Shin-Etsu Chemical Co., Ltd.

Annual Report 2020

Financial Section

Ten-Year Summary

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES For the fiscal years ended March 31, 2011 through 2020

		Millions o	of yen	
	2011	2012	2013	2014
For the year:				
Net sales	¥1,058,257	¥1,047,731	¥1,025,409	¥1,165,819
Cost of sales	803,574	798,592	769,427	873,879
Selling, general and administrative expenses	105,460	99,505	98,938	118,130
Operating income	149,221	149,632	157,043	173,809
Ordinary income	160,338	165,237	170,207	180,605
Net income attributable to owners of parent	100,119	100,643	105,714	113,617
Capital expenditures	119,884	87,165	86,841	83,155
R&D costs	37,321	35,725	37,671	43,546
Depreciation and amortization	93,732	82,868	80,961	91,445
At year-end:				
Total assets	¥1,784,166	¥1,809,841	¥1,920,903	¥2,198,912
Working capital (Current assets - Current liabilities)	638,493	694,803	832,878	981,667
Common stock	119,419	119,419	119,419	119,419
Net assets	1,469,429	1,494,573	1,623,176	1,822,135
Interest-bearing debt	14,574	15,732	13,929	15,638
Per share (Yen and U.S. dollars):				
Net income per share—basic	¥235.80	¥237.03	¥248.94	¥267.20
Net income per share—fully diluted (Note 2)	235.80	_	248.92	267.07
Cash dividends	100.00	100.00	100.00	100.00
Payout ratio (%)	42.4	42.2	40.2	37.4
Net assets	3,360.39	3,422.93	3,709.19	4,165.28
General:				
Operating income to net sales ratio (%)	14.1	14.3	15.3	14.9
Net income attributable to owners of parent to net sales ratio (%)	9.5	9.6	10.3	9.7
ROE (%)	7.0	7.0	7.0	6.8
ROA (%)	9.0	9.2	9.1	8.8
Equity ratio (%)	80.0	80.3	82.0	80.6
Number of employees	16,302	16,167	17,712	17,892
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 ¥109 = US\$1, the approximate rate of exchange on March 31, 2020.

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.

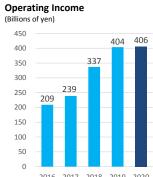
^{3. &}quot;Partial Amendments to 'Accounting Standard for Tax-Effect Accounting", etc. (ASBJ Statement No. 28, February 16, 2018) were applied from the beginning of the fiscal year ended March 31, 2019. Accordingly, the main management indicators, etc., for the previous fiscal year are those after retroactive application of said Accounting Standard, etc.

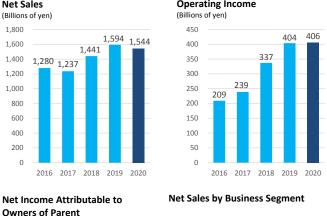
		Millions o	of yen			Thousands of U.S. dollars (Note 3)
2015	2016	2017	2018	2019	2020	2020
¥1,255,543	¥1,279,807	¥1,237,405	¥1,441,432	¥1,594,036	¥1,543,525	\$14,160,786
940,399	930,019	868,404	963,008	1,039,979	987,782	9,062,223
129,814	141,262	130,383	141,601	150,352	149,702	1,373,414
185,329	208,525	238,617	336,822	403,705	406,041	3,725,149
198,025	220,005	242,133	340,308	415,311	418,242	3,837,087
128,606	148,840	175,912	266,235	309,125	314,027	2,880,985
109,903	134,753	145,647	176,283	240,618	265,018	2,431,364
47,165	53,165	49,020	51,768	56,436	48,536	445,287
96,918	100,466	93,087	112,016	137,570	131,172	1,203,417
¥2,452,306	¥2,510,085	¥2,655,636	¥2,903,137	¥3,038,717	¥3,230,485	\$29,637,477
1,100,999	1,170,679	1,232,607	1,324,495	1,358,614	1,446,724	13,272,704
119,419	119,419	119,419	119,419	119,419	119,419	1,095,593
2,012,711	2,080,465	2,190,082	2,413,025	2,532,556	2,723,141	24,982,946
14,328	13,470	14,642	15,814	14,920	30,383	278,745
¥302.05	¥349.46	¥412.86	¥624.28	¥725.99	¥755.17	\$6.928
301.98	349.42	412.83	624.10	725.92	755.01	6.927
100.00	110.00	120.00	140.00	200.00	220.00	2.018
33.1	31.5	29.1	22.4	27.5	29.1	29.1
4,602.80	4,761.48	5,002.16	5,511.98	5,915.47	6,377.93	58.513
14.8	16.3	19.3	23.4	25.3	26.3	26.3
10.2	11.6	14.2	18.5	19.4	20.3	20.3
6.9	7.5	8.5	11.9	12.8	12.3	12.3
8.5	8.9	9.4	12.2	14.0	13.3	13.3
79.9	80.8	80.3	81.0	81.1	82.1	82.1
18,276	18,407	19,206	20,155	21,735	22,783	22,783
432,106	432,106	432,106	432,106	427,606	416,662	416,662

Management's Discussion and Analysis

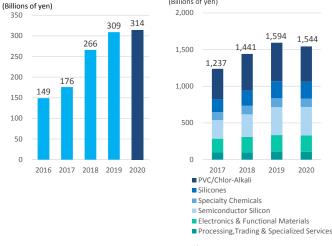
SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

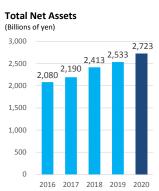
Net Sales (Billions of yen) 1,800 1.594 1,600 1,441 1,400 1,280 1,237 1.200 1,000 800 600 400 200 0 2017 2018 2019 2020 2016





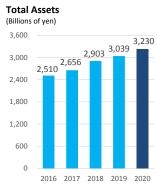


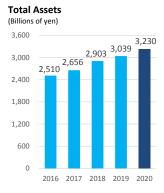


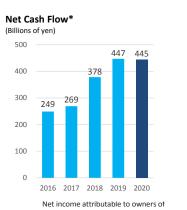


Capital Expenditures (Billions of ven)

100







parent + Depreciation and amortization

previous fiscal year.

Overview of the Shin-Etsu Group

The Shin-Etsu Group (the "Group") comprises Shin-Etsu Chemical Co., Ltd. (the "Company"), 132 subsidiaries and 13 affiliates (as of March 31, 2020) 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

Consolidated Operating Performance

The overall global economy during the FY2020 (from April 1, 2019 to March 31, 2020) experienced a continued slowdown in its growth, necessitating adjustments in various areas. Amid such circumstances, it has confronted the "coronavirus crisis" since the beginning of this year. Within the fiscal year, the impact of the coronavirus crisis on the Company's overall business was limited.

Under these circumstances, the Shin-Etsu Group always strove to cope with changes swiftly, without prejudgments, for continuous business growth. Also, while deepening our customer relationships and expanding our customer base, we went forward with developing products that match customer needs, improving product quality, and differentiating our technologies from our competitors. In addition, we continued on-time deliveries and strict cost control, and made timely and appropriate capital investments in order to meet demands from customers and markets.

As a result, compared with the previous fiscal year, net sales in FY 2020 decreased 3.2% (¥50,511 million) to ¥1,543,525 million. Operating income was ¥406,041 million, an increase of 0.6% (¥2,336 million) from the previous fiscal year. Ordinary income increased 0.7% (¥2,931 million) to ¥418,242 million over the previous fiscal year. Net income attributable to owners of parent was ¥314,027 million, an increase of 1.6% (¥4,902 million) compared with the

146

265

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, both PVC and caustic soda continued high levels of shipments at Shintech Inc. in the U.S., though affected by market conditions. We strove to maintain sales volumes at the European bases; however, they were also affected by market conditions. The business at the Japanese bases was firm.

Consequently, segment sales fell 7.6% year on year (¥39,948 million), to ¥484,322 million. Segment operating income decreased 13.5% (¥14,334 million), to ¥92,187 million.

Silicones Business

Mainly comprising the manufacture and sales of silicones With regard to the silicones business, it was affected by the price decline of general-purpose products despite our efforts to expand the sales of functional products and other products.

As a result, segment sales declined 2.8% year on year (¥6,511 million), to ¥226,872 million. Segment operating income increased 5.0% (¥2,944 million) to ¥61,490 million.

Specialty Chemicals Business

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

With regard to the cellulose derivatives business, the pharmaceutical products continued to be firm while sales of products for building and construction applications were weak. Synthetic pheromone products had firm shipments; however, POVAL products were affected by the market conditions.

Segment sales consequently dropped 5.2% year on year (¥6,347 million), to ¥114,796 million, but segment operating income rose 4.2% (¥1,114 million), to ¥27,717 million.

Semiconductor Silicon Business

Mainly comprising the manufacture and sales of semiconductor silicon

With regard to the semiconductor silicon business, we strove to maintain the level of sales prices and shipments although the semiconductor device market remained in an adjustment phase.

Segment sales accordingly rose 1.9% year on year (¥7,282 million), to ¥387,631 million, and segment operating income grew 8.6% (¥11.3 billion), to ¥143,298 million.

Electronics & Functional Materials Business

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

With regard to the rare earth magnets business, products for industrial equipment applications were affected by the slowing demand; however, we maintained the sales of products for other markets, mainly for environmentally-friendly automobile applications. The photoresist products business was generally favorable, mainly with ArF photoresists and EUV photoresists. The photomask blanks business also continued to be stable.

The optical fiber preform business experienced harsh conditions due to the impact of the deteriorating market; however, the photomask substrates business for large panel applications continued to be favorable.

Consequently, sales in this segment slipped 0.4% year on year (¥987 million), to ¥225,111 million, while segment operating income rose 2.3% (¥1,547 million), to ¥68,540 million

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.'s semiconductor wafer-related containers were affected by a slowdown in investment in the semiconductor device-related market.

As a result, segment sales fell 3.7% year on year (\pm 3,999 million), to \pm 104,791 million. Segment operating income rose 11.5% (\pm 1,528 million), to \pm 14,824 million.

Analysis of Financial Position

At the end of FY2020, total assets increased by \pm 191,768 million compared with the end of the previous fiscal year, to \pm 3,230,485 million. This was mainly due to an increase in property, plant and equipment and inventories. Total liabilities increased by \pm 1,182 million from the end of the previous fiscal year to \pm 507,343 million.

As of March 31, 2020, total net assets amounted to \$2,723,141 million, due to record-high net income attributable to owners of parent of \$314,027 million, despite a decrease due to \$87,410 million in cash dividends. As a result, the equity ratio was 82.1%, up 1.0 percentage points from 81.1%, and net assets per share increased by \$462.46 compared with the previous fiscal year, to \$6.377.93.

Return on invested capital (ROIC) was 19.4%, down 2.1 percentage points from 21.5%, and return on equity (ROE) was 12.3%, down 0.5 percentage points from 12.8%. The full-year dividend per share was increased by ¥20 compared to the previous fiscal year, to ¥220 per share.

Cash Flows

The balance of cash and cash equivalents at the end of FY 2020 decreased by 10.0% (¥83,220 million) compared with that at the end of the previous fiscal year to ¥745,125 million.

Cash Flows from Operating Activities

Net cash provided by operating activities amounted to ¥412,384 million, an increase of ¥11,697 million from the previous fiscal year. This consisted mainly of ¥426,017 million in income before income taxes and non-controlling interests, ¥131,172 million in depreciation and amortization and ¥107,824 million for the payment of income taxes.

Cash Flows from Investing Activities

Net cash used in investing activities amounted to ¥394,547 million (up ¥212,994 million from the previous fiscal year). Primary uses of cash included ¥268,365 for purchases of property, plant and equipment, ¥117.0 billion for purchases of securities, and a ¥127,525 million increase in time deposits. Major sources of cash included proceeds from redemption of securities, which provided ¥115,936 million.

Cash Flows from Financing Activities

Net cash used for financing activities decreased by ¥70,483 million from the previous fiscal year to ¥94,055 million. This was mainly due to a cash dividend payment of ¥87,410 million and ¥10,566 million for purchases of treasury stock.

As of March 31, 2020, cash, deposits and available-forsale securities (current assets) including negotiable deposits totaled ¥1,087,825 million (including instruments with a period longer than three months), ensuring sufficient liquidity. In addition, the Company earns stable cash flows from operating activities. As a result, for the foreseeable future our own funds will satisfy working capital and capital expenditure requirements.

The Shin-Etsu Group (the Company and its consolidated subsidiaries) anticipates capital expenditures of ¥240.0 billion during the fiscal year ending March 31, 2021, down approximately 10% from the previous year. We expect to fund this amount internally.

Capital Expenditures

During the year under review, the Group's capital expenditures totaled ¥265,018 million, across the PVC/Chlor-Alkali, Silicones, Specialty Chemicals, Semiconductor Silicon, Electronics and Functional Materials, and Process, Trading & Specialized Services businesses.

Capital expenditures in the PVC/Chlor-Alkali Business came to ¥102,098 million. Key expenditures included a new ethylene plant (under construction) and a new integrated PVC production facility (under construction) at Shintech Inc.

In the Silicones Business, capital expenditures amounted to ¥35,500 million. Major expenditures went toward the enhancement and streamlining of facilities to manufacture silicone products.

In the Specialty Chemicals Business, capital expenditures of ¥18,834 million went chiefly toward the enhancement of cellulose production facilities for the Company and SE Tylose.

Capital expenditures in the Semiconductor Silicon Business totaled ¥58,908 million. Principal capital expenditures went toward responding to increasingly high semiconductor silicon wafer quality requirements and reinforcing facilities at Shin-Etsu Handotai Co., Ltd.

In the Electronics and Functional Materials Business, capital expenditures totaled ¥46,262 million. Key capital expenditures included the enhancement of facilities to produce preforms for optical fiber and mask blanks.

Capital expenditures in the Process, Trading & Specialized Services Business amounted to ¥5,308 million.

The Company met these capital expenditure requirements out of internal funds.

Note: The status of the new ethylene production facility for Shintech is indicated as of December 31, 2019, as this date corresponds to the end of Shintech's fiscal year. However, the facility was operational as of March 31, 2020.

Basic Policy Concerning Profit-Sharing

From the long-term perspective, we are focusing on expanding profitability and maintaining a solid financial base, and our basic policy is to return the fruits of such management efforts to our shareholders in a proper, consistent manner. We strive to increase our corporate value by allocating internal reserves for capital investments and R&D investments and aggressively using them for enhanced global competitiveness, future business development and further growth. As we face the global coronavirus crisis, we will maintain our financial base, which will support our efforts to confront the drastic economic fluctuations that may occur. Based on this policy, we emphasize shareholder return as part of our capital policy and strive to provide, considering various circumstances, stable dividends at a dividend payout ratio of around 35% in the medium- to long term.

In accordance with these, the year-end dividend for the fiscal year is ¥110 per share, which is at the same level as the interim dividend of ¥110 per share at the end of the second quarter. As a result, the annual dividend is ¥220 per share, ¥20 up from the annual dividend of ¥200 per share for the last fiscal year.

Outlook for Fiscal 2021 (Ending March 31, 2021)

COVID-19 is likely to have a significant impact on the Group's operating performance. The global economy is right in the midst of the coronavirus crisis. It is unpredictable at this moment when and how the coronavirus crisis will end and how badly the global economy will be damaged. Under such circumstances, we will focus on maintaining our employees' health and safety, continuing production, securing sales and fulfilling business requirements including preservation of receivables. Based on close communication with customers, we will strive to develop products that have value for them and ensure the stable supply of our products. We will also continue improving our cost competitiveness and product quality. We are currently carrying out the decided investments according to the plan. Further, we will implement timely, appropriate investments for business growth.

It is difficult for us to reasonably forecast business performance over the next year at the present time, and therefore, we have decided to defer the release of the annual guidance till a later date. We will promptly release it as soon as we can.

Business Risks

This section describes the major risks that management is aware of having the potential to significantly affect the financial condition, operating performance and cash flows of the consolidated Company, from among those items related to the business and accounting situation as presented in the annual securities report.

The Group (the Company, its consolidated subsidiaries and its equity-method affiliates) 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, 2020), 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 73% of the consolidated net sales of the Group in fiscal 2020, 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, we are unable to completely hedge against all these risks, so the potential impact is similar.

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, or if supply chains are interrupted, 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, if trade policies in supplying countries are changed 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. Similarly, in products for industries other than those mentioned above, the Group could be affected by the emergence of highly competitive alternative products.

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 by bolstering efficiency. However, if regulations concerning the environment become stricter than presently anticipated, become technologically difficult to respond to 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.

9) Impact of COVID-19

To minimize the impact of COVID-19, we have enacted thorough health and safety measures at the Group's business locations. Nevertheless, the spread of the virus could prompt measures that would curtail economic activity in affected countries, resulting in a substantial downturn in demand for the Company's products and damaging the Company's business locations and supply chain. Such circumstances could have a significant effect on the Group's business operations.

Consolidated Balance Sheet

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES As of March 31, 2019 and 2020

	Millions	of yen	Thousands of U.S. dollars (Note 3)
	2019	2020	2020
ASSETS			
Current Assets:			
Cash and time deposits (Note 20)	¥826,680	¥836,448	\$7,673,835
Notes and accounts receivable-trade	338,701	325,489	2,986,137
Securities (Notes 5 and 20)	215,444	251,377	2,306,219
Merchandise and finished goods	158,717	173,358	1,590,446
Work in process	16,711	16,828	154,389
Raw materials and supplies	154,064	175,479	1,609,907
Other	47,527	52,723	483,699
Less: Allowance for doubtful accounts (Note 2 (5))	(7,379)	(7,186)	(65,929)
Total current assets	1,750,469	1,824,519	16,738,706
Fixed Assets:			
Property, Plant and Equipment (Notes 2 (8) and 8):	100.000	202.040	4 050 000
Buildings and structures, net	188,268	202,848	1,860,999
Machinery and equipment, net	445,974	440,595	4,042,164
Land	88,806	92,577	849,330
Construction in progress	255,232	367,309	3,369,807
Other, net	9,678	16,584	152,154
Total property, plant and equipment	987,960	1,119,915	10,274,457
Intangible Assets	8,740	10,099	92,657
Investments and Other Assets:			
Investments in securities (Notes 5 and 7)	141,685	126,060	1,156,516
Net defined benefit asset (Note 10)	3,841	3,788	34,760
Deferred tax assets (Note 18)	59,154	63,735	584,726
Other (Note 7)	89,491	84,657	776,673
Less: Allowance for doubtful accounts (Note 2 (5))	(2,624)	(2,291)	(21,020)
Total investments and other assets	291,548	275,950	2,531,655
Total fixed assets	1,288,248	1,405,965	12,898,770
Total Assets	¥3,038,717	¥3,230,485	\$29,637,477

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

	Millions	of yen	Thousands of U.S. dollars (Note 3)
	2019	2020	2020
LIABILITIES			
Current Liabilities:			
Notes and accounts payable-trade	¥141,027	¥136,442	\$1,251,770
Short-term borrowings (Note 9)	7,008	8,295	76,104
Accounts payable-other	75,128	75,094	688,938
Accrued expenses	74,354	73,292	672,409
Accrued income taxes	45,739	44,377	407,128
Accrued bonuses for employees	3,551	3,661	33,591
Accrued bonuses for directors	694	728	6,685
Other	44,350	35,901	329,373
Total current liabilities	391,854	377,794	3,466,002
Long-Term Liabilities:			
Long-term debt (Note 9)	7,624	15,124	138,757
Deferred tax liabilities (Note 18)	62,669	59,378	544,754
Net defined benefit liability (Note 10)	30,473	36,243	332,504
Other	13,540	18,803	172,510
Total long-term liabilities	114,306	129,549	1,188,528
Total Liabilities	506,161	507,343	4,654,530
Commitment and Contingent Liabilities (Note 11)			
NET ASSETS			
Stockholders' Equity:			
Common stock:	119,419	119,419	1,095,593
Authorized: 1,720,000,000 shares Issued: 427,606,693 shares and 416,662,793 shares as of			
March 31, 2019 and 2020, respectively			
Additional paid-in capital	128,299	128,323	1,177,279
Retained earnings (Note 12)	2,283,760	2,413,769	22,144,671
Less: Treasury stock, at cost	(94,702)	(7,123)	(65,353)
10,801,943 shares and 805,396 shares as of			
March 31, 2019 and 2020, respectively			
Total stockholders' equity	2,436,777	2,654,388	24,352,191
Accumulated Other Comprehensive Income:			
Unrealized gains (losses) on available-for-sale securities (Note 2 (7))	22,955	10,296	94,459
Deferred gains (losses) on hedges	(266)	(2,799)	(25,683)
Foreign currency translation adjustments	5,143	(8,187)	(75,118)
Remeasurements of defined benefit plans	987	(1,387)	(12,729)
Total accumulated other comprehensive income	28,820	(2,078)	(19,073)
Share Subscription Rights	1,143	1,904	17,468
Non-controlling Interests in Consolidated Subsidiaries	65,814	68,927	632,359
Total net assets	2,532,556	2,723,141	24,982,946
Total Liabilities and Net Assets	¥3,038,717	¥3,230,485	\$29,637,477

Consolidated Statement of Income

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES For the fiscal years ended March 31, 2019 and 2020

	Millions of	yen	Thousands of U.S. dollars (Note 3)
	2019	2020	2020
Net Sales (Note 21)	¥1,594,036	¥1,543,525	\$14,160,786
Cost of Sales (Notes 10 and 16)	1,039,979	987,782	9,062,223
Gross profit	554,057	555,743	5,098,563
Selling, General and Administrative Expenses (Notes 10, 15 and 16)	150,352	149,702	1,373,414
Operating income (Note 21)	403,705	406,041	3,725,149
Other Income (Expenses):			
Interest income	9,093	10,777	98,876
Dividend income	5,896	7,388	67,788
Equity in earnings (losses) of affiliates	4,669	4,327	39,697
Interest expenses	(746)	(749)	(6,874)
Foreign exchange gain (loss)	(217)	(5,650)	(51,835)
Other, net	(7,088)	(3,892)	(35,713)
Ordinary income	415,311	418,242	3,837,087
Extraordinary income:			
Gain on sales of investment securities	-	7,774	71,329
Income before income taxes and non-controlling interests	415,311	426,017	3,908,416
Income Taxes (Note 18):			
Current	104,186	108,290	993,493
Deferred	(2,861)	(564)	(5,174)
Total Income Taxes	101,325	107,726	988,319
Net Income	313,986	318,290	2,920,097
Net Income Attributable to Non-Controlling Interests	(4,860)	(4,263)	(39,112)
Net Income Attributable to Owners of Parent	¥309,125	¥314,027	\$2,880,985
	Yen		U.S. dollars (Note 3)
Earnings per Share (Note 2 (14)):			
Net income attributable to owners of parent—basic	¥725.99	¥755.17	\$6.928
Net income attributable to owners of parent—fully diluted	725.92	755.01	6.927
Cash dividends	200.00	220.00	2.018
Weighted-Average Number of Shares Outstanding (Thousands)	425,797	415,838	415,838

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, 2019 and 2020

	Millions	s of yen	Thousands of U.S. dollars (Note 3)
	2019	2020	2020
Net Income	¥313,986	¥318,290	\$2,920,097
Other Comprehensive Income (Note 19):			
Unrealized gains (losses) on available-for-sale securities	(3,499)	(12,732)	(116,807)
Deferred gains (losses) on hedges	(1,928)	(2,530)	(23,214)
Foreign currency translation adjustments	(30,861)	(13,642)	(125,160)
Remeasurements of defined benefit plans	2,383	(2,371)	(21,756)
Share of other comprehensive income (loss) of affiliates accounted for using the equity method	(134)	(125)	(1,148)
Total other comprehensive income (loss)	(34,040)	(31,401)	(288,087)
Comprehensive Income	¥279,945	¥286,889	\$2,632,009
(Breakdown)			
Comprehensive income attributable to owners of parent	¥276,632	¥283,128	\$2,597,506
Comprehensive income attributable to non-controlling interests	3,312	3,760	34,503

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							
		Stockholders' Equity							
	Number of shares of common stock	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 12)				(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 o	f yen			
	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 12)								(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			Millions of yen		
	Number of shares of common stock	Common stock	Additional paid-in capital	Retained earnings	Treasury stock, at cost	Total
Balance at April 1, 2019	427,606	¥119,419	¥128,299	¥2,283,760	¥(94,702)	¥2,436,777
Cash dividends (Note 12)				(87,410)		(87,410)
Net income attributable to owners of parent				314,027		314,027
Purchase of treasury stock					(10,566)	(10,566)
Disposal of treasury stock			145		1,391	1,537
Retirement of treasury stock	(10,943)		(96,753)		96,753	
Transfer to additional paid-in capital from retained earnings			96,608	(96,608)		
Others			23			23
Net changes of items other than stockholders' equity						
Balance at March 31, 2020	416,662	¥119,419	¥128,323	¥2,413,769	¥(7,123)	¥2,654,388

				Millions o	of yen			
		Accu	imulated Other Comprehe	ensive 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, 2019	¥22,955	¥(266)	¥5,143	¥987	¥28,820	¥1,143	¥65,814	¥2,532,556
Cash dividends (Note 12)								(87,410)
Net income attributable to owners of parent								314,027
Purchase of treasury stock								(10,566)
Disposal of treasury stock								1,537
Retirement of treasury stock								
Transfer to additional paid-in capital from retained earnings								
Others								23
Net changes of items other than stockholders' equity	(12,659)	(2,533)	(13,331)	(2,375)	(30,899)	760	3,112	(27,026)
Balance at March 31, 2020	¥10,296	¥(2,799)	¥(8,187)	¥(1,387)	¥(2,078)	¥1,904	¥68,927	¥2,723,141

	Thousands	housands Thousands of U.S. dollars (Note 3)							
		Stockholders' Equity							
	Number of shares of common stock	Common stock	Additional paid-in capital	Retained earnings	Treasury stock, at cost	Total			
Balance at April 1, 2019	427,606	\$1,095,593	\$1,177,064	\$20,951,931	\$(868,832)	\$22,355,756			
Cash dividends (Note 12)				(801,927)		(801,927)			
Net income attributable to owners of parent				2,880,985		2,880,985			
Purchase of treasury stock					(96,941)	(96,941)			
Disposal of treasury stock			1,333		12,769	14,102			
Retirement of treasury stock	(10,943)		(887,650)		887,650				
Transfer to additional paid-in capital from retained earnings			886,317	(886,317)					
Others			215			215			
Net changes of items other than stockholders' equity									
Balance at March 31, 2020	416,662	\$1,095,593	\$1,177,279	\$22,144,671	\$(65,353)	\$24,352,191			

	Thousands of U.S. dollars (Note 3)									
		Acci	umulated Other Comprehe	ensive Income			Non-controlling interests in consolidated subsidiaries			
	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		Total net assets		
Balance at April 1, 2019	\$210,599	\$(2,443)	\$47,190	\$9,059	\$264,405	\$10,493	\$603,804	\$23,234,460		
Cash dividends (Note 12)								(801,927)		
Net income attributable to owners of parent								2,880,985		
Purchase of treasury stock								(96,941)		
Disposal of treasury stock								14,102		
Retirement of treasury stock										
Transfer to additional paid-in capital from retained										
earnings										
Others								215		
Net changes of items other than stockholders' equity	(116,139)	(23,240)	(122,309)	(21,789)	(283,478)	6,974	28,555	(247,948)		
Balance at March 31, 2020	\$94,459	\$(25,683)	\$(75,118)	\$(12,729)	\$(19.073)	\$17,468	\$632,359	\$24,982,946		

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, 2019 and 2020

			Thousands of U.S.
_	Millions		dollars (Note 3)
Cook Flour from On orating Astinities	2019	2020	2020
Cash Flows from Operating Activities: Income before income taxes and non-controlling interests	¥415,311	¥426,017	\$3,908,416
Depreciation and amortization	137,570	‡420,017 131,172	1,203,417
Loss on impairment of fixed assets	2,232	912	1,203,417 8,371
Increase (decrease) in net defined benefit liability	(126)	2,723	24,982
(Gain) loss on sales of investments in securities	(3)	(7,774)	(71,329)
(Gain) loss on revaluation of investments in securities	1,565	(/,///	(71,323)
Increase (decrease) in allowance for doubtful accounts	(4,281)	(493)	(4,524)
Interest and dividend income	(14,989)	(18,166)	(166,665)
Interest and dividend meome	746	749	6,874
Exchange (gain) loss	(2,060)	3,464	31,780
Equity in (earnings) losses of affiliates	(4,669)	(4,327)	(39,697)
(Increase) decrease in notes and accounts receivable	(8,697)	11,215	102,897
(Increase) decrease in inventories	(49,109)	(36,910)	(338,625)
(Increase) decrease in Inventories (Increase) decrease in long-term advance payment	3,838	3,579	32,837
Increase (decrease) in notes and accounts payable	3,270	(3,892)	(35,709)
Other, net	25,803	(7,404)	(67,930)
Subtotal	506,400	500,865	4,595,096
Proceeds from interest and dividends	16,627	19,852	182,131
Payments of interest	(751)	(508)	(4,666)
Payments of income taxes	(121,589)	(107,824)	(989,219)
Net cash provided by operating activities	400.687	412,384	3,783,341
Cash Flows from Investing Activities:	100,007	122,001	5,755,512
(Increase) decrease in time deposits	55,116	(127,525)	(1,169,954)
Purchases of securities	(83,830)	(117,000)	(1,073,394)
Proceeds from redemption of securities	82,660	115,936	1,063,634
Purchases of property, plant and equipment	(226,768)	(268,365)	(2,462,071)
Proceeds from sales of property, plant and equipment	238	65	604
Purchases of intangible fixed assets	(1,334)	(1,063)	(9,752)
Purchases of investments in securities	(2,563)	(6,520)	(59,825)
Proceeds from sales of investments in securities	434	12,606	115,654
Payments of loans	(4)	(74)	(686)
Purchases of investments in subsidiaries resulting in	,		
change in scope of consolidation	-	(1,966)	(18,039)
Proceeds from collection of loans	542	615	5,650
Other, net	(6,045)	(1,256)	(11,523)
Net cash provided by (used for) investing activities	(181,553)	(394,547)	(3,619,704)
Cash Flows from Financing Activities:	(101,333)	(334,347)	(3,013,704)
Net increase (decrease) in short-term borrowings	(298)	1,265	11,613
Proceeds from long-term debt	51	8,384	76,919
Repayments of long-term debt	(227)	(743)	(6,822)
Purchases of treasury stock	(89,475)	(10,566)	(96,941)
Proceeds from sales of treasury stock	573	1,398	12,825
Cash dividends paid	(74,655)	(87,410)	(801,927)
Cash dividends paid to non-controlling interests	(896)	(1,077)	(9,883)
Other, net	389	(5,306)	(48,679)
Net cash used for financing activities	(164,538)	(94,055)	(862,895)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	(7,917)	(7,001)	(64,229)
Net Increase (Decrease) in Cash and Cash Equivalents	46,678	(83,220)	(763,487)
Cash and Cash Equivalents at Beginning of Year	780,449	828,345	7,599,502
Increase (Decrease) in Cash and Cash Equivalents Resulting from			
Changes in Scope of Consolidation	1,217	-	-
Cash and Cash Equivalents at End of Year (Note 20)	¥828,345	¥745,125	\$6,836,014

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, 2019 and 2020

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

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 consolidated financial statements include the accounts of the Company and 97 majority-owned subsidiaries (collectively, the "Companies"), of which the principal firms are listed on page 41 with their respective fiscal year-ends.

Moreover, from the fiscal year ended March 31, 2020, as a result of the acquisition of shares, Shin-Etsu New Materials (Thailand) Limited and other companies were included in the scope of consolidation.

The 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.

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

(2) Accounting for investments in unconsolidated subsidiaries and affiliates

The equity method is applied to the investments in 3 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, 2019 and 2020.

(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 except for buildings acquired on or after April 1, 1998, and facilities attached to buildings and structures acquired on or after April 1, 2016, which are depreciated by straightline method.

Useful lives mainly are as follows:

Buildings and structures ----- 15-47 years

Machinery and vehicles ----- 2 – 20 years

Additional depreciation is recorded based on excess operating hours for machinery and equipment that operate significantly in excess of their normal utilization rates.

(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 12).

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 ¥109 to US\$1, the approximate effective rate of exchange on March 31, 2020. 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 ¥109 to US\$1 or at any other rate.

4. 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, 2019 and 2020, the book value, fair value and the difference between the two are as follows:

	N	Iillions of yen	
		2019	
	Book value	Fair value	Difference
Assets:			
(1) Cash and time deposits	¥826,680	¥826,680	¥—
(2) Notes and accounts receivable—trade	338,701	338,701	_
(3) Securities and investments in securities			
i) Held-to-maturity debt securities	10,476	10,402	(73)
ii) Investments in and advances to unconsolidated subsidiaries and affiliates	26,452	20,773	(5,678)
iii) Available-for-sale securities	288,151	288,151	_
(4) Long-term loans	1,432	1,465	33
Total	¥1,491,894	¥1,486,175	¥(5,719)
Liabilities:			
(1) Notes and accounts payable—trade	¥141,027	¥141,027	¥—
(2) Short-term borrowings	7,008	7,008	_
(3) Accounts payable—other	75,128	75,128	_
(4) Accrued expenses	74,354	74,354	_
(5) Accrued income taxes	45,739	45,739	_
(6) Long-term debt	7,624	7,547	(76)
Total	¥350,882	¥350,805	¥(76)
Derivative transactions:			
Hedge accounting not applied	¥(2,050)	¥(2,050)	¥—
Hedge accounting applied	(515)	(515)	_
Total	¥(2,565)	¥(2,565)	¥—

	N	lillions of yen		Tho	usands of U.S. dol	ars
		2020			2020	
	Book value	Fair value	Difference	Book value	Fair value	Difference
Assets:						
(1) Cash and time deposits	¥836,448	¥836,448	¥—	\$7,673,835	\$7,673,835	\$-
(2) Notes and accounts receivable—trade	325,489	325,489	_	2,986,137	2,986,137	_
(3) Securities and investments in securities						
i) Held-to-maturity debt securities	20,521	20,535	14	188,266	188,400	134
ii) Investments in and advances to unconsolidated subsidiaries and affiliates	27,659	24,930	(2,728)	253,752	228,724	(25,028)
iii) Available-for-sale securities	295,512	295,512	_	2,711,122	2,711,122	_
(4) Long-term loans	553	583	30	5,074	5,355	280
Total	¥1,506,182	¥1,503,499	¥(2,682)	\$13,818,188	\$13,793,575	\$(24,613)
Liabilities:						
(1) Notes and accounts payable—trade	¥136,442	¥136,442	¥—	\$1,251,770	\$1,251,770	\$-
(2) Short-term borrowings	8,295	8,295	_	76,104	76,104	_
(3) Accounts payable—other	75,094	75,094	_	688,938	688,938	_
(4) Accrued expenses	73,292	73,292	_	672,409	672,409	_
(5) Accrued income taxes	44,377	44,377	_	407,128	407,128	_
(6) Long-term debt	15,124	14,772	(351)	138,757	135,532	(3,225)
Total	¥352,627	¥352,275	¥(351)	\$3,235,110	\$3,231,884	\$(3,225)
Derivative transactions:						
Hedge accounting not applied	¥(1,407)	¥(1,407)	¥—	\$(12,913)	\$(12,913)	\$-
Hedge accounting applied	(3,552)	(3,552)	_	(32,594)	(32,594)	_
Total	¥(4,960)	¥(4,960)	¥—	\$(45,508)	\$(45,508)	\$-

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 consist mainly of stocks, quoted bonds and negotiable certificates of deposit. The fair value of stocks is based on prices quoted on stock exchanges, while the fair value of bonds is based on either prices quoted on the exchanges or prices provided by counterparty financial institutions. Negotiable certificates of deposit 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.

(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

Please refer to Note 6.

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

				Thousands of
	Mill	Millions of yen		
Description	2019	2020		2020
Non-listed equity securities	¥31,63	8 ¥33,273		\$305,258
Investments in securities, etc.	41	1 472		4,335
Total	¥32,04	9 ¥33,745	1	\$309,594

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.

		Millions of yen					
		2019					
	Within	Over one year	Over five years				
Description	one year	within five years	within ten years	Over ten years			
Time deposits	¥826,630	¥—	¥—	¥—			
Notes and accounts receivable-trade	338,701	_	_	_			
Securities and investments in securities	215,444	4,031	1,000	_			
Long-term loans		881	174	376			
Total	¥1,380,776	¥4,913	¥1,174	¥376			

		Millions	of yen		-		Thousands of	U.S. dollars	
		20	20				202	20	
	Within	Over one year	Over five years			Within	Over one year	Over five years	
Description	one year	within five years	within ten years	Over ten years		one year	within five years	within ten years	Over ten years
Time deposits	¥836,392	¥—	¥—	¥—		\$7,673,324	\$—	\$-	\$-
Notes and accounts receivable-trade	325,489	_	_	_		2,986,137	_	_	_
Securities and investments in securities	251,941	8,079	1,000	_		2,311,389	74,124	9,174	_
Long-term loans	_	421	122	9		_	3,864	1,121	87
Total	¥1,413,822	¥8,500	¥1,122	¥9		\$12,970,851	\$77,989	\$10,296	\$87

${\it 4. Repayment schedule of short-term borrowings, long-term debt and lease obligations.}$

		Millions of yen								
		2019								
	Within	Over one year	Over two years	Over three years	Over four years					
Description	one year	within two years	within three years	within 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				

			Millions	of yen		
			202	0		
	Within	Over one year	Over two years	Over three years	Over four years	
Description	one year	within two years	within three years	within four years	within five years	Over five years
Short-term borrowings	¥7,489	¥—	¥—	¥—	¥—	¥—
Long-term debt	805	3,354	6,248	3,987	1,495	39
Lease obligations	1,158	1,296	675	552	440	2,841
Total	¥9,453	¥4,650	¥6,923	¥4,539	¥1,935	¥2,881

			Thousands of	U.S. dollars		
			202	0		
	Within	Over one year	Over two years	Over three years	Over four years	
Description	one year	within two years	within three years	within four years	within five years	Over five years
Short-term borrowings	\$68,711	\$-	\$-	\$-	\$-	\$-
Long-term debt	7,392	30,773	57,321	36,578	13,716	366
Lease obligations	10,627	11,892	6,192	5,064	4,040	26,065
Total	\$86,731	\$42,666	\$63,514	\$41,643	\$17,757	\$26,431

5. SECURITIES

(1) Held-to-maturity debt securities

			Millions	of yen			Thousands of U.S. dollars			
		2019			2020			2020		
	Book	Fair		Book	Fair		Book	Fair		
Description	value	value	Difference	value	value	Difference	value	value	Difference	
Securities with fair value that exceeds book value	¥1,333	¥1,340	¥7	¥3,530	¥3,560	¥30	\$32,385	\$32,666	\$281	
Securities with fair value that does not exceed book value	9,143	9,061	(81)	16,991	16,974	(16)	155,880	155,733	(147)	
Total	¥10,476	¥10,402	¥(73)	¥20,521	¥20,535	¥14	\$188,266	\$188,400	\$134	

(2) Available-for-sale securities

			Millions	of yen				Thousands of U.S. dollars			
_				2020				2020			
_	Book	Acquisition		Book	Acquisition		Вос	k	Acquisition		
Description	value	cost	Difference	value	cost	Difference	valu	ıe	cost	Difference	
Securities with book value that exceed acquisition cost	¥68,191	¥33,287	¥34,904	¥38,540	¥18,506	¥20,033	\$35	3,584	\$169,788	\$183,796	
Securities with book value that does not exceed acquisition cost	219,960	221,595	(1,635)	256,971	262,046	(5,075)	2,35	7,538	2,404,100	(46,561)	
Total	¥288,151	¥254,882	¥33,269	¥295,512	¥280,553	¥14,958	\$2,71	1,122	\$2,573,888	\$137,234	

Note: Non-listed equity securities, with a book value of ¥1,653 million and ¥1,966 million (\$18,045 thousand), and other investment securities with a book value of ¥411 million and ¥472 million (\$4,335 thousand), as of March 31, 2019 and 2020, respectively, whose fair value is extremely difficult to estimate are excluded from the above.

(3) Sold available-for-sale securities

		Millions of ye	n	Thousands of U.S. dollars			
	2020				2020		
	Amount of	Gain on	Loss on	Amount of	Gain on	Loss on	
	sale	sale	sale	sale	sale	sale	
Equity securities	¥12,601	¥7,780	¥6	\$115,611	\$71,384	\$55	
Total	¥12,601	¥7,780	¥6	\$115,611	\$71,384	\$55	

Note: For the year ended March 31, 2019, the amount of gain and loss on sale of available-for-sale securities was immaterial.

6. DERIVATIVE TRANSACTIONS

(1) Derivative transactions to which hedge accounting is not applied: Currency related: As of March 31, 2019

	Millions o	Millions of yen		
Description	Contract amounts	Contract amounts over one year	Fair value	Unrealized gain (loss)
Forward foreign exchange contracts				
Sales contracts:				
USD	¥152,56	8 ¥31,784	¥(2,429)	¥(2,429)
EUR	4,11	1 –	93	93
Other	5,93	5 –	26	26
Purchase contracts:				
USD	1,31	3 –	(7)	(7)
Other	7,07	2 –	266	266
Total	¥171,00	2 ¥31,784	¥(2,050)	¥(2,050)

As of March 31, 2020

		Millions of	fyen			Thousands of U.S. dollars			
Description	Contract amounts	Contract amounts over one year	Fair value	Unrealized gain (loss)	Contract amounts	Contract amounts over one year	Fair value	Unrealized gain (loss)	
Forward foreign exchange contracts									
Sales contracts:									
USD	¥88,531	¥452	¥(1,315)	¥(1,315)	\$812,211	\$4,155	\$(12,065)	\$(12,065)	
EUR	1,850	_	22	22	16,979	—	203	203	
Other	2,551	_	(69)	(69)	23,407	_	(640)	(640)	
Purchase contracts:									
USD	1,721	_	(23)	(23)	15,789	· –	(218)	(218)	
Other	1,535	_	(20)	(20)	14,091	_	(191)	(191)	
Total	¥96,190	¥452	¥(1,407)	¥(1,407)	\$882,479	\$4,155	\$(12,913)	\$(12,913)	

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, 2019

		_		Millions of yen			
Hedge accounting method	Transaction	Hedged items	Contract amounts	Contract amounts over one year	Fair value		
	Forward foreign exchange			,			
Deferral hedge	contracts:						
accounting	Sales contracts						
	USD	Accounts receivable-trade	¥59,601	¥—	¥(577)		
	Purchase contracts						
	EUR	Accounts payable-trade	4,181	4,181	(79)		
Total			¥63,782	¥4,181	¥(657)		

As of March 31, 2020

	_		Millions of yen Thousands of U.S. dollars				ars	
Hedge accounting			Contract	Contract amounts	Fair	Contract	Contract amounts	Fair
method	Transaction	Hedged items	amounts	over one year	value	amounts	over one year	value
Deferral hedge accounting	Forward foreign exchange contracts: Sales contracts USD Purchase contracts EUR	Accounts receivable- trade Accounts payable-trade	¥55,665 8,976	¥— 4,795	¥368 (277)	\$510,69 82,35		\$3,377 (2,546)
Total			¥64,641	¥4,795	¥90	\$593,04	3 \$43,991	\$830

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

2) Commodity related:

As of March 31, 2019

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

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

As of March 31, 2020

				Millions of yen	
Hedge accounting		_	Contract	Contract amounts	Fair
method	Transaction	Hedged items	amounts	over one year	value
Deferral hedge accounting	Commodity swap contracts	Accounts payable-trade	¥10,753	¥6,875	¥(3,608)
	Commodity option contracts	Accounts payable-trade	373	_	(34)
Total		_	¥11,126	¥6,875	¥(3,643)
		•			

	Thousands of U.S. dollars				
Hedge accounting			Contract	Contract amounts	Fair
method	Transaction	Hedged items	amounts	over one year	value
Deferral hedge accounting	Commodity swap contracts	Accounts payable-trade	\$98,654	\$63,074	\$(33,106)
Deferral nedge accounting	Commodity option contracts	Accounts payable-trade	3,427	_	(318)
Total			\$102,082	\$63,074	\$(33,425)

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

7. INVESTMENTS IN UNCONSOLIDATED SUBSIDIARIES AND AFFILIATES

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

			Thousands of
	Millions	of yen	U.S. dollars
	2019	2020	2020
Investments in securities (Stocks)	¥56,437	¥58,965	\$540,965
Other (Investments in capital)	3,724	3,724	34,165

8. ACCUMULATED DEPRECIATION

Accumulated depreciation of property, plant and equipment as of March 31, 2019 and 2020 was ¥2,091,967 million and ¥2,194,640 million (\$20,134,314 thousand), respectively.

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

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

					Thousands of
	Average		Millions	of yen	U.S. dollars
	interest rate	Due date	2019	2020	2020
Short-term borrowings	1.5%	_	¥6,272	¥7,489	\$68,711
Current portion of long-term debt	3.7%	_	735	805	7,392
Current portion of lease obligations	2.5%	_	86	1,158	10,627
Long-term debt, excluding current portion	2.1%	January 2021- November 2031	7,624	15,124	138,757
Lease obligations, excluding current portion	2.2%	March 2021- December 2040	202	5,804	53,255
Total			¥14,920	¥30,383	\$278,745

Notes: 1. Average interest rate is the weighted average rate based on the balance as of March 31, 2020.

^{3.} Repayment schedule subsequent to March 31, 2020 for long-term debt and lease obligations, excluding the current portion, is as follows:

	Millions of	yen	Thousands	of U.S. dollars
	Long-term debt	Lease obligations	Long-term debt	Lease obligations
Years ending March 31,				
2022	¥3,354	¥1,296	\$30,773	\$11,892
2023	6,248	675	57,321	6,192
2024	3,987	552	36,578	5,064
2025	1,495	440	13,716	4,040

^{2.} In calculating average interest rate, lease obligations for which the balance includes the interest portion are excluded.

10. 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 as well as 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, 2019 and 2020 is as follows:

1. Defined Benefit Pension Plans

(1) Changes in Benefit Obligations

			i nousands of
	Millions of yen		U.S. dollars
	2019	2020	2020
Beginning balance of benefit obligations	¥70,189	¥63,138	\$579,249
Service costs	4,122	3,875	35,551
Interest costs	1,313	1,260	11,561
Actuarial differences arising during the year	(5,032)	6,535	59,959
Retirement benefits paid	(6,533)	(1,399)	(12,842)
Other*	(921)	(715)	(6,566)
Ending balance of benefit obligations	¥63,138	¥72,693	\$666,912

 $[\]hbox{*Mainly foreign currency translation adjustments}\\$

(2) Changes in Pension Assets

	Millions	Thousands of U.S. dollars	
	2019	2020	2020
Beginning balance of pension assets	¥40,347	¥36,506	\$334,918
Expected return on pension assets	937	2,049	18,802
Actuarial differences arising during the year	(1,968)	533	4,896
Contributions made by the Company and consolidated subsidiaries	4,065	735	6,745
Retirement benefits paid	(5,138)	(892)	(8,188)
Other*	(1,736)	1,307	11,993
Ending balance of pension assets	¥36,506	¥40,239	\$369,168

^{*}Mainly foreign currency translation adjustments

Net amount of liability and asset on Consolidated Balance Sheets

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

	Millions	Millions of yen		
	2019	2020	2020	
Funded benefit obligations	¥55,303	¥64,174	\$588,753	
Pension assets	(36,506)	(40,239)	(369,168)	
Net	18,797	23,934	219,585	
Unfunded benefit obligations	7,834	8,519	78,158	
Net amount of liability and asset on Consolidated Balance Sheets	¥26,632	¥32,454	\$297,744	
			Thousands of	
	Millions	of yen	U.S. dollars	
	2019	2020	2020	
Net defined benefit liability	¥30,473	¥36,243	\$332,504	
Net defined benefit asset	(3,841)	(3,788)	(34,760)	

¥26,632

¥32,454

\$297,744

(4) Retirement Benefit Expenses

			Thousands of	
	Millions	Millions of yen		
	2019	2020	2020	
Service costs	¥4,122	¥3,875	\$35,551	
Interest costs	1,313	1,260	11,561	
Expected return on pension assets	(937)	(2,049)	(18,802)	
Amortization of actuarial differences	1,852	690	6,335	
Amortization of prior service cost	(10)	124	1,146	
Retirement benefit expenses for defined benefit pension plans	¥6,340	¥3,901	\$35,792	

(5) Remeasurements of Defined Benefit Plans (Other Comprehensive Income)

Breakdown (before deduction of tax effects)

			Thousands of	
	Millions	Millions of yen		
	2019	2020	2020	
Actuarial differences	¥4,916	¥(5,314)	\$(48,754)	
Prior service cost	(182)	421	3,863	
Total	¥4,733	¥(4,893)	\$(44,890)	

(6) Remeasurements of Defined Benefit Plans (Accumulated Other Comprehensive Income)

Breakdown (before deduction of tax effects)

	Millions	Millions of yen		
	2019	2020	2020	
Unrecognized actuarial differences	¥1,913	¥(3,400)	\$(31,200)	
Unrecognized prior service cost	(109)	311	2,860	
Total	¥1,804	¥(3,089)	\$(28,340)	

(7) Pension Assets

Breakdown

	2019	2020
Bonds	41%	42%
Stocks	33%	26%
Other	26%	32%
Total	100%	100%

(Note) 14% and 10% of total pension assets amount were in a "Retirement Benefit Trust" for lump-sum severance payment plans as of March 31, 2019 and 2020, 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

	2019	2020
Discount rate	Mainly 0.1%	Mainly 0.4%
Expected rate of return on pension assets	Mainly 2.0%	Mainly 2.5%

2. Defined Contribution Pension Plans

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

		Thousands of
Millions	s of yen	U.S. dollars
2019	2020	2020
¥2,532	¥2,276	\$20,884

11. 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, 2019 and 2020 in the aggregate amounts of ¥101 million and ¥58 million (\$538 thousand), respectively.

12. 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, 2019 and 2020 are as follows:

			_	Millions of yen	Yen
Resolution	Type of shares	Record date	Effective date	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
Board of directors meeting held on	Common	September	November	42.662	100.00
October 26, 2018	stock	30, 2018	19, 2018	42,002	

				Millions of		Thousands of	
				yen	Yen	U.S. dollars	U.S. dollars
				Total	Cash	Total	Cash
	Type of			amount of	dividends	amount of	dividends
Resolution	shares	Record date	Effective date	dividends	per share	dividends	per share
Fiscal year ended March 31, 2020							
Ordinary general meeting of	Common	March 31,	June 28, 2019	¥41,680	¥100.00	\$382,389	\$0.92
shareholders held on June 27, 2019	stock	2019					
Board of directors meeting held on	Common	September	November	45,729	110.00	419,537	1.01
October 25, 2019	stock	30, 2019	19, 2019				

(2) Cash dividends for the fiscal years ended March 31, 2019 and 2020 with an effective date in the subsequent fiscal year are as follows:

				-	Millions of yen	Yen
Resolution	Type of shares	Source of dividends	Record date	Effective date	Total amount of dividends	Cash dividends per share
Fiscal year ended March 31, 2019						
Ordinary general meeting of	Common	Retained	March 31,	June 28, 2019	¥41,680	¥100.00
shareholders held on June 27, 2019	stock	earnings	2019			

					Millions of		Thousands of	
					yen	Yen	U.S. dollars	U.S. dollars
					Total	Cash	Total	Cash
	Type of	Source of			amount of	dividends	amount of	dividends
Resolution	shares	dividends	Record date	Effective date	dividends	per share	dividends	per share
Fiscal year ended March 31, 2020								
Ordinary general meeting of	Common	Retained	March 31,	June 29, 2020	¥45,744	¥110.00	\$419,672	\$1.01
shareholders held on June 26, 2020	stock	earnings	2020					

13. SHARE SUBSCRIPTION RIGHTS

Fiscal year ended March 31, 2019

		Type of shares Subject to share subscription rights M					Millions of yen
Issuer	Description	subscription rights	Beginning balance	Increase Decrease		Ending balance	Balance at March 31, 2019
The Company	Stock options	Common stock	412,000	497,000	78,000	831,000	¥971
Consolidated subsidiary	_	_	_	_	_	_	172
Total							¥1,143

Fiscal year ended March 31, 2020

	Type of shares		Number of shares			Millions of	Thousands of	
		subject to share	subject to share subscription rights			yen	U.S. dollars	
Issuer	Description	subscription	Beginning			Ending	Balance at	Balance at
		rights	balance Increase Dec	Increase	rease Decrease	balance	March 31,	March 31,
					Dalance	2020	2020	
The Company	Stock options	Common stock	831,000	544,000	157,400	1,217,600	¥1,674	\$15,359
Consolidated subsidiary	_	_	_	_	_	_	229	2,109
Total							¥1,904	\$17,468

14. STOCK OPTIONS

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

The stock option expenses for the fiscal years ended March 31, 2019 and 2020 of ¥597 million and ¥844 million (\$7,745 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 year ended March 31, 2019. Gains on forfeited stock options for the fiscal year ended March 31, 2020 were ¥2 million (\$25 thousand).

Stock options as of March 31, 2020 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

	2019
	17 directors of the Company
Grantees	100 employees of the Company
Number of stock options granted by category of stock (in shares)	544,000 shares of common stock
Grant date	September 30, 2019
Vesting conditions	None
Exercise period	October 1, 2020 through March 31, 2024

Movement in stock options during the fiscal year ended March 31, 2020 was as follows:

	Number of shares			
	2015	2017	2018	2019
Beginning balance (Stock options outstanding)	99,500	234,500	497,000	_
Granted	_	_	_	544,000
Exercised	72,500	61,400	23,500	_
Forfeited	10,000	_	_	_
Ending balance (Stock options outstanding)	17,000	173,100	473,500	544,000
		Yen		
Exercise price	¥7,339	¥10,000	¥10,721	¥11,906
Weighted average market value per share at the exercise date	11,996	12,763	12,598	_
Fair value per share at the grant date	277	1,479	1,202	1,552
		U.S. dol	lars	
Exercise price	\$67.33	\$91.74	\$98.36	\$109.23
Weighted average market value per share at the exercise date	110.06	117.09	115.58	_
Fair value per share at the grant date	2.54	13.57	11.03	14.24
The fair value of options granted was estimated using the Black-Scho	oles option pricing m	odel with the foll	owing assumption	ns.
Stock options granted on September 30, 2019				
Expected volatility			26.96%	
Expected remaining life			2.76 years	

220 yen

(0.349)%

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

Expected dividend

Risk-free interest rate

The stock option expenses for the fiscal years ended March 31, 2019 and 2020 of ¥58 million and ¥67 million (\$614 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 year ended March 31, 2019. Gains on forfeited stock options for the fiscal year ended March 31, 2020 were ¥0 million (\$7 thousand).

Stock options as of March 31, 2020 were as follows:

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

	2019
	9 Directors
Grantees	23 Employees
	6 Directors of its subsidiaries
Number of stock options granted	456,000 shares of
by category of stock (in shares)	common stock
Grant date	September 11, 2019
Vesting conditions	None
	September 12, 2021
Exercise period	through
	March 31, 2025

Movement in stock options during the fiscal year ended March 31, 2020 was as follows:

	Number of shares			
	2016	2017	2018	2019
Beginning balance (Stock options outstanding)	345,000	457,000	487,000	_
Granted	_	_	_	456,000
Exercised	83,000	_	_	_
Forfeited	_	5,000	_	_
Ending balance (Stock options outstanding)	262,000	452,000	487,000	456,000
		Yen		
Exercise price	¥702	¥1,056	¥962	¥759
Weighted average market value per share at the exercise date	979	_	_	_
Fair value per share at the grant date	100	172	121	147
	U.S. dollars			
Exercise price	\$6.44	\$9.69	\$8.83	\$6.96
Weighted average market value per share at the exercise date	8.98	_	_	_
Fair value per share at the grant date	0.92	1.58	1.11	1.35
The fair value of options granted was estimated using the Black-Scho Stock options granted on September 11, 2019 Expected volatility Expected remaining life Expected dividend Risk-free interest rate	les option pricing m	odel with the follo	owing assumption	31.90% 3.78 year 16 yer (0.325)%

15. SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses for the fiscal years ended March 31, 2019 and 2020 mainly consisted of the following:

			Thousands of	
	Millions	Millions of yen		
	2019	2020	2020	
Shipping expenses	¥44,149	¥41,385	\$379,679	
Salaries and allowances	27,853	25,811	237,441	
Provision for bonuses for employees	1,601	1,269	11,651	
Provision for bonuses for directors	719	736	6,752	
Retirement benefit expenses	428	443	4,066	
Depreciation and amortization	2,541	2,171	19,920	
Provision of allowance for doubtful accounts	(4,847)	(204)	(1,877)	

16. RESEARCH AND DEVELOPMENT COSTS

Research and development costs incurred and charged to income for the fiscal years ended March 31, 2019 and 2020 were ¥56,436 million and ¥ 48,536 million (\$445,287 thousand), respectively.

17. LEASE TRANSACTIONS

The amounts of outstanding future lease payments due in respect of operating lease contracts at March 31, 2019 and 2020 are summarized as follows:

				Thousands of
	Million	Millions of yen		
	2019	2020		2020
Future Lease Payments:			Ī	
Within one year	¥2,548	¥2,145		\$19,679
Over one year	7,227	5,374		49,303
	¥9,776	¥7,519		\$68,983

18. 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 30.5% for the fiscal years ended March 31, 2019 and 2020.

The tax effects of significant temporary differences and tax loss carry forwards that resulted in deferred tax assets or liabilities at March 31, 2019 and 2020 are as follows:

			Thousands of
	Million	is of yen	U.S. dollars
	2019	2020	2020
Deferred Tax Assets:			
Depreciation and amortization	¥14,297	¥13,543	\$124,248
Net defined benefit liability	9,497	10,773	98,839
Unrealized profit	8,147	8,091	74,236
Maintenance costs	5,246	5,527	50,710
Accrued bonuses	3,719	3,677	33,737
Unsettled accounts receivable and payable	2,602	3,461	31,759
Accrued enterprise taxes	1,696	2,074	19,034
Allowance for doubtful accounts	2,062	2,023	18,564
Tax loss carryforwards	629	874	8,021
Unrealized gains/losses on available-for-sale securities	607	297	2,727
Other	28,492	27,481	252,125
Valuation allowance	(5,493)	(4,626)	(42,449)
Total	¥71,504	¥73,199	\$671,557
Deferred Tax Liabilities:	<u> </u>		
Depreciation and amortization	¥55,326	¥53,140	\$487,529
Unrealized gains/losses on available-for-sale securities	10,727	4,840	44,409
Reserve for special depreciation	113	93	860
Other	8,851	10,767	98,786
Total	¥75,019	¥68,842	\$631,585
Net deferred tax assets (liabilities)	¥(3,514)	¥4,356	\$39,971

A reconciliation of the difference between the statutory tax rate and effective rate on taxable income for the fiscal years ended March 31, 2019 and 2020 is as follows:

	2019	2020
Statutory tax rate	30.5 %	30.5 %
Rate difference from foreign subsidiaries	(3.9)	(2.9)
Equity in (earnings) losses of affiliates	(0.3)	(0.3)
Dividend and other non-taxable income	(1.5)	(2.0)
Elimination of intercompany dividend income	1.6	1.8
Tax deduction for research expenses and other	(1.8)	(1.2)
Entertainment and other non-deductible expenses	0.1	0.1
Other, net	(0.2)	(0.6)
Effective tax rate	24.4	25.3

19. OTHER COMPREHENSIVE INCOME

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

			Thousands of
	Millions	of yen	U.S. dollars
	2019	2020	2020
Unrealized gains (losses) on available-for-sale securities			
Amount arising during the year	¥(6,017)	¥(10,516)	\$(96,483)
Reclassification adjustment for gains and losses included in profit or loss	991	(7,793)	(71,496)
Unrealized gains (losses) on available-for-sale securities before tax	(5,026)	(18,309)	(167,979)
Tax effect	1,527	5,577	51,171
Unrealized gains (losses) on available-for-sale securities	(3,499)	(12,732)	(116,807)
Deferred gains (losses) on hedges			
Amount arising during the year	(2,885)	(2,930)	(26,883)
Reclassification adjustment for gains and losses included in profit or loss	147	(195)	(1,791)
Deferred gains (losses) on hedges before tax	(2,737)	(3,125)	(28,674)
Tax effect	808	595	5,460
Deferred gains (losses) on hedges	(1,928)	(2,530)	(23,214)
Foreign currency translation adjustments			
Amount arising during the year	(30,861)	(13,642)	(125,160)
Remeasurements of defined benefit plans			
Amount arising during the year	2,891	(5,708)	(52,372)
Reclassification adjustment for gains and losses included in profit or loss	1,842	815	7,481
Remeasurements of defined benefit plans before tax	4,733	(4,893)	(44,890)
Tax effect	(2,350)	2,521	23,134
Remeasurements of defined benefit plans	2,383	(2,371)	(21,756)
Share of other comprehensive income (loss) of affiliates accounted for			
using the equity method			
Amount arising during the year	(127)	(127)	(1,171)
Reclassification adjustment for gains and losses included in profit or loss	(6)	2	22
Share of other comprehensive income (loss) of affiliates accounted for using the equity method	(134)	(125)	(1,148)
Total other comprehensive income (loss)	¥(34,040)	¥(31,401)	\$(288,087)
The control of the co	. (3.,310)	+(02) .02)	7(200,007)

20. 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, 2019 and 2020 are presented below:

			Thou	sands of
	Millions	of yen	U.S.	dollars
	2019	2020	2	020
Cash and time deposits	¥826,680	¥836,448	\$7,	673,835
Securities	215,444	251,377	2,	306,219
Time deposits (maturities over three months)	(96,834)	(223,822)	(2,	053,416)
Securities (maturities over three months)	(116,944)	(118,877)	(1,	090,623)
Cash and cash equivalents	¥828.345	¥745.125	\$6.	836.014

21. 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 ye	n			
					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

					Millions of ye	n			
					2020				
	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	¥484,322	¥226,872	¥114,796	¥387,631	¥225,111	¥104,791	¥1,543,525	¥—	¥1,543,525
Intersegment sales	3,396	6,985	21,126	30	8,380	150,539	190,458	(190,458)	¥—
Total	¥487,719	¥233,857	¥135,923	¥387,661	¥233,492	¥255,330	¥1,733,984	¥(190,458)	¥1,543,525
Segment income (Operating income)	¥92,187	¥61,490	¥27,717	¥143,298	¥68,540	¥14,824	¥408,059	¥(2,018)	¥406,041
Depreciation and amortization	¥34,205	¥16,073	¥11,127	¥43,435	¥20,872	¥5,320	¥131,034	¥(391)	¥130,642
Amortization of goodwill	¥—	¥176	¥353	¥—	¥—	¥—	¥530	¥—	¥530
Increase in property, plant and equipment and intangible assets	¥102,098	¥35,500	¥18,834	¥58,908	¥46,262	¥5,308	¥266,913	¥(1,894)	¥265,018

				Tho	usands of U.S.	dollars			
					2020				
	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	\$4,443,328	\$2,081,394	\$1,053,179	\$3,556,249	\$2,065,247	\$961,386	\$14,160,786	\$-	\$14,160,786
Intersegment sales	31,159	64,084	193,822	277	76,889	1,381,092	1,747,325	(1,747,325)	\$-
Total	\$4,474,488	\$2,145,479	\$1,247,001	\$3,556,527	\$2,142,137	\$2,342,478	\$15,908,112	\$(1,747,325)	\$14,160,786
Segment income (Operating income)	\$845,759	\$564,136	\$254,288	\$1,314,663	\$628,811	\$136,008	\$3,743,668	\$(18,519)	\$3,725,149
Depreciation and amortization	\$313,815	\$147,463	\$102,086	\$398,487	\$191,487	\$48,807	\$1,202,148	\$(3,595)	\$1,198,552
Amortization of goodwill	\$—	\$1,619	\$3,245	\$—	\$—	\$-	\$4,864	\$—	\$4,864
Increase in property, plant and equipment and intangible assets	\$936,684	\$325,691	\$172,796	\$540,442	\$424,428	\$48,704	\$2,448,748	\$(17,384)	\$2,431,364

Notes: [1] Elimination of intersegment transactions.

2. Related information Geographic information

	Ne		

			Thousands of
	Millions	s of yen	U.S. dollars
	2019	2020	2020
Net sales			
Japan	¥413,146	¥415,053	\$3,807,831
U.S.	356,353	335,306	3,076,210
China	152,882	156,093	1,432,052
Asia / Oceania (excluding China)	378,289	363,887	3,338,420
Europe	182,745	165,373	1,517,185
Other	110,619	107,810	989,086
Total	¥1,594,036	¥1,543,525	\$14,160,786

(2) Property, plant and equipment

			Thousands of
	Million:	s of yen	U.S. dollars
	2019	2020	2020
Property, plant and equipment			
Japan	¥307,138	¥357,286	\$3,277,857
U.S.	512,009	569,733	5,226,915
Other	168,811	192,895	1,769,684
Total	¥987,960	¥1,119,915	\$10,274,457

3. Loss on impairment of fixed assets

		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	

				Millions	of yen					
		2020								
	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	¥—	¥328	¥—	¥—	¥518	¥65	¥—	¥912		

				Thousands of	U.S. dollars					
		2020								
	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	\$-	\$3,011	\$-	\$-	\$4,757	\$602	\$-	\$8,371		

4. Amortization of goodwill and unamortized balance

		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		

	Millions of yen 2020								
	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	¥—	¥176	¥353	¥—	¥—	¥—	¥—	¥530	
Unamortized balance	¥—	¥2,663	¥1,420	¥—	¥—	¥—	¥—	¥4,084	

	Thousands of U.S. dollars 2020								
	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	\$-	\$1,619	\$3,245	\$-	\$-	\$-	\$-	\$4,864	
Unamortized balance	\$-	\$24,437	\$13,031	\$—	\$—	\$-	\$—	\$37,469	

22. RELATED PARTY TRANSACTIONS

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

						yen	
Туре	Name	Percentage of voting rights	Relationship	Transactions	Transaction amount (Thousands of shares)	Account	Balance at the fiscal year end
Director	Chihiro Kanagawa	Direct Ownership 0.06%	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)	¥51 (7)	_	-
Director	Kai Yasuoka	Direct Ownership 0.00%	Director	Exercise of stock options (Note)	¥14 (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, 2020 are as follows:

						Millions of	yen	Thousands of U.S. dollars
Type	Name	Percentage of voting rights	Relationship	Transactions	Transaction amount (Thousands of shares)	Account	Balance at the fiscal year end	Transaction amount (Thousands of shares)
Director	Yasuhiko Saitoh	Direct Ownership 0.01%	Representative Director- President	Exercise of stock options (Note)	¥24 (2.4)	-	-	\$220 (2.4)
Director	Toshinobu Ishihara	Direct Ownership 0.00%	Senior Managing Director	Exercise of stock options (Note)	¥50 (5)	-	-	\$458 (5)
Director	Masahiko Todoroki	Direct Ownership 0.00%	Senior Managing Director	Exercise of stock options (Note)	¥24 (3)	-	-	\$226 (3)
Director	Fumio Arai	Direct Ownership 0.00%	Managing Director	Exercise of stock options (Note)	¥50 (5)	-	_	\$465 (5)
Director	Yukihiro Matsui	Direct Ownership 0.00%	Managing Director	Exercise of stock options (Note)	¥15 (1.5)	-	_	\$137 (1.5)
Director	Masaki Miyajima	Direct Ownership 0.01%	Managing Director	Exercise of stock options (Note)	¥29 (4)	-	_	\$269 (4)
Director	Kenji Ikegami	Direct Ownership 0.00%	Managing Director	Exercise of stock options (Note)	¥20 (2)	-	_	\$183 (2)
Director	Shunzo Mori	Direct Ownership 0.00%	Director - Adviser	Exercise of stock options (Note)	¥180 (18)	-	-	\$1,651 (18)
Director	Toshiyuki Kasahara	Direct Ownership 0.00%	Director	Exercise of stock options (Note)	¥29 (4)	-	-	\$269 (4)
Director	Yoshimitsu Takahashi	Direct Ownership 0.00%	Director	Exercise of stock options (Note)	¥56 (5.5)	_	-	\$521 (5.5)
Director	Kai Yasuoka	Direct Ownership 0.00%	Director	Exercise of stock options (Note)	¥36 (5)	_	_	\$336 (5)

(Note) Share subscription rights were approved at the Board of Directors meeting held on September 8, 2015, September 6, 2017 and August 21, 2018.

23. SUPPLEMENTARY INFORMATION

(Unapplied Accounting Standards)

- Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, issued by the Accounting Standards Board of Japan on March 31, 2020)
- Implementation Guidance on Accounting Standard for Revenue Recognition (ASBJ Guidance No. 30, issued by the Accounting Standards Board of Japan on March 31, 2020)
- Implementation Guidance on Disclosures about Fair Value of Financial Instruments (ASBJ Guidance No. 19, issued on March 31, 2020)

(1) Overview

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) Date of application

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

(3) Effect of application

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

- Accounting Standard for Fair Value Measurement (ASBJ Statement No. 30, issued on July 4, 2019)
- Accounting Standard for Measurement of Inventories (ASBJ Statement No. 9, revised on July 4, 2019)
- Accounting Standard for Financial Instruments (ASBJ Statement No. 10, revised on July 4, 2019)
- Implementation Guidance on Accounting Standard for Fair Value Measurement (ASBJ Guidance No. 31, issued on July 4, 2019)
- Implementation Guidance on Disclosures about Fair Value of Financial Instruments (ASBJ Guidance No. 19, issued on March 31, 2020)

(1) Overview

The ASBJ promoted an initiative to enhance comparability of the requirements between the Japanese generally accepted accounting standards and International Financial Reporting Standards, primarily with regard to guidance on the fair values of financial instruments and their disclosures, and issued "Accounting Standard for Fair Value Measurement," etc., based on the fact that the IASB and the FASB have prescribed almost the similar detailed guidance (IFRS 13 "Fair Value Measurement" issued by IASB and Accounting Standard Codification Topic 820 "Fair Value Measurement" issued by FASB).

The ASBJ's fundamental policies adopted for developing "Accounting Standard for Fair Value Measurement," etc. are, in principle, to implement all the requirements of IFRS 13 from the viewpoint of enhancing the comparability of the financial statements of domestic and overseas companies by prescribing unified measurement methods, but also to prescribe exceptional treatments for individual matters so that comparability would not be impaired in consideration of accounting practices that have conventionally been adopted in Japan.

(2) Date of application

The accounting standards will be applied from the beginning of the fiscal year ending March 31, 2022.

(3) Effect of application

The effect of applying the accounting standards on the consolidated financial statements is currently being evaluated.

- Accounting Standard for Disclosure of Accounting Estimates (ASBJ Statement No.31, issued on March 31, 2020)

(1) Overview

The International Accounting Standards Board ("IASB") issued International Accounting Standard 1, "Presentation of Financial Statements," ("IAS 1) in 2003, and Paragraph 125 of this accounting standard requires disclosures of key sources of estimation uncertainty. As such information is required for the convenience of users of financial statements in Japan, the ASBJ issued "Accounting Standard for Disclosure of Accounting Estimates." The ASBJ presents the principles and the purposes of disclosure of key sources of estimation uncertainty, and the items to be disclosed should be determined by management in a way that helps users of the financial statements understand the judgements applied. The nature and extent of the information to be disclosed will vary according to the nature of the assumptions and the other circumstances. This accounting standard was developed based on Paragraph 125 of "Presentation of Financial Statements."

(2) Date of application

The accounting standard will be applied from the fiscal year ending March 31, 2021.

- Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Correction (ASBJ Statement No.24, revised on March 31, 2020)

(1) Overview

The ASBJ has amended certain accounting standards, and issued "Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Correction" to reflect recommendations for enhancing footnote information related to accounting principles and procedures if the related accounting standards are not definitive. In addition, Paragraph 1-2 of annotations on generally accepted accounting principles continue to be effective when enhancing footnote information in notes regarding accounting principles and procedures adopted if the related accounting standards are not definitive, in order not to conflict with current accounting practices where related accounting standards are definitive.

(2) Date of application

The accounting standard will be applied from the fiscal year ending March 31, 2021.

(Impact of COVID-19 on Accounting Estimates)

At this point, we are unable to determine the degree to which the novel coronavirus disease (COVID-19) will lead to recession and economic fluctuations. Its impact on the Group is also uncertain. Accordingly, based on the information available as of March 31, 2020, we have made the accounting estimates required in the consolidated financial statements for the fiscal year under the assumption that our operations will continue to be affected by COVID-19 in the upcoming fiscal year.

24. CHANGES IN ACCOUNTING POLICIES

(Application of IFRS 16 Leases)

At overseas subsidiaries adopting IFRS, IFRS 16 Leases is applied from the first quarter of the fiscal year ended March 31, 2020. The impact of the application of this accounting standard on the consolidated financial statements is immaterial.

(Application of revised Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements and related Practical Solution)

The "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" (revised on June 28, 2019) (PITF No. 18) and the "Practical Solution on Unification of Accounting Policies Applied to Associates Accounted for Using the Equity Method" (revised on September 14, 2018) (PITF No. 24) are applied from the first quarter of the fiscal year ended March 31, 2020. The impact of the application of these practical solutions on the consolidated financial statements is immaterial.

25. CHANGES IN THE METHOD OF PRESENTATION

(Consolidated Statement of Income)

In the fiscal year ended March 31, 2019, "Foreign exchange gain (loss)" had been included in "Other, net" under "Other Income (Expenses)." However, as Foreign exchange loss has exceeded one-tenth of the total amount of other expenses, it is therefore presented as a separate item from the fiscal year ended March 31, 2020.

Furthermore, "Loss on disposal of property, plant and equipment" and "Loss on revaluation of investments in securities" had been listed as a separate item under "Other Income (Expenses)." However, as Loss on disposal of property, plant and equipment and Loss on revaluation of investments in securities have decreased to less than one-tenth of the total amount of other expenses, they are therefore included in "Other, net" from the fiscal year ended March 31, 2020.

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 \pm (2,611) million that had been presented in "Loss on disposal of property, plant and equipment", the \pm (1,565) million that had been presented in "Loss on revaluation of investments in securities", and the \pm (3,129) million that had been presented in "Other, net" under "Other Income (Expenses)" on the consolidated statement of income for the fiscal year ended March 31, 2019 have been reclassified into "Foreign exchange loss" of \pm (217) million and "Other, net" of \pm (7,088) 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

100.0 100.0 100.0 100.0 100.0 53.3 100.0 100.0 99.6	December 31 March 31 December 31 December 31 March 31 December 31 March 31	Principal Consolidated Subsidiaries Skyward Information System Co., Ltd. Shinano Electric Refining Co., Ltd. Fukui Environmental Analysis Center Co., Ltd. Shin-Etsu Film Co., Ltd. Shin-Etsu Technology Service Co., Ltd. Shin-Etsu Polymer America, Inc.* Naoetsu Sangyo Limited	100.0 100.0 100.0 100.0 76.9 100.0	March 31 March 31 February 28 March 31 February 28 December 31
100.0 100.0 100.0 53.3 100.0 100.0	December 31 December 31 March 31 December 31	Fukui Environmental Analysis Center Co., Ltd. Shin-Etsu Film Co., Ltd. Shin-Etsu Technology Service Co., Ltd. Shin-Etsu Polymer America, Inc.*	100.0 100.0 76.9	February 28 March 31 February 28
100.0 100.0 53.3 100.0 100.0 99.6	December 31 December 31 March 31 December 31	Analysis Center Co., Ltd. Shin-Etsu Film Co., Ltd. Shin-Etsu Technology Service Co., Ltd. Shin-Etsu Polymer America, Inc.*	100.0 76.9	March 31 February 28
100.0 53.3 100.0 100.0 99.6	December 31 March 31 December 31	Shin-Etsu Technology Service Co., Ltd. Shin-Etsu Polymer America, Inc.*	76.9	February 28
53.3 100.0 100.0 99.6	March 31 December 31	Shin-Etsu Polymer America, Inc.*		,
100.0 100.0 99.6	December 31	,	100.0	December 31
100.0 99.6		Naoetsu Sangyo Limited		Secenibel 31
99.6	March 31		100.0	March 31
		Shinken Total Plant Co., Ltd.	100.0	February 28
70.0	March 31	Saitama Shinkoh Mold Co., Ltd.	100.0	March 31
70.0	December 31	Shinkoh Mold Co., Ltd.	100.0	March 31
100.0	December 31	Shin-Etsu Magnet Co., Ltd.	100.0	March 31
100.0	December 31	Shin-Etsu Polymer India Pvt. Ltd.*	100.0	December 31
100.0	March 31	PT. Shin-Etsu Polymer Indonesia*	100.0	December 31
100.0	December 31	Shin-Etsu Polymer Singapore Pte. Ltd.*	100.0	December 31
90.0	February 28	Shin-Etsu Polymer Shanghai Co., Ltd.*	100.0	December 31
100.0	February 28	Shin-Etsu Polymer Hong Kong Co., Ltd.*	100.0	December 31
100.0	December 31	Shin-Etsu Polymer Hungary Kft.*	100.0	December 31
100.0	December 31	Shin-Etsu Polymer (Thailand) Ltd.*	100.0	December 31
100.0	December 31	Dongguan Shin-Etsu Polymer Co., Ltd.*	100.0	December 31
100.0	December 31	Human Create Co., Ltd.	100.0	March 31
100.0	March 31	Suzhou Shin-Etsu Polymer Co., Ltd.*	100.0	December 31
100.0	December 31	S.E.H. (Shah Alam) Sdn. Bhd.*	100.0	December 31
100.0	December 31	SHIN-ETSU HANDOTAI SINGAPORE PTE. LTD.*	100.0	December 31
100.0	December 31	SE Tylose USA, Inc.*	100.0	December 31
100.0	December 31	K-Bin, Inc.*	100.0	December 31
100.0	December 31	Shin-Etsu Silicone (Nantong) Co., Ltd.*	100.0	December 31
100.0	February 28	Shin-Etsu (Jiangsu) Optical Preform Co., Ltd.*	75.0	December 31
100.0	December 31	Kashima Chlorine & Alkali Co., Ltd.	79.0	March 31
93.3	December 31	Kashima Vinyl Chloride Monomer Co., Ltd.	70.6	March 31
100.0	December 31	_	100.0	December 31
100.0	December 31	Shin-Etsu Electronics Materials Taiwan Co., Ltd.*	100.0	December 31
80.0	December 31	, , ,	51.0	December 31
100.0	December 31	Shin-Etsu Polymer Vietnam Co., Ltd.*	100.0	December 31
100.0	December 31	Shin-Etsu Electronics (Malaysia) Sdn.Bhd.*	100.0	December 31
100.0	December 31	Shin-Etsu (Hong Kong) Co., Ltd*	100.0	December 31
100.0	December 31	Zhejiang Shin-Etsu High-Tech Chemical Co., Ltd.*	100.0	December 31
100.0	February 28	Shin-Etsu New Materials (Thailand) Limited* 23 other consolidated subsidiaries	100.0	December 31
	70.0 100.0	99.6 March 31 70.0 December 31 100.0 December 31 100.0 December 31 100.0 March 31 100.0 December 31 100.0 December 31 90.0 February 28 100.0 December 31	99.6 March 31 Saitama Shinkoh Mold Co., Ltd. 70.0 December 31 Shinkoh Mold Co., Ltd. 100.0 December 31 Shin-Etsu Magnet Co., Ltd. 100.0 December 31 Shin-Etsu Polymer India Pvt. Ltd.* 100.0 March 31 PT. Shin-Etsu Polymer Indonesia* 100.0 December 31 Shin-Etsu Polymer Singapore Pte. Ltd.* 90.0 February 28 Shin-Etsu Polymer Shanghai Co., Ltd.* 100.0 December 31 Shin-Etsu Polymer Hong Kong Co., Ltd.* 100.0 December 31 Shin-Etsu Polymer Hungary Kft.* 100.0 December 31 Dongguan Shin-Etsu Polymer Co., Ltd.* 100.0 December 31 Dongguan Shin-Etsu Polymer Co., Ltd.* 100.0 December 31 Suzhou Shin-Etsu Polymer Co., Ltd.* 100.0 December 31 Suzhou Shin-Etsu Polymer Co., Ltd.* 100.0 December 31 Suzhou Shin-Etsu Polymer Co., Ltd.* 100.0 December 31 Sin-Etsu Uliangsu) Optical Preform Co., Ltd.* 100.0 December 31 Kashima Chlorine & Alkali Co., Ltd. 100.0 December 31 Kashima Chlorine & Alkali Co., Ltd. 100.0 December 31 Kashima Chlorine & Makerials Vietnam Co., Ltd.* 100.0 December 31 Kashima Vinyl Chloride Monomer Co., Ltd. 100.0 December 31 Shin-Etsu Belectronics Materials Taiwan Co., Ltd.* 100.0 December 31 Shin-Etsu Polymer Vietnam Co., Ltd.* 100.0 Decem	99.6 March 31 Saitama Shinkoh Mold Co., Ltd. 100.0 70.0 December 31 Shinkoh Mold Co., Ltd. 100.0 100.0 December 31 Shin-Etsu Magnet Co., Ltd.* 100.0 100.0 March 31 PT. Shin-Etsu Polymer India Pvt. Ltd.* 100.0 100.0 December 31 Shin-Etsu Polymer Indonesia* 100.0 100.0 December 31 Shin-Etsu Polymer Singapore Pte. Ltd.* 100.0 100.0 February 28 Shin-Etsu Polymer Shanghai Co., Ltd.* 100.0 100.0 February 28 Shin-Etsu Polymer Hong Kong Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Polymer Hungary Kft.* 100.0 100.0 December 31 Shin-Etsu Polymer (Thailand) Ltd.* 100.0 100.0 December 31 Dongguan Shin-Etsu Polymer Co., Ltd.* 100.0 100.0 December 31 Dongguan Shin-Etsu Polymer Co., Ltd.* 100.0 100.0 March 31 Suzhou Shin-Etsu Polymer Co., Ltd.* 100.0 100.0 December 31 S.E.H. (Shah Alam) Sdn. Bhd.* 100.0 100.0 December 31 S.E.H. (Shah Alam) Sdn. Bhd.* 100.0 100.0 December 31 SE.H. (Shah Alam) Sdn. Bhd.* 100.0 100.0 December 31 SE.H. (Shah Alam) Sdn. Bhd.* 100.0 100.0 December 31 SE.H. (Shah Alam) Sdn. Bhd.* 100.0 100.0 December 31 SF.H. (Shah Alam) Sdn. Bhd.* 100.0 100.0 December 31 Shin-Etsu Handotal Singapore PTE. LTD.* 100.0 100.0 December 31 Shin-Etsu Gliangsu) Optical Preform Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Silicone (Nantong) Co., Ltd.* 100.0 100.0 December 31 Kashima Chlorine & Alkali Co., Ltd. 79.0 100.0 December 31 Kashima Chlorine & Alkali Co., Ltd. 79.0 100.0 December 31 Shin-Etsu Magnetic Materials Vietnam Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Holproire Materials Vietnam Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Polymer Vietnam Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Fletronics Materials Taiwan Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Fletronics Materials Taiwan Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Fletronics Materials Taiwan Co., Ltd.* 100.0 100.0 December 31 Shin-Etsu Fletronics (Malaysia) 100.0 100.0 December 31 Shin-Etsu Fletronics (Malaysia) 100.0 100.0 December 31 Shin-Etsu New Materials (Thailand) 100.0 100.0 February 28 Shin-Etsu New Materials (Thailand) 100.0



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Independent Auditor's Report

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

Opinion

We have audited the accompanying consolidated financial statements of Shin-Etsu Chemical Co., Ltd. and its subsidiaries (the Group), which comprise the consolidated balance sheet as at March 31, 2020, and the consolidated statement of income, comprehensive income, changes in net assets, and cash flows for the year then ended, and notes to the consolidated financial statements.

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

Basis for Opinion

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

Responsibilities of Management, the Corporate Auditor and the Board of Corporate Auditors for the Consolidated Financial Statements

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

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

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



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

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

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with accounting principles generally accepted in Japan.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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



Conflicts of Interest

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

Convenience Translation

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

Ernst & Young ShinNihon LLC Tokyo, Japan

June 26, 2020

Yuji Mukaide Designated Engagement Partner Certified Public Accountant

Ryogo Ichikawa Designated Engagement Partner Certified Public Accountant

Yasuyuki Kitamura Designated Engagement Partner Certified Public Accountant