shipments of both PVC and caustic soda at a high level, backed by the advantageous raw material procurement in the country, which resulted in its business performance growing. Further, the European bases enjoyed the increased sales volume thanks to the stable market. As for bases in Japan, shipments to overseas decreased due to the large-scale periodic maintenance that took place during the first quarter of the fiscal year.

Silicones Business

Mainly comprising the manufacture and sales of silicones

The silicones business grew as a result of having met the steady demand worldwide with full production and full sales, as well as revising its prices upward for both general-purpose products and functional products.

Specialty Chemicals Business

Mainly comprising the manufacture and sales of cellulose derivatives and silicon metals

As for the cellulose derivatives business, the shipments of pharmaceutical products continued to be favorable, and the shipments of products for building, construction and coating applications also remained steady. The shipments of all other products, such as synthetic pheromone products and POVAL products, were also firm.

Semiconductor Silicon Business

Mainly comprising the manufacture and sales of semiconductor silicon

The semiconductor silicon business grew thanks to upward price revisions made for the products in addition to steady shipments.

Electronics & Functional Materials Business

Mainly comprising the manufacture and sales of rare earth magnets and synthetic quartz products

In the rare earth magnets business, shipments for use in hybrid and other automobiles remained favorable, although inventory adjustments by customers were seen with regard to certain uses in the second half of the fiscal year. The shipments of photoresist products, including KrF photoresists, ArF photoresists and trilayer materials, were all firm. Regarding photomask blanks, the sales of low-end and high-end products, in addition to state-of-the-art products, increased and were favorable. In the optical fiber preform business, the demand for optical fiber was seen decelerating; however, sales by our joint-venture companies in China continued to be firm.

Processing, Trading & Specialized Services Business

Mainly comprising the Shin-Etsu Polymer Group business and the provision of various services including construction and repairs

Shin-Etsu Polymer Co., Ltd. continued its shipments of semiconductor wafer-related containers at a high level, which led to keep favorable business performance.

Analysis of Financial Position

At the end of FY2019, total assets increased by ¥135,580 million compared with the end of the previous fiscal year, to ¥3,038,717 million. This was mainly due to an increase in property, plant and equipment and inventories.

Total liabilities increased by ¥16,049 million from the end of the previous fiscal year to ¥506,161 million.

Total net assets amounted to ¥2,532,556 million due to an increase in retained earnings, resulting from record-high net income attributable to owners of parent of ¥309,125 million, although total net assets were brought down by ¥89,475 million as a result of the purchase of treasury stock that was mainly based on a resolution adopted by the Board of Directors meeting on March 12, 2019 and ¥74,655 million in cash dividends.

As a result, the equity ratio was 81.1%, up 0.1 percentage points from 81.0%, and net assets per share increased by ¥403.49 compared with the previous fiscal year, to ¥5,915.47.

We were able to achieve increases in both return on invested capital (ROIC), which was 21.5%, up 3.3 percentage points from 18.2%, and return on equity (ROE), which was 12.8%, up 0.9 percentage points from 11.9%. The full-year dividend per share was increased by ¥60 compared to the previous fiscal year, to ¥200 per share.

The Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28, released on February 16, 2018) have been applied since the beginning of FY2019. Year-on-year comparisons related to financial position are therefore based on retroactive adjustments to end-FY 2018 figures.

Cash Flows

The balance of cash and cash equivalents at the end of FY 2019 increased by 6.1% (¥47,895 million) compared with that at the end of the previous fiscal year to ¥828,345 million.

Cash Flows from Operating Activities

Net cash provided by operating activities amounted to ¥400,687 million, an increase of ¥67,911 million from the previous fiscal year. This was mainly attributable to ¥415,311 million in income before income taxes and non-controlling interests, ¥137,570 million in depreciation and amortization and ¥121,589 million for the payment of income taxes.

Cash Flows from Investing Activities

As a result of investing activities in the fiscal year under review, net cash used for investing activities was ¥181,553 million (down ¥56,049 million year on year). This was mainly attributable to cash outflows of ¥226,768 million for purchases of property, plant and equipment and ¥83,830 million for purchases of investments in securities, as well as inflows from ¥82,660 million in proceeds from the redemption of investments in securities and a ¥55,116 million net decrease in time deposits.

Cash Flows from Financing Activities

Net cash used for financing activities increased by ¥114,532 million from the previous fiscal year to ¥164,538 million. This was mainly due to ¥89,475 million in purchases of treasury stock and ¥74,655 million in cash dividends paid.

With regard to plans for important capital expenditures and the procurement source of said capital, in the one-year period following March 31, 2019, we expect capital expenditures to total ¥300,000 million, an approximately 25% increase compared to capital expenditures in the fiscal year under review. We plan to use our own capital to fund these investments.

Capital Expenditures

In the fiscal year under review, capital expenditures totaled ¥240,618 million overall for the PVC/Chlor-Alkali Business, Silicones Business, Specialty Chemicals Business, Semiconductor Silicon Business, Electronics & Functional Materials Business and the Processing, Trading & Specialized Services Business.

Capital expenditure in the PVC/Chlor-Alkali Business totaled ¥76,449 million. This was mainly due to the construction of a new ethylene manufacturing plant and new integrated PVC manufacturing facilities (both currently under construction) at Shintech.

In the Silicones Business, capital expenditures were ¥28,242 million. This was mainly due to the enhancement and streamlining of silicone product manufacturing equipment.

In the Specialty Chemicals Business, capital expenditures were ¥18,007 million. This investment was primarily made to augment cellulose manufacturing facilities at both the Company and SE Tylose. Augmentation construction on these facilities is currently underway.

In the Semiconductor Silicon Business, capital expenditures were ¥69,392 million. This was mainly due to investments to improve the quality of semiconductor silicon wafers and augment facilities at Shin-Etsu Handotai Co., Ltd.

In the Electronics & Functional Materials Business, capital expenditures were ¥40,175 million. This was mainly due to the construction of a new plant (currently under construction) for the production of photoresists at Shin-Etsu Electronics Materials Taiwan and the augmentation of manufacturing facilities for rare earth magnets at Shin-Etsu Magnetic Materials Vietnam Co., Ltd.

In the Processing, Trading & Specialized Services Business, capital expenditures were ¥8,840 million.

Funds required for these investments were provided mainly using our own capital.

Basic Policy Concerning Profit-Sharing

From a long-term perspective, our basic policy is to strive to increase business earnings and reinforce our corporate structure, and then return the results of these efforts to shareholders with appropriate dividends. We will use retained earnings for capital investment and investment in R&D, etc. to strengthen our competitiveness globally and expand our business aggressively in the future, which will enable us to increase our corporate value.

In accordance with this policy, the year-end dividend is scheduled to be ¥100 per share, the same amount as the interim dividend of ¥100 per share. Consequently, the annual dividend for FY2018 will be ¥200 yen per share, ¥60 yen up from the annual dividend of ¥140 for FY2017.

The Company's Board of Directors resolved at the meeting held on March 12, 2019 that, in the fiscal year, the company would acquire treasury stock for approximately ¥100 billion pursuant to the provisions of Article 156 of the Companies Act applied based on the provisions of Article 165, paragraph 3, and also would cancel treasury stock pursuant to the provisions of Article 178.

Outlook for Fiscal 2020 (Ending March 31, 2020)

The global economy is facing a number of uncertain factors and remains unpredictable. The Shin-Etsu Group will deploy aggressive sales activities in which we will set our sights on the global markets and precisely capture demand trends, and we will accelerate our business deployment by newly building production bases in the most suitable areas of the world and strengthening the capacity of our existing facilities. In addition, we will continue focusing on improving productivity and quality and will strive to develop products valuable to our customers and to provide a stable product supply. To do so, we will make adequate, timely investments by maintaining sound financial performance.

The Group will make endeavors to create value that meet demands from customers, markets and society in the long term. Especially, we believe maximizing efficiency is essential in order to realize the sustainable development of human society and the improvement of its quality while minimizing the burden on the environment. Technologies such as the processing of proliferating data, automatic driving, IoT, 5G and AI are being utilized and continue to evolve for the purpose. To this end, we believe the role we play is significant. We will make efforts so that all of our products will contribute to an objective such as this and will succeed in new product development to this end. It is our daily goal to provide materials of value which will be regarded in a way that it is owing to our products that human life has been enhanced and problems markets and customers experienced have been solved. This is our role, and we will make our businesses grow in a sustainable manner through it.

On the other hand, there are some key products that are significantly affected by market situations and changes in supply/demand, including raw material prices. Further, over 70% of the Group's sales are comprised of overseas sales, and as such exchange fluctuations impact both our business, as well as those of our overseas subsidiaries when their financial results are converted into Japanese yen.

Considering these external factors that have the potential for change, it is difficult to reasonably forecast business performance for FY2020, and therefore, we decided that the consolidated business forecasts are yet to be determined. We will promptly release them when we are able to do so.

Business Risks

This section discusses risk factors that could potentially influence such key business matters as the results of the Group's business operations, financial condition and cash flows. The Group reduces its vulnerability to business risks by taking measures to prevent, disperse or hedge these risks. However, if an unforeseeable situation should occur, it could have a significant impact on the Group's business results.

This section contains a list of significant items that the Group considers are risk factors at the end of the fiscal year under review (as of March 31, 2019), but it is not intended to be a comprehensive list of all risks that could seriously impact the Group's business performance.

1) Influence of Economic Trends and Product Markets

Changes in the economic situation of countries or regions where the Group's key products are marketed can have a great impact on the results of the Group's business operations. In addition, among the Group's key products, some products could be affected by large price fluctuations due to the global supply and demand environment. The Group is hedging its risks by taking such strategies as diversifying and globalizing its businesses.

However, a downturn in demand for certain of its products or escalating price competition could have a significant effect on the Group's business operations results.

2) Influence of Fluctuations in Foreign Exchange Rates

Overseas sales accounted for 74% of the consolidated net sales of the Group in fiscal 2019, and it is expected that this ratio will remain at a high level. The Japanese yen equivalent amounts of items in the financial statement items of overseas consolidated subsidiaries, which are included in the Group's consolidated financial statements, are influenced by fluctuations in foreign exchange rates.

A large movement in these rates could have a great impact on the business results of the entire Group. In addition, although we use forward-exchange contracts and other measures to reduce risk exposure associated with transactions in foreign currencies, a large movement in foreign exchange rates could have a similar serious effect on the Group's business operations results.

3) Influence of Natural Disasters and Disastrous Accidents

To minimize the damage that could result from an interruption of production activities, the Group performs regular disaster-prevention inspections, carries out a constant program of facility maintenance activities at its production facilities and makes facility investments to enhance safety and establish multiple manufacturing bases.

However, if a natural disaster or disastrous accident or other unforeseen event damages production facilities or other areas, such circumstances could have a major impact on the Group's business operations results.

4) Influence of Public Regulations and Laws

In countries and regions where the Group is carrying out its business activities, we are bound by the approval processes and licensing requirements involving investment and import/export regulations as well as by various related laws concerning commercial transactions, labor, patents, taxes, foreign exchange and other items. Any changes in these regulations and laws could have a significant effect on the Group's business operations results.

5) Influence of Supply Factors on Procurement of Materials

The Group uses various raw materials in its production activities, and we strive to assure a stable supply of these materials by diversifying our supply sources. However, if supplies become tight or there are delays in procuring these materials, or if prices increase because of these events, there could be a great effect on the Group's business operations results.

6) Influence of the Development of New Products and Technologies

The pace of technological progress is rapid in the electronics industry, which is an important market for some of the Group's products. The Group is constantly working on developing the most advanced cutting-edge materials to meet needs associated with this technological innovation. However, if the Group is unable to take appropriate measures in response to changes in industries and/or markets despite its constant efforts, there could be a significant effect on the Group's business operations results.

7) Influence of Environmental Issues

The Group handles various types of chemical substances and complies strictly with various laws and regulations concerning the environment. In addition, the Group has been making efforts for energy-saving in order to help combat global warming and for eliminating or significantly reducing emissions of substances that are harmful to the environment. However, if regulations concerning the environment become more strict than presently anticipated and require large-scale capital expenditures and other investments as a result, there could be a significant effect on the Group's business operations results.

8) Influence of Product Liability

The Group uses a large number of measures to maintain the optimum quality of its products in accordance with the characteristics of each product. However, a problem involving product quality that occurs due to unforeseen circumstances could have a significant effect on the Group's business operations results.

Consolidated Balance Sheet

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

As of March 31, 2018 and 2019

| | Millions of yen | | Thousands of U.S. dollars (Note 3) |
|---|-----------------|------------|---------------------------------------|
| | 2018 | 2019 | 2019 |
| ASSETS | | | |
| Current Assets: | | | |
| Cash and time deposits (Note 21) | ¥854,506 | ¥826,680 | \$7,447,572 |
| Notes and accounts receivable-trade (Note 4) | 332,880 | 338,701 | 3,051,368 |
| Securities (Notes 6 and 21) | 197,339 | 215,444 | 1,940,938 |
| Merchandise and finished goods | 135,033 | 158,717 | 1,429,889 |
| Work in process | 13,235 | 16,711 | 150,553 |
| Raw materials and supplies | 133,808 | 154,064 | 1,387,971 |
| Other | 48,313 | 47,527 | 428,178 |
| Less: Allowance for doubtful accounts (Note 2 (5)) | (12,201) | (7,379) | (66,480) |
| Total current assets | 1,702,916 | 1,750,469 | 15,769,991 |
| Fixed Assets: | | | |
| Property, Plant and Equipment (Notes 2 (8) and 9): | | | |
| Buildings and structures, net | 176,323 | 188,268 | 1,696,114 |
| Machinery and equipment, net | 454,846 | 445,974 | 4,017,790 |
| Land | 88,746 | 88,806 | 800,054 |
| Construction in progress | 170,810 | 255,232 | 2,299,388 |
| Other, net | 9,001 | 9,678 | 87,193 |
| Total property, plant and equipment | 899,728 | 987,960 | 8,900,542 |
| Intangible Assets | 9,405 | 8,740 | 78,738 |
| Investments and Other Assets: | | | |
| Investments in securities (Notes 6 and 8) | 145,455 | 141,685 | 1,276,444 |
| Net defined benefit asset (Note 11) | 2,440 | 3,841 | 34,604 |
| Deferred tax assets (Note 19) | 52,869 | 59,154 | 532,927 |
| Other (Note 8) | 92,518 | 89,491 | 806,226 |
| Less: Allowance for doubtful accounts (Note 2 (5)) | (2,197) | (2,624) | (23,640) |
| Total investments and other assets | 291,086 | 291,548 | 2,626,562 |
| Total fixed assets | 1,200,220 | 1,288,248 | 11,605,843 |
| Total Assets | ¥2,903,137 | ¥3,038,717 | \$27,375,835 |

The accompanying notes are an integral part of the consolidated financial statements.

| | Millions of yen | | Thousands of U.S. dollars (Note 3) |
|--|-----------------|------------|---------------------------------------|
| | 2018 | 2019 | 2019 |
| LIABILITIES | | | |
| Current Liabilities: | | | |
| Notes and accounts payable-trade (Note 4) | ¥136,834 | ¥141,027 | \$1,270,518 |
| Short-term borrowings (Note 10) | 7,094 | 7,008 | 63,137 |
| Accounts payable-other | 65,750 | 75,128 | 676,834 |
| Accrued expenses | 68,805 | 74,354 | 669,864 |
| Accrued income taxes | 58,972 | 45,739 | 412,063 |
| Accrued bonuses for employees | 3,147 | 3,551 | 31,994 |
| Accrued bonuses for directors | 674 | 694 | 6,256 |
| Other (Notes 4) | 37,142 | 44,350 | 399,552 |
| Total current liabilities | 378,421 | 391,854 | 3,530,222 |
| Long-Term Liabilities: | | | |
| Long-term debt (Note 10) | 8,430 | 7,624 | 68,685 |
| Deferred tax liabilities (Note 19) | 61,476 | 62,669 | 564,589 |
| Net defined benefit liability (Note 11) | 32,282 | 30,473 | 274,532 |
| Other | 9,499 | 13,540 | 121,984 |
| Total long-term liabilities | 111,690 | 114,306 | 1,029,792 |
| Total Liabilities | 490,112 | 506,161 | 4,560,014 |
| Commitment and Contingent Liabilities (Note 12) | | | |
| NET ASSETS | | | |
| Stockholders' Equity: | | | |
| Common stock: | 119,419 | 119,419 | 1,075,853 |
| Authorized: 1,720,000,000 shares | | | |
| Issued: 432,106,693 shares and 427,606,693 shares as of March 31, 2018 and 2019, respectively | | | |
| Additional paid-in capital | 129,937 | 128,299 | 1,155,855 |
| Retained earnings (Note 13) | 2,070,779 | 2,283,760 | 20,574,418 |
| Less: Treasury stock, at cost | (30,207) | (94,702) | (853,177) |
| 5,536,807 shares and 10,801,943 shares as of March 31, 2018 and 2019, respectively | | | |
| Total stockholders' equity | 2,289,929 | 2,436,777 | 21,952,950 |
| Accumulated Other Comprehensive Income: | | | |
| Unrealized gains (losses) on available-for-sale securities (Note 2 (7)) | 26,446 | 22,955 | 206,804 |
| Deferred gains (losses) on hedges | 1,671 | (266) | (2,399) |
| Foreign currency translation adjustments | 34,611 | 5,143 | 46,340 |
| Remeasurements of defined benefit plans | (1,416) | 987 | 8,896 |
| Total accumulated other comprehensive income | 61,313 | 28,820 | 259,641 |
| Share Subscription Rights | 524 | 1,143 | 10,304 |
| Non-controlling Interests in Consolidated Subsidiaries | 61,258 | 65,814 | 592,925 |
| Total net assets | 2,413,025 | 2,532,556 | 22,815,821 |
| Total Liabilities and Net Assets | ¥2,903,137 | ¥3,038,717 | \$27,375,835 |

Consolidated Statement of Income

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES
For the fiscal years ended March 31, 2018 and 2019

| | Millions of yen | | Thousands of U.S. dollars (Note 3) |
|---|-----------------|------------|------------------------------------|
| | 2018 | 2019 | 2019 |
| Net Sales (Note 22) | ¥1,441,432 | ¥1,594,036 | \$14,360,693 |
| Cost of Sales (Notes 11 and 17) | 963,008 | 1,039,979 | 9,369,186 |
| Gross profit | 478,424 | 554,057 | 4,991,507 |
| Selling, General and Administrative Expenses (Notes 11, 16 and 17) | 141,601 | 150,352 | 1,354,525 |
| Operating income (Note 22) | 336,822 | 403,705 | 3,636,982 |
| Other Income (Expenses): | | | |
| Interest income | 6,122 | 9,093 | 81,920 |
| Dividend income | 4,817 | 5,896 | 53,120 |
| Equity in earnings (losses) of affiliates | 3,762 | 4,669 | 42,067 |
| Interest expenses | (621) | (746) | (6,726) |
| Loss on disposal of property, plant and equipment | (3,239) | (2,611) | (14,101) |
| Loss on revaluation of investments in securities | (143) | (1,565) | (23,523) |
| Other, net | (7,212) | (3,129) | (28,195) |
| Ordinary income | 340,308 | 415,311 | 3,741,543 |
| Income before income taxes and non-controlling interests | 340,308 | 415,311 | 3,741,543 |
| Income Taxes (Note 19): | | | |
| Current | 103,240 | 104,186 | 938,615 |
| Deferred | (32,990) | (2,861) | (25,775) |
| Total Income Taxes | 70,249 | 101,325 | 912,840 |
| Net Income | 270,058 | 313,986 | 2,828,702 |
| Net Income Attributable to Non-Controlling Interests | (3,822) | (4,860) | (43,786) |
| Net Income Attributable to Owners of Parent | ¥266,235 | ¥309,125 | \$2,784,916 |
| | | | |
| | Yen | | U.S. dollars (Note 3) |
| Earnings per Share (Note 2 (14)): | | | |
| Net income attributable to owners of parent—basic | ¥624.28 | ¥725.99 | \$6.540 |
| Net income attributable to owners of parent—fully diluted | 624.10 | 725.92 | 6.540 |
| Cash dividends | 140.00 | 200.00 | 1.802 |
| Weighted-Average Number of Shares Outstanding (Thousands) | 426,470 | 425,797 | 425,797 |

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statement of Comprehensive Income

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES
For the fiscal years ended March 31, 2018 and 2019

| | Millions of yen | | Thousands of U.S. dollars (Note 3) |
|---|-----------------|----------|---------------------------------------|
| | 2018 | 2019 | 2019 |
| Net Income | ¥270,058 | ¥313,986 | \$2,828,702 |
| Other Comprehensive Income (Note 20): | | | |
| Unrealized gains (losses) on available-for-sale securities | 3,549 | (3,499) | (31,527) |
| Deferred gains (losses) on hedges | 806 | (1,928) | (17,377) |
| Foreign currency translation adjustments | 14 | (30,861) | (278,030) |
| Remeasurements of defined benefit plans | 337 | 2,383 | 21,473 |
| Share of other comprehensive income (loss) of affiliates accounted for using the equity method | 370 | (134) | (1,212) |
| Total other comprehensive income (loss) | 5,078 | (34,040) | (306,674) |
| Comprehensive Income | ¥275,137 | ¥279,945 | \$2,522,028 |
| (Breakdown) | | | |
| Comprehensive income attributable to owners of parent | ¥270,406 | ¥276,632 | \$2,492,182 |
| Comprehensive income attributable to non-controlling interests | 4,730 | 3,312 | 29,846 |

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statement of Changes in Net Assets

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

| | Thousands | Millions of yen | | | | | | |
|--|----------------------------------|----------------------|----------------------------|-------------------|-------------------------|------------|--|-------|
| | Number of shares of common stock | Stockholders' Equity | | | | | | Total |
| | | Common stock | Additional paid-in capital | Retained earnings | Treasury stock, at cost | | | |
| Balance at April 1, 2017 | 432,106 | ¥119,419 | ¥129,626 | ¥1,857,857 | ¥(31,213) | ¥2,075,690 | | |
| Cash dividends (Note 13) | | | | (53,301) | | (53,301) | | |
| Net income attributable to owners of parent | | | | 266,235 | | 266,235 | | |
| Purchase of treasury stock | | | | | (30) | (30) | | |
| Disposal of treasury stock | | | 410 | | 1,036 | 1,447 | | |
| Others | | | (99) | (12) | | (112) | | |
| Net changes of items other than stockholders' equity | | | | | | | | |
| Balance at March 31, 2018 | 432,106 | ¥119,419 | ¥129,937 | ¥2,070,779 | ¥(30,207) | ¥2,289,929 | | |

| | Millions of yen | | | | | | | |
|--|--|-----------------------------------|--|---|---------|---------------------------|--|------------------|
| | Accumulated Other Comprehensive Income | | | | | Share subscription rights | Non-controlling interests in consolidated subsidiaries | Total net assets |
| | Unrealized gains (losses) on available-for-sale securities | Deferred gains (losses) on hedges | Foreign currency translation adjustments | Remeasurements of defined benefit plans | Total | | | |
| Balance at April 1, 2017 | ¥22,887 | ¥862 | ¥35,154 | ¥(1,761) | ¥57,142 | ¥152 | ¥57,096 | ¥2,190,082 |
| Cash dividends (Note 13) | | | | | | | | (53,301) |
| Net income attributable to owners of parent | | | | | | | | 266,235 |
| Purchase of treasury stock | | | | | | | | (30) |
| Disposal of treasury stock | | | | | | | | 1,447 |
| Others | | | | | | | | (112) |
| Net changes of items other than stockholders' equity | 3,559 | 809 | (543) | 344 | 4,171 | 371 | 4,161 | 8,703 |
| Balance at March 31, 2018 | ¥26,446 | ¥1,671 | ¥34,611 | ¥(1,416) | ¥61,313 | ¥524 | ¥61,258 | ¥2,413,025 |

| | Thousands | Millions of yen | | | | |
|---|----------------------------------|----------------------|----------------------------|-------------------|-------------------------|-------------------|
| | Number of shares of common stock | Stockholders' Equity | | | | |
| | | Common stock | Additional paid-in capital | Retained earnings | Treasury stock, at cost | Total |
| Balance at April 1, 2018 | 432,106 | ¥119,419 | ¥129,937 | ¥2,070,779 | ¥(30,207) | ¥2,289,929 |
| Cash dividends (Note 13) | | | | (74,655) | | (74,655) |
| Net income attributable to owners of parent | | | | 309,125 | | 309,125 |
| Purchase of treasury stock | | | | | (89,475) | (89,475) |
| Disposal of treasury stock | | | 166 | | 429 | 596 |
| Retirement of treasury stock | (4,500) | | (24,551) | | 24,551 | |
| Transfer to additional paid-in capital from retained earnings | | | 22,719 | (22,719) | | |
| Others | | | 27 | 1,230 | | 1,257 |
| Net changes of items other than stockholders' equity | | | | | | |
| Balance at March 31, 2019 | 427,606 | ¥119,419 | ¥128,299 | ¥2,283,760 | ¥(94,702) | ¥2,436,777 |

| | Millions of yen | | | | | | | |
|---|--|-----------------------------------|--|---|----------------|---------------------------|--|-------------------|
| | Accumulated Other Comprehensive Income | | | | | | | |
| | Unrealized gains (losses) on available-for-sale securities | Deferred gains (losses) on hedges | Foreign currency translation adjustments | Remeasurements of defined benefit plans | Total | Share subscription rights | Non-controlling interests in consolidated subsidiaries | Total net assets |
| Balance at April 1, 2018 | ¥26,446 | ¥1,671 | ¥34,611 | ¥(1,416) | ¥61,313 | ¥524 | ¥61,258 | ¥2,413,025 |
| Cash dividends (Note 13) | | | | | | | | (74,655) |
| Net income attributable to owners of parent | | | | | | | | 309,125 |
| Purchase of treasury stock | | | | | | | | (89,475) |
| Disposal of treasury stock | | | | | | | | 596 |
| Retirement of treasury stock | | | | | | | | |
| Transfer to additional paid-in capital from retained earnings | | | | | | | | |
| Others | | | | | | | | 1,257 |
| Net changes of items other than stockholders' equity | (3,491) | (1,938) | (29,467) | 2,403 | (32,493) | 619 | 4,556 | (27,317) |
| Balance at March 31, 2019 | ¥22,955 | ¥(266) | ¥5,143 | ¥987 | ¥28,820 | ¥1,143 | ¥65,814 | ¥2,532,556 |

| | Thousands | Thousands of U.S. dollars (Note 3) | | | | |
|---|----------------------------------|------------------------------------|----------------------------|---------------------|-------------------------|---------------------|
| | Number of shares of common stock | Stockholders' Equity | | | | |
| | | Common stock | Additional paid-in capital | Retained earnings | Treasury stock, at cost | Total |
| Balance at April 1, 2018 | 432,106 | \$1,075,853 | \$1,170,604 | \$18,655,674 | \$(272,139) | \$20,629,993 |
| Cash dividends (Note 13) | | | | (672,573) | | (672,573) |
| Net income attributable to owners of parent | | | | 2,784,916 | | 2,784,916 |
| Purchase of treasury stock | | | | | (806,088) | (806,088) |
| Disposal of treasury stock | | | 1,504 | | 3,866 | 5,370 |
| Retirement of treasury stock | (4,500) | | (221,183) | | 221,183 | |
| Transfer to additional paid-in capital from retained earnings | | | 204,683 | (204,683) | | |
| Others | | | 246 | 11,084 | | 11,331 |
| Net changes of items other than stockholders' equity | | | | | | |
| Balance at March 31, 2019 | 427,606 | \$1,075,853 | \$1,155,855 | \$20,574,418 | \$(853,177) | \$21,952,950 |

| | Thousands of U.S. dollars (Note 3) | | | | | | | |
|---|--|-----------------------------------|--|---|------------------|---------------------------|--|---------------------|
| | Accumulated Other Comprehensive Income | | | | | | | |
| | Unrealized gains (losses) on available-for-sale securities | Deferred gains (losses) on hedges | Foreign currency translation adjustments | Remeasurements of defined benefit plans | Total | Share subscription rights | Non-controlling interests in consolidated subsidiaries | Total net assets |
| Balance at April 1, 2018 | \$238,257 | \$15,062 | \$311,814 | \$(12,760) | \$552,374 | \$4,723 | \$551,876 | \$21,738,967 |
| Cash dividends (Note 13) | | | | | | | | (672,573) |
| Net income attributable to owners of parent | | | | | | | | 2,784,916 |
| Purchase of treasury stock | | | | | | | | (806,088) |
| Disposal of treasury stock | | | | | | | | 5,370 |
| Retirement of treasury stock | | | | | | | | |
| Transfer to additional paid-in capital from retained earnings | | | | | | | | |
| Others | | | | | | | | 11,331 |
| Net changes of items other than stockholders' equity | (31,453) | (17,462) | (265,474) | 21,656 | (292,733) | 5,581 | 41,049 | (246,102) |
| Balance at March 31, 2019 | \$206,804 | \$(2,399) | \$46,340 | \$8,896 | \$259,641 | \$10,304 | \$592,925 | \$22,815,821 |

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statement of Cash Flows

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES
For the fiscal years ended March 31, 2018 and 2019

| | Millions of yen | | Thousands of U.S. dollars (Note 3) |
|--|------------------|------------------|---------------------------------------|
| | 2018 | 2019 | 2019 |
| Cash Flows from Operating Activities: | | | |
| Income before income taxes and non-controlling interests | ¥340,308 | ¥415,311 | \$3,741,543 |
| Adjustments to reconcile income before income taxes to net cash provided by operating activities: | | | |
| Depreciation and amortization | 112,016 | 137,570 | 1,239,376 |
| Loss on impairment of fixed assets | 1,460 | 2,232 | 20,108 |
| Increase (decrease) in net defined benefit liability | (4,469) | (126) | (1,140) |
| (Gain) loss on sales of investments in securities | (17) | (3) | (30) |
| (Gain) loss on revaluation of investments in securities | 143 | 1,565 | 14,101 |
| Increase (decrease) in allowance for doubtful accounts | (2,019) | (4,281) | (38,571) |
| Interest and dividend income | (10,939) | (14,989) | (135,041) |
| Interest expenses | 621 | 746 | 6,726 |
| Exchange (gain) loss | 6,148 | (2,060) | (18,559) |
| Equity in (earnings) losses of affiliates | (3,762) | (4,669) | (42,067) |
| Changes in assets and liabilities: | | | |
| (Increase) decrease in notes and accounts receivable | (42,287) | (8,697) | (78,354) |
| (Increase) decrease in inventories | (13,595) | (49,109) | (442,431) |
| (Increase) decrease in long-term advance payment | 3,196 | 3,838 | 34,578 |
| Increase (decrease) in notes and accounts payable | 12,017 | 3,270 | 29,465 |
| Other, net | (2,400) | 25,803 | 232,462 |
| Subtotal | 396,420 | 506,400 | 4,562,166 |
| Proceeds from interest and dividends | 11,746 | 16,627 | 149,797 |
| Payments of interest | (599) | (751) | (6,766) |
| Payments of income taxes | (74,791) | (121,589) | (1,095,396) |
| Net cash provided by operating activities | 332,776 | 400,687 | 3,609,800 |
| Cash Flows from Investing Activities: | | | |
| (Increase) decrease in time deposits | (22,649) | 55,116 | 496,546 |
| Purchases of securities | (95,000) | (83,830) | (755,227) |
| Proceeds from redemption of securities | 50,560 | 82,660 | 744,692 |
| Purchases of property, plant and equipment | (162,311) | (226,768) | (2,042,955) |
| Proceeds from sales of property, plant and equipment | 2,390 | 238 | 2,146 |
| Purchases of intangible fixed assets | (1,407) | (1,334) | (12,023) |
| Purchases of investments in securities | (7,516) | (2,563) | (23,094) |
| Proceeds from sales of investments in securities | 26 | 434 | 3,912 |
| Proceeds from redemption of investments in securities | 5,000 | - | - |
| Payments of loans | (809) | (4) | (36) |
| Proceeds from collection of loans | 1,301 | 542 | 4,882 |
| Other, net | (7,188) | (6,045) | (54,462) |
| Net cash provided by (used for) investing activities | (237,602) | (181,553) | (1,635,617) |
| Cash Flows from Financing Activities: | | | |
| Net increase (decrease) in short-term borrowings | (114) | (298) | (2,686) |
| Proceeds from long-term debt | 2,012 | 51 | 465 |
| Repayments of long-term debt | (792) | (227) | (2,052) |
| Purchases of treasury stock | (30) | (89,475) | (806,088) |
| Proceeds from sales of treasury stock | 1,394 | 573 | 5,170 |
| Cash dividends paid | (53,301) | (74,655) | (672,573) |
| Cash dividends paid to non-controlling interests | (750) | (896) | (8,075) |
| Other, net | 1,575 | 389 | 3,507 |
| Net cash used for financing activities | (50,006) | (164,538) | (1,482,333) |
| Effect of Exchange Rate Changes on Cash and Cash Equivalents | 1,952 | (7,917) | (71,325) |
| Net Increase (Decrease) in Cash and Cash Equivalents | 47,119 | 46,678 | 420,524 |
| Cash and Cash Equivalents at Beginning of Year | 733,306 | 780,449 | 7,031,081 |
| Increase (Decrease) in Cash and Cash Equivalents Resulting from Changes in Scope of Consolidation | 24 | 1,217 | 10,968 |
| Cash and Cash Equivalents at End of Year (Note 21) | ¥780,449 | ¥828,345 | \$7,462,574 |

The accompanying notes are an integral part of the consolidated financial statements.

Notes to Consolidated Financial Statements

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES
For the fiscal years ended March 31, 2018 and 2019

1. BASIS OF PRESENTING CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements have been prepared from accounts and records maintained by Shin-Etsu Chemical Co., Ltd. (the "Company") and its subsidiaries. The Company and its domestic consolidated subsidiaries maintain their accounts and records in accordance with the provisions set forth in the Corporation Law of Japan and the Financial Instruments and Exchange Law and in conformity with generally accepted accounting principles prevailing in Japan. The accounts of overseas consolidated subsidiaries are based on their accounting records maintained in conformity with generally accepted accounting principles prevailing in the respective countries. Before the fiscal year ended March 31, 2008, in general, no adjustments to the accounts of overseas consolidated subsidiaries were reflected in the accompanying consolidated financial statements to present them in compliance with Japanese accounting principles followed by the Company.

Effective from the fiscal year ended March 31, 2009, the "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" (Accounting Standards Board of Japan ("ASBJ") Practical Issues Task Force No. 18, issued on May 17, 2006) has been applied, and accordingly some revisions have been made to the consolidated accounts as necessary.

The accompanying consolidated financial statements of the Company and its subsidiaries are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to application 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.

The presentation of the accompanying consolidated financial statements is made in conformity with the Consolidated Financial Statements Regulation (ordinance promulgated by the Ministry of Finance) and meets the requirements for disclosure of financial information of the Company on a consolidated basis. However, certain reclassifications have been made to the consolidated financial statements issued domestically to enable the presentation in a form which is more familiar to readers outside Japan.

The amounts in the accompanying consolidated financial statements are stated in millions of yen. Amounts less than ¥1 million are omitted, except where otherwise indicated.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(1) Principles of consolidation

The Company had 129 majority-owned subsidiaries as of March 31, 2019 (126 as of March 31, 2018). The consolidated financial statements include the accounts of the Company and 95 (91 for 2018) majority-owned subsidiaries (collectively, the "Companies"), of which the principal firms are listed on page 38 with their respective fiscal year-ends.

Moreover, from the fiscal year ended March 31, 2019, Shin-Etsu Electronics (Malaysia) Sdn. Bhd., and other companies were included in the scope of consolidation due to their materiality and other considerations.

The remaining 34 (35 for 2018) unconsolidated subsidiaries, including Shin-Etsu Magnetics (Thailand) Ltd., whose total assets, net sales, net income and retained earnings in the aggregate are not material to the consolidated financial statements have been excluded from the scope of consolidation. For consolidation of subsidiaries whose fiscal year-ends are not the same as the Company, necessary adjustments are made for significant intercompany transactions occurring during the periods between the fiscal year-end of respective consolidated subsidiaries and that of the Company.

Unrealized intercompany profits and losses among the Companies are entirely eliminated, and the portion thereof attributable to non-controlling interests is allocated to the non-controlling interests.

Assets and liabilities of consolidated subsidiaries are measured at fair value at the time of acquisition.

Goodwill is amortized within 20 years on a straight-line basis.

(2) Accounting for investments in unconsolidated subsidiaries and affiliates

The Company had 34 (35 for 2018) unconsolidated subsidiaries (majority-owned) and 13 (14 for 2018) affiliates (meaning 20% to 50% ownership of a company's equity interest). The equity method is applied to the investments in 3 (3 for 2018) major affiliates and investments in the remaining unconsolidated subsidiaries, including Shin-Etsu Magnetics (Thailand) Ltd., and affiliates, including NIPPON PLASTIC INDUSTRY CO., LTD., are stated at cost because they are not material to the consolidated financial statements.

The unconsolidated subsidiaries and affiliates accounted for by the equity method are listed below:

Mimasu Semiconductor Industry Co., Ltd.

Shin-Etsu Quartz Products Co., Ltd.

Admatechs Co., Ltd.

(3) Translation of foreign currency transactions

Foreign currency transactions are generally translated into yen at the rates prevailing at the respective transaction dates.

Foreign currency deposits, receivables and payables are translated into yen at the exchange rate prevailing at the respective balance sheet dates and the resulting translation gain or loss is included in the determination of profit for the year.

However, all of the overseas consolidated subsidiaries apply the current rate method to translate transactions and account balances in foreign currencies into their respective home currencies.

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

The balance sheet accounts of overseas consolidated subsidiaries are translated into yen at current exchange rates prevailing at the end of the fiscal year, except for equity, which is translated at the historical rate. Revenue and expense accounts are translated at the average exchange rates during the year. The resulting translation adjustments are shown as "Foreign currency translation adjustments" in the accompanying balance sheets as of March 31, 2018 and 2019.

(5) Allowance for doubtful accounts

The Company and its consolidated subsidiaries provide an allowance for doubtful accounts using the historic percentage of bad debt loss against the balance of general receivables plus an amount deemed necessary to cover individual accounts estimated to be uncollectible.

(6) Inventories

Inventories are mainly stated at cost determined by the weighted-average method. Balance sheet amounts are written down based on any decline in profitability.

(7) Financial instruments

Securities:

Held-to-maturity debt securities are stated at amortized cost using the straight-line method. Available-for-sale securities for which market quotations are available are stated at fair value. Net unrealized gains or losses on these securities are reported as a separate component of accumulated other comprehensive income at net-of-tax amounts. Other securities for which market quotations are unavailable are stated at cost, determined by the moving-average cost method.

Derivatives:

Derivatives are stated at fair value, with changes in fair value included in profit or loss in the same period in which they arise, except for derivatives that are designated as "hedging instruments."

The Company and consolidated subsidiaries enter into foreign exchange contracts, currency swaps, interest rate swaps and commodity swap contracts.

Hedge accounting:

Gains or losses arising from changes in the fair value of the derivatives designated as "hedging instruments" are deferred as an asset or liability and included in profit or loss in the same period during which the gains and losses on the hedged items or transactions are recognized.

The derivatives designated as hedging instruments by the Company are interest rate swaps, foreign exchange contracts, currency swaps and commodity swap contracts. The related hedged items are interest rate transactions tied to funding activities, forecasted foreign currency transactions and prices of raw materials.

The Company has a policy to utilize the above hedging instruments in order to hedge the risk of fluctuations in interest rates and foreign currencies. Thus, the Company's purchases of the hedging instruments are limited to, at maximum, the amounts of the underlying hedged items. The Company does not enter into derivative transactions for trading or speculative purposes.

The Company evaluates the effectiveness of its hedging activities by reference to the accumulated gains or losses on the hedging instruments and the corresponding hedged items from the commencement of the hedges.

(8) Property, plant and equipment

The Company and its domestic subsidiaries principally calculate depreciation by the declining-balance method, based on the estimated useful lives of the assets, except for buildings acquired on or after April 1, 2008, and facilities attached to buildings and structures acquired on or after April 1, 2016, which are depreciated by straight-line method. Foreign subsidiaries principally calculate depreciation by the straight-line method over the estimated useful lives of the assets. The cost of property, plant and equipment retired or otherwise disposed of and accumulated depreciation are eliminated from the related accounts, and the resulting gain or loss is reflected in income.

(9) Repairs and maintenance

Normal repairs and maintenance, including minor renewals and improvements, are charged to income as incurred.

(10) Accrued bonuses for employees

Certain consolidated subsidiaries recognize the estimated amount of employees' bonuses to be paid in the subsequent period that is attributable to the current fiscal year.

(11) Accrued bonuses for directors

The Company and its consolidated subsidiaries recognize the estimated amount of directors' bonuses to be paid in the subsequent period that is attributable to the current fiscal year.

(12) Accrued retirement benefits

The Company applies the benefit formula basis to measure the pension obligations. The expected retirement benefit attributed to periods of service under the plan's benefit formula is deemed as arising in each period.

Actuarial differences are amortized over a five-year period, which is within the average remaining service period of employees, using the straight-line method from the fiscal year when the difference was generated. Prior service cost is amortized as incurred over a ten-year period, which is within the average remaining service period of employees using the straight-line method from the time when the prior service cost was generated.

(13) Research and development costs

Research and development costs are charged to income as incurred.

(14) Income and dividends per share

Earnings per share is based upon the weighted-average number of shares of common stock outstanding during each fiscal year. Earnings per share adjusted for dilution represents earnings per share assuming full conversion of all convertible debentures of the Company outstanding with related reduction in interest expenses.

(15) Dividends

Dividends are proposed by the Board of Directors and approved by the stockholders at meetings held subsequent to the fiscal year to which the dividends are applicable, and registered stockholders as of the end of such fiscal year are entitled to the subsequently declared dividends. Interim cash dividends are also paid (see Note 13).

Dividends charged to retained earnings in the accompanying consolidated statements of changes in net assets represent dividends approved and paid during the year.

(16) Consumption tax

Consumption tax withheld by the Company and certain subsidiaries on sales of products and services is not included in the amount of net sales in the consolidated statements of income. Consumption tax borne by the Company and certain subsidiaries on purchases of goods and services and on expenses is also not included in the related amounts in the consolidated statements of income.

3. UNITED STATES DOLLAR AMOUNTS

The accompanying consolidated financial statements are prepared in Japanese yen. The U.S. dollar amounts included in the consolidated financial statements and notes thereto represent the arithmetical results of translating yen to dollars on a basis of ¥111 to US\$1, the approximate effective rate of exchange on March 31, 2019. The inclusion of such dollar amounts is solely for convenience and is not intended to imply that yen amounts have been or could be readily converted, realized or settled in dollars at ¥111 to US\$1 or at any other rate.

4. NOTES AND ACCOUNTS RECEIVABLE AND PAYABLE

The Companies recognize settlements of trade notes receivable and trade notes payable when the bank clearance of the notes is actually made. As March 31, 2019 was a holiday for financial institutions, the following accounts include the unsettled balances of trade notes receivable and trade notes payable due on that date in the accompanying consolidated balance sheet as of March 31, 2019.

| | Millions of yen | | Thousands of |
|-------------------------------------|-----------------|--------|--------------|
| | 2018 | 2019 | U.S. dollars |
| Notes and accounts receivable—trade | | | 2019 |
| Trade notes receivable | ¥2,193 | ¥2,344 | \$21,117 |
| Notes and accounts payable—trade | | | |
| Trade notes payable | 1,796 | 1,331 | 11,996 |
| Other | 1,139 | 521 | 4,696 |

5. FINANCIAL INSTRUMENTS

(1) Overview of financial instruments

Management policy

In principle, fund management is limited to deposits with financial institutions with high credit ratings and risk-free bonds, and financing is obtained primarily through borrowings from banks.

Financial instruments, risks and risk management

Notes and accounts receivable-trade are exposed to credit risk of customers. With regard to credit risk related to notes and accounts receivable-trade, each business department not only controls and manages account due dates and balances, but also confirms the credit standing of major customers periodically, making efforts to identify doubtful accounts as early as possible.

Securities and investments in securities are stocks in companies with which the Company has business relationships, held-to-maturity debt securities and also certificates of deposit. Regarding securities and investment securities, the Company regularly determines their fair value and the financial situation of the issuing companies. For stocks, the Company also continually reviews the stock holding status, considering its relationship with the issuing companies.

In order to hedge the foreign currency exchange risk associated with assets and liabilities denominated in foreign currencies and interest rate risk associated with financial assets and liabilities, derivative transactions such as interest rate swap transactions, currency swap transactions and foreign exchange forward contracts are utilized. Also, to hedge price fluctuation risks when procuring raw materials, commodity swap transactions are utilized. All derivative transactions are entered into for the purpose of hedging risks arising in the ordinary course of business, and there are no derivative transactions entered into for trading or speculative purposes.

Supplementary explanation on 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 values.

(2) Fair value of financial instruments

As of March 31, 2018 and 2019, the book value, fair value and the difference between the two are as follows:

| | Millions of yen | | |
|---|-------------------|-------------------|---------------|
| | 2018 | | |
| | Book value | Fair value | Difference |
| Assets: | | | |
| (1) Cash and time deposits | ¥854,506 | ¥854,506 | ¥— |
| (2) Notes and accounts receivable—trade | 332,880 | 332,880 | — |
| (3) Securities and investments in securities | | | |
| i) Held-to-maturity debt securities | 7,564 | 7,491 | (73) |
| ii) Investments in and advances to unconsolidated subsidiaries and affiliates | 25,202 | 27,143 | 1,940 |
| iii) Available-for-sale securities | 279,442 | 279,442 | — |
| (4) Long-term loans | 5,885 | 5,291 | (593) |
| Total | ¥1,505,482 | ¥1,506,756 | ¥1,273 |
| Liabilities: | | | |
| (1) Notes and accounts payable—trade | ¥136,834 | ¥136,834 | — |
| (2) Short-term borrowings | 7,094 | 7,094 | — |
| (3) Accounts payable—other | 65,750 | 65,750 | — |
| (4) Accrued expenses | 68,805 | 68,805 | — |
| (5) Accrued income taxes | 58,972 | 58,972 | — |
| (6) Long-term debt | 8,430 | 8,433 | 2 |
| Total | ¥345,888 | ¥345,890 | ¥2 |
| Derivative transactions: | | | |
| Hedge accounting not applied | ¥2,329 | ¥2,329 | — |
| Hedge accounting applied | 2,192 | 2,192 | — |
| Total | ¥4,522 | ¥4,522 | ¥— |

| | Millions of yen | | | Thousands of U.S. dollars | | |
|---|-------------------|-------------------|-----------------|---------------------------|---------------------|-------------------|
| | Book value | Fair value | Difference | Book value | Fair value | Difference |
| Assets: | | | | | | |
| (1) Cash and time deposits | ¥826,680 | ¥826,680 | ¥— | \$7,447,572 | \$7,447,572 | \$— |
| (2) Notes and accounts receivable—trade | 338,701 | 338,701 | — | 3,051,368 | 3,051,368 | — |
| (3) Securities and investments in securities | | | | | | |
| i) Held-to-maturity debt securities | 10,476 | 10,402 | (73) | 94,379 | 93,714 | (664) |
| ii) Investments in and advances to unconsolidated subsidiaries and affiliates | 26,452 | 20,773 | (5,678) | 238,306 | 187,148 | (51,158) |
| iii) Available-for-sale securities | 288,151 | 288,151 | — | 2,595,961 | 2,595,961 | — |
| (4) Long-term loans | 1,432 | 1,465 | 33 | 12,906 | 13,206 | 299 |
| Total | ¥1,491,894 | ¥1,486,175 | ¥(5,719) | \$13,440,494 | \$13,388,970 | \$(51,523) |
| Liabilities: | | | | | | |
| (1) Notes and accounts payable—trade | ¥141,027 | ¥141,027 | ¥— | \$1,270,518 | \$1,270,518 | \$— |
| (2) Short-term borrowings | 7,008 | 7,008 | — | 63,137 | 63,137 | — |
| (3) Accounts payable—other | 75,128 | 75,128 | — | 676,834 | 676,834 | — |
| (4) Accrued expenses | 74,354 | 74,354 | — | 669,864 | 669,864 | — |
| (5) Accrued income taxes | 45,739 | 45,739 | — | 412,063 | 412,063 | — |
| (6) Long-term debt | 7,624 | 7,547 | (76) | 68,685 | 67,994 | (690) |
| Total | ¥350,882 | ¥350,805 | ¥(76) | \$3,161,105 | \$3,160,414 | \$(690) |
| Derivative transactions: | | | | | | |
| Hedge accounting not applied | ¥(2,050) | ¥(2,050) | ¥— | \$(18,473) | \$(18,473) | \$— |
| Hedge accounting applied | (515) | (515) | — | (4,642) | (4,642) | — |
| Total | ¥(2,565) | ¥(2,565) | ¥— | \$(23,116) | \$(23,116) | \$— |

Notes:

1. Method for calculating fair value of financial instruments, and notes regarding securities and derivative transactions

Assets

(1) Cash and time deposits and (2) Notes and accounts receivable—trade

These are settled within a short time, and their fair value and book value are nearly equal. Thus, the book value is listed as the fair value in the table above.

(3) Securities and investments in securities

These mainly consist of stocks and held-to-maturity debt securities. The fair value of stocks is based on prices quoted on stock exchanges, while the fair value of held-to-maturity debt securities is based on either a price quoted on the exchanges or prices provided by counterparty financial institutions. Negotiable certificates of deposit are settled within a short time, and the fair value and book value are nearly equal. Thus, the book value is listed as the fair value in the table above.

(4) Long-term loans

The fair value of long-term loans is calculated based on a future cash flow discounted at an appropriate rate such as mid-term and long-term interest rates with credit spreads, for all loans grouped by a certain period of time and credit rating under the Company's credit exposure management.

Liabilities

(1) Notes and accounts payable—trade, (2) Short-term borrowings, (3) Accounts payable—other, (4) Accrued expenses and (5) Accrued income taxes

These are settled within a short time, and their fair value and book value are nearly equal. Thus, the book value is listed as the fair value in the table above.

(6) Long-term debt

The fair value for long-term debt is calculated based on a present value of principal and interest, discounted at the expected rate for new borrowings with the same terms.

Derivative transactions

Assets and liabilities arising from derivative transactions are presented in the table above. Total net payables are shown in parenthesis.

2. The following table summarizes financial instruments whose fair value is extremely difficult to estimate.

| Description | Millions of yen | | Thousands of U.S. dollars |
|---------------------------------|-----------------|----------------|---------------------------|
| | 2018 | 2019 | 2019 |
| Non-listed equity securities | ¥30,205 | ¥31,638 | \$285,032 |
| Investments in securities, etc. | 380 | 411 | 3,704 |
| Total | ¥30,585 | ¥32,049 | \$288,736 |

Quoted market prices are not available for these securities. Since it is extremely difficult to estimate their fair value, the fair value is not disclosed.

3. Repayment schedule of time deposits, notes and accounts receivable-trade, securities and investments in securities, and long-term loans.

| Description | Millions of yen | | | |
|--|-------------------|---------------------------------|----------------------------------|----------------|
| | 2018 | | | |
| | Within one year | Over one year within five years | Over five years within ten years | Over ten years |
| Time deposits | ¥854,475 | ¥— | ¥— | ¥— |
| Notes and accounts receivable-trade | 332,880 | — | — | — |
| Securities and investments in securities | 197,339 | 4,233 | 1,000 | — |
| Long-term loans | — | 2,054 | 226 | 3,604 |
| Total | ¥1,384,695 | ¥6,287 | ¥1,226 | ¥3,604 |

| Description | Millions of yen | | | | Thousands of U.S. dollars | | | |
|--|-------------------|---------------------------------|----------------------------------|----------------|---------------------------|---------------------------------|----------------------------------|----------------|
| | 2019 | | | | 2019 | | | |
| | Within one year | Over one year within five years | Over five years within ten years | Over ten years | Within one year | Over one year within five years | Over five years within ten years | Over ten years |
| Time deposits | ¥826,630 | ¥— | ¥— | ¥— | \$7,447,120 | \$— | \$— | \$— |
| Notes and accounts receivable-trade | 338,701 | — | — | — | 3,051,368 | — | — | — |
| Securities and investments in securities | 215,444 | 4,031 | 1,000 | — | 1,940,938 | 36,323 | 9,009 | — |
| Long-term loans | — | 881 | 174 | 376 | — | 7,940 | 1,572 | 3,392 |
| Total | ¥1,380,776 | ¥4,913 | ¥1,174 | ¥376 | \$12,439,428 | \$44,264 | \$10,581 | \$3,392 |

4. Repayment schedule of short-term borrowings, long-term debt and lease obligations.

| Description | Millions of yen | | | | | |
|-----------------------|-----------------|--------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------|
| | 2018 | | | | | |
| | Within one year | Over one year within two years | Over two years within three years | Over three years within four years | Over four years within five years | Over five years |
| Short-term borrowings | ¥6,876 | ¥— | ¥— | ¥— | ¥— | ¥— |
| Long-term debt | 218 | 430 | 777 | 1,611 | 5,576 | 34 |
| Lease obligations | 85 | 66 | 48 | 28 | 19 | 40 |
| Total | ¥7,180 | ¥497 | ¥826 | ¥1,640 | ¥5,595 | ¥74 |

| Description | Millions of yen | | | | | |
|-----------------------|-----------------|--------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------|
| | 2019 | | | | | |
| | Within one year | Over one year within two years | Over two years within three years | Over three years within four years | Over four years within five years | Over five years |
| Short-term borrowings | ¥6,272 | ¥— | ¥— | ¥— | ¥— | ¥— |
| Long-term debt | 735 | 409 | 2,136 | 5,014 | 14 | 49 |
| Lease obligations | 86 | 61 | 41 | 35 | 19 | 45 |
| Total | ¥7,094 | ¥470 | ¥2,178 | ¥5,049 | ¥33 | ¥94 |

| Description | Thousands of U.S. dollars | | | | | |
|-----------------------|---------------------------|--------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------|
| | 2019 | | | | | |
| | Within one year | Over one year within two years | Over two years within three years | Over three years within four years | Over four years within five years | Over five years |
| Short-term borrowings | \$56,509 | \$— | \$— | \$— | \$— | \$— |
| Long-term debt | 6,628 | 3,689 | 19,251 | 45,172 | 128 | 443 |
| Lease obligations | 775 | 552 | 369 | 316 | 171 | 411 |
| Total | \$63,913 | \$4,242 | \$19,621 | \$45,489 | \$299 | \$855 |

6. SECURITIES

Securities as of March 31, 2018 and 2019 consisted of the following:

(1) Held-to-maturity debt securities

| Description | Millions of yen | | | | | | Thousands of U.S. dollars | | |
|--|-----------------|---------------|--------------|----------------|----------------|--------------|---------------------------|-----------------|----------------|
| | 2018 | | | 2019 | | | 2019 | | |
| | Book value | Fair value | Difference | Book value | Fair value | Difference | Book value | Fair value | Difference |
| Securities with fair value that exceeds book value | ¥284 | ¥285 | ¥1 | ¥1,333 | ¥1,340 | ¥7 | \$12,009 | \$12,080 | \$70 |
| Securities with fair value that does not exceed book value | 7,280 | 7,205 | (74) | 9,143 | 9,061 | (81) | 82,369 | 81,634 | (735) |
| Total | ¥7,564 | ¥7,491 | ¥(73) | ¥10,476 | ¥10,402 | ¥(73) | \$94,379 | \$93,714 | \$(664) |

(2) Available-for-sale securities

| Description | Millions of yen | | | | | | Thousands of U.S. dollars | | |
|--|-----------------|------------------|----------------|-----------------|------------------|----------------|---------------------------|--------------------|------------------|
| | 2018 | | | 2019 | | | 2019 | | |
| | Book value | Acquisition cost | Difference | Book value | Acquisition cost | Difference | Book value | Acquisition cost | Difference |
| Securities with book value that exceed acquisition cost | ¥82,047 | ¥43,493 | ¥38,553 | ¥68,191 | ¥33,287 | ¥34,904 | \$614,338 | \$299,884 | \$314,453 |
| Securities with book value that does not exceed acquisition cost | 197,395 | 197,653 | (257) | 219,960 | 221,595 | (1,635) | 1,981,623 | 1,996,354 | (14,731) |
| Total | ¥279,442 | ¥241,146 | ¥38,296 | ¥288,151 | ¥254,882 | ¥33,269 | \$2,595,961 | \$2,296,238 | \$299,722 |

Note: Non-listed equity securities, with a book value of ¥1,911 million and ¥1,653 million (\$14,896 thousand), and other investment securities with a book value of ¥380 million and ¥411 million (\$3,704 thousand), as of March 31, 2018 and 2019, respectively, whose fair value is extremely difficult to estimate are excluded from the above.

7. DERIVATIVE TRANSACTIONS

(1) Derivative transactions to which hedge accounting is not applied:

Currency related:

As of March 31, 2018

| Description | Millions of yen | | |
|------------------------------------|------------------|---------------|------------------------|
| | Contract amounts | Fair value | Unrealized gain (loss) |
| Forward foreign exchange contracts | | | |
| Sales contracts: | | | |
| USD | ¥90,877 | ¥2,895 | ¥2,895 |
| EUR | 3,843 | (25) | (25) |
| Other | 2,477 | 22 | 22 |
| Purchase contracts: | | | |
| USD | 927 | (15) | (15) |
| Other | 10,968 | (547) | (547) |
| Total | ¥109,095 | ¥2,329 | ¥2,329 |

As of March 31, 2019

| Description | Millions of yen | | | Thousands of U.S. dollars | | |
|------------------------------------|------------------|-----------------|------------------------|---------------------------|-------------------|------------------------|
| | Contract amounts | Fair value | Unrealized gain (loss) | Contract amounts | Fair value | Unrealized gain (loss) |
| Forward foreign exchange contracts | | | | | | |
| Sales contracts: | | | | | | |
| USD | ¥152,568 | ¥(2,429) | ¥(2,429) | \$1,374,489 | \$(21,891) | \$(21,891) |
| EUR | 4,111 | 93 | 93 | 37,041 | 846 | 846 |
| Other | 5,936 | 26 | 26 | 53,485 | 240 | 240 |
| Purchase contracts: | | | | | | |
| USD | 1,313 | (7) | (7) | 11,830 | (68) | (68) |
| Other | 7,072 | 266 | 266 | 63,716 | 2,399 | 2,399 |
| Total | ¥171,002 | ¥(2,050) | ¥(2,050) | \$1,540,564 | \$(18,473) | \$(18,473) |

Note: The fair value is provided by counterparty financial institutions.

(2) Derivative transactions to which hedge accounting is applied:

1) Currency related:

As of March 31, 2018

| | | | Millions of yen | | |
|---------------------------|-------------------------------------|---------------------------|------------------|--------------------------------|---------------|
| Hedge accounting method | Transaction | Hedged items | Contract amounts | Contract amounts over one year | Fair value |
| Deferral hedge accounting | Forward foreign exchange contracts: | | | | |
| | Sales contracts | | | | |
| | USD | Accounts receivable-trade | ¥39,217 | ¥— | ¥1,831 |
| | Purchase contracts | | | | |
| | EUR | Accounts payable-trade | 129 | — | 0 |
| Total | | | ¥39,346 | ¥— | ¥1,831 |

As of March 31, 2019

| | | | Millions of yen | | | Thousands of U.S. dollars | | |
|---------------------------|-------------------------------------|---------------------------|------------------|--------------------------------|---------------|---------------------------|--------------------------------|------------------|
| Hedge accounting method | Transaction | Hedged items | Contract amounts | Contract amounts over one year | Fair value | Contract amounts | Contract amounts over one year | Fair value |
| Deferral hedge accounting | Forward foreign exchange contracts: | | | | | | | |
| | Sales contracts | | | | | | | |
| | USD | Accounts receivable-trade | ¥59,601 | ¥— | ¥(577) | \$536,949 | \$— | \$(5,204) |
| | Purchase contracts | | | | | | | |
| | EUR | Accounts payable-trade | 4,181 | 4,181 | (79) | 37,669 | 37,669 | (719) |
| Total | | | ¥63,782 | ¥4,181 | ¥(657) | \$574,618 | ¥37,669 | \$(5,923) |

Note: The fair value is provided by counterparty financial institutions.

2) Commodity related:

As of March 31, 2018

| | | | Millions of yen | | |
|---------------------------|----------------------------|------------------------|------------------|--------------------------------|-------------|
| Hedge accounting method | Transaction | Hedged items | Contract amounts | Contract amounts over one year | Fair value |
| Deferral hedge accounting | Commodity swap contracts | Accounts payable-trade | ¥2,263 | ¥1,830 | ¥394 |
| | Commodity option contracts | Accounts payable-trade | 1,226 | 805 | (32) |
| | Total | | ¥3,489 | ¥2,635 | ¥361 |

Note: The fair value is provided by counterparty financial institutions.

As of March 31, 2019

| | | | Millions of yen | | |
|---------------------------|----------------------------|------------------------|------------------|--------------------------------|-------------|
| Hedge accounting method | Transaction | Hedged items | Contract amounts | Contract amounts over one year | Fair value |
| Deferral hedge accounting | Commodity swap contracts | Accounts payable-trade | ¥6,599 | ¥4,657 | ¥166 |
| | Commodity option contracts | Accounts payable-trade | 791 | 378 | (24) |
| Total | | | ¥7,390 | ¥5,036 | ¥142 |

| | | | Thousands of U.S. dollars | | |
|---------------------------|----------------------------|------------------------|---------------------------|--------------------------------|----------------|
| Hedge accounting method | Transaction | Hedged items | Contract amounts | Contract amounts over one year | Fair value |
| Deferral hedge accounting | Commodity swap contracts | Accounts payable-trade | \$59,454 | \$41,962 | \$1,504 |
| | Commodity option contracts | Accounts payable-trade | 7,130 | 3,410 | (223) |
| Total | | | \$66,584 | \$45,372 | \$1,280 |

Note: The fair value is provided by counterparty financial institutions.

8. INVESTMENTS IN UNCONSOLIDATED SUBSIDIARIES AND AFFILIATES

Investments in unconsolidated subsidiaries and affiliates as of March 31, 2018 and 2019 consisted of the following:

| | Millions of yen | | Thousands of U.S. dollars |
|------------------------------------|-----------------|---------|---------------------------|
| | 2018 | 2019 | 2019 |
| Investments in securities (Stocks) | ¥53,496 | ¥56,437 | \$508,442 |
| Other (Investments in capital) | 4,128 | 3,724 | 33,558 |

9. ACCUMULATED DEPRECIATION

Accumulated depreciation of property, plant and equipment as of March 31, 2018 and 2019 was ¥2,013,300 million and ¥2,091,967 million (\$18,846,551 thousand), respectively.

10. SHORT-TERM BORROWINGS, LONG-TERM DEBT AND LEASE OBLIGATIONS

Short-term borrowings, long-term debt and lease obligations as of March 31, 2018 and 2019 consisted of the following:

| | Average interest rate | Due date | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------------|--------------------------------|-----------------|----------------|---------------------------|
| | | | 2018 | 2019 | 2019 |
| Short-term borrowings | 1.1% | — | ¥6,876 | ¥6,272 | \$56,509 |
| Current portion of long-term debt | 2.6% | — | 218 | 735 | 6,628 |
| Current portion of lease obligations | — | — | 85 | 86 | 775 |
| Long-term debt, excluding current portion | 1.1% | January 2020- February 2028 | 8,430 | 7,624 | 68,685 |
| Lease obligations, excluding current portion | — | March 2020- November 2027 | 203 | 202 | 1,822 |
| Total | | | ¥15,814 | ¥14,920 | \$134,422 |

Notes: 1. Average interest rate is the weighted average rate based on the balance as of March 31, 2019.

2. Average interest rate of lease obligations is not shown as the balance includes the interest portion.

3. Repayment schedule subsequent to March 31, 2019 for long-term debt and lease obligations, excluding the current portion, is as follows:

| Years ending March 31, | Millions of yen | | Thousands of U.S. dollars | |
|------------------------|-----------------|-------------------|---------------------------|-------------------|
| | Long-term debt | Lease obligations | Long-term debt | Lease obligations |
| 2021 | ¥409 | ¥61 | \$3,689 | \$552 |
| 2022 | 2,136 | 41 | 19,251 | 369 |
| 2023 | 5,014 | 35 | 45,172 | 316 |
| 2024 | 14 | 19 | 128 | 171 |

11. RETIREMENT AND PENSION PLANS

The Company and its domestic consolidated subsidiaries have defined contribution pension plans (DC pension plans) and lump-sum severance payment plans as their defined benefit pension plans.

Certain overseas consolidated subsidiaries have defined benefit pension plans while others have defined contribution pension plans.

Additionally, the Company has a "Retirement Benefit Trust".

Information on defined benefit pension plans for the fiscal years ended March 31, 2018 and 2019 is as follows:

1. Defined Benefit Pension Plans

(1) Changes in Benefit Obligations

| | Millions of yen | | Thousands of U.S. dollars |
|---|-----------------|---------|------------------------------|
| | 2018 | 2019 | 2019 |
| Beginning balance of benefit obligations | ¥64,500 | ¥70,189 | \$632,337 |
| Service costs | 4,453 | 4,122 | 37,136 |
| Interest costs | 1,347 | 1,313 | 11,834 |
| Actuarial differences arising during the year | 2,761 | (5,032) | (45,340) |
| Retirement benefits paid | (2,268) | (6,533) | (58,856) |
| Other* | (605) | (921) | (8,299) |
| Ending balance of benefit obligations | ¥70,189 | ¥63,138 | \$568,812 |

*Mainly foreign currency translation adjustments

(2) Changes in Pension Assets

| | Millions of yen | | Thousands of U.S. dollars |
|---|-----------------|---------|------------------------------|
| | 2018 | 2019 | 2019 |
| Beginning balance of pension assets | ¥30,619 | ¥40,347 | \$363,489 |
| Expected return on pension assets | 1,370 | 937 | 8,443 |
| Actuarial differences arising during the year | 1,194 | (1,968) | (17,732) |
| Contributions made by the Company and consolidated subsidiaries | 8,973 | 4,065 | 36,627 |
| Retirement benefits paid | (1,988) | (5,138) | (46,297) |
| Other* | 177 | (1,736) | (15,647) |
| Ending balance of pension assets | ¥40,347 | ¥36,506 | \$328,883 |

*Mainly foreign currency translation adjustments

(3) Reconciliation of Benefit Obligations and Pension Assets with Net Defined Benefit Liability and Asset on the Consolidated Balance Sheets

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|----------|------------------------------|
| | 2018 | 2019 | 2019 |
| Funded benefit obligations | ¥62,276 | ¥55,303 | \$498,231 |
| Pension assets | (40,347) | (36,506) | (328,883) |
| Net | 21,929 | 18,797 | 169,347 |
| Unfunded benefit obligations | 7,912 | 7,834 | 70,580 |
| Net amount of liability and asset on Consolidated Balance Sheets | ¥29,842 | ¥26,632 | \$239,928 |

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|---------|------------------------------|
| | 2018 | 2019 | 2019 |
| Net defined benefit liability | ¥32,282 | ¥30,473 | \$274,532 |
| Net defined benefit asset | (2,440) | (3,841) | (34,604) |
| Net amount of liability and asset on Consolidated Balance Sheets | ¥29,842 | ¥26,632 | \$239,928 |

(4) Retirement Benefit Expenses

| | Millions of yen | | Thousands of U.S. dollars |
|---|-----------------|--------|------------------------------|
| | 2018 | 2019 | 2019 |
| Service costs | ¥4,453 | ¥4,122 | \$37,136 |
| Interest costs | 1,347 | 1,313 | 11,834 |
| Expected return on pension assets | (1,370) | (937) | (8,443) |
| Amortization of actuarial differences | 1,014 | 1,852 | 16,690 |
| Amortization of prior service cost | 0 | (10) | (92) |
| Retirement benefit expenses for defined benefit pension plans | ¥5,445 | ¥6,340 | \$57,125 |

(5) Remeasurements of Defined Benefit Plans (Other Comprehensive Income)**Breakdown (before deduction of tax effects)**

| | Millions of yen | | Thousands of U.S. dollars |
|-----------------------|-----------------|--------|------------------------------|
| | 2018 | 2019 | 2019 |
| Actuarial differences | ¥(551) | ¥4,916 | \$44,289 |
| Prior service cost | 119 | (182) | (1,643) |
| Total | ¥(432) | ¥4,733 | \$42,646 |

(6) Remeasurements of Defined Benefit Plans (Accumulated Other Comprehensive Income)**Breakdown (before deduction of tax effects)**

| | Millions of yen | | Thousands of U.S. dollars |
|------------------------------------|-----------------|--------|------------------------------|
| | 2018 | 2019 | 2019 |
| Unrecognized actuarial differences | ¥(3,002) | ¥1,913 | \$17,237 |
| Unrecognized prior service cost | 73 | (109) | (985) |
| Total | ¥(2,929) | ¥1,804 | \$16,252 |

(7) Pension Assets**Breakdown**

| | 2018 | 2019 |
|--------------|------|------|
| Bonds | 40% | 41% |
| Stocks | 33% | 33% |
| Other | 27% | 26% |
| Total | 100% | 100% |

(Note) 14% and 14% of total pension assets amount were in a "Retirement Benefit Trust" for lump-sum severance payment plans as of March 31, 2018 and 2019, respectively.

Rate of expected return on pension assets

The expected return on pension assets is determined based on the current and estimated future rates of return on various pension assets.

(8) Basic Assumptions for Calculating Benefit Obligations

| | 2018 | 2019 |
|---|-------------|-------------|
| Discount rate | Mainly 0.2% | Mainly 0.1% |
| Expected rate of return on pension assets | Mainly 1.5% | Mainly 2.0% |

2. Defined Contribution Pension Plans

Contributions to defined contribution pension plans by the Company and its consolidated subsidiaries

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|--------|------------------------------|
| | 2018 | 2019 | 2019 |
| | ¥2,339 | ¥2,532 | \$22,819 |

12. COMMITMENT AND CONTINGENT LIABILITIES

The Companies were contingently liable as guarantors of housing loans for employees and of loans by unconsolidated subsidiaries, affiliates and others as of March 31, 2018 and 2019 in the aggregate amounts of ¥144 million and ¥101 million (\$914 thousand), respectively.

13. RETAINED EARNINGS

(1) Cash dividends from retained earnings represent dividends with an effective date during the fiscal year. Details of cash dividends paid during the fiscal years ended March 31, 2018 and 2019 are as follows:

| Resolution | Type of shares | Record date | Effective date | Millions of yen | | Yen |
|--|----------------|--------------------|-------------------|---------------------------|--------------------------|--------|
| | | | | Total amount of dividends | Cash dividends per share | |
| Fiscal year ended March 31, 2018 | | | | | | |
| Ordinary general meeting of shareholders held on June 29, 2017 | Common stock | March 31, 2017 | June 30, 2017 | ¥25,582 | | ¥60.00 |
| Board of directors meeting held on October 27, 2017 | Common stock | September 30, 2017 | November 17, 2017 | 27,718 | | 65.00 |
| Total | | | | ¥53,301 | | |

| Resolution | Type of shares | Record date | Effective date | Millions of yen | | Thousands of U.S. dollars | U.S. dollars |
|--|----------------|--------------------|-------------------|---------------------------|--------------------------|---------------------------|--------------------------|
| | | | | Total amount of dividends | Cash dividends per share | Total amount of dividends | Cash dividends per share |
| Fiscal year ended March 31, 2019 | | | | | | | |
| Ordinary general meeting of shareholders held on June 28, 2018 | Common stock | March 31, 2018 | June 29, 2018 | ¥31,992 | ¥75.00 | \$288,222 | \$0.68 |
| Board of directors meeting held on October 26, 2018 | Common stock | September 30, 2018 | November 19, 2018 | 42,662 | 100.00 | 384,350 | 0.90 |
| Total | | | | ¥74,655 | | \$672,573 | |

(2) Cash dividends for the fiscal years ended March 31, 2018 and 2019 with an effective date in the subsequent fiscal year are as follows:

| Resolution | Type of shares | Source of dividends | Record date | Effective date | Millions of yen | | Yen |
|--|----------------|---------------------|----------------|----------------|---------------------------|--------------------------|--------|
| | | | | | Total amount of dividends | Cash dividends per share | |
| Fiscal year ended March 31, 2018 | | | | | | | |
| Ordinary general meeting of shareholders held on June 28, 2018 | Common stock | Retained earnings | March 31, 2018 | June 29, 2018 | ¥31,992 | | ¥75.00 |

| Resolution | Type of shares | Source of dividends | Record date | Effective date | Millions of yen | | Thousands of U.S. dollars | U.S. dollars |
|--|----------------|---------------------|----------------|----------------|---------------------------|--------------------------|---------------------------|--------------------------|
| | | | | | Total amount of dividends | Cash dividends per share | Total amount of dividends | Cash dividends per share |
| Fiscal year ended March 31, 2019 | | | | | | | | |
| Ordinary general meeting of shareholders held on June 27, 2019 | Common stock | Retained earnings | March 31, 2019 | June 28, 2019 | ¥41,680 | ¥100.00 | \$375,499 | \$0.90 |

14. SHARE SUBSCRIPTION RIGHTS

Fiscal year ended March 31, 2018

| Issuer | Description | Type of shares subject to share subscription rights | Number of shares subject to share subscription rights | | | | Millions of yen |
|-------------------------|---------------|---|---|----------|----------|----------------|---------------------------|
| | | | Beginning balance | Increase | Decrease | Ending balance | Balance at March 31, 2018 |
| The Company | Stock options | Common stock | 367,000 | 235,000 | 190,000 | 412,000 | ¥396 |
| Consolidated subsidiary | — | — | — | — | — | — | 127 |
| Total | | | | | | | ¥524 |

Fiscal year ended March 31, 2019

| Issuer | Description | Type of shares subject to share subscription rights | Number of shares subject to share subscription rights | | | | Millions of yen | Thousands of U.S. dollars |
|-------------------------|---------------|---|---|----------|----------|----------------|---------------------------|---------------------------|
| | | | Beginning balance | Increase | Decrease | Ending balance | Balance at March 31, 2019 | Balance at March 31, 2019 |
| The Company | Stock options | Common stock | 412,000 | 497,000 | 78,000 | 831,000 | ¥971 | \$8,754 |
| Consolidated subsidiary | — | — | — | — | — | — | 172 | 1,549 |
| Total | | | | | | | ¥1,143 | \$10,304 |

15. STOCK OPTIONS

(1) Shin-Etsu Chemical Co., Ltd.

The stock option expenses for the fiscal years ended March 31, 2018 and 2019 of ¥347 million and ¥597 million (\$5,381 thousand), respectively, were included in selling, general and administrative expenses in the consolidated statements of income. There were no gains on forfeited stock options for the fiscal years ended March 31, 2018 and 2019.

Stock options as of March 31, 2019 were as follows:

| | 2015 | 2017 | 2018 |
|--|--|--|--|
| Grantees | 18 directors of the Company 82 employees of the Company | 18 directors of the Company 90 employees of the Company | 18 directors of the Company 94 employees of the Company |
| Number of stock options granted by category of stock (in shares) | 773,000 shares of common stock | 235,000 shares of common stock | 497,000 shares of common stock |
| Grant date | September 24, 2015 | September 21, 2017 | September 5, 2018 |
| Vesting conditions | None | None | None |
| Exercise period | September 25, 2016 through March 31, 2020 | September 22, 2018 through March 31, 2022 | September 6, 2019 through March 31, 2023 |

Movement in stock options during the fiscal year ended March 31, 2019 was as follows:

| | Number of shares | | |
|--|------------------|---------|---------|
| | 2015 | 2017 | 2018 |
| Beginning balance (Stock options outstanding) | 177,000 | 235,000 | — |
| Granted | — | — | 497,000 |
| Exercised | 77,500 | 500 | — |
| Forfeited | — | — | — |
| Ending balance (Stock options outstanding) | 99,500 | 234,500 | 497,000 |
| | Yen | | |
| Exercise price | ¥7,339 | ¥10,000 | ¥10,721 |
| Weighted average market value per share at the exercise date | 9,830 | 10,050 | — |
| Fair value per share at the grant date | 277 | 1,479 | 1,202 |
| | U.S. dollars | | |
| Exercise price | \$66.12 | \$90.09 | \$96.59 |
| Weighted average market value per share at the exercise date | 88.56 | 90.54 | — |
| Fair value per share at the grant date | 2.50 | 13.32 | 10.83 |

The fair value of options granted was estimated using the Black-Scholes option pricing model with the following assumptions.

Stock options granted on September 5, 2018

| | |
|-------------------------|------------|
| Expected volatility | 25.73% |
| Expected remaining life | 2.79 years |
| Expected dividend | 180 yen |
| Risk-free interest rate | (0.100)% |

(2) Shin-Etsu Polymer Co., Ltd.

The stock option expenses for the fiscal years ended March 31, 2018 and 2019 of ¥78 million and ¥58 million (\$530 thousand), respectively, were included in selling, general and administrative expenses in the consolidated statements of income. Gains on forfeited stock options for the fiscal year ended March 31, 2018 were ¥0 million. There were no gains on forfeited stock options for the fiscal year ended March 31, 2019.

Stock options as of March 31, 2019 were as follows:

| | 2016 | 2017 | 2018 |
|--|---|---|---|
| Grantees | 10 Directors 17 Employees 7 Directors of its subsidiaries | 10 Directors 19 Employees 6 Directors of its subsidiaries | 10 Directors 18 Employees 6 Directors of its subsidiaries |
| Number of stock options granted by category of stock (in shares) | 491,000 shares of common stock | 457,000 shares of common stock | 487,000 shares of common stock |
| Grant date | September 12, 2016 | September 12, 2017 | September 12, 2018 |
| Vesting conditions | None | None | None |
| Exercise period | September 13, 2018 through March 31, 2022 | September 13, 2019 through March 31, 2023 | September 13, 2020 through March 31, 2024 |

Movement in stock options during the fiscal year ended March 31, 2019 was as follows:

| | Number of shares | | |
|--|------------------|---------|---------|
| | 2016 | 2017 | 2018 |
| Beginning balance (Stock options outstanding) | 491,000 | 457,000 | — |
| Granted | — | — | 487,000 |
| Exercised | 146,000 | — | — |
| Forfeited | — | — | — |
| Ending balance (Stock options outstanding) | 345,000 | 457,000 | 487,000 |
| | Yen | | |
| Exercise price | ¥702 | ¥1,056 | ¥962 |
| Weighted average market value per share at the exercise date | 843 | — | — |
| Fair value per share at the grant date | 100 | 172 | 121 |
| | U.S. dollars | | |
| Exercise price | \$6.32 | \$9.51 | \$8.67 |
| Weighted average market value per share at the exercise date | 7.59 | — | — |
| Fair value per share at the grant date | 0.90 | 1.55 | 1.09 |

The fair value of options granted was estimated using the Black-Scholes option pricing model with the following assumptions.

| Stock options granted on September 12, 2018 | | |
|---|-------|------------|
| Expected volatility | _____ | 28.57% |
| Expected remaining life | _____ | 3.78 years |
| Expected dividend | _____ | 12 yen |
| Risk-free interest rate | _____ | (0.079)% |

16. SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses for the fiscal years ended March 31, 2018 and 2019 mainly consisted of the following:

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|---------|------------------------------|
| | 2018 | 2019 | 2019 |
| Shipping expenses | ¥40,906 | ¥44,149 | \$397,739 |
| Salaries and allowances | 26,054 | 27,853 | 250,931 |
| Provision for bonuses for employees | 1,551 | 1,601 | 14,425 |
| Provision for bonuses for directors | 686 | 719 | 6,484 |
| Retirement benefit expenses | 370 | 428 | 3,860 |
| Depreciation and amortization | 2,262 | 2,541 | 22,896 |
| Technical research expenses | 13,600 | 15,536 | 139,964 |
| <Including retirement benefit expenses> | <112> | <104> | <944> |
| Provision of allowance for doubtful accounts | (2,275) | (4,847) | (43,671) |

17. RESEARCH AND DEVELOPMENT COSTS

Research and development costs incurred and charged to income for the fiscal years ended March 31, 2018 and 2019 were ¥51,768 million and ¥56,436 million (\$508,438 thousand), respectively.

18. LEASE TRANSACTIONS

The amounts of outstanding future lease payments due in respect of operating lease contracts at March 31, 2018 and 2019 are summarized as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|-------------------------------|-----------------|--------|------------------------------|
| | 2018 | 2019 | 2019 |
| Future Lease Payments: | | | |
| Within one year | ¥3,065 | ¥2,548 | \$22,958 |
| Over one year | 10,403 | 7,227 | 65,114 |
| | ¥13,468 | ¥9,776 | \$88,073 |

19. INCOME TAXES

The Company and its domestic subsidiaries are subject to a number of Japanese income taxes, which, in the aggregate, resulted in statutory tax rates of approximately 30.7% and 30.5% for the fiscal years ended March 31, 2018 and 2019, respectively.

The tax effects of significant temporary differences and tax loss carry forwards that resulted in deferred tax assets or liabilities at March 31, 2018 and 2019 are as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|-----------------|------------------------------|
| | 2018 | 2019 | 2019 |
| Deferred Tax Assets: | | | |
| Depreciation and amortization | ¥11,628 | ¥14,297 | \$128,804 |
| Net defined benefit liability | 10,248 | 9,497 | 85,565 |
| Unrealized profit | 7,039 | 8,147 | 73,399 |
| Maintenance costs | 5,734 | 5,246 | 47,268 |
| Accrued bonuses | 3,476 | 3,719 | 33,509 |
| Unsettled accounts receivable and payable | 3,386 | 2,602 | 23,444 |
| Allowance for doubtful accounts | 3,305 | 2,062 | 18,578 |
| Accrued enterprise taxes | 1,949 | 1,696 | 15,281 |
| Tax loss carryforwards | 561 | 629 | 5,672 |
| Unrealized gains/losses on available-for-sale securities | 181 | 607 | 5,469 |
| Other | 27,297 | 28,492 | 256,685 |
| Valuation allowance | (5,178) | (5,493) | (49,492) |
| Total | ¥69,631 | ¥71,504 | \$644,187 |
| Deferred Tax Liabilities: | | | |
| Depreciation and amortization | ¥57,208 | ¥55,326 | \$498,437 |
| Unrealized gains/losses on available-for-sale securities | 11,826 | 10,727 | 96,645 |
| Reserve for special depreciation | 63 | 113 | 1,025 |
| Other | 9,141 | 8,851 | 79,741 |
| Total | ¥78,238 | ¥75,019 | \$675,849 |
| Net deferred tax assets (liabilities) | ¥(8,607) | ¥(3,514) | \$(31,662) |

A reconciliation of the difference between the statutory tax rate and effective rate on taxable income for the fiscal years ended March 31, 2018 and 2019 is as follows:

| | 2018 | 2019 |
|--|-------------|-------------|
| Statutory tax rate | 30.7 % | 30.5 % |
| Rate difference from foreign subsidiaries | 0.3 | (3.9) |
| Equity in (earnings) losses of affiliates | (0.3) | (0.3) |
| Dividend and other non-taxable income | (1.2) | (1.5) |
| Elimination of intercompany dividend income | 1.1 | 1.6 |
| Tax deduction for research expenses and other | (1.5) | (1.8) |
| Entertainment and other non-deductible expenses | 0.1 | 0.1 |
| Adjustments to deferred tax liabilities due to change in income tax rate | (8.8) | — |
| Other, net | 0.2 | (0.2) |
| Effective tax rate | 20.6 | 24.4 |

20. OTHER COMPREHENSIVE INCOME

Reclassification adjustments and tax effects of each component of other comprehensive income for the fiscal years ended March 31, 2018 and 2019 are as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|------------------|---------------------------|
| | 2018 | 2019 | 2019 |
| Unrealized gains (losses) on available-for-sale securities | | | |
| Amount arising during the year | ¥5,110 | ¥(6,017) | \$(54,214) |
| Reclassification adjustment for gains and losses included in profit or loss | (8) | 991 | 8,929 |
| Unrealized gains (losses) on available-for-sale securities before tax | 5,101 | (5,026) | (45,285) |
| Tax effect | (1,552) | 1,527 | 13,757 |
| Unrealized gains (losses) on available-for-sale securities | 3,549 | (3,499) | (31,527) |
| Deferred gains (losses) on hedges | | | |
| Amount arising during the year | 1,485 | (2,885) | (25,996) |
| Reclassification adjustment for gains and losses included in profit or loss | (457) | 147 | 1,330 |
| Deferred gains (losses) on hedges before tax | 1,027 | (2,737) | (24,666) |
| Tax effect | (220) | 808 | 7,288 |
| Deferred gains (losses) on hedges | 806 | (1,928) | (17,377) |
| Foreign currency translation adjustments | | | |
| Amount arising during the year | 14 | (30,861) | (278,030) |
| Remeasurements of defined benefit plans | | | |
| Amount arising during the year | (1,447) | 2,891 | 26,049 |
| Reclassification adjustment for gains and losses included in profit or loss | 1,014 | 1,842 | 16,597 |
| Remeasurements of defined benefit plans before tax | (432) | 4,733 | 42,646 |
| Tax effect | 770 | (2,350) | (21,172) |
| Remeasurements of defined benefit plans | 337 | 2,383 | 21,473 |
| Share of other comprehensive income (loss) of affiliates accounted for using the equity method | | | |
| Amount arising during the year | 374 | (127) | (1,150) |
| Reclassification adjustment for gains and losses included in profit or loss | (3) | (6) | (61) |
| Share of other comprehensive income (loss) of affiliates accounted for using the equity method | 370 | (134) | (1,212) |
| Total other comprehensive income (loss) | ¥5,078 | ¥(34,040) | \$(306,674) |

21. SUPPLEMENTAL CASH FLOW INFORMATION

Cash and cash equivalents on the consolidated statements of cash flows consist of cash in hand, deposits that can be withdrawn on demand and liquid investments easily convertible into cash that mature within approximately three months from the acquisition date and that have insignificant risk exposure in terms of fluctuation in value.

Reconciliations between cash and cash equivalents and the related accounts shown in the consolidated balance sheets as of March 31, 2018 and 2019 are presented below:

| | Millions of yen | | Thousands of U.S. dollars |
|--|-----------------|-----------------|---------------------------|
| | 2018 | 2019 | 2019 |
| Cash and time deposits | ¥854,506 | ¥826,680 | \$7,447,572 |
| Securities | 197,339 | 215,444 | 1,940,938 |
| Time deposits (maturities over three months) | (156,056) | (96,834) | (872,385) |
| Securities (maturities over three months) | (115,339) | (116,944) | (1,053,551) |
| Cash and cash equivalents | ¥780,449 | ¥828,345 | \$7,462,574 |

22. SEGMENT AND RELATED INFORMATION

1. Segment information

(1) Overview of reportable segments

The reportable segments in the Shin-Etsu Group are defined as individual units for which discrete financial information is available and that are subject to regular review to evaluate their operating results and allocate management resources by the highest decision making body of the Company, such as the Managing Directors' Meeting.

The Shin-Etsu Group conducts business through each business division and affiliated companies based on specific products and services, consisting of the following six segments: "PVC/Chlor-Alkali Business", "Silicones Business", "Specialty Chemicals Business", "Semiconductor Silicon Business", "Electronics & Functional Materials Business" and "Processing, Trading & Specialized Services Business". Consequently, these six businesses are specified as reportable segments.

The main products and services of each segment are as follows:

| Segment | Main products and services |
|---|--|
| PVC/Chlor-Alkali Business | Polyvinyl chloride, Caustic soda, Methanol, Chloromethane |
| Silicones Business | Silicones |
| Specialty Chemicals Business | Cellulose derivatives, Silicon metal, Polyvinyl alcohol, Synthetic pheromones, Vinyl Chloride-Vinyl Acetate Copolymer Resin |
| Semiconductor Silicon Business | Semiconductor silicon |
| Electronics & Functional Materials Business | Rare-earth magnets for electronics industry and general applications, Semiconductor encapsulating materials, Packaging materials for LEDs, Photoresists, Photomask blanks, Synthetic quartz products, Liquid fluoroelastomers, Pellicles |
| Processing, Trading & Specialized Services Business | Processed plastics, Export of plant equipment, Technology licensing, International trading, Engineering |

(2) Calculation of income, assets and liabilities of reportable segments

Segment income denotes operating income, and the accounting methods applied are identical to those stated in the "Basis of presenting consolidated financial statements". Internal revenues and transfers arising from transactions among the segments are based on market prices in general.

Assets and liabilities are not allocated to business segments.

(3) Information on sales, income (loss) and other items of reportable segments

| | Millions of yen | | | | | | | | Figures in consolidated financial statements |
|---|------------------|-----------------|---------------------|-----------------------|------------------------------------|--|-------------------|---------------------------|--|
| | 2018 | | | | | | | Adjustment ⁽¹⁾ | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Total | | |
| Sales to outside customers | ¥501,346 | ¥206,268 | ¥117,197 | ¥308,390 | ¥207,454 | ¥100,775 | ¥1,441,432 | ¥— | ¥1,441,432 |
| Intersegment sales | 3,413 | 6,036 | 17,025 | 2 | 6,889 | 92,183 | 125,550 | (125,550) | — |
| Total | ¥504,759 | ¥212,305 | ¥134,222 | ¥308,393 | ¥214,344 | ¥192,958 | ¥1,566,983 | ¥(125,550) | ¥1,441,432 |
| Segment income (Operating income) | ¥93,236 | ¥51,954 | ¥25,729 | ¥92,963 | ¥61,631 | ¥11,482 | ¥336,998 | ¥(175) | ¥336,822 |
| Depreciation and amortization | ¥32,969 | ¥12,059 | ¥9,601 | ¥32,458 | ¥20,118 | ¥4,384 | ¥111,590 | ¥(300) | ¥111,289 |
| Amortization of goodwill | ¥— | ¥165 | ¥561 | ¥— | ¥— | ¥— | ¥727 | ¥— | ¥727 |
| Increase in property, plant and equipment and intangible assets | ¥63,610 | ¥29,167 | ¥7,052 | ¥51,584 | ¥20,246 | ¥5,004 | ¥176,664 | ¥(380) | ¥176,283 |

| Millions of yen | | | | | | | | | |
|---|------------------|-----------------|---------------------|-----------------------|------------------------------------|--|-------------------|---------------------------|--|
| 2019 | | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Total | Adjustment ⁽¹⁾ | Figures in consolidated financial statements |
| Sales to outside customers | ¥524,270 | ¥233,383 | ¥121,143 | ¥380,349 | ¥226,098 | ¥108,790 | ¥1,594,036 | ¥— | ¥1,594,036 |
| Intersegment sales | 3,564 | 7,103 | 21,132 | 48 | 8,588 | 115,585 | 156,022 | (156,022) | ¥— |
| Total | ¥527,835 | ¥240,487 | ¥142,276 | ¥380,397 | ¥234,687 | ¥224,376 | ¥1,750,059 | ¥(156,022) | ¥1,594,036 |
| Segment income (Operating income) | ¥106,521 | ¥58,546 | ¥26,603 | ¥131,998 | ¥66,993 | ¥13,296 | ¥403,959 | ¥(254) | ¥403,705 |
| Depreciation and amortization | ¥32,899 | ¥14,433 | ¥10,131 | ¥53,780 | ¥20,791 | ¥5,171 | ¥137,206 | ¥(335) | ¥136,871 |
| Amortization of goodwill | ¥— | ¥171 | ¥528 | ¥— | ¥— | ¥— | ¥699 | ¥— | ¥699 |
| Increase in property, plant and equipment and intangible assets | ¥76,499 | ¥28,242 | ¥18,007 | ¥69,392 | ¥40,175 | ¥8,840 | ¥241,107 | ¥(489) | ¥240,618 |

| Thousands of U.S. dollars | | | | | | | | | |
|---|--------------------|--------------------|---------------------|-----------------------|------------------------------------|--|---------------------|---------------------------|--|
| 2019 | | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Total | Adjustment ⁽¹⁾ | Figures in consolidated financial statements |
| Sales to outside customers | \$4,723,160 | \$2,102,556 | \$1,091,383 | \$3,426,569 | \$2,036,925 | \$980,097 | \$14,360,693 | \$— | \$14,360,693 |
| Intersegment sales | 32,112 | 63,994 | 190,382 | 434 | 77,372 | 1,041,311 | 1,405,606 | (1,405,606) | \$— |
| Total | \$4,755,272 | \$2,166,551 | \$1,281,766 | \$3,427,004 | \$2,114,297 | \$2,021,408 | \$15,766,300 | \$(1,405,606) | \$14,360,693 |
| Segment income (Operating income) | \$959,657 | \$527,443 | \$239,670 | \$1,189,173 | \$603,548 | \$119,786 | \$3,639,278 | \$(2,296) | \$3,636,982 |
| Depreciation and amortization | \$296,389 | \$130,027 | \$91,273 | \$484,506 | \$187,314 | \$46,586 | \$1,236,097 | \$(3,024) | \$1,233,073 |
| Amortization of goodwill | \$— | \$1,544 | \$4,758 | \$— | \$— | \$— | \$6,303 | \$— | \$6,303 |
| Increase in property, plant and equipment and intangible assets | \$688,736 | \$254,439 | \$162,227 | \$625,158 | \$361,938 | \$79,640 | \$2,172,141 | \$(4,411) | \$2,167,729 |

Notes: [1] Elimination of intersegment transactions.

2. Related information
Geographic information
(1) Net sales

| | Millions of yen | | Thousands of U.S. dollars |
|----------------------------------|-------------------|-------------------|---------------------------|
| | 2018 | 2019 | 2019 |
| Net sales | | | |
| Japan | ¥373,832 | ¥413,146 | \$3,722,037 |
| U.S. | 335,706 | 356,353 | 3,210,395 |
| China | 138,333 | 152,882 | 1,377,317 |
| Asia / Oceania (excluding China) | 319,795 | 378,289 | 3,408,011 |
| Europe | 162,164 | 182,745 | 1,646,355 |
| Other | 111,600 | 110,619 | 996,575 |
| Total | ¥1,441,432 | ¥1,594,036 | \$14,360,693 |

(2) Property, plant and equipment

| | Millions of yen | | Thousands of U.S. dollars |
|-------------------------------|-----------------|-----------------|---------------------------|
| | 2018 | 2019 | 2019 |
| Property, plant and equipment | | | |
| Japan | ¥270,927 | ¥307,138 | \$2,767,014 |
| U.S. | 471,482 | 512,009 | 4,612,701 |
| Other | 157,318 | 168,811 | 1,520,826 |
| Total | ¥899,728 | ¥987,960 | \$8,900,542 |

3. Loss on impairment of fixed assets

| Millions of yen | | | | | | | | |
|------------------------------------|------------------|-----------|---------------------|-----------------------|------------------------------------|--|-----------------------------|--------|
| 2018 | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Elimination or common asset | Total |
| Loss on impairment of fixed assets | ¥— | ¥— | ¥428 | ¥649 | ¥— | ¥382 | ¥— | ¥1,460 |

| Millions of yen | | | | | | | | |
|------------------------------------|------------------|-----------|---------------------|-----------------------|------------------------------------|--|-----------------------------|--------|
| 2019 | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Elimination or common asset | Total |
| Loss on impairment of fixed assets | ¥— | ¥1,967 | ¥— | ¥— | ¥— | ¥264 | ¥— | ¥2,232 |

| Thousands of U.S. dollars | | | | | | | | |
|------------------------------------|------------------|-----------|---------------------|-----------------------|------------------------------------|--|-----------------------------|----------|
| 2019 | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Elimination or common asset | Total |
| Loss on impairment of fixed assets | \$— | \$17,721 | \$— | \$— | \$— | \$2,387 | \$— | \$20,108 |

4. Amortization of goodwill and unamortized balance

| Millions of yen | | | | | | | | |
|--------------------------|------------------|-----------|---------------------|-----------------------|------------------------------------|--|-----------------------------|--|
| 2018 | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Elimination or common asset | Figures in consolidated financial statements |
| Amortization of goodwill | ¥— | ¥165 | ¥561 | ¥— | ¥— | ¥— | ¥— | ¥727 |
| Unamortized balance | ¥— | ¥1,427 | ¥2,501 | ¥— | ¥— | ¥— | ¥— | ¥3,928 |

| Millions of yen | | | | | | | | |
|--------------------------|------------------|-----------|---------------------|-----------------------|------------------------------------|--|-----------------------------|--|
| 2019 | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Elimination or common asset | Figures in consolidated financial statements |
| Amortization of goodwill | ¥— | ¥171 | ¥528 | ¥— | ¥— | ¥— | ¥— | ¥699 |
| Unamortized balance | ¥— | ¥1,239 | ¥1,840 | ¥— | ¥— | ¥— | ¥— | ¥3,079 |

| Thousands of U.S. dollars | | | | | | | | |
|---------------------------|------------------|-----------|---------------------|-----------------------|------------------------------------|--|-----------------------------|--|
| 2019 | | | | | | | | |
| | PVC/Chlor-Alkali | Silicones | Specialty Chemicals | Semiconductor Silicon | Electronics & Functional Materials | Processing, Trading & Specialized Services | Elimination or common asset | Figures in consolidated financial statements |
| Amortization of goodwill | \$— | \$1,544 | \$4,758 | \$— | \$— | \$— | \$— | \$6,303 |
| Unamortized balance | \$— | \$11,167 | \$16,578 | \$— | \$— | \$— | \$— | \$27,745 |

23. RELATED PARTY TRANSACTIONS

Transactions between the Company and related parties during the fiscal year ended March 31, 2019 are as follows:

| Type | Name | Percentage of voting rights | Relationship | Transactions | Millions of yen | | | Thousands of U.S. dollars |
|----------|------------------|-----------------------------|-----------------------------------|----------------------------------|--|---------|--------------------------------|--|
| | | | | | Transaction amount (Thousands of shares) | Account | Balance at the fiscal year end | Transaction amount (Thousands of shares) |
| Director | Chihiro Kanagawa | Direct Ownership 0.06% | Representative Director-Chairman | Exercise of stock options (Note) | ¥366 (50) | — | — | \$3,305 (50) |
| Director | Yasuhiko Saitoh | Direct Ownership 0.01% | Representative Director-President | Exercise of stock options (Note) | ¥51 (7) | — | — | \$462 (7) |
| Director | Kai Yasuoka | Direct Ownership 0.00% | Director | Exercise of stock options (Note) | ¥14 (2) | — | — | \$132 (2) |

(Note) Share subscription rights were approved at the board of directors meeting held on September 8, 2015.

Transactions between the Company and related parties during the fiscal year ended March 31, 2018 are as follows:

| Millions of yen | | | | | | | |
|-----------------|--------------------|-----------------------------|-----------------------------------|----------------------------------|--|---------|--------------------------------|
| Type | Name | Percentage of voting rights | Relationship | Transactions | Transaction amount (Thousands of shares) | Account | Balance at the fiscal year end |
| Director | Chihiro Kanagawa | Direct Ownership 0.05% | Representative Director-Chairman | Exercise of stock options (Note) | ¥366 (50) | — | — |
| Director | Yasuhiko Saitoh | Direct Ownership 0.01% | Representative Director-President | Exercise of stock options (Note) | ¥212 (29) | — | — |
| Director | Masahiko Todoroki | Direct Ownership 0.00% | Senior Managing Director | Exercise of stock options (Note) | ¥44 (6) | — | — |
| Director | Toshiya Akimoto | Direct Ownership 0.00% | Managing Director | Exercise of stock options (Note) | ¥80 (11) | — | — |
| Director | Yukihiro Matsui | Direct Ownership 0.00% | Managing Director | Exercise of stock options (Note) | ¥22 (3) | — | — |
| Director | Masaki Miyajima | Direct Ownership 0.01% | Managing Director | Exercise of stock options (Note) | ¥29 (4) | — | — |
| Director | Shunzo Mori | Direct Ownership 0.00% | Director-Adviser | Exercise of stock options (Note) | ¥36 (5) | — | — |
| Director | Toshiyuki Kasahara | Direct Ownership 0.00% | Director | Exercise of stock options (Note) | ¥14 (2) | — | — |
| Director | Hidenori Onezawa | Direct Ownership 0.00% | Director | Exercise of stock options (Note) | ¥22 (3) | — | — |
| Director | Kazumasa Maruyama | Direct Ownership 0.00% | Director | Exercise of stock options (Note) | ¥29 (4) | — | — |
| Director | Kenji Ikegami | Direct Ownership 0.00% | Director | Exercise of stock options (Note) | ¥14 (2) | — | — |
| Director | Toshio Shiobara | Direct Ownership 0.00% | Director | Exercise of stock options (Note) | ¥44 (6) | — | — |

(Note) Share subscription rights were approved at the board of directors meeting held on September 8, 2015.

24. SUPPLEMENTARY INFORMATION

(Unapplied Accounting Standards)

- Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, issued by the Accounting Standards Board of Japan on March 30, 2018)
- Implementation Guidance on Accounting Standard for Revenue Recognition (ASBJ Guidance No. 30, issued by the Accounting Standards Board of Japan on March 30, 2018)

(1) Summary

The International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB), which jointly develop comprehensive accounting standards for revenue recognition, announced Revenue from Contracts with Customers (IASB: IFRS 15; FASB: Topic 606) in May 2014. IFRS 15 is effective from annual reporting periods beginning on or after January 1, 2018; FASB Topic 606 is effective from annual reporting periods beginning after December 15, 2017. In light of this development, the Accounting Standards Board of Japan (ASBJ) developed and issued a comprehensive accounting standard for revenue recognition and implementation guidance.

As a basic policy for developing ASBJ accounting standards for revenue recognition, from the perspective of comparability between financial statements, which is one benefit of conformity with IFRS 15, starting with incorporating the basic principles of IFRS 15, in the event accounting standards have been established, or if there are items to be considered for practical purposes that are pertinent in Japan, additional alternative accounting treatments will be provided to the extent that comparability is not impaired.

(2) Planned Application

To be applied from the beginning of the fiscal year ending March 31, 2022

(3) Effect of Accounting Standard Application

The Company is currently assessing the effects on the consolidated financial statements resulting from the application of this accounting standard for revenue.

25. CHANGES IN THE METHOD OF PRESENTATION

(Changes in Conjunction with Application of "Partial Amendments to Accounting Standard for Tax Effect Accounting")

"Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, February 16, 2018) were applied from the beginning of the fiscal year ended March 31, 2019. Accordingly, the Company has changed to a method in which "deferred tax assets" is presented under "investments and other assets" and "deferred tax liabilities" is presented under "long-term liabilities."

As a result, in the consolidated balance sheet as of March 31, 2018, "deferred tax assets" of ¥36,475 million under "current assets" is now included in "deferred tax assets" of ¥52,869 million under "investments and other assets." Also, "deferred tax liabilities" of ¥4,331 million that had been included in "other" under "current liabilities" is now included in "deferred tax liabilities" of ¥61,476 million under "long-term liabilities."

Furthermore, total assets as of March 31, 2018 decreased by ¥5,190 million compared to before the changes as a result of offsetting deferred tax assets and deferred tax liabilities for the same taxable entity.

(Consolidated Statement of Income)

In the fiscal year ended March 31, 2018, "loss on revaluation of investments in securities" had been included in "other" under "non-operating expenses." However, as the loss on revaluation of investments in securities has exceeded one-tenth of the total amount of non-operating expenses, it is therefore presented as a separate item from the fiscal year ended March 31, 2019.

Furthermore, "foreign exchange loss" had been listed as a separate item under "non-operating expenses." However, as the foreign exchange loss has decreased to less than one-tenth of the total amount of non-operating expenses, it is therefore included in "other" from the fiscal year ended March 31, 2019.

In order to reflect these changes in presentation method, the Company has reclassified the consolidated financial statements for the previous fiscal year. As a result, the ¥3,685 million that had been presented in "other" under "non-operating expenses" on the consolidated statement of income for the fiscal year ended March 31, 2018 has been reclassified into "loss on revaluation of investments in securities" of ¥143 million and "other" of ¥9,682 million.

(Consolidated Statement of Cash Flows)

In the fiscal year ended March 31, 2018, "(gain) loss on revaluation of investments in securities" had been included in "other" under "cash flows from operating activities." However, due to the increased monetary importance of this item, "(gain) loss on revaluation of investments in securities" is listed separately from the fiscal year ended March 31, 2019. In order to reflect these changes in presentation method, the Company has reclassified the consolidated financial statements for the previous fiscal year.

As a result, the ¥(2,256) million that had been presented in "other" under "cash flows from operating activities" on the consolidated statement of cash flows for the fiscal year ended March 31, 2018 has been reclassified into "(gain) loss on revaluation of investments in securities" of ¥143 million and "other" of ¥(2,400) million.

The amounts in the accompanying consolidated financial statements and the notes thereto, including the amounts for prior fiscal years, are stated in millions of yen with amounts less than ¥1 million omitted.

Consolidated Subsidiaries

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

| Principal Consolidated Subsidiaries | Percentage of Voting Rights | Fiscal Year-End | Principal Consolidated Subsidiaries | Percentage of Voting Rights | Fiscal Year-End |
|--|-----------------------------|-----------------|---|-----------------------------|-----------------|
| Shintech Inc.* | 100.0 | December 31 | Skyward Information System Co., Ltd. | 100.0 | March 31 |
| Shin-Etsu Handotai Co., Ltd. | 100.0 | March 31 | Shinano Electric Refining Co., Ltd. | 100.0 | March 31 |
| Shin-Etsu Handotai America, Inc.* | 100.0 | December 31 | Fukui Environmental Analysis Center Co., Ltd. | 100.0 | February 28 |
| Shin-Etsu PVC B.V.* | 100.0 | December 31 | Shin-Etsu Film Co., Ltd. | 100.0 | March 31 |
| S.E.H. Malaysia Sdn. Bhd.* | 100.0 | December 31 | Shin-Etsu Technology Service Co., Ltd. | 76.9 | February 28 |
| Shin-Etsu Polymer Co., Ltd. | 53.0 | March 31 | Shin-Etsu Polymer America, Inc.* | 100.0 | December 31 |
| SE Tylose GmbH & Co. KG* | 100.0 | December 31 | Naoetsu Sangyo Limited | 100.0 | March 31 |
| Shin-Etsu Engineering Co., Ltd. | 100.0 | March 31 | Shinken Total Plant Co., Ltd. | 100.0 | February 28 |
| Shin-Etsu Astech Co., Ltd. | 99.6 | March 31 | Saitama Shinkoh Mold Co., Ltd. | 100.0 | March 31 |
| Shin-Etsu Handotai Taiwan Co., Ltd.* | 70.0 | December 31 | Shinkoh Mold Co., Ltd. | 100.0 | March 31 |
| Shin-Etsu Silicones (Thailand) Ltd.* | 100.0 | December 31 | Shin-Etsu Magnet Co., Ltd. | 100.0 | March 31 |
| Simcoa Operations Pty. Ltd.* | 100.0 | December 31 | Shin-Etsu Polymer India Pvt. Ltd.* | 100.0 | December 31 |
| JAPAN VAM & POVAL Co., Ltd. | 100.0 | March 31 | PT. Shin-Etsu Polymer Indonesia* | 100.0 | December 31 |
| Asia Silicones Monomer Limited* | 100.0 | December 31 | Shin-Etsu Polymer Singapore Pte. Ltd.* | 100.0 | December 31 |
| Nagano Electronics Industrial Co., Ltd. | 90.0 | February 28 | Shin-Etsu Polymer Shanghai Co., Ltd.* | 100.0 | December 31 |
| Naoetsu Electronics Co., Ltd. | 100.0 | February 28 | Shin-Etsu Polymer Hong Kong Co., Ltd.* | 100.0 | December 31 |
| Shin-Etsu Handotai Europe, Ltd.* | 100.0 | December 31 | Shin-Etsu Polymer Hungary Kft.* | 100.0 | December 31 |
| S-E, Inc.* | 100.0 | December 31 | Shin-Etsu Polymer (Thailand) Ltd.* | 100.0 | December 31 |
| Shin-Etsu Electronics Materials Singapore Pte. Ltd.* | 100.0 | December 31 | Dongguan Shin-Etsu Polymer Co., Ltd.* | 100.0 | December 31 |
| Shin-Etsu Silicone International Trading (Shanghai) Co., Ltd.* | 100.0 | December 31 | Human Create Co., Ltd. | 100.0 | March 31 |
| Shin-Etsu Finetech Co., Ltd. | 100.0 | March 31 | Suzhou Shin-Etsu Polymer Co., Ltd.* | 100.0 | December 31 |
| Shin-Etsu Magnetics Philippines., Inc.* | 100.0 | December 31 | S.E.H. (Shah Alam) Sdn. Bhd.* | 100.0 | December 31 |
| CIRES, Lda.* | 100.0 | December 31 | SHIN-ETSU HANDOTAI SINGAPORE PTE. LTD.* | 100.0 | December 31 |
| Shin-Etsu Singapore Pte. Ltd.* | 100.0 | December 31 | SE Tylose USA, Inc.* | 100.0 | December 31 |
| Shin-Etsu Silicone Korea Co., Ltd.* | 100.0 | December 31 | K-Bin, Inc.* | 100.0 | December 31 |
| Shin-Etsu (Malaysia) Sdn. Bhd.* | 100.0 | December 31 | Shin-Etsu Silicone (Nantong) Co., Ltd.* | 100.0 | December 31 |
| Nissin Chemical Industry Co., Ltd. | 100.0 | February 28 | Shin-Etsu (Jiangsu) Optical Preform Co., Ltd.* | 75.0 | December 31 |
| Shin-Etsu MicroSi, Inc.* | 100.0 | December 31 | Kashima Chlorine & Alkali Co., Ltd. | 79.0 | March 31 |
| Shin-Etsu Silicone Taiwan Co., Ltd.* | 93.3 | December 31 | Kashima Vinyl Chloride Monomer Co., Ltd. | 70.6 | March 31 |
| Shin-Etsu Silicones of America, Inc.* | 100.0 | December 31 | Shin-Etsu Magnetic Materials Vietnam Co., Ltd.* | 100.0 | December 31 |
| Shin-Etsu Silicones Europe B.V.* | 100.0 | December 31 | Shin-Etsu Electronics Materials Taiwan Co., Ltd.* | 100.0 | December 31 |
| Shin-Etsu Opto Electronic Co., Ltd.* | 80.0 | December 31 | Shin-Etsu YOFC (Hubei) Optical Preform Co., Ltd.* | 51.0 | December 31 |
| Shin-Etsu Polymer (Malaysia) Sdn. Bhd.* | 100.0 | December 31 | Shin-Etsu Polymer Vietnam Co., Ltd.* | 100.0 | December 31 |
| Shin-Etsu Polymer Europe B.V.* | 100.0 | December 31 | Shin-Etsu Electronics (Malaysia) Sdn.Bhd.* | 100.0 | December 31 |
| Shin-Etsu International Europe B.V.* | 100.0 | December 31 | Shin-Etsu (Hong Kong) Co., Ltd.* | 100.0 | December 31 |
| Nihon Resin Co., Ltd. | 100.0 | December 31 | Zhejiang Shin-Etsu High-Tech Chemical Co., Ltd.* | 100.0 | December 31 |
| Naoetsu Precision Co., Ltd. | 100.0 | February 28 | | | |

*Overseas subsidiary

22 other consolidated subsidiaries

Independent Auditor's Report

The Board of Directors
Shin-Etsu Chemical Co., Ltd.

We have audited the accompanying consolidated financial statements of Shin-Etsu Chemical Co., Ltd. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2019, and the consolidated statements of income, comprehensive income, changes in net assets, and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Shin-Etsu Chemical Co., Ltd. and its consolidated subsidiaries as at March 31, 2019, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan.

Convenience Translation

We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 3.

June 27, 2019
Tokyo, Japan

Ernst & Young ShinNihon LLC