SHOWA DENKO

PROJECT 2020+
SHAPING IDEAS +

ACHIEVING SUSTAINABLE GROWTH THROUGH INNOVATION

Annual Report 2017

Showa Denko K.K.

Our Vision

We at the Showa Denko Group will provide products and services that are useful and safe and exceed our customers' expectations, thereby enhancing the value of the Group, giving satisfaction to our shareholders, and contributing to the sound growth of international society as a responsible corporate citizen.

Profile

Ranked as one of Japan's leading chemical companies, Showa Denko K.K. (SDK) operates in six major segments: petrochemicals, chemicals, electronics, inorganics, aluminum, and others.

The Showa Denko Group has been proceeding with its medium-term business plan "Project 2020+" since 2016. Under this business plan, the Group will expand and strengthen "Individualized businesses," which are expected to maintain their high-level profitability and stability, and promote these businesses in the global market. The Group will enhance the capability to resist fluctuations in market prices by providing customers with attractive products and services. Moreover, the Group will reform its business model, and improve existing businesses' earning power. Thus, the Group will enhance the corporate value.

In the business portfolio we aim to realize under "Project 2020+," we classified businesses into four categories: "Growth-accelerating," "Advantage-establishing," "Base-shaping," and "Rebuilding." We defined missions for each business category in order to strengthen our businesses.

In addition, to promote the globalization of business activities and further expand our "Individualized businesses," we will implement strategic capital investment in the growing Asian/ASEAN market and pursue growth opportunities in developed countries in Europe and North America.

In 2017, for the "Growth-accelerating" businesses, we increased our business expansion in the growing Asian market through several measures. For example, for the aluminum can business, we decided to establish our second aluminum can plant in Vietnam to be located mid-country, and we established a joint corporation to manufacture aluminum cans in Thailand with a large beverage manufacturer there. Concerning our graphite electrode business, positioned as a "Base-shaping" business, we acquired the graphite electrode manufacturing division of a German company which is engaged in the carbon business. Through this acquisition, the Showa Denko Group obtained manufacturing bases in Europe and Southeast Asia in addition to the existing bases in Japan, the U.S., and China. Thus, the Group became the leading graphite electrode supplier in the global market.

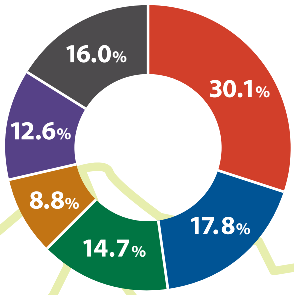
Showa Denko aims to earn the full trust and confidence of the market and society, always managing operations based on the principles of corporate social responsibility. The Company is also committed to the principles of Responsible Care and is vigorously carrying out an action plan to protect the environment as well as health and safety.

Showa Denko at a Glance

Net sales 2017

¥780.4 billion

Note: The ratios for segments have been calculated after adding the amount of adjustments to net sales.



Petrochemicals

Olefins (ethylene and propylene), polymer (polypropylene), and organic chemicals (vinyl acetate monomer, ethyl acetate, and allyl alcohol)

Chemicals

Functional chemicals (polymer emulsion and unsaturated polyester resin), industrial gases (liquefied carbon dioxide, dry ice, oxygen, nitrogen, and hydrogen), basic chemicals (liquefied ammonia, acrylonitrile, and chloroprene rubber), and electronic chemicals (high-purity gases for electronics)

Electronics

Hard disks (HDs), compound semiconductors (LED chips), rare earth magnetic alloys, and lithium-ion battery (LIB) materials

Inorganics

Graphite electrodes and ceramics (alumina and abrasives)

Aluminum

Rolled products (high-purity foils for capacitors), specialty components (extrusions, cylinders for laser beam printers [LBPs], forged products, and heat exchangers), and beverage cans

Others

General trading and building materials

See pages 6-7 for segment performances.

Forward-Looking Statements:

This annual report contains statements relating to management's projections of future profits, the possible achievement of the Company's financial goals and objectives, and management's expectations for the Company's product development program. The Company cannot guarantee that these expectations and projections will be realized or correct. Actual results may differ materially from the results anticipated in the statements included herein due to a variety of factors, including, but not limited to, the economic conditions, costs of naphtha and other raw materials, demand for our products such as graphite electrodes and other commodities, market conditions, and foreign exchange rates. The timely commercialization of products under development by the Company may be disrupted or delayed by a variety of factors, including market acceptance, the introduction of new products by competitors, and changes in regulations or laws. The foregoing list of factors is not inclusive. We undertake no obligation to update the forward-looking statements unless required by law.

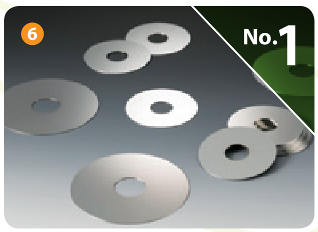
Our Strengths

Showa Denko has many products maintaining high market shares in the world. Let us introduce some of the products of high priority in our business portfolio designed under the medium-term business plan “Project 2020+.”

Advantage-establishing

Growth-accelerating

Base-shaping



Global positions are Showa Denko estimates.

1 Aluminum laminated film for LIB packaging

The second largest manufacturer in the world

We provide packaging materials for pouch-type lithium-ion batteries (LIBs) used in smartphones and tablet PCs. Demand for pouch-type LIBs is growing due to such advantages as high levels of heat dissipation and flexibility in molding.

2 SiC epitaxial wafers for power devices

The second largest independent manufacturer in the world

We have been contributing to the commercialization and market expansion of “full SiC” power modules through production of high-grade SiC epi-wafers for power transistors since 2015, in addition to those for diodes. SiC-based power devices are attracting attention due to their features that enable production of smaller, lighter, and more energy-efficient next-generation power control modules.

3 High-purity gases for electronics

The world’s largest manufacturer of specialty gases like NH_3, Cl_2, HBr, C_4F_6, etc.

High-purity gases for electronics are used as etching and cleaning gases, as well as materials for membrane formation necessary for production of electronic devices including semiconductors, LCD panels, and solar batteries.

4 Aluminum cans

The second largest manufacturer in Vietnam and the fourth largest in Japan

Since 1971, we have been operating our aluminum can business as the pioneer who produced the first aluminum can for beverages in Japan. Since 2014, when we acquired our first overseas can production base in Vietnam, we have been expanding our aluminum can business, focusing on the rapidly growing Southeast Asian market. In 2017, we decided to establish our second plant in Vietnam and set up a can manufacturing company in Thailand.

5 Graphite electrodes

The world’s largest manufacturer

Graphite electrodes are used in electric arc furnaces for steel production. In 2017, we acquired a German graphite electrode company and became the leading supplier in the global graphite electrode industry. We now have graphite electrode production bases in Europe and Southeast Asia, in addition to our existing bases in Japan, the U.S., and China.

6 HD media

The world’s largest independent manufacturer

HD media, one of the major parts of HD drives, are used in notebook PCs, consumer electronics, and external hard disk drives. Demand for HDDs is expected to grow further for use in data centers.

7 High-purity aluminum foil for capacitors

The world’s largest manufacturer

We provide high-purity aluminum foil for aluminum electrolytic capacitors widely used in air conditioners, industrial equipment, automotive parts, and solar power generation. Our proprietary manufacturing process has enabled us to realize high productivity and quality.

Contents

Consolidated Five-Year Summary

Financial Highlights

Showa Denko K.K. and Consolidated Subsidiaries	Millions of yen					Thousands of U.S. dollars (Note 1)
December 31	2013	2014	2015	2016	**2017**	**2017**
For the year						
Net sales	¥ 847,803	¥ 872,785	¥ 775,732	¥ 671,159	**¥ 780,387**	**$ 6,906,077**
Petrochemicals	286,732	281,400	231,288	185,783	**251,128**	**2,222,369**
Chemicals	130,402	138,695	142,292	134,529	**148,758**	**1,316,443**
Electronics (Note 2)	136,548	138,537	131,492	120,461	**123,064**	**1,089,059**
Inorganics	65,919	67,557	63,476	50,870	**73,442**	**649,928**
Aluminum	90,369	97,946	100,756	98,575	**105,439**	**933,089**
Others (Note 2)	176,516	191,610	147,233	128,740	**133,624**	**1,182,511**
Adjustments	(38,684)	(42,959)	(40,805)	(47,800)	**(55,067)**	**(487,322)**
Operating income	25,953	20,551	33,508	42,053	**77,818**	**688,658**
Petrochemicals	4,398	(4,930)	10,543	20,690	**33,357**	**295,192**
Chemicals	2,559	5,460	10,707	13,824	**16,474**	**145,787**
Electronics (Note 2)	21,940	25,770	17,472	15,015	**21,925**	**194,030**
Inorganics	(838)	(300)	(1,249)	(5,758)	**7,089**	**62,738**
Aluminum	5,845	2,999	2,563	4,416	**6,697**	**59,263**
Others (Note 2)	(626)	(1,041)	1,329	623	**633**	**5,603**
Adjustments	(7,324)	(7,406)	(7,857)	(6,758)	**(8,357)**	**(73,954)**
Net income attributable to owners of the parent	9,065	2,929	921	12,305	**33,470**	**296,198**
Net cash provided by operating activities	63,565	66,996	61,170	68,949	**67,284**	**595,432**
Net cash provided by (used in) investing activities	(55,203)	(46,876)	(42,497)	(53,754)	**(29,914)**	**(264,729)**
Free cash flow	8,362	20,120	18,674	15,195	**37,369**	**330,703**
R&D expenditures	20,435	20,362	20,289	17,313	**18,539**	**164,059**
Capital expenditures	44,370	47,318	44,059	39,276	**41,279**	**365,299**
Depreciation and amortization	39,779	40,673	42,137	38,761	**38,454**	**340,303**
At year-end						
Total assets	985,771	1,009,843	940,494	932,698	**1,024,727**	**9,068,380**
Total net assets	345,811	319,087	308,142	311,231	**364,997**	**3,230,060**
Interest bearing debt	353,686	383,124	368,835	359,929	**346,726**	**3,068,371**
Debt/equity ratio (gross, times)	1.02	1.20	1.20	1.16	**0.95**	
	Yen					U.S. dollars (Note 1)
Per share (Note 3)						
Net income — primary (Note 4)	¥ 6.06	¥ 1.99	¥ 0.64	¥ 86.27	**¥ 234.84**	**$ 2.08**
Net income — fully diluted (Note 4)	—	—	—	—	**—**	**—**
Net assets	201.27	209.76	207.61	2080.85	**2445.01**	**21.64**
Cash dividends (applicable to the period) (Note 5)	3.00	3.00	3.00	—	**80.00**	**0.71**
Number of employees at year-end	10,234	10,577	10,561	10,146	**10,864**	

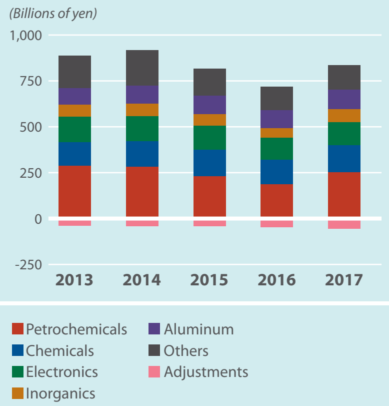
Notes: 1. Yen amounts have been translated into U.S. dollars, for convenience only, at the rate of ¥113.00 to US$1.00, the approximate rate of exchange as of December 31, 2017.
2. From 2017 SDK changed the segmentation (LIB materials was transferred from "Others" to "Electronics") . Figures for 2016 in the above table are based on the new segmentation.
3. SDK consolidated every ten shares of common stock into one share on July 1, 2016. "Per share" indicators for 2016 are calculated on the basis of the number of outstanding shares after this consolidation.
4. Net income per share has been computed based on the average number of shares of common stock outstanding during the respective fiscal year. Fully diluted net income per share additionally assumes the conversion of the convertible bonds. Diluted net income per share for 2015 and 2014 were not disclosed because there were no dilutive shares. Diluted net income per share for 2013 was not disclosed because the Company had no securities with dilutive effects.
5. SDK resolved the payment of dividends of ¥30.00 per share based on the record date of May 11, 2017 at the extraordinary general meeting of shareholders held in June 2017.

Non-Financial Highlights

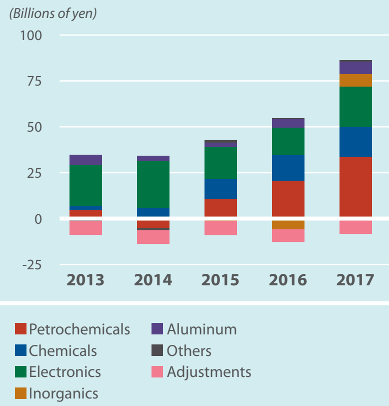
	2012	2013	2014	2015	**2016**
Environmental data*					
Discharged amounts of greenhouse gases (kt-CO_2) (Showa Denko Group)	2,504	2,673	2,675	2,687	**2,687**
Final landfill volumes of industrial waste (t) (Showa Denko Group)	2,085	1,360	1,158	851	**323**
Social data					
Frequency rate of lost-time injuries (Showa Denko Group)	0.14	0.22	0.43	0.15	**0.15**

*Calculated for each environmental fiscal year from April 1 through March 31 of the following year.

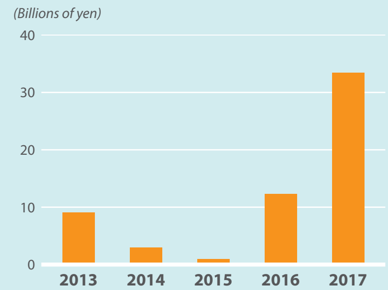
Net Sales by Segment



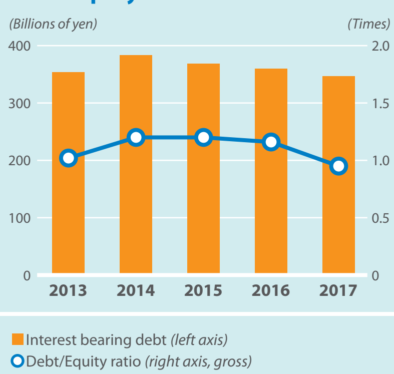
Operating Income by Segment



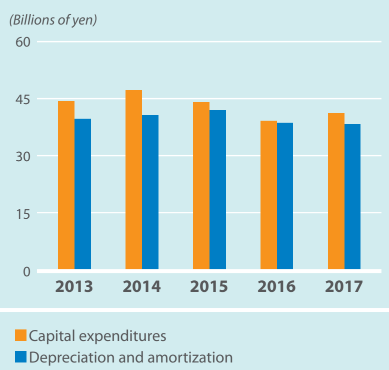
Net Income Attributable to Owners of the Parent



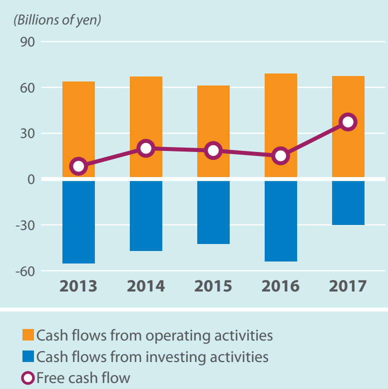
Interest Bearing Debt Debt/Equity Ratio



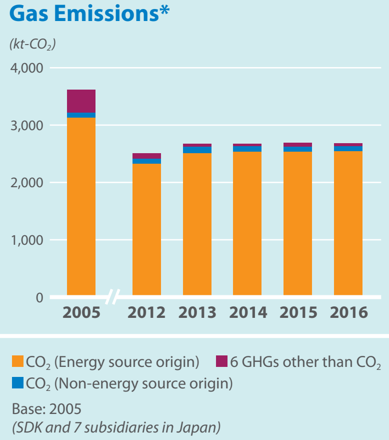
Capital Expenditures Depreciation and Amortization



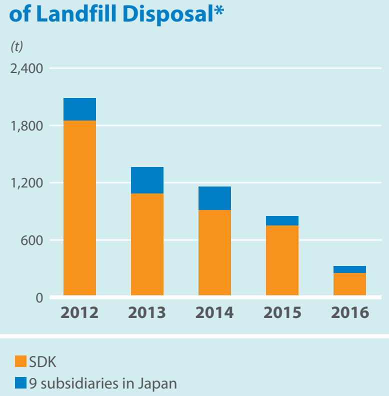
Cash Flows



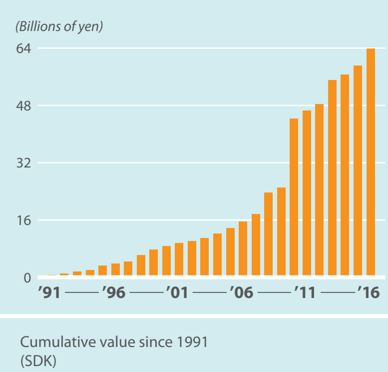
Trends in Greenhouse Gas Emissions*



Trends in the Final Volume of Landfill Disposal*



Environment-Related Investment



*Calculated for each environmental fiscal year from April 1 through March 31 of the following year.

Message from the Management

Hideo Ichikawa
Representative Director,
Chairman of the Board

Kohei Morikawa
Representative Director,
President and CEO

2017 Performance

In 2017, the Japanese economy continued to recover gradually. Production was maintained at a high level, due partly to an increase in exports backed by strong overseas economies. Consumer spending also recovered gradually against a background of strong employment. Corporate earnings improved due to a relatively stable yen-dollar exchange rate.

In overseas economies, the U.S. economy continued to recover; the European economy recovered gradually; the economies of China and the ASEAN countries showed signs of recovery; and the economies of resource-rich and emerging countries, including Russia and Brazil, bottomed out and showed some improvement.

In the petrochemicals industry, domestic plants that produce ethylene and its derivatives maintained high operating rates due to heavy demand from East Asia, including China. In the electronic parts/materials industry, production of parts/materials maintained high levels due to increasing production of semiconductors in response to growing demand for electronic devices, including smartphones and industrial equipment.

Under these circumstances, the Showa Denko Group has been, since 2016, promoting the medium-term business plan "Project 2020+." Under this business plan, for the Showa Denko Group to achieve continual growth, we will expand and strengthen our "Individualized businesses," reform the business structure, and strengthen the revenue base. In this way, we will enhance our corporate value.

The Group recorded consolidated net sales of ¥780,387 million in 2017, up 16.3% from the previous year. Sales increased in all segments. In the Petrochemicals segment, sales rose due to higher product prices and the consolidation of SunAllomer Ltd. in the second half of 2016. In the Inorganics segment, sales increased due to higher shipment volumes of graphite electrodes, an improvement in the conditions of the graphite electrode market in China in the second half of 2017, and the new consolidation of SHOWA DENKO CARBON Holding GmbH in the fourth quarter of 2017.

Operating income of the Group increased substantially, by 85.0% to ¥77,818 million. The Petrochemicals segment recorded higher income due to a strong market caused by a tight supply-demand balance in East Asia. The Inorganics segment also recorded higher income due to an increase in shipment volumes of graphite electrodes resulting from business integration and the firmer graphite electrode market in China, in addition to the effect of a reduction in the cost of graphite electrode production. The Electronics, Chemicals, and Aluminum segments also recorded higher income. We were able to exceed the ¥50.0 billion income target for 2017 set out in “Project 2020+.”

The Group recorded net income attributable to owners of the parent of ¥33,470 million in 2017, up 172% from the previous year. In the ceramics business within the Inorganics segment, we decided to sell our stake in a general-purpose alumina production joint venture. This resulted in recording an extraordinary loss due to the posting of a loss on the provision of allowance for doubtful accounts related to PT. Indonesia Chemical Alumina (ICA). Also we posted the cost of refurbishment to make effective use of Yokohama Plant. However, net income attributable to owners of the parent substantially increased in the end.

For dividends, in addition to a dividend per share of ¥30 payment of which was resolved at the extraordinary general meeting of shareholders held in June 2017, we paid a year-end dividend of ¥50 per share, an increase of ¥20 from the previous forecast of ¥30 per share.

Major Initiatives in the Second Year of “Project 2020+”

The following is an overview of the major initiatives in each category of our business portfolio for the second year of “Project 2020+.”

In the “Growth-accelerating” businesses, we continued proactive investment in the high-purity gases for electronics business, in line with customer industry’s full-scale production of 3D-NAND flash memory. In the aluminum can business, we started construction of the second production plant in Vietnam, and in the functional chemicals business, we started operation of the second bulk molding compound (BMC) plant in China. For the “Base-shaping“ businesses, in the graphite electrode business, we improved profitability by completing the procedure for acquisition of SGL GE Holding GmbH, which we started in 2016, and by making the acquired company renamed as SHOWA DENKO CARBON Holding GmbH a consolidated subsidiary. In the “Rebuilding” businesses, we also promoted structural improvements. For instance, in the ceramics business, we decided to sell our stake in the general-purpose alumina production joint venture, ICA. This resulted in the recording of an extraordinary loss on provision of allowance for doubtful accounts related to ICA. We also posted the cost of refurbishment to make effective use of Yokohama Plant.

For details, please see pages 8-9. There is a special feature on the graphite electrode business on pages 10-11.

The current medium-term business plan, “Project 2020+,” was initially a five-year plan, but in line with the early achievement of the three-year targets, we will retire this plan in 2018 and will shift to a new three-year medium-term business plan to begin in 2019. The new plan will be announced at the end of 2018. We are aiming to become a company that offers the promise of future growth, while achieving profits that meet shareholders’ expectations. In addition to increasing the number of “Individualized businesses,” we will formulate AI and IoT strategies focused on the future, and will promote management that improves the Group’s social performance in terms of ESG (environmental, social, and governance) and SDGs (sustainable development goals).

Conclusion

As the standard of living improves in developing countries due to rapid economic growth, there is an increasing demand throughout the globe for initiatives that will reduce growing environmental burdens. When viewing social trends from the perspective of marketability, there is a demand for the development and commercialization of new technologies that respond to the issues common to all people. These issues include more convenience and comfort through improved quality, faster speeds, larger capacity and miniaturization in the electronics industry, the realization of a healthy, safe society through development of countermeasures against global warming and environmental protection, as well as a secure supply of energy through energy conservation and reduced dependence on fossil fuels.

Under “Project 2020+,” which we have been proceeding with since 2016, we are expanding and strengthening “Individualized businesses” in global markets that sustainably maintain high levels of profitability and stability. We will take the initiative to improve our corporate value by providing customers with industry-leading components, materials and solutions in advanced and cutting-edge technological domains based on our competitive and proprietary technologies. At the same time, we will contribute to the creation of society where affluence and sustainability are harmonized. In addition to making every effort to ensure safety, we will proactively protect the global environment by promoting resource and energy conservation while striving to reduce industrial waste and chemical substance emissions.

We will continue making every effort to strengthen our earning power and competitiveness through improvement of our business structure.

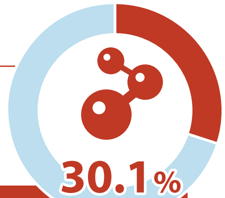
The external environment in 2017 was favorable, and the structural reforms we carried through up to now have obtained results and created a profit structure that uses this favorable external environment as a tailwind. Each of the Group’s businesses upgraded its business makeup to be so strong that we could significantly exceed the operating income targets set out in “Project 2020+.” Thus 2017 was a turning point for the Group. In 2018, the Group will validate the improvement in its earning power.

We sincerely appreciate the continued understanding, support and encouragement of all our shareholders.

March 29, 2018

Segment Performances

Petrochemicals

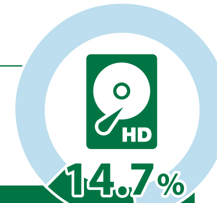


Consolidated Business Results *(Millions of yen)*

	2016	2017	Increase/ decrease	Rate of change
Sales	185,783	251,128	65,345	35.2%
Operating Income	20,690	33,357	12,667	61.2%

In the Petrochemicals segment, sales rose 35.2% to ¥251,128 million. Production of ethylene increased over the previous year. Sales for olefins rose due to an increase in prices for products caused by higher raw naphtha prices and strong demand. Sales of organic chemicals went up due to higher shipment volumes and higher prices for products, including ethyl acetate and vinyl acetate. The consolidation of SunAllomer Ltd., in the second half of 2016, also boosted sales in this segment. Operating income for the segment improved 61.2% to ¥33,357 million.

Electronics

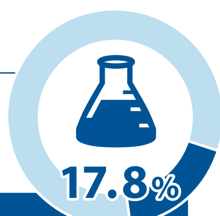


Consolidated Business Results *(Millions of yen)*

	2016	2017	Increase/ decrease	Rate of change
Sales	120,461	123,064	2,602	2.2%
Operating Income	15,015	21,925	6,910	46.0%

In the Electronics segment, sales increased 2.2% to ¥123,064 million. Production of HD media in 2017 rose over the previous year due to higher shipment volumes of media for data centers. Consequently, sales of HD media also grew. Sales of rare earth magnetic alloys and compound semiconductors increased over the previous year due to higher shipment volumes. Sales of lithium-ion battery (LIB) materials — transferred from the Others segment to the Electronics segment at the beginning of 2017 — decreased due to lower shipment volumes to China caused by changes in the subsidy policy for electric vehicles. Operating income of the segment increased 46.0% to ¥21,925 million.

Chemicals

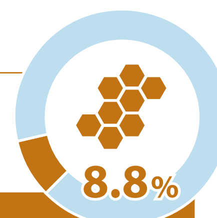


Consolidated Business Results *(Millions of yen)*

	2016	2017	Increase/ decrease	Rate of change
Sales	134,529	148,758	14,229	10.6%
Operating Income	13,824	16,474	2,650	19.2%

In the Chemicals segment, sales grew 10.6% to ¥148,758 million. Production of liquefied ammonia and high-purity gases for electronics increased over the previous year. In basic chemicals, sales of liquefied ammonia rose due to higher shipment volumes. Sales of chloroprene rubber improved due to high-level shipment volumes and a strong market. Sales of acrylonitrile increased due to a rise in prices. Sales of electronic chemicals rose due to higher shipment volumes of high-purity gases for electronics caused by an increase in production in the semiconductor and display panel industries. Sales of functional chemicals went up due to higher shipment volumes for the domestic automotive industry. However, sales of industrial gases decreased slightly. Operating income for the segment rose 19.2% to ¥16,474 million.

Inorganics



Consolidated Business Results *(Millions of yen)*

	2016	2017	Increase/ decrease	Rate of change
Sales	50,870	73,442	22,572	44.4%
Operating Income	-5,758	7,089	12,848	—

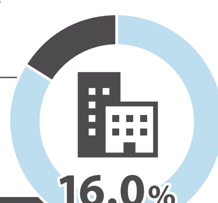
In the Inorganics segment, sales increased 44.4% to ¥73,442 million. Production of graphite electrodes in 2017 rose over the previous year due to improvements from customers in the electric steel industry. Sales of graphite electrodes went up due to the acquisition and consolidation of SGL GE Holding GmbH (currently SHOWA DENKO CARBON Holding GmbH) in the fourth quarter of 2017, in addition to an increase in sales volume and higher prices for graphite electrodes in the Chinese market during the second half of 2017. Sales of ceramics increased due to higher shipment volumes in the electronics industry. The segment recorded operating income of ¥7,089 million, an improvement of ¥12,848 million, due mainly to the increase in operating income earned from graphite electrodes.

Aluminum

Consolidated Business Results *(Millions of yen)*	2016	2017	Increase/ decrease	Rate of change
Sales	**98,575**	**105,439**	**6,864**	**7.0%**
Operating Income	**4,416**	**6,697**	**2,281**	**51.6%**

In the Aluminum segment, sales increased 7.0% to ¥105,439 million. Production of high-purity foil for aluminum electrolytic capacitors rose over the previous year. Shipment volumes and sales of rolled products grew due to higher shipment volumes of high-purity foil for aluminum electrolytic capacitors for use in industrial equipment and automotive applications. Sales of aluminum specialty components rose due partly to higher shipment volumes of large aluminum extrusions and aluminum cylinders for use in laser beam printers. Sales of aluminum cans improved due to higher shipment volumes recorded by Hanacans Joint Stock Company in Vietnam. Operating income for the segment increased 51.6% to ¥6,697 million.

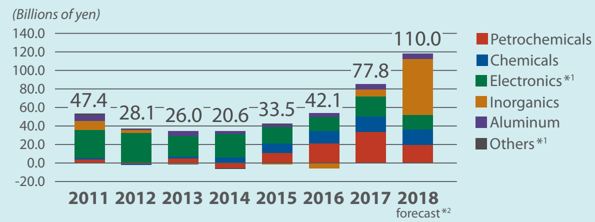
Others



Consolidated Business Results *(Millions of yen)*	2016	2017	Increase/ decrease	Rate of change
Sales	**128,740**	**133,624**	**4,884**	**3.8%**
Operating Income	**623**	**633**	**10**	**1.6%**

In the Others segment, sales increased 3.8% to ¥133,624 million. Shoko Co., Ltd.'s sales grew. Operating income for the segment rose 1.6% to ¥633 million.

Earnings structure: Being improved to be "well balanced"
Operating income by segment



*1 LIB materials business was transferred from the Others segment to the Electronics segment at the beginning of 2017. The above data for 2016 and 2017 are based on this new segmentation.
*2 Announced on February 14, 2018.
The total does not match consolidated operating income since adjustments are not included.

Measures Implemented or Decided in 2017

Chemicals Segment

Established a subsidiary to sell high-purity gases for electronics in the U.S.

In July 2017, the Showa Denko Group established a wholly owned subsidiary, Showa Chemicals of America Inc. (SCA), in Austin, Texas, aimed at strengthening the sale of high-purity gases for electronics in the U.S. American semiconductor manufacturers have a 15% share of global production capacity for semiconductors. SDK established SCA to further expand the high-purity gas business in the U.S., to reinforce the relationship between SDK and major semiconductor manufacturers in the U.S., and to gather information about state-of-the-art semiconductor processing technologies.

Electronics Segment

Started shipments of "Best-in-Class" 2.5 and 3.5-inch HD media

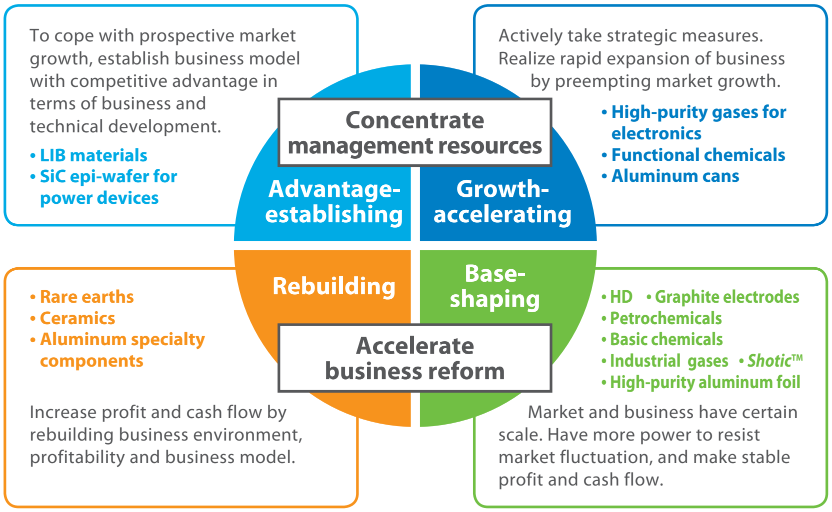
In September 2017, SDK started shipping 2.5-inch HD media with a storage capacity of 1 terabyte (TB; ninth-generation perpendicular magnetic recording (PMR) technology) per platter, the world's largest storage capacity* for this size available on the market.

In December 2017, SDK also started shipping 3.5-inch HD media with a storage capacity of 1.5-1.8 TB (ninth-generation PMR-technology) per platter, the world's largest storage capacity* for this size available on the market.

In 2005, SDK became the first company in the world to manufacture and sell PMR-technology-based HD media, and is now the largest independent supplier of HD media. SDK will continue to strengthen the HD media business utilizing our "Best-in-Class" technologies.

*All information was current at the time of announcement, according to SDK research.

Medium-Term Business Plan: "Project 2020+"



In January 2016, the Showa Denko Group started its medium-term business plan "Project 2020+." Under this business plan, the Group will expand and strengthen "Individualized businesses," expected to maintain their high levels of profitability and stability, as well as promote these businesses in the global market. The Group will become stronger to resist fluctuations in market prices by providing customers with attractive products and services and by developing businesses that have top shares in competitive markets on a global scale or defined market. Moreover, the Group will reform the business model and strengthen the earning power of its existing businesses. In these ways, the Group will boost corporate value.

Major Initiatives in the Second Year of the Medium-Term Business Plan "Project 2020+"

- For the "Growth-accelerating" and the "Advantage-establishing" businesses sales and operating income increased substantially for the year ended December 31, 2017.

  For high-purity gases for electronics, we worked to increase production capacity and expand overseas production bases to respond to the expansion of 3D-NAND flash production. In the aluminum cans business, we decided to set up a second production base in Vietnam in response to robust demand in that country and announced the establishment of an aluminum can manufacturing joint corporation (equity method) with Carabao Group Public Company Limited, a beverage maker with the second largest market share in Thailand. Construction is underway at both plants, which will start operations in the second half of 2018. In the functional chemicals business, we started full-scale production at the second thermoset bulk molding compound (BMC) plant in Zhuhai, Guangdong Province, China.
- In the LIB materials business, which is positioned as an "Advantage-establishing" business, we expanded the production capacity for core products. In the SiC epi-wafer for power devices business, in addition to boosting production capacity for high-quality grades, we acquired SiC-related assets from Nippon Steel & Sumitomo Metal Corporation.
- For the "Base-shaping" businesses, margins in all these businesses improved significantly. In the HD media business, we realized the benefits of the manufacturing capacity optimization implemented in 2016. In the graphite electrode business, in addition to optimizing domestic production capacity and renovating hydropower facilities, among other cost reduction measures, we acquired SGL GE Holding GmbH. In the petrochemicals business, as well as maintaining full production, we improved profitability due to contributions from the full-year consolidation of the polypropylene business. In the basic chemicals, industrial gases, and high-purity aluminum foil businesses, we implemented measures to improve earnings, including new product sales promotions and business expansions overseas, as well as providing products at competitive costs, so that our products will have enhanced resistance to market fluctuations.
- In the "Rebuilding" businesses, we posted an extraordinary loss in the ceramics business due to the decision to sell our stake in the general-purpose alumina production company ICA. As well, efforts to promote structural reforms resulted in the recording of expenses for the refurbishment to make effective use of Yokohama Plant. Going forward, the ceramics business will focus on high value-added products, such as titanium oxides and filler materials.

Numerical Targets

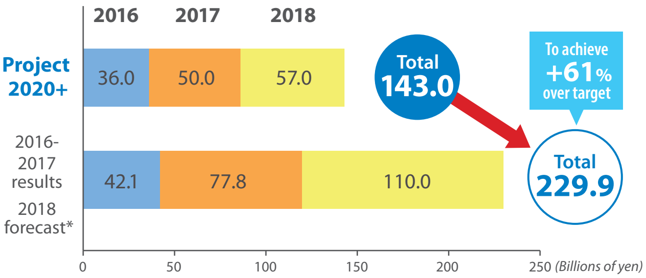
In 2016 and 2017, we exceeded the numerical targets set out in the "Project 2020+." In 2018, forecasted earnings should once again surpass the targets in "Project 2020+."

(Billions of yen)

	2016 results	2017 results	2018 forecast*	**2018 plan****
Net sales	671.2	780.4	900.0	**855.0**
Operating income	42.1	77.8	110.0	**57.0**
Net income attributable to owners of the parent	12.3	33.5	65.0	**30.0**
Free cash flow	15.2	37.4	30.0	
ROA***	4.5%	8.0%	—	**6.0%**
ROE	4.1%	10.4%	—	**9.0%**
Year-end dividends	—	¥50	¥70	

* Announced on Feb. 14, 2018.
** Announced on Dec. 11, 2015.
*** ROA: Operating income/Total assets

Operating Income



* Announced on Feb. 14, 2018.

Taken together, the performances for 2016 and 2017, plus earnings estimates for 2018, are expected to result in three-year cumulative operating income of ¥229.9 billion, which is 61% higher than the target of ¥143.0 billion announced in December 2015.

Capital Investment

In 2017, capital investment was ¥41.3 billion. We will make strategic investments in aluminum cans and high-purity gases for electronics in the "Growth-accelerating" businesses plus lithium-ion battery (LIB) materials and SiC epi-wafer for power devices in the "Advantage-establishing" businesses, we will also invest in SHOWA DENKO CARBON Holding GmbH (consolidated in 2017), and we will promote IT-related capital investment. We expect these investments to be approximately the same as the ¥130.0 billion announced in "Project 2020+" for the three-year period started in 2016.

Cost Reductions

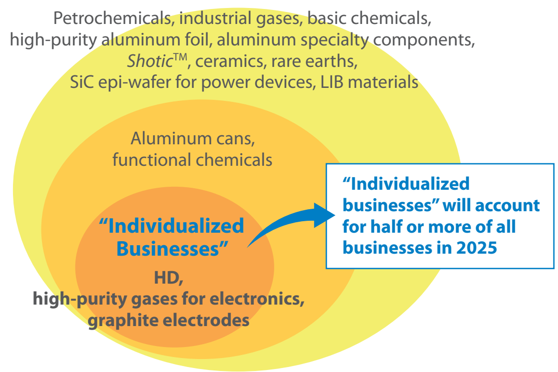
In 2016 and 2017, we reduced costs by ¥27.3 billion in total, which was more than the ¥20.0 billion set out in the three-year period covered by "Project 2020+." In 2018, we plan to cut costs by ¥10.5 billion through stronger yields and productivity as well as the effects of consolidation in the graphite electrode business, resulting in ¥37.8 billion in cost reductions for the cumulative three-year period.

Toward 2025: Expanding "Individualized Businesses"

To make it possible to generate stable operating income up to 2025, we must expand "Individualized businesses," as set out in "Project 2020+." "Individualized businesses" are businesses meeting three conditions: operating income margins of 10% or more; operating income of several billion yen or more; plus tolerance to change in the business environment.

Today, three of our businesses meet the criteria required for "Individualized businesses": HD media, high-purity gases for electronics, and graphite electrodes. From SDK's point of view, these businesses have the necessary market scale, have high market shares, are able to leverage their distinctive technologies and logistics, and have achieved a strong presence in the market.

Expanding "Individualized Businesses"



In addition to these three businesses, we must also take the initiative for transforming all of our businesses into "Individualized businesses." Recognizing the necessity of transforming half or more of our businesses into "Individualized businesses" by 2025, we will set up business strategies in 2018 to identify which businesses can further increase sales and which can further increase operating income margins.

Topics

Incorporated into ESG indexes for investment

In July 2017, SDK was included in three ESG indexes for investment: FTSE Blossom Japan Index provided by FTSE International Limited and Frank Russel Company (FTSE Russell, a member of London Stock Exchange Group); MSCI Japan ESG Select Leaders Index; and MSCI Japan Empowering Women Index provided by MSCI Incorporated (MSCI).

FTSE Russell and MSCI are world-famous index providers, and ESG stands for "environmental, social, and governance." Government Pension Investment Fund (GPIF) of Japan has adopted these three ESG indexes as benchmarks to conduct full-scale ESG-conscious investment.

FTSE Blossom Japan Index is designed to provide market participants with a tool to identify and measure the performance of Japanese companies that demonstrate strong environmental, social and governance (ESG) practices. MSCI Japan ESG Select Leaders Index is constructed using the MSCI Japan IMI Top 500 Index (parent index) and targets best ESG performers among issues included in the parent index. MSCI Japan Empowering Women Index evaluates companies promoting and maintaining gender diversity.

FTSE Blossom Japan

MSCI 2017 Constituent MSCI Japan ESG Select Leaders Index

MSCI 2017 Constituent MSCI Japan Empowering Women Index (WIN)

Showa Denko Integrates Operation of its Graphite Electrode (GE) Plants Worldwide

Ongoing Integration Plan

We intend to achieve our "Big Integration Synergy" plan to gain $40 million in three years

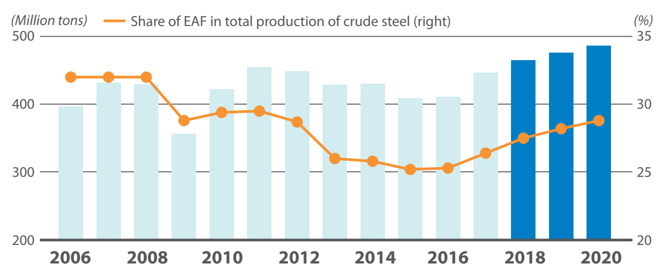
- Enhance cost competitiveness by introducing the best practices of both companies
- Reduce fixed costs by integrating headquarters functions
- Establish an optimal global logistics and supply chain
- Build brand equity and attain the highest quality by integrating technologies
- Optimize processes from procuring raw materials to final products

Steel Market Conditions

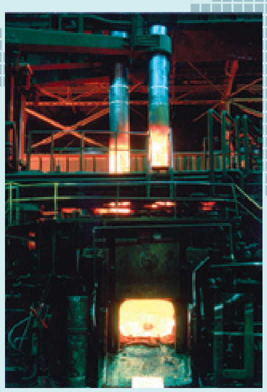
- North America: Strong demand continues
- China: Surplus production capacity is being scaled back (environmental regulations, prohibition of ground steel production)
  ▶ Production of electric steel increases
- ASEAN: Operating rate for electric arc furnaces has recovered
  ▶ Increasing demand for GE

World EAF Production Trend

*WSA and SDK estimates.



Electric Arc Furnaces (EAF)

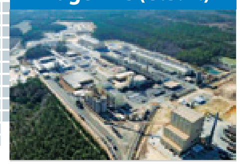


CO_2 emissions during production are much lower than using a blast furnace

Our production capacity after integration

Approx. 250 kt/y

Ridgeville (U.S.A.)



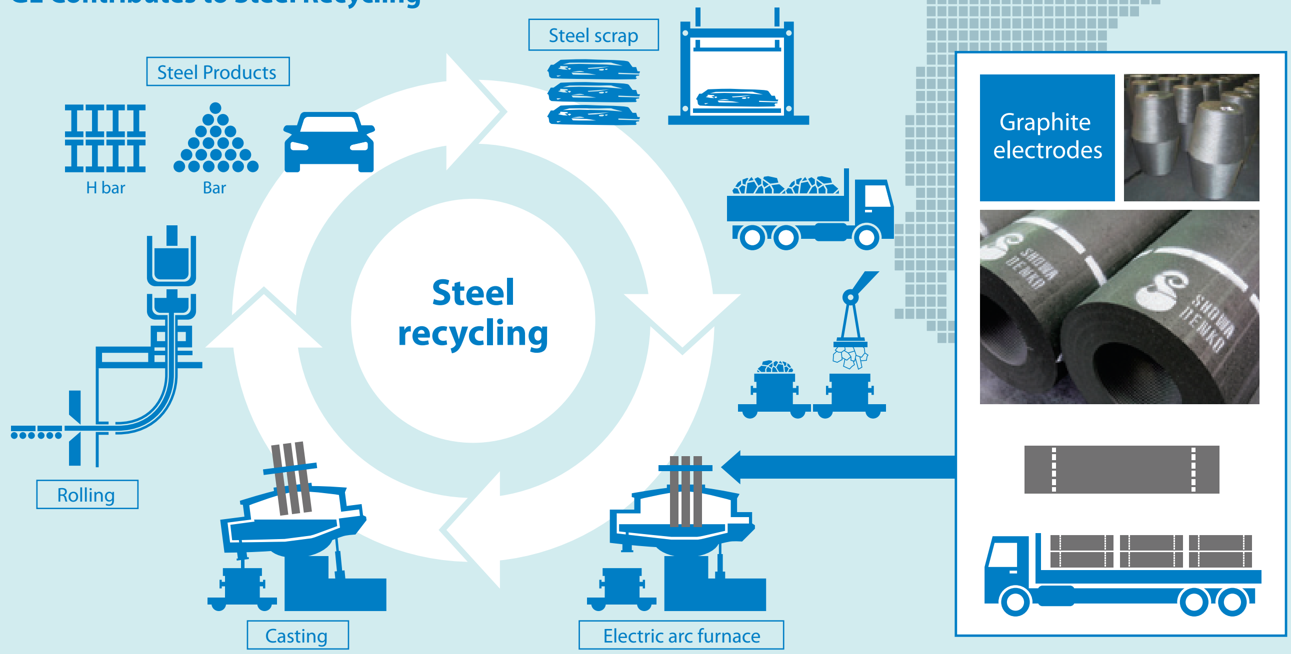
Completed acquisition of SGL GE

Effective on October 2, 2017, SDK completed acquisition of SGL GE, a graphite electrode production company, and made it a wholly owned subsidiary of SDK. The acquired company's name was changed to SHOWA DENKO CARBON Holding GmbH as of that date.

Through business integration, today SDK has graphite electrode production plants in Europe and Southeast Asia, in addition to existing bases in Japan, the U.S. and China, and has become the leading supplier in the global graphite electrode industry. SDK will strive to generate synergies as early as possible, to pursue more cost effectiveness and to achieve further growth in this market.

At the same time, effective November 7, 2017, SDK completed the transfer of the former SGL GE's graphite electrode business in the U.S. to Tokai Carbon Co., Ltd. This transfer was done to make the acquisition of the former SGL GE meet the conditions required by the U.S. anti-competition regulators, a prerequisite for approval of the acquisition.

GE Contributes to Steel Recycling



Management Team as of March 29, 2018

Kiyoshi Nishioka, Tomofumi Akiyama, Keiichi Kamiguchi, Jun Tanaka, Hideo Ichikawa, Kohei Morikawa, Hidehito Takahashi, Toshiharu Kato, Masaharu Oshima

Directors

HIDEO ICHIKAWA *Representative Director, Chairman of the Board*

April 1975	Joined the Company
January 2006	Corporate Officer; General Manager, Corporate Strategy Office
March 2008	Director; Corporate Officer; General Manager, Corporate Strategy Office
September 2008	Director; Corporate Officer; Executive Officer, HD Sector
January 2010	Director; Managing Corporate Officer; Executive Officer, HD Sector
January 2011	President and Chief Executive Officer (CEO)
January 2017	Chairman of the Board (incumbent)

KOHEI MORIKAWA *Representative Director, President*

April 1982	Joined the Company
January 2013	Corporate Officer; General Manager, Electronic Chemicals Division
January 2016	Managing Corporate Officer; Chief Technology Officer (CTO)
March 2016	Director; Managing Corporate Officer, in charge of Electronic Chemicals and Functional Chemicals divisions, Business Development Center, Isesaki and Tatsuno plants, and Corporate R&D Department; Chief Technology Officer (CTO)
January 2017	President and Chief Executive Officer (CEO) (incumbent)

JUN TANAKA

April 1982	Joined the Company
January 2013	Corporate Officer; General Manager, Advanced Battery Materials Department
January 2017	Managing Corporate Officer; Chief Technology Officer (CTO)
March 2017	Director; Managing Corporate Officer, Chief Technology Officer (CTO)
January 2018	Director; Managing Corporate Officer, in charge of Electronic Chemicals and Functional Chemicals divisions, Business Development Center, Higashinagahara, Isesaki and Tatsuno plants, Corporate R&D and Intellectual Property departments; Chief Technology Officer (CTO) (incumbent)

HIDEHITO TAKAHASHI

April 1986	Joined The Mitsubishi Bank, Ltd. (currently MUFG Bank, Ltd.)
February 2002	Joined GE Japan Holding Corporation
January 2013	President and CEO, GKN Driveline Japan plc
October 2015	Joined the Company, Senior Corporate Fellow, Assistant to President
January 2016	Corporate Officer; General Manager, Corporate Strategy Department
January 2017	Managing Corporate Officer
March 2017	Director; Managing Corporate Officer
July 2017	Director; Managing Corporate Officer, in charge of Ceramics division and Corporate Strategy Department; General Manager, Carbon Division (incumbent)

KEIICHI KAMIGUCHI

April 1983	Joined the Company
January 2011	Corporate Officer; General Manager, Corporate Strategy Office
January 2015	Corporate Officer, in charge of Industrial Gases and Basic Chemicals divisions, Kawasaki and Higashinagahara plants
January 2017	Corporate Officer; Chief Risk Management Officer (CRO)
March 2017	Director; Corporate Officer, in charge of Internal Audit, Legal, General Affairs & Human Resources, and Purchasing & SCM departments; Chief Risk Management Officer (CRO) (incumbent)

TOSHIHARU KATO

April 1981	Joined Showa Aluminum Corporation
March 2001	Joined the Company
January 2016	Corporate Officer; General Manager, Finance & Accounting Department
January 2017	Corporate Officer; Chief Financial Officer (CFO)
March 2017	Director; Corporate Officer, General Manager, Finance & Accounting Department; Chief Financial Officer (CFO)
January 2018	Director; Corporate Officer, in charge of Finance & Accounting and Information Systems Departments; Chief Financial Officer (CFO) (incumbent)

TOMOFUMI AKIYAMA *Outside Director*

April 1959	Joined Fukoku Mutual Life Insurance Company
July 1998	President, Fukoku Mutual Life Insurance Company
March 2008	Director, of the Company (incumbent)
July 2010	Chairman, Fukoku Mutual Life Insurance Company (incumbent)

KIYOSHI NISHIOKA *Outside Director*

April 1977	Joined Nippon Steel Corporation (currently Nippon Steel & Sumitomo Metal Corporation)
June 2005	Director; General Manager, Technology Development Planning Department, Technology Development Headquarters, Nippon Steel Corporation
September 2009	Counselor, Nippon Steel Corporation
November 2012	Special Professor, Research Center for Advanced Science and Technology, The University of Tokyo
April 2017	Adviser, Research Center for Advanced Science and Technology, The University of Tokyo (incumbent)
April 2017	Visiting Professor, Ehime University (incumbent)
March 2018	Director, of the Company (incumbent)

MASAHARU OSHIMA *Outside Director*

April 1974	Joined Nippon Telegraph and Telephone Public Corporation (currently Nippon Telegraph and Telephone Corporation)
November 1995	Professor, Applied Chemistry Department, Graduate School of Engineering, The University of Tokyo
April 2006	Director, Synchrotron Radiation Research Organization, The University of Tokyo
October 2009	Chairman, The Japanese Society for Synchrotron Radiation Research
April 2013	Project Professor, Synchrotron Radiation Research Organization, The University of Tokyo
May 2013	Chairman, The Surface Science Society of Japan
June 2013	Emeritus Professor, The University of Tokyo (incumbent)
April 2014	Project Researcher, Synchrotron Radiation Research Organization, The University of Tokyo
March 2015	Director, of the Company (incumbent)
April 2015	Special Professor, Tokyo City University (incumbent)
July 2016	Project Researcher, School of Engineering, The University of Tokyo (incumbent)
December 2016	Project Researcher, Institute for Solid State Physics, The University of Tokyo (incumbent)

Audit & Supervisory Board Members

SABURO MUTO

April 1976	Joined the Company
January 2011	Corporate Officer; General Manager, Finance Office
January 2013	Corporate Officer; General Manager, Finance & Accounting Department
January 2014	Chief Financial Officer (CFO)
March 2014	Director; Corporate Officer; General Manager, Finance & Accounting Department
August 2014	Director; Corporate Officer
January 2015	Director; Managing Corporate Officer, in charge of Finance & Accounting and Information Systems departments; Chief Financial Officer (CFO)
March 2017	Audit & Supervisory Board Member (incumbent)

TETSU MORIKI

April 1977	Joined the Company
January 2010	Corporate Fellow; General Manager, Legal Office
January 2016	Senior Corporate Fellow; General Manager, Legal & Intellectual Property Department
January 2018	Counselor, Assistant to President
March 2018	Audit & Supervisory Board Member (incumbent)

HIROYUKI TEZUKA *Outside Member*

April 1986	Registered with Dai-ichi Tokyo Bar Association Joined Nishimura & Sanada Law Offices (currently Nishimura & Asahi)
September 1992	Clearly, Gottlieb, Steen & Hamilton, New York
January 1993	Admitted to the bar of the State of New York
June 1993	Returned to Nishimura & Sanada Law Offices (currently Nishimura & Asahi) as Partner (incumbent)
March 2008	Audit & Supervisory Board Member, of the Company (incumbent)

KIYOMI SAITO *Outside Member*

April 1973	Joined Nikkei Inc.
September 1975	Joined Sony Corporation
August 1984	Joined Morgan Stanley investment bank
January 1990	Executive Director, Morgan Stanley investment bank
April 2000	President, JBond Co., Ltd. (currently JBond Totan Securities Co., Ltd.) (incumbent)
April 2011	President, The Totan Information Technology Co., Ltd.
March 2012	Audit & Supervisory Board Member, of the Company (incumbent)

Setsu Onishi, Hiroyuki Tezuka, Saburo Muto, Tetsu Moriki, Kiyomi Saito

SETSU ONISHI *Outside Member*

April 1978	Joined The Industrial Bank of Japan, Ltd. (currently Mizuho Bank, Ltd.)
April 2005	Corporate Officer; General Manager, 14th, Marketing Department, Mizuho Corporate Bank, Ltd. (currently Mizuho Bank, Ltd.)
April 2007	Managing Corporate Officer, in charge of Global Syndication Unit and Global Products Unit
April 2010	Vice President; Corporate Officer; General Manager, Internal Audit Division, Mizuho Financial Group, Ltd.
June 2010	Director; Vice President; Corporate Officer; General Manager, Internal Audit Division, Mizuho Financial Group, Ltd.
April 2011	Director; Mizuho Financial Group, Ltd.
June 2011	Director; Vice President, IBJ Leasing Company, Limited
April 2013	Director; President, IBJ Leasing Company, Limited
June 2016	Councilor, Mizuho Financial Group, Ltd.
April 2017	Senior Counselor, Nippon Commercial Development Co., Ltd. (incumbent)
June 2017	Director, NS United Kaiun Kaisha, Ltd. (incumbent)
March 2018	Audit & Supervisory Board Member, of the Company (incumbent)

Corporate Officers and Senior Corporate Fellow

Chief Executive Officer

KOHEI MORIKAWA

Senior Managing Corporate Officer

JIRO ISHIKAWA
General Manager, HD Division; Officer in charge of Electronics Materials and Advanced Battery Materials divisions, and Power Semiconductor Project

Managing Corporate Officers

JUN TANAKA
Chief Technical Officer (CTO); Officer in charge of Electronic Chemicals and Functional Chemicals divisions, Business Development Center, Higashinagahara, Isesaki and Tatsuno plants, and Corporate R&D and Intellectual Property departments

HIDEHITO TAKAHASHI
General Manager, Carbon Division; Officer in charge of Ceramics division and Corporate Strategy Department

Corporate Officers

KEIICHI KAMIGUCHI
Chief Risk Management Officer (CRO); Officer in charge of Internal Audit, Legal, General Affairs & Human Resources, and Purchasing & SCM departments

KANJI TAKASAKI
Officer in charge of Aluminum Rolled Products, Aluminum Specialty Components, and Aluminum Can divisions, Oyama and Kitakata plants

YOUICHI TAKEUCHI
Oita Complex Representative

TAKAYUKI SATO
General Manager, Electronics Materials Division;
Officer in charge of Chichibu Plant

MOTOHIRO TAKEUCHI
General Manager, Corporate Strategy Department

TAICHI NAGAI
Officer in charge of Production Technology,
Energy & Electricity, SPS Innovation and CSR departments

KOICHI NISHIMURA
General Manager, Industrial Gas Division; Officer in charge of Basic Chemicals Division and Kawasaki plant

TOSHIHARU KATO
Chief Financial Officer (CFO); Officer in charge of Finance & Accounting and Information Systems Departments

MASAMICHI YAGISHITA
General Manager, Electronic Chemicals Division;
Officer in charge of Tokuyama Plant

MASUNORI KAIHO
General Manager, Kawasaki Plant

HIROSHI DAIO
General Manager, Ceramics Division;
Officer in charge of Yokohama and Shiojiri plants

TAKUJI YAMAMOTO
Assistant to President in charge of AI Strategy Planning

MASAO SHIBUYA
General Manager, Advanced Battery Materials Division

AKIHIRO JIMBO
General Manager, Basic Chemicals Division

TETSUO WADA
General Manager, Business Development Center

HIROTSUGU FUKUDA
General Manager, Petrochemicals Division;
Officer in charge of Oita Complex

KLAUS UNTERHARNSCHEIDT
President, SHOWA DENKO CARBON Holding GmbH

Senior Corporate Fellow

HIROSHI SAKAI
General Manager,
Technology Development Control Department, HD Division

Corporate Governance

(signature)

Hideo Ichikawa
Chairman of the Board

Message from Hideo Ichikawa, Chairman of the Board

The Showa Denko Group views the strengthening of corporate governance as one of top-priority management issues. In December 2015, the Company established "Corporate Governance Basic Policies," aiming to promote constructive dialogue with stakeholders, thereby increasing corporate value and shareholders' common interests. Based on the Basic Policies, we updated our Corporate Governance Report, and we are promoting constructive dialogue with investors and shareholders.

In 2017, we maintained a system under which outside directors accounted for three out of the nine members of the Board of Directors as we had in the previous year. For the Audit & Supervisory Board, three out of the five members are outside members. Those outside board members are experts from the insurance and financial industry, the manufacturing industry, academia, and legal professionals. They give us valuable advice and comments from various perspectives. Both boards have high attendance rates, and keenly discuss a wide variety of matters relating to the Group's management, including M&As, structural reforms and capital investments.

The Showa Denko Group is now achieving business expansion and an improvement in profitability as results of structural reforms we have been conducting for a long time and the integration of graphite electrode businesses we implemented in the second half of 2017 between Showa Denko and former SGL GE Holding GmbH. We will continue striving to further strengthen our corporate governance and enhance our value. We look forward to the continued support of our investors and shareholders.

1. Basic Concept regarding Corporate Governance

We will promote corporate governance to ensure the soundness, effectiveness, and transparency of management, and to continue enhancing our corporate value, thereby contributing to the sound growth of society and earning its full trust and confidence. To that end, it is essential for us to strengthen relations with our stakeholders, including shareholders, customers, suppliers, community residents, and employees. Based on the above, we have clarified our mission in the form of the Group's vision, as stated below, and we are working hard to realize this vision.

VISION

We at the Showa Denko Group will provide products and services that are useful and safe and exceed our customers' expectations, thereby enhancing the value of the Group, giving satisfaction to our shareholders, and contributing to the sound growth of international society as a responsible corporate citizen.

* Please visit our website (URL: http://www.sdk.co.jp/english/about/governance.html) for our "Corporate Governance Basic Policies."

2. Condition of the Company's Supervisory and Decision-Making Functions

We have adopted the Audit & Supervisory Board system to enhance the fairness and transparency of management, ensuring efficient management of the Company. To clearly separate management supervisory functions from business execution functions, we have introduced the corporate officer system. The top management team, consisting of the President and corporate officers in charge of respective operations, is working to increase the speed of decision making and vitalize operations. Meanwhile, the Company has substantially reduced the number of directors. In addition, we have strengthened the supervisory functions by appointing outside directors. In order to strengthen independence and objectivity of the function of the Board of Directors, and accountability of the Board of Directors, the Company has established the Nomination Advisory Committee and the Remuneration Advisory Committee as advisory bodies to the Board of Directors, while the majority of each Committee consists of independent outside directors and outside members of the Audit & Supervisory Board. At Board meetings held once or twice a month, the Board decides the Company's basic policy and decides, after full deliberation, on matters provided for in the Companies Act and the Company's Articles of Incorporation as well as important matters for the execution of the Company's operations, ensuring a speedy and vigorous decision-making process. We appoint directors from the viewpoint of strengthening corporate governance, aiming to strengthen the Board of Directors' supervisory functions and ensure the propriety of the decision-making process. We make sure that corporate officers whose duties are primarily business execution will not concurrently serve as directors, in principle. Furthermore, we have abolished the positions of managing directors and senior managing directors to put all directors (except for the Chairman, and the President) on an equal footing, while strengthening the supervision by Audit & Supervisory Board members (including outside members) and mutual supervision among directors. The term of office of directors has been shortened to one year to ensure a quick response to changes in the business environment and to clarify the management responsibility of directors. At the Company's ordinary general meeting of shareholders held on March 29, 2018, nine directors, including three outside directors, were appointed.

3. Condition of Business Execution

The Management Committee, which meets once a week in principle and is chaired by the President, deliberates and decides on matters to be referred to the Board of Directors' meetings and important matters pertaining to the overall management of the Company. The decisions are made after deliberations on two occasions. As for investment plans, their risks are examined by task teams before referral to the Management Committee, and their progress is monitored after authorization. The Company's medium-term business plans are decided not only by the Management Committee but also by the participation of all corporate officers.

The Company considers that responsible execution forms the basis of corporate activities. The Company evaluates performances of respective business segments to ensure the effective implementation of the performance-based evaluation system. The Company has Security Export Control and Safety Measures committees under the CSR Committee chaired by the President. The Company also has Responsible Care, Risk Management, Human Rights/Corporate Ethics, and IR promotion councils. These committees and councils investigate, study, and deliberate on specific matters important for the execution of businesses.

4. Condition of Audit & Supervisory Functions

The Company's Audit & Supervisory Board consists of five members, including three outside members. The members attend the Board of Directors' meetings and other important internal meetings, offering opinions as necessary. They audit and supervise the execution of operations through such means as field investigations, hearing sessions, and reading important documents, making proposals and providing advice and recommendations to ensure the sound management of the Company. They are working to strengthen the consolidated audit & supervisory board system in cooperation with auditors of major associated companies.

The Internal Audit Department reports directly to the President and investigates the overall execution of business, checking for accuracy, propriety, and efficiency. It also investigates the management policies as well as business plans and their execution, checking for consistency and soundness. The results of internal auditing are reported to the members of the Audit & Supervisory Board to ensure consistency with their audits.

For matters relating to the environment and safety, the respective divisions in charge conduct Responsible Care audits. KPMG AZSA LLC conducts auditing of the Company based on an auditing contract and an annual plan agreed upon with the Audit & Supervisory Board, and provides the board with audit results. The auditing corporation and the Audit & Supervisory Board exchange information and views from time to time to strengthen their cooperation.

5. Compliance and Risk Management

The Company's Board of Directors has decided to strengthen compliance and promote risk management as key components of the internal control system. The Board will continue to work on these issues.

For the details of our policies on compliance and risk management, please visit our websites:
http://www.sdk.co.jp/english/csr/compliance.html
http://www.sdk.co.jp/english/csr/risk_management.html

6. Other Items

Remuneration, etc., to the members of the Board of Directors and the Audit & Supervisory Board as well as the auditing corporation (for the period from January 1 through December 31, 2017) is as follows:

Remuneration, etc., to the board members

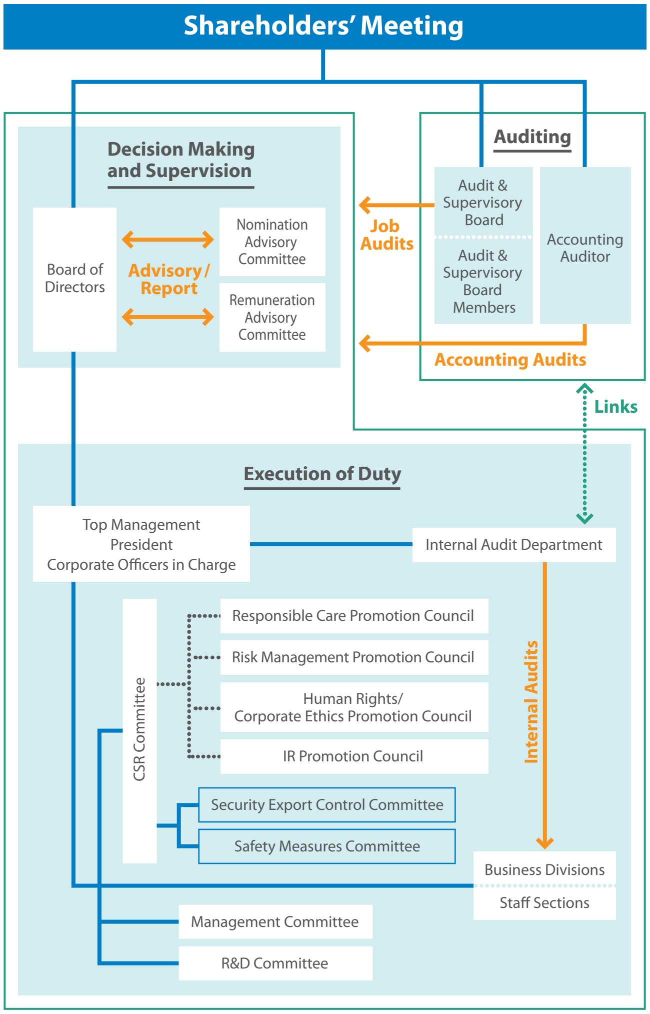
	Number of applicable persons	Paid amount
Members of the Board of Directors (excluding outside members)	10	¥231 million
Members of the Audit & Supervisory Board (excluding outside members)	3	¥ 55 million
Outside board members	6	¥ 68 million
Total	19	¥353 million

Remuneration to the auditing corporation

	Paid amount
Name of accounting auditor: KPMG AZSA LLC Remuneration for the issuance of auditing certification based on the auditing contract	¥270 million

7. Personal/Financial Relations and Interests between the Company and Outside Board Members

The Company has three outside members each for its Board of Directors and the Audit & Supervisory Board. None of them has special interests in the Company. An outline of the Company's corporate governance system is shown below.

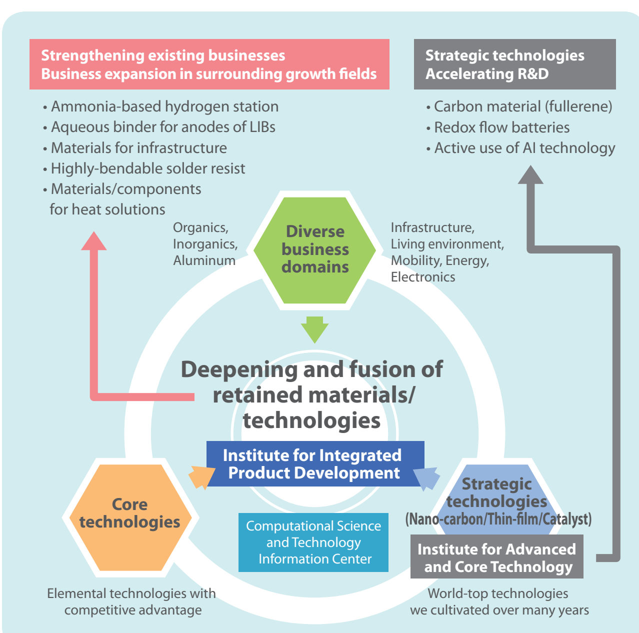


Research and Development

In 2016, the Showa Denko Group started the medium-term business plan "Project 2020+," and 2018 is the final year of the project. Under "Project 2020+," the Group plans to invest ¥60 billion in R&D, aiming to contribute to the development of a global society by providing high-value-added products and services to five market domains: "Infrastructure," "Energy," "Mobility," "Living environment," and "Electronics."

In addition, aiming to make our R&D program substantial enough for realization of the ideal image of the Showa Denko Group by 2025, we made it our basic policy on R&D to "create new value by forging, polishing, and linking diverse individualized technologies." Under this basic policy, we reorganized the Group's R&D division in January 2016, and have been accelerating implementation of specific measures to obtain successful results of our R&D activities since then.

This new R&D division of the Group has been promoting R&D programs, aiming to provide our customers with new value through pursuit of cross-divisional R&D themes, thereby responding to diversified needs of the market. The new R&D division has been promoting this movement on the basis of our wide ranging material technologies that cover organic, inorganic, and aluminum materials, our processing technologies to treat these materials, and our strategic technologies that consist of the world-top-level technologies we cultivated over many years. Here, we would like to introduce examples of the Group's R&D activities in three strategic categories, namely; from R&D programs promoted mainly by the Institute for Integrated Product Development, programs for "Strengthening existing businesses and expanding individualized businesses" and "Surrounding growth fields;" and from R&D programs promoted mainly by the Institute for Advanced and Core Technology, programs for development of "Strategic technologies."



1. Strengthening existing businesses / Expanding "Individualized businesses"

R&D programs to develop high-value-added products in this category include those to develop "Ammonia-based hydrogen stations," "Aqueous binder for anodes of LIBs," and "Repairing materials for cold or humid areas."

Ammonia molecules contain many hydrogen atoms. Therefore, Ammonia is expected to be used as an energy carrier. The Group has successfully developed practical technology to produce high-purity hydrogen for fuel-cell vehicles from ammonia, the first in the world, to be used in "hydrogen stations." Using this technology, our Kawasaki Plant is now conducting a field test at a hydrogen station with the capacity to supply $10Nm^3/h$ of hydrogen.

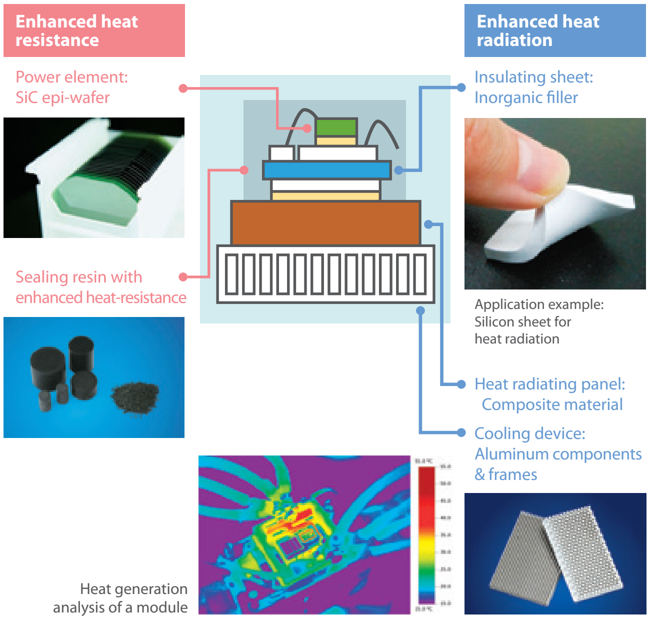
"Aqueous binder for anodes of LIBs" has been adopted by many customers due to excellent properties of the resin originally designed by the Group. We have started to develop binders of advanced grades for creating LIBs with higher output and longer life, suitable for use in EVs.

"Repairing materials for cold or humid areas" can be applied and finished in a short period even under cold or wet conditions. We have already registered these materials in the New Technology Information System (NETIS) hosted by the Ministry of Land, Infrastructure, Transport and Tourism, and are now conducting field tests of them to confirm their performance, aiming to commercialize these materials.

Field test of repairing material
Higashinagahara (Waterway for Asahi Dam); Fixing water leaks along a wall

2. Surrounding growth fields / Heat solutions

Progress in electrification, downsizing and weight reduction of industrial equipment and automobiles has been stimulating demand for high-performance materials for heat solutions. To respond to this demand, the Group offers new-generation materials including SiC epitaxial wafer for power devices, sealing resin with enhanced heat resistance, inorganic fillers, and aluminum composite materials. These materials have advantages in heat resistance and heat radiation, and our customers have started performance assessments of them. Aiming to respond to the increasing demand for heat solutions for higher-output and lighter devices including power modules, the Group will continue developing high-performance materials, parts and components, and offering multi-material components as combination of these new-generation materials.



3. Strategic technologies / Carbon materials

The Institute for Advanced and Core Technology creates "Individualized businesses" by using next-generation business models and by deepening world-top-level strategic technologies. For fullerene, which are carbon atoms in a football-like structure, the Institute examines its properties, and explores technologies to make derivatives or thin-films, aiming to increase the rage of its use. Recently fullerene applications in the domain of "Energy" such as organic thin-film solar batteries and additives for lubricant, have accelerated. The Institute also has been striving to establish a system to mass-produce high-quality fullerene, aiming to create a stable supply of this material.

R&D expenditures in 2017

(Millions of yen)

Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	**Total**
1,245	2,478	5,335	322	1,737	7,422	**18,539**

TOPICS

Received "2017 Top 100 Global Innovators" Award, 3 years in a row

2017 TOP 100 GLOBAL INNOVATORS

In January 2018, SDK received "The Clarivate Analytics 2017 Top 100 Global Innovators" award. Clarivate Analytics, formerly the Intellectual Property & Science business of Thomson Reuters, selected the top 100 global innovation-leading companies and organizations by using strict and objective data compiled from its value-added patent citation database, the world's largest in this category, its intellectual property intelligence platform, and the company's original basis for evaluation. In the screening process for the award, Clarivate Analytics used scientific and objective methodology involving four main criteria of "patent volume," "application-to-grant success," "globalization" and "citation influence." The Showa Denko Group has designated the intellectual property strategy as an important part of the overall business strategies. The Group will continue this intellectual property strategy through close integration with business and R&D strategies.

Expanding capacity to produce high-grade SiC epitaxial wafers

SDK is now expanding the capacity to produce high-quality-grade silicon carbide (SiC) epitaxial wafers for power devices, which had already been marketed under the trade name of "High-Grade Epi" (HGE), from current 3,000 wafers per month to 5,000 wafers per month* by April 2018. Moreover, to respond to a further increase in demand for HGE, SDK decided in January 2018 to re-expand that capacity. After the re-expansion work which is to be finished in September 2018, that capacity will be increased to 7,000 wafers per month. The size of the market for SiC epitaxial wafers for power devices is expected to grow very rapidly due partly to that the early use of SiC power devices in vehicles is under consideration. SDK will continue meeting the need of the market for high-quality SiC epitaxial wafers, aiming to contribute to the improvement in energy efficiency of power devices.

* This number is based on a conversion into SiC epitaxial wafers for power devices having withstanding voltage of 1,200 V.

Corporate Social Responsibility

Realizing safe, stable operations as well as sustainable development

As a corporate group producing and distributing chemicals, we give priority to safety above all else and, by continuing to promote Active Safety*, we will make every effort to prevent industrial accidents, equipment-related incidents and environmental problems. Moreover, we consider our Responsible Care program, in which we pay close attention to safety, health and the environment at all stages of the life cycle of chemical substances, to be one of our core CSR activities. Under our Responsible Care action plan, we will implement and further improve activities specified for every category: safety and disaster prevention; occupational safety and health; chemical substance safety; and environmental safety. In addition to these activities, we will work hard to offer products, technologies and services that help solve social issues as part of our initiative to achieve sustainable development.

*Active Safety: The Showa Denko Group's unique activities that analyze past accidents and problems, then take action to prevent a reoccurrence.

Ensuring strict compliance with legislation and observing social and corporate ethical norms

Observing social and corporate ethical norms is one of the most important priorities for the Showa Denko Group and is the foundation of our management. We will ensure that all employees behave with integrity based on "Our Code of Conduct and Its Practical Guide" that gives employees the guidelines on what to keep in mind and how to behave to realize our vision.

Promoting dialogue with stakeholders

The United Nations has adopted the Sustainable Development Goals (SDGs), or 17 goals to be attained by the international community by 2030. In response, the Japanese government launched the SDGs Promotion Headquarters headed by the prime minister in 2016. So, more attention will be paid to measures implemented by companies for the environment, society and governance (ESG). For our part, we need to precisely identify what the public expects and which challenges we will face, and then incorporate these findings into our corporate activities. A dialogue with our stakeholders is indispensable for this process. In addition to formal meetings with stakeholders organized under various circumstances, we will work to create more informal opportunities to communicate with stakeholders through Group-wide aluminum can recycling, participation in local events and on other occasions where we can contribute to local communities.

Showa Denko Group's Resource Use and Environmental Impact in 2016

Actual values of environmental loads for 2016 are as follows:

Input

Energy (Crude oil equivalent)
- Showa Denko K.K. only: 1,000 Ml (+10 Ml)
- Group Companies*1: 190 Ml (+10 Ml)

Water
- Showa Denko K.K. only: 54.11 Mm^3 (-1.24 Mm^3)
- Group Companies: 4.61 Mm^3 (-0.08 Mm^3)

Raw materials

Showa Denko Group

Internal Utilization
- Showa Denko K.K. only: 2,805 t (–484 t)
- Group Companies: 0 t

Waste Reduction
- Showa Denko K.K. only: 62,589 t (+16,466 t)
- Group Companies: 7,903 t (–233 t)

Output

Products

Emission of air pollutants:	SDK only	Group Companies
Greenhouse gases (kt-CO_2)	2,211 (+8)	475 (-9)
SO_X (t)	324 (-36)	4 (0)
NO_X (t)	1,255 (-158)	23 (-1)
Soot and dust (t)	63 (-24)	1 (0)
JCIA PRTR-listed substances (t)	148 (-5)	242 (-20)
JCIA Toxic atmospheric pollutants (t)*2	14 (0)	1 (+1)

Emission of water pollutants:	SDK only	Group Companies
COD (t)	360 (-5)	4 (0)
Total nitrogen (t)	480 (-23)	1 (0)
Total phosphorus (t)	8 (-1)	0 (0)
JCIA PRTR-listed substances (t)	14 (-5)	1 (0)
Wastewater volume (kt)	26,620 (-2,051)	3,733 (+29)

Emission of soil pollutants:	SDK only	Group Companies
JCIA PRTR-listed substances (t)	0 (0)	0 (0)

Industrial waste discharge:	SDK only	Group Companies
Total waste discharged to outside (t)	20,038 (-936)	9,360 (-1,308)
Reused by third parties (t)	10,856 (+973)	5,774 (-90)
Volume reduction by consignee (t)	8,928 (-1,411)	3,467 (-1,238)
Final landfill disposal (t)*3	254 (-498)	69 (-30)

The figures in parentheses represent increases or decreases relative to the previous year.

*1 Scope of the Showa Denko Group: Total for the 9 consolidated manufacturing subsidiaries in Japan; Showa Denko Gas Products Co., Ltd., Showa Denko Ceramics Co., Ltd. (Toyama), Showa Aluminum Can Corp., Showa Denko Packaging Co., Ltd., Niigata Showa K.K., Nippon Polytech Corp., Showa Denko Kenso Co., Ltd., Showa Denko HD Yamagata K.K., and Showa Fine Ceramics Co., Ltd. GHG emissions include those for Showa Denko Electronics K.K. and Tsurusaki Kyodo Doryoku Co., Ltd., and exclude those for Niigata Showa K.K., Nippon Polytech Corp., Showa Denko Kenso Co., Ltd., and Showa Fine Ceramics Co., Ltd., which are not required to report emissions as emitters designated under the Act on Promotion of Global Warming Countermeasures.

*2 Emissions of toxic atmospheric pollutants are included in emissions of PRTR-listed substances.

*3 Final landfill disposal includes only waste generated from production activities during the year.

Please visit our websites

CSR site	http://www.sdk.co.jp/english/csr.html
CSR reports	http://www.sdk.co.jp/english/csr/report/csr_report.html

Management's Discussion and Analysis

Results of Operations

Consolidated net sales in 2017 totaled ¥780,387 million (US$6,906 million), an increase of ¥109,228 million, or 16.3%, over the previous year. Sales grew in all segments. In the Petrochemicals segment, sales rose due to increases in the prices of products and the consolidation of SunAllomer Ltd. in the second half of 2016. In the Inorganics segment, sales rose due to an increase in shipment volumes of graphite electrodes, improved market conditions for graphite electrodes in China in the second half of 2017, and the new consolidation of SHOWA DENKO CARBON Holding GmbH in the fourth quarter of 2017 following the acquisition and business integration of former SGL GE Holding GmbH, a graphite electrode manufacturer.

The cost of sales went up ¥57,784 million, or 10.6%, to ¥602,778 million (US$5,334 million), reflecting the increase in net sales.

Selling, general and administrative expenses rose ¥15,680 million, or 18.6%, to ¥99,791 million (US$883 million), due partly to the higher transportation cost caused by the increase in net sales. R&D expenditures rose ¥1,225 million to ¥18,539 million (US$164 million).

Operating income for the Group increased substantially, by 85.0%, or ¥35,765 million, to ¥77,818 million (US$689 million). The Petrochemicals segment recorded higher income due to a strong market caused by a tight supply-demand balance in East Asia. The Inorganics segment also recorded higher income due to growth in shipment volumes for graphite electrodes resulting from the business integration and the stiffening graphite electrode market in China, in addition to the effects of lower production costs for graphite electrodes. The Electronics, Chemicals, and Aluminum segments also recorded higher income.

Information by Business Segment

A breakdown of net sales and operating income by business segment is as follows.

Petrochemicals

Production of ethylene rose from the previous year. Sales of olefins increased due to the higher prices for products caused by a rise in the raw naphtha price and strong demand. Sales of organic chemicals improved due to higher shipment volumes and a rise in prices of products, including ethyl acetate and vinyl acetate. The consolidation of SunAllomer Ltd. in the second half of 2016 also drove up sales in this segment.

As a result, sales in the Petrochemicals segment increased ¥65,345 million, or 35.2%, over the previous year to ¥251,128 million (US$2,222 million). This segment recorded operating income of ¥33,357 million (US$295 million), up ¥12,667 million, or 61.2% over the previous year.

Chemicals

The production of liquefied ammonia and high-purity gases for electronics increased from the previous year. In the basic chemicals business, sales of liquefied ammonia rose due to higher shipment volumes. Sales of chloroprene rubber improved due to a high level of shipment volumes and a strong market. Sales of acrylonitrile increased due to a rise in prices. Sales of electronic chemicals rose due to higher shipment volumes of high-purity gases for electronics caused by an increase in production in the semiconductor and display panel industries. Sales of functional chemicals went up due to higher shipment volumes for use in the domestic automotive industry. However, sales of industrial gases decreased slightly.

As a result, sales for the Chemicals segment increased ¥14,229 million, or 10.6%, to ¥148,758 million (US$1,316 million). The segment recorded operating income of ¥16,474 million (US$146 million), up ¥2,650 million, or 19.2% over the previous year.

Electronics

Production of HD media in 2017 increased from the previous year due to higher shipment volumes of media for use in data centers. As a result, sales of HD media went up. Sales of rare earth magnetic alloys and compound semiconductors rose from the previous year due to higher shipment volumes. Sales of lithium-ion battery (LIB) materials, which was transferred from the Others segment to the Electronics segment at the beginning of 2017, decreased due to lower shipment volumes to China caused by changes in the subsidy policy for electric vehicles.

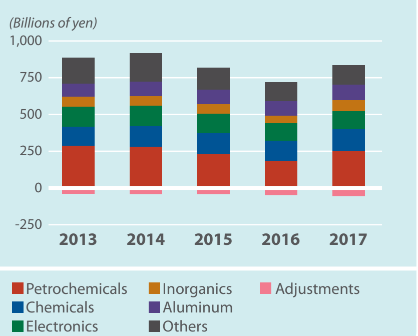
As a result, the Electronics segment's sales rose ¥2,602 million, or 2.2%, over the previous year to ¥123,064 million (US$1,089 million). The segment recorded operating income of ¥21,925 million (US$194 million), up ¥6,910 million, or 46.0% over the previous year.

Inorganics

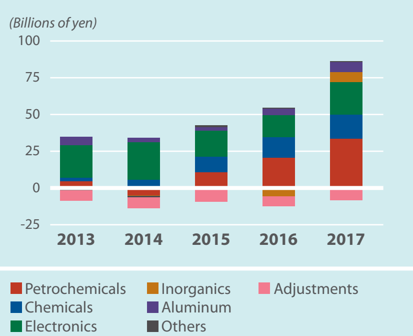
Production of graphite electrodes in 2017 went up compared with the previous year due to an improvement in the situation of the electric steel industry as the customer. Sales of graphite electrodes rose due to the acquisition and consolidation of SGL GE Holding GmbH (currently SHOWA DENKO CARBON Holding GmbH) in the fourth quarter of 2017, in addition to higher sales volumes and a rise in prices for graphite electrodes in the Chinese market during the second half of 2017. Sales of ceramics rose due to an increase in shipment volumes for the electronics industry.

As a result, sales in the Inorganics segment increased ¥22,572 million, or 44.4% over the previous year, to ¥73,442 million (US$650 million). The segment recorded operating income of ¥7,089 million (US$63 million), an improvement of ¥12,848 million from the previous year, due mainly to higher operating income earned by the graphite electrode business.

Net Sales by Segment



Operating Income by Segment



Aluminum

Production of high-purity foil for aluminum electrolytic capacitors increased from the previous year. Shipment volumes and sales of rolled products rose due to higher shipment volumes of high-purity foil for aluminum electrolytic capacitors for industrial equipment and automotive applications. Sales of aluminum specialty components went up, due partly to higher shipment volumes of the large aluminum extrusions and aluminum cylinders used in laser-beam-printers. Sales of aluminum cans increased due to higher shipment volumes recorded by Hanacans Joint Stock Company in Vietnam.

As a result, sales in the Aluminum segment increased ¥6,864 million, or 7.0% over the previous year, to ¥105,439 million (US$933 million). Operating income for the segment rose ¥2,281 million, or 51.6% over the previous year, to ¥6,697 million (US$59 million).

Others

Sales in the Others segment increased ¥4,884 million, or 3.8% over the previous year, to ¥133,624 million (US$1,183 million) due mainly to improved sales from Shoko Co., Ltd. Operating income for this segment rose by ¥10 million, or 1.6% over the previous year, to ¥633 million (US$6 million).

Information by Geographic Area

Sales in Japan

Sales in the Petrochemicals segment increased due to a rise in market prices of products, the result of higher raw naphtha prices and the consolidation of SunAllomer Ltd. in the second half of 2016. Sales in the Chemicals segment went up due to an increase in shipment volumes of high-purity gases for electronics caused by a production increase in the semiconductor and display panel industries, higher shipment volumes of liquefied ammonia and a rise in the market price of acrylonitrile. Sales figures for the Electronics segment were higher due to increased shipment volumes of compound semiconductors, rare earth magnetic alloys and HD media. In the Inorganics segment, sales rose due to an increase in sales volumes for graphite electrodes and an increase in shipment volumes in ceramics for electronics. Sales in the Aluminum segment increased due to higher sales of high-purity foil for aluminum electrolytic capacitors and aluminum specialty components, including large extrusions. Sales figures for the Others segment rose due to an increase in sales from Shoko Co., Ltd.

As a result, consolidated sales from operations in Japan rose ¥73,523 million, or 17.1%, to ¥504,162 million (US$4,462 million).

Sales in Asia (excluding Japan)

Sales in the Petrochemicals segment in Asia increased due to a rise in market prices for olefins. Sales in Asia for the Chemicals segment also rose. For the basic chemicals business, sales of chloroprene rubber rose due to an increase in export volumes and higher market prices. For the electronic chemicals business, sales went up due to an increase in shipment volumes of high-purity gases for electronics caused by higher production in the semiconductor and display panel industries in East Asia. For the functional chemicals business, sales increased due to a surge in shipment volumes of products to the Chinese market. The Electronics segment's sales rose due to higher shipment volumes of HD media resulting from the bottoming out of demand for HDDs used in PCs and an increase in shipment volumes of HDDs for data centers. Sales in the Inorganics segment rose due to higher market prices for graphite electrodes in China. Sales in the Aluminum segment increased due to higher shipment volumes recorded by Hanacans Joint Stock Company in Vietnam. Sales in the Others segment decreased due to a lower sales at Shoko Co., Ltd. and Shoko (Shanghai) Co., Ltd.

As a result, consolidated sales from operations in Asia (excluding Japan) increased ¥22,018 million, or 10.6% over the previous year, to ¥230,644 million (US$2,041 million).

Sales in the Rest of the World

Sales in the Inorganics segment rose sharply due mainly to the consolidation of SHOWA DENKO CARBON Holding GmbH in the fourth quarter of 2017 and an increase in sales recorded by Showa Denko Carbon Inc. in the U.S.

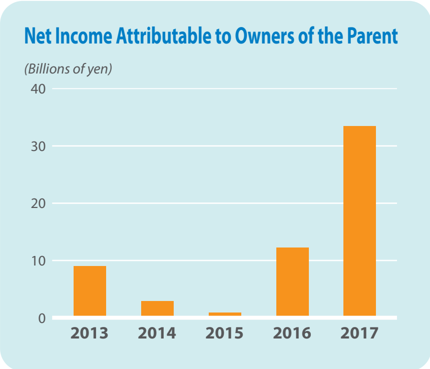
As a result, consolidated sales from operations in the rest of the world increased ¥13,687 million, or 42.9% over the previous year, to ¥45,580 million (US$403 million).

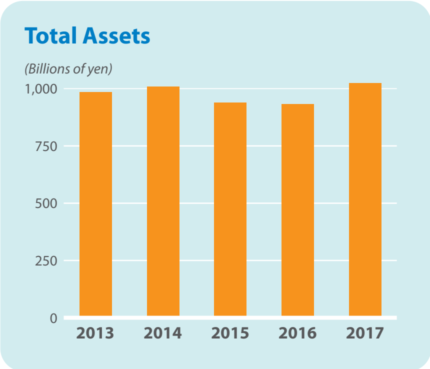
Other Income (Expenses) and Net Income Attributable to Owners of the Parent

The gap between interest expenses and interest and dividends income improved ¥384 million to expenses of ¥1,207 million (US$11 million), mainly from an increase in interest income.

We recorded a loss on the equity in earnings of unconsolidated subsidiaries and affiliates to which the equity method is applied of ¥7,689 million (US$68 million), a fall of ¥12,017 million. This fall was due mainly to the recording of a loss on the equity in earnings of unconsolidated subsidiaries and affiliates to which the equity method is applied amounting to ¥9,948 million from PT. Indonesia Chemical Alumina (ICA), the result of impairment losses on ICA's alumina plant following the Company's decision to sell all of its shares in ICA. The consolidation of SunAllomer Ltd. also reduced the equity in earnings of unconsolidated subsidiaries and affiliates to which equity method is applied.

For foreign exchange gain (losses), the group recorded foreign exchange losses of ¥2,791 million (US$25 million), a drop of ¥1,133





million due mainly to the recording of a foreign exchange loss in a subsidiary in Taiwan caused by the appreciation of the New Taiwan dollar against the U.S. dollar.

We recorded a loss of ¥4,430 million (US$39 million), net, on retirement and sales of noncurrent assets, a fall of ¥1,207 million, due mainly to the recording of expenses and retirement losses resulting from refurbishment to make effective use of Yokohama Plant, which belongs to the Inorganics segment. We also recorded a loss of ¥7,204 million (US$64 million) for the impairment loss, an improvement of ¥8,439 million, due partly to our recognition of an impairment loss amounting to ¥2,312 million as the cost of refurbishment to make effective use of Yokohama Plant and recognition of another impairment loss of ¥1,555 million from the Chichibu Plant, which belongs to the Electronics segment.

Gain on sales of investment securities increased ¥336 million, to ¥408 million (US$4 million).

The sum of extraordinary losses, other than those mentioned above, came to ¥9,418 million (US$83 million), due mainly to posting of a loss on provision of the allowance for doubtful accounts and others concerning ICA.

Overall, the total of other income (expenses), net, i.e., the total of non-operating income (expenses) and extraordinary income (expenses), net, fell by ¥6,678 million, to a loss of ¥31,202 million (US$276 million). The total of the other expenses posted for Yokohama Plant, as mentioned above, amounted to about ¥7,600 million.

As a result, the Company recorded income before taxes and noncontrolling interests of ¥46,616 million (US$413 million), up ¥29,087 million from the previous year.

Income taxes increased ¥7,142 million to ¥10,833 million (US$96 million) due to the improvement in the Company's performance. Consequently, the Company recorded net income attributable to owners of the parent of ¥33,470 (US$296 million), up ¥21,166 million over the previous year.

Financial Position

Total Assets

Total assets at the end of 2017 rose ¥92,029 million from the end of the previous year, to ¥1,024,727 million (US$9,068 million), due mainly to the increase in notes and accounts receivable, inventories, and property, plant and equipment resulting from the acquisition of a graphite electrode company. Cash and deposits increased ¥7,334 million from the end of the previous year to ¥77,248 million (US$684 million).

Net property, plant and equipment increased ¥18,765 million to ¥505,900 million (US$4,477 million), due mainly to the recent consolidation of SHOWA DENKO CARBON Holding GmbH. Total investments and other assets increased by ¥3,000 million, to ¥113,486 million (US$1,004 million), due partly to the appreciation in the market valuation of investment securities.

Liabilities

Interest bearing debt fell by ¥13,203 million from the end of the previous year to ¥346,726 million (US$3,068 million). However, total liabilities rose ¥38,263 million, to ¥659,730 million (US$5,838 million), due partly to the increase in accounts payable–trade resulting from the recent consolidation of SHOWA DENKO CARBON Holding GmbH.

Net Assets

Net assets rose ¥53,766 million from the end of the previous year, to ¥364,997 million (US$3,230 million), due partly to the posting of net income attributable to owners of the parent and an increase in the valuation difference on available-for-sale securities resulting from a rise in stock prices.

Capital Expenditures

Capital expenditures increased ¥2,003 million from the previous year, to ¥41,279 million (US$365 million). Capital expenditures for the electronic chemicals business decreased from the previous year, though they were still at a high level. However, we expanded production capacity to produce lithium-ion battery materials and for Hanacans Joint Stock Company in Vietnam to produce more aluminum cans. We also began construction work for a variety of purposes, including production improvements, greater efficiency, maintenance and environmental preservation.

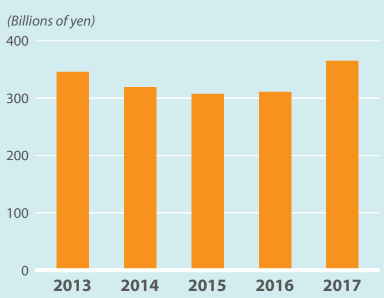
Cash Flows

Net cash provided by operating activities decreased ¥1,666 million from the previous year with proceeds of ¥67,284 million (US$595 million), due partly to the increase in working capital, despite the rise in operating income. Net cash used in investing activities decreased ¥23,840 million from the previous year for the payment of ¥29,914 million (US$265 million), due partly to a decrease in payments into time deposits and an increase in proceeds from sales of investment securities. As a result, free cash flow ended up with proceeds of ¥37,369 million (US$331 million), an improvement of ¥22,174 million.

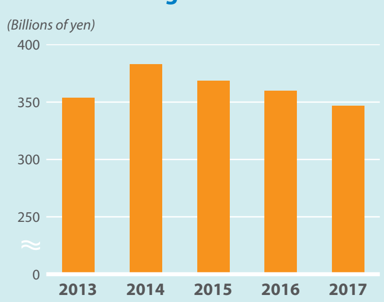
Net cash used in financing activities rose ¥5,151 million due to a reduction from the previous year in interest bearing debt, and ended up with the payment of ¥18,370 million (US$163 million).

Consequently, taking the effects of exchange rate fluctuations into account, cash and cash equivalents at the end of 2017 increased ¥20,648 million to ¥76,833 million (US$680 million) over the end of the previous year.

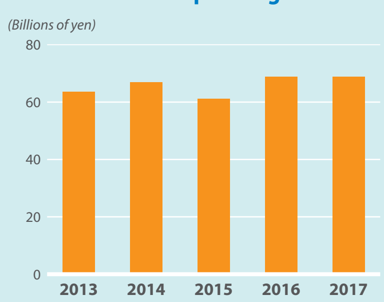
Total Net Assets



Interest Bearing Debt



Cash Flows from Operating Activities



Risk Factors

We consider we face the risks, as explained below, that could adversely affect our future performance, financial conditions, and cash flows. The Showa Denko Group is taking steps to prevent the realization of these risks and minimize impact on its operations.

The following covers important risk factors considered being present as of this March 29, 2018. This list is not inclusive.

1. Substantial fluctuations in the performances of individual businesses

The Group is manufacturing and selling a wide variety of products, such as petrochemicals, chemicals, electronics, inorganics, and aluminum. The following risks are expected in major business fields, but those are not limited to the businesses mentioned below.

(1) Petrochemicals

The Group purchases and imports a large amount of feedstock, including naphtha. When the price of naphtha or other types of feedstock fluctuates due to a change in crude oil prices, a change in supply-demand balance, or a currency fluctuation, and when we cannot secure sufficient spreads between the manufacturing cost and selling prices of products, the Group's performance and financial conditions can be affected. Furthermore, earnings from petrochemicals largely depend on the supply-demand balance. Construction of large plants by competitors and resultant oversupply as well as a sharp decrease in demand due to unfavorable changes in the Japanese or world economies can affect the Group's performance and financial conditions.

(2) Inorganics

The Group produces graphite electrodes in Asia, North America, and Europe, and sells those products globally. When the demand for graphite electrodes suddenly decreases due to unfavorable changes in the Japanese or world economies, deterioration in supply-demand balance may not allow us to secure sufficient spreads between the manufacturing cost and selling prices of products, and can affect the Group's performance and financial conditions.

(3) Aluminum

The Group imports a large amount of aluminum ingots from overseas sources. When the aluminum ingot price rises due to a rise in LME prices, a rise in premium on aluminum, or a weaker yen, and when we cannot absorb the manufacturing cost increase in the form of higher product prices, the Group's performance and financial conditions can be affected. Furthermore, most of our products are sold as materials and components for the automobile, electric appliance, and electronics sectors. Trends of those industries, which are beyond our control, can substantially affect such businesses.

(4) HD media

In the Group's HD media business, the sales volume is largely influenced by demand for IT devices and electric appliances. The business requires innovations at a rapid pace and involves fierce international competition. Fluctuations in demand and intensification of competition will cause fluctuations in selling prices. The Group is prepared to develop and provide products meeting the market requirements and has established a global production/marketing setup. However, when market requirements change more quickly than we expected, when supply-demand balance changes substantially, and when exchange rates sharply fluctuate, the Group's performance and financial conditions can be affected.

(5) Overseas operations

The Group is producing and selling in Asia, North America, and Europe. Operations overseas involve such special risks as unexpected changes in laws and regulations, deterioration in political/economic situations, and social disorder due to war and terrorism. Such risks can become real and affect our overseas operations, resulting in adverse impact on the Group's performance and financial conditions.

(6) Mergers, acquisitions, capital tie-up, business reorganization and restructuring

The Group implements mergers, acquisitions, capital tie-up, business reorganization and restructuring at home and abroad with the view of expanding scope of businesses and improving profitability. If these measures do not allow the Group to achieve desired results due to changes in business environment surrounding the Group or other companies to which the Group invest its money, these measures may have bad influences upon the Group's performance and financial conditions. In addition, when the Group implements restructuring of its businesses, including withdrawal form unprofitable businesses and restructuring of affiliated companies, the Group's performance and financial conditions can be affected.

2. Unexpected fluctuations in financial conditions and cash flows

(1) Substantial fluctuations in exchange rates

As for foreign-currency-based transactions centering on exports/imports, the Group makes its best efforts to minimize relevant exchange rate fluctuation risks, mainly through exchange contracts. However, substantial fluctuations in exchange rates can affect the Group's performance and financial conditions. In particular, a sharp appreciation of the yen against other currencies can affect the Group's performance. Exchange rate fluctuations can also affect the Group's performance and financial conditions through the conversion of overseas subsidiaries' financial statements into Japanese yen.

(2) Trends in financial markets and changes in the fund-raising environment

The trends in the financial markets and deterioration in the Group's financial indexes can affect the Group's fund-raising and interest expenses: for example, in the form of prompt repayment of a loan owing to the terms of financial covenants. In that event, the Group's performance and financial conditions could be affected.

(3) Employees' severance indemnities

The Group's employees' severance indemnities and expenses are calculated based on various basic rates and the yield of pension assets used in pension calculations. Fluctuations in the current price of pension assets, trends in interest rates, and changes in the retirement benefit/pension systems can affect the Group's performance and financial conditions.

(4) Securities

As the Group owns securities with current prices, fluctuations in stock prices can result in valuation losses, affecting the Group's performance and financial conditions.

(5) Accounting for impairment of fixed assets

The Group has adopted the accounting standard regarding the impairment of fixed assets. The Group may incur additional losses from the impairment of fixed assets as a result of future changes in the current prices of land and other fixed assets or a substantial change in the business environment.

(6) Deferred tax assets

The Group's financial statements include deferred tax assets in relation to temporary differences (differences between the assets/liabilities on the consolidated financial statements and the assets/liabilities in calculation of taxable income). The calculation of deferred tax assets is based on various projections for future taxable income. Thus, when actual taxable income differs from the projections or in case of a revision of the taxation system (including tax rates), it becomes necessary to revise deferred tax assets. That situation could affect the Group's performance and financial conditions.

3. Specific regulations

The Group's businesses are subject to various restrictions as stipulated by laws and regulations. The restrictions relate to industrial safety (such as the Law for Prevention of Disasters at Petroleum Complexes, Etc.; the Fire Service Law; and the High Pressure Gas Safety Law) and the environment and chemical substances (such as the Basic Environment Law; the Air Pollution Control Law; and the Law concerning the Examination and Regulation of Manufacture, Etc. of Chemical Substances). The Group observes these laws and regulations as it conducts its respective businesses. In the event the Group fails to observe any of the laws and regulations, the Group's activities could be restricted. In case stricter regulations are introduced, resulting in higher costs, the Group's performance and financial conditions can be affected.

4. Important lawsuits

While the Group makes its best efforts to observe laws and agreements, the Group may be sued as it conducts its wide-ranging businesses.

5. Others

(1) R&D

Making "Create new value by forging, polishing, and linking diverse individualized technologies" as its basic policy in R&D, the Group concentrates its R&D resources upon research and business development that leads to strengthening of its core businesses and expansion of businesses in their surrounding fields. On the other hand, the Group also strives to create next generation businesses that make the most of open innovation and M&A. Through strengthening of its core technologies that covers such diverse fields as inorganics, organics and aluminum, and achievement of synergies among these technologies, the Group promotes its R&D programs that aim to create individualized products, technologies, and high-value-added businesses. However, in case the actual results materially differ from original plans, the Group's performance and financial conditions could be affected.

(2) Intellectual property

The Group is making its best efforts to obtain, use, and protect intellectual property, such as industrial property rights and know-how, in recognition of their ability to make the Group's businesses more competitive. The Group also respects other companies' rights. However, in the event of failure to duly obtain or use the rights, infringement by a third party, or if the Group is considered to have infringed a third party's intellectual property, the Group's operations can be hindered and the Group's performance and financial conditions could be affected.

(3) Quality assurance and product liability

The Group has established its internal rules on quality assurance and quality control, as well as organizations for managing and promoting quality assurance. Furthermore, the Group has obtained certification under ISO 9001 standards to ensure strict quality control. However, in the event of a serious quality defect or being sued for product liability, the Group's reputation could be damaged and the Group may be forced to pay compensation to customers. This could affect the Group's performance and financial conditions.

(4) Accidents and disasters

The Group is committed to securing steady and safe operations. The Group conducts regular inspections of all manufacturing facilities in an effort to minimize any risk factors pertaining to the suspension of operations or accidents due to problems with manufacturing facilities. In the event of injury or damage to property due to an accident, a large-scale natural disaster, etc., the Group's reputation could be damaged. The Group may incur substantial costs in dealing with the situation and may lose business opportunities due to the suspension of production. This could affect the Group's performance and financial conditions. Furthermore, even when the Group's manufacturing facilities are not directly influenced, the Group's production activities may be restricted by trouble with procurement or disruption of supply chains due to accidents at suppliers' sites or a natural disaster, or by a shortage of power supply. These factors could affect the Group's performance and financial conditions.

(5) Impact on environment

The Group is committed to the principles of Responsible Care, which means that we are working to ensure the health and safety of everyone and to protect the environment from harm caused by chemical substances throughout their life cycles, namely, the development, production, distribution, use, and disposal. In the event of causing impact on the environment, the Group's reputation can be damaged. The Group may incur costs, including compensation, lose business opportunities due to the suspension of production, and/or pay compensation to customers. These factors can affect the Group's performance and financial conditions.

Consolidated Balance Sheets

Showa Denko K.K. and Consolidated Subsidiaries
At December 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 4)
ASSETS	**2017**	2016	**2017**
Current assets			
Cash and deposits (Notes 5 and 6)	**¥ 77,248**	¥ 69,914	**$ 683,613**
Notes and accounts receivable (Notes 6 and 9)	**192,551**	157,846	**1,703,992**
Allowance for doubtful accounts	**(2,849)**	(699)	**(25,216)**
Inventories	**114,913**	91,347	**1,016,926**
Deferred tax assets (Notes 3 and 12)	**6,898**	4,092	**61,042**
Other current assets (Notes 6 and 8)	**16,581**	12,576	**146,732**
Total current assets	**405,341**	335,077	**3,587,089**
Property, plant and equipment (Note 10)			
Land (Note 18)	**245,062**	242,816	**2,168,689**
Buildings and structures	**287,798**	267,889	**2,546,887**
Machinery, equipment and vehicles	**900,779**	791,398	**7,971,499**
Construction in progress	**16,548**	49,575	**146,438**
	1,450,187	1,351,678	**12,833,513**
Less : Accumulated depreciation	**(944,287)**	(864,544)	**(8,356,525)**
Net property, plant and equipment	**505,900**	487,135	**4,476,988**
Investments and other assets			
Investment securities (Notes 6, 7, and 10)	**89,167**	74,951	**789,091**
Long-term loans	**1,217**	6,922	**10,770**
Net defined benefit asset (Note 11)	**232**	365	**2,053**
Deferred tax assets (Notes 3 and 12)	**1,080**	9,115	**9,554**
Other (Notes 6 and 8)	**32,020**	27,940	**283,362**
Allowance for doubtful accounts	**(10,229)**	(8,807)	**(90,526)**
Total investments and other assets	**113,486**	110,486	**1,004,304**
Total assets	**¥1,024,727**	¥ 932,698	**$ 9,068,380**

See notes to financial statements.

LIABILITIES AND NET ASSETS	Millions of yen 2017	Millions of yen 2016	Thousands of U.S. dollars (Note 4) 2017
Current liabilities			
Short-term debt (Notes 6 and 10)	**¥ 91,699**	¥ 71,895	**$ 811,499**
Current portion of long-term debt (Notes 6 and 10)	**57,432**	58,234	**508,250**
Notes and accounts payable (Notes 6, 9, and 10)	**171,719**	143,556	**1,519,642**
Income taxes payable	**7,374**	3,890	**65,260**
Provision for repairs	**4,143**	38	**36,661**
Provision for bonuses	**2,949**	2,253	**26,100**
Provision for stock payments (Note 3)	**5**	25	**47**
Provision for business structure improvement	**137**	382	**1,214**
Provision for Niigata Minamata Disease	**—**	118	**—**
Other current liabilities (Notes 6, 8, and 12)	**38,206**	30,402	**338,110**
Total current liabilities	**373,666**	310,792	**3,306,781**
Noncurrent liabilities			
Long-term debt less current portion (Notes 6 and 10)	**197,594**	229,800	**1,748,622**
Deferred tax liabilities (Notes 3 and 12)	**12,774**	4,041	**113,042**
Provision for repairs	**117**	2,759	**1,035**
Provision for director retirement	**—**	73	**—**
Provision for stock payments (Note 3)	**96**	59	**852**
Provision for business structure improvement	**3,574**	1,121	**31,628**
Provision for loss on guarantees	**2,640**	—	**23,362**
Net defined benefit liability (Note 11)	**18,966**	21,923	**167,843**
Deferred tax liabilities for land revaluation (Notes 3 and 18)	**32,488**	33,144	**287,507**
Other noncurrent liabilities (Notes 6 and 8)	**17,814**	17,754	**157,646**
Total noncurrent liabilities	**286,064**	310,675	**2,531,539**
Contingent liabilities (Note 16)			
Net assets (Note 17)			
Shareholders' equity			
Capital stock			
Authorized, 330,000,000 shares			
Issued , 2017– 149,711,292 shares	**140,564**	—	**1,243,925**
Issued , 2016– 149,711,292 shares	**—**	140,564	**—**
Capital surplus	**61,663**	62,033	**545,691**
Retained earnings	**96,142**	65,358	**850,814**
Less: Treasury stock at cost, 2017– 7,187,545 shares	**(10,503)**	—	**(92,944)**
Less: Treasury stock at cost, 2016– 7,192,815 shares	**—**	(10,502)	**—**
Total shareholders' equity	**287,866**	257,453	**2,547,486**
Accumulated other comprehensive income			
Valuation difference on available-for-sale securities	**16,547**	4,519	**146,433**
Deferred gains or losses on hedges	**3,781**	320	**33,464**
Revaluation reserve for land (Note 18)	**29,541**	31,026	**261,427**
Foreign currency translation adjustments	**15,452**	14,239	**136,747**
Remeasurements of defined benefit plans (Note 11)	**(4,716)**	(10,996)	**(41,732)**
Total accumulated other comprehensive income	**60,606**	39,107	**536,340**
Non-controlling interests	**16,524**	14,671	**146,234**
Total net assets	**364,997**	311,231	**3,230,060**
Total liabilities and net assets	**¥1,024,727**	¥932,698	**$9,068,380**

Consolidated Statements of Income

Showa Denko K.K. and Consolidated Subsidiaries
For the years ended December 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 4)
	2017	2016	**2017**
Net sales	**¥780,387**	¥671,159	**$6,906,077**
Cost of sales (Note 20)	**602,778**	544,994	**5,334,317**
Gross profit	**177,609**	126,164	**1,571,760**
Selling, general and administrative expenses (Notes 19 and 20)	**99,791**	84,111	**883,102**
Operating income	**77,818**	42,053	**688,658**
Other income (expenses)			
Interest and dividends income	**1,893**	1,641	**16,755**
Equity in earnings (losses) of unconsolidated subsidiaries and affiliates (Note 21)	**(7,689)**	4,328	**(68,042)**
Gain on sales of investment securities, net (Note 7)	**408**	72	**3,611**
Loss on valuation of investment securities (Note 7)	**(50)**	(66)	**(445)**
Foreign exchange gains (losses)	**(2,791)**	(1,658)	**(24,702)**
Rent income on noncurrent assets	**1,381**	1,506	**12,225**
Gain (loss) on sales of noncurrent assets, net	**880**	808	**7,787**
Interest expenses	**(3,100)**	(3,231)	**(27,435)**
Loss on retirement of noncurrent assets	**(5,310)**	(4,030)	**(46,990)**
Impairment loss (Note 13)	**(7,204)**	(15,644)	**(63,753)**
Gain on bargain purchase	**3,115**	686	**27,571**
Provision of allowance for doubtful accounts (Note 21)	**(2,648)**	—	**(23,433)**
Provision for business structure improvement	**(2,656)**	(732)	**(23,506)**
Provision for loss on guarantees (Note 21)	**(2,640)**	—	**(23,362)**
Other, net	**(4,792)**	(8,205)	**(42,407)**
Total	**(31,202)**	(24,524)	**(276,128)**
Income before income taxes and non-controlling interests	**46,616**	17,529	**412,531**
Income taxes (Note 12)			
Current	**8,053**	3,168	**71,264**
Deferred (Note 3)	**2,780**	523	**24,600**
Net income	**35,783**	13,838	**316,667**
Net income attributable to non-controlling interests	**2,313**	1,533	**20,469**
Net income attributable to owners of the parent	**¥ 33,470**	¥ 12,305	**$ 296,198**

	Yen		U.S. dollars (Note 4)
Per share amounts			
Net income – primary	**¥234.84**	¥86.27	**$2.08**
Net income – fully diluted	**—**	—	**—**
Cash dividends (applicable to the period)	**80.00**	—	**0.71**

Notes: 1. Net income per share has been computed based on the average number of shares of common stock outstanding during the respective fiscal year.
Diluted net income per share for 2017 and 2016 were not disclosed because there were no dilutive shares.
Notes: 2. SDK determined the payment of the dividend of ¥30.00 (US$ 0.27) per share based on the record date of May 11, 2017.
This was done at the extraordinary general meeting of shareholders held on June 27, 2017, and is included in the dividends per share for the fiscal year ended December 31, 2017.
See notes to financial statements.

Consolidated Statements of Comprehensive Income

Showa Denko K.K. and Consolidated Subsidiaries

For the years ended December 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 4)
	2017	2016	**2017**
Net income	**¥35,783**	¥13,838	**$316,667**
Other comprehensive income:			
Valuation difference on available-for-sale securities	**12,133**	516	**107,369**
Deferred gains or losses on hedges	**3,479**	629	**30,791**
Revaluation reserve for land	**—**	1,824	**—**
Foreign currency translation adjustments	**1,455**	(4,520)	**12,878**
Remeasurements of defined benefit plans, net of tax	**6,294**	(6,167)	**55,700**
Share of other comprehensive income of unconsolidated subsidiaries and affiliates accounted for using equity method	**22**	41	**197**
Total other comprehensive income (loss) (Note 14)	**¥23,384**	¥ (7,678)	**$206,937**
Comprehensive income	**¥59,167**	¥ 6,160	**$523,604**
Comprehensive income attributable to:			
Owners of parent	**56,581**	4,807	**500,720**
Non-controlling interests	**2,586**	1,353	**22,884**

See notes to financial statements.

Consolidated Statements of Changes in Net Assets

Showa Denko K.K. and Consolidated Subsidiaries

For the years ended December 31, 2017 and 2016

	Thousands	Millions of yen										
	Number of shares of capital stock	Capital stock	Capital surplus	Retained earnings	Treasury stock	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Remeasure-ments of defined benefit plans	Non-controlling interests	Total net assets
Balance at December 31, 2015	1,497,113	¥140,564	¥62,221	¥55,202	¥(10,157)	¥3,927	¥ (326)	¥31,307	¥18,611	¥ (4,835)	¥11,629	¥308,142
Dividends from surplus	—	—	—	(4,285)	—	—	—	—	—	—	—	(4,285)
Net income (loss) attributable to owners of the parent	—	—	—	12,305	—	—	—	—	—	—	—	12,305
Purchase of treasury stock	—	—	—	—	(345)	—	—	—	—	—	—	(345)
Disposal of treasury stock	—	—	(0)	—	0	—	—	—	—	—	—	0
Increase by increase of consolidated subsidiaries	—	—	—	70	—	—	—	—	—	—	—	70
Decrease by increase of consolidated subsidiaries	—	—	—	—	—	—	—	—	—	—	—	—
Change in treasury shares of parent arising from transactions with non-controlling shareholders	—	—	(188)	—	—	—	—	—	—	—	—	(188)
Reversal of revaluation reserve for land	—	—	—	2,093	—	—	—	—	—	—	—	2,093
Other	(1,347,402)	—	—	(27)	—	—	—	—	—	—	—	(27)
Net changes of items other than shareholders' equity	—	—	—	—	—	592	646	(281)	(4,372)	(6,161)	3,042	(6,535)
Balance at December 31, 2016	149,711	¥140,564	¥62,033	¥65,358	¥(10,502)	¥4,519	¥ 320	¥31,026	¥14,239	¥(10,996)	¥14,671	¥311,231
Dividends from surplus	**—**	**—**	**—**	**(4,285)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(4,285)**
Net income (loss) attributable to owners of the parent	**—**	**—**	**—**	**33,470**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**33,470**
Purchase of treasury stock	**—**	**—**	**—**	**—**	**(11)**	**—**	**—**	**—**	**—**	**—**	**—**	**(11)**
Disposal of treasury stock	**—**	**—**	**0**	**—**	**10**	**—**	**—**	**—**	**—**	**—**	**—**	**10**
Increase by increase of consolidated subsidiaries	**—**	**—**	**—**	**229**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**229**
Decrease by increase of consolidated subsidiaries	**—**	**—**	**—**	**(97)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(97)**
Change in treasury shares of parent arising from transactions with non-controlling shareholders	**—**	**—**	**(370)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(370)**
Reversal of revaluation reserve for land	**—**	**—**	**—**	**1,486**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**1,486**
Other	**—**	**—**	**—**	**(20)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(20)**
Net changes of items other than shareholders' equity	**—**	**—**	**—**	**—**	**—**	**12,028**	**3,461**	**(1,485)**	**1,214**	**6,281**	**1,854**	**23,353**
Balance at December 31, 2017	**149,711**	**¥140,564**	**¥61,663**	**¥96,142**	**¥(10,503)**	**¥16,547**	**¥3,781**	**¥29,541**	**¥15,452**	**¥(4,716)**	**¥16,524**	**¥364,997**

	Thousands	Thousands of U.S. dollars (Note 4)										
	Number of shares of capital stock	Capital stock	Capital surplus	Retained earnings	Treasury stock	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Remeasure-ments of defined benefit plans	Non-controlling interests	Total net assets
Balance at December 31, 2016	149,711	$ 1,243,925	$ 548,968	$ 578,390	$ (92,938)	$ 39,987	$ 2,835	$ 274,565	$ 126,006	$ (97,312)	$ 129,831	$ 2,754,256
Dividends from surplus	**—**	**—**	**—**	**(37,916)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(37,916)**
Net income (loss) attributable to owners of the parent	**—**	**—**	**—**	**296,198**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**296,198**
Purchase of treasury stock	**—**	**—**	**—**	**—**	**(98)**	**—**	**—**	**—**	**—**	**—**	**—**	**(98)**
Disposal of treasury stock	**—**	**—**	**0**	**—**	**91**	**—**	**—**	**—**	**—**	**—**	**—**	**91**
Increase by increase of consolidated subsidiaries	**—**	**—**	**—**	**2,022**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**2,022**
Decrease by increase of consolidated subsidiaries	**—**	**—**	**—**	**(856)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(856)**
Change in treasury shares of parent arising from transactions with non-controlling shareholders	**—**	**—**	**(3,277)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(3,277)**
Reversal of revaluation reserve for land	**—**	**—**	**—**	**13,152**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**13,152**
Other	**—**	**—**	**—**	**(175)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(175)**
Net changes of items other than shareholders' equity	**—**	**—**	**—**	**—**	**—**	**106,446**	**30,629**	**(13,137)**	**10,741**	**55,580**	**16,403**	**206,663**
Balance at December 31, 2017	**149,711**	**$ 1,243,925**	**$ 545,691**	**$ 850,814**	**$ (92,944)**	**$ 146,433**	**$ 33,464**	**$ 261,427**	**$ 136,747**	**$ (41,732)**	**$ 146,234**	**$ 3,230,060**

See notes to financial statements.

Consolidated Statements of Cash Flows

Showa Denko K.K. and Consolidated Subsidiaries
For the years ended December 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 4)
	2017	2016	**2017**
Cash flows from operating activities			
Income before income taxes and Non-controlling interests	**¥46,616**	¥17,529	**$412,531**
Adjustments for:			
Depreciation and amortization	**38,454**	38,761	**340,303**
Impairment loss	**7,204**	15,644	**63,753**
Amortization of negative goodwill	**(12)**	(11)	**(106)**
Increase (decrease) in allowance for doubtful accounts	**2,757**	(6,441)	**24,394**
Increase (decrease) in net defined benefit liability	**(10,610)**	6,744	**(93,889)**
Interest and dividends income	**(1,893)**	(1,641)	**(16,755)**
Interest expenses	**3,100**	3,231	**27,435**
Equity in (earnings) losses of unconsolidated subsidiaries and affiliates	**7,689**	(4,328)	**68,042**
Loss (gain) on sales and valuation of investment securities	**(358)**	(6)	**(3,165)**
Loss on retirement of noncurrent assets	**5,310**	4,030	**46,990**
Loss (gain) on sales of noncurrent assets	**(880)**	(808)	**(7,787)**
Decrease (increase) in notes and accounts receivable-trade	**(23,253)**	(2,380)	**(205,781)**
Decrease (increase) in inventories	**(12,005)**	20,112	**(106,235)**
Increase (decrease) in notes and accounts payable-trade	**10,172**	(10,315)	**90,021**
Other, net	**2,089**	(10,044)	**18,485**
Subtotal	**74,381**	70,076	**658,235**
Interest and dividends income received	**4,410**	5,565	**39,030**
Interest expenses paid	**(2,828)**	(3,227)	**(25,029)**
Income taxes paid (refund)	**(8,679)**	(3,466)	**(76,804)**
Net cash provided by (used in) operating activities	**67,284**	68,949	**595,432**
Cash flows from investing activities			
Payments into time deposits	**(9,606)**	(29,438)	**(85,009)**
Proceeds from withdrawal of time deposits	**23,268**	25,287	**205,908**
Purchase of property, plant and equipment	**(38,872)**	(38,317)	**(343,999)**
Proceeds from sales of property, plant and equipment	**1,067**	1,724	**9,441**
Purchase of investment securities	**(1,646)**	(3,163)	**(14,565)**
Proceeds from sales of investment securities	**15,121**	173	**133,811**
Purchase of investments in subsidiaries resulting in change in scope of consolidation (Note 5)	**(14,910)**	(2,132)	**(131,945)**
Net decrease (increase) in short-term loans receivable	**(754)**	(1,231)	**(6,676)**
Payments of long-term loans receivable	**(1,045)**	(4,077)	**(9,252)**
Collection of long-term loans receivable	**609**	322	**5,386**
Other, net	**(3,145)**	(2,903)	**(27,830)**
Net cash provided by (used in) investing activities	**(29,914)**	(53,754)	**(264,729)**
Cash flows from financing activities			
Net increase (decrease) in short-term debt	**19,921**	(7,242)	**176,295**
Proceeds from long-term loans payable	**22,328**	42,288	**197,590**
Repayments of long-term loans payable	**(44,813)**	(49,273)	**(396,574)**
Proceeds from share issuance of bonds	**—**	17,000	**—**
Redemption of bonds	**(10,000)**	(10,000)	**(88,496)**
Cash dividends paid	**(4,277)**	(4,267)	**(37,848)**
Cash dividends paid to non-controlling shareholders	**(1,648)**	(376)	**(14,581)**
Other, net	**118**	(1,350)	**1,044**
Net cash provided by (used in) financing activities	**(18,370)**	(13,220)	**(162,570)**
Effect of exchange rate changes on cash and cash equivalents	**953**	(523)	**8,434**
Net increase (decrease) in cash and cash equivalents	**19,952**	1,453	**176,567**
Cash and cash equivalents at beginning of the year	**56,186**	54,597	**497,217**
Increase in cash and cash equivalents resulting from newly consolidated subsidiaries	**696**	136	**6,158**
Cash and cash equivalents at end of the year (Note 5)	**¥76,833**	¥56,186	**$679,942**

See notes to financial statements.

Notes to Financial Statements

Showa Denko K.K. and Consolidated Subsidiaries

1. BASIS OF REPORTING AND FINANCIAL STATEMENTS

The accompanying consolidated financial statements have been prepared in accordance with accounting principles and practices generally accepted in Japan, which are different in certain respects as to application and disclosure requirements from International Financial Reporting Standards, and restructured and translated into English from the consolidated financial statements which have been filed with the Kanto Local Finance Bureau as required by the Financial Instruments and Exchange Law of Japan.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Principles of Consolidation

The consolidated financial statements for the years ended December 31, 2017 and 2016 include the accounts of the Company and its 62 and 48, respectively, significant subsidiaries (collectively "the Companies").

For the purposes of the consolidated financial statements, all significant intercompany transactions, account balances and unrealized profits among the Companies are entirely eliminated and the portions thereof attributable to minority interests are credited or charged to minority interests.

Accounts of subsidiaries whose business year-ends differ by more than three months from December 31 have been included using appropriate interim financial information.

In the initial consolidation, assets and liabilities of subsidiaries including those attributable to minority stockholders are recorded based on fair value in the accompanying consolidated financial statements.

Goodwill is amortized on a straight-line basis over a period during which the effect of such goodwill lasts but does not exceed 20 years from booking. In addition, negative goodwill arising from business combinations prior to April 1, 2010 is amortized on a straight-line basis over a period during which the effect of such negative goodwill lasts but does not exceed 20 years from booking.

(b) Investments in Unconsolidated Subsidiaries and Affiliates

The Company applied the equity method of accounting for investments in 2 unconsolidated subsidiary in 2017 and 2 that of in 2016, and 9 affiliates in 2017 and 10 affiliates in 2016.

All underlying intercompany profits obtained from transactions among the Companies and unconsolidated subsidiaries and affiliates to which the equity method is applied are eliminated in the consolidated financial statements.

(c) Translation of Foreign Currency Accounts

All receivables and payables denominated in foreign currencies at the balance sheet date are translated into Japanese yen at the current exchange rates.

The resulting exchange gains or losses are credited or charged to income.

The financial statements of certain consolidated subsidiaries of foreign nationality are translated into Japanese yen at the year-end rate for assets and liabilities, at historical rates for the other balance sheet accounts exclusive of the current year's net income, and at the average annual rate for revenue and expense accounts and net income.

Translation adjustments resulting from the process of translating the financial statements of foreign subsidiaries into Japanese yen are accumulated and reported as a component of net assets on the consolidated balance sheets.

(d) Cash and Cash Equivalents

Cash and cash equivalents in the consolidated statements of cash flows are composed of cash on hand, bank deposits available for withdrawal on demand and short-term investments with original maturities of three months or less and minor risk of value fluctuation.

(e) Securities

Debt securities that are intended to be held to maturity ("held-to-maturity debt securities") are stated at amortized cost on the balance sheets. Available-for-sale securities with available fair market values are stated at fair market values. Unrealized gains and unrealized losses on these available-for-sale securities are reported, net of applicable income taxes, as a separate component of the net assets.

Realized gains or losses on sale of the available-for-sale securities are computed using primarily the moving-average cost.

Available-for-sale securities with no available fair market values are stated primarily at moving-average cost.

(f) Allowance for Doubtful Accounts

To provide for losses from bad debts, the allowance is provided according to the actual rate of default for ordinary receivables and in view of the probability of recovery for specific doubtful receivables.

(g) Inventories

Inventories are stated at the lower of cost or market, using principally the gross-average cost method. The carrying value on the consolidated balance sheets is stated by the devaluation method based on declines in profitability.

(h) Property, Plant and Equipment

Property, plant and equipment is stated at cost, in principle. Depreciation of property, plant and equipment is computed by the straight-line method.

(i) Intangible Assets

The Company and some of the consolidated subsidiaries principally apply the straight-line method over 5 years to amortize intangible assets.

(j) Leased Assets

Leased assets in finance lease transactions that do not transfer ownership to the lessee are depreciated using the straight-line method on the assumption that the useful life is equal to the lease term and the residual value is equal to zero. For leases with a residual value guarantee, the contracted residual value is considered to be the residual value for financial accounting purposes.

Please note that finance lease transactions, other than those involving the transfer of ownership and which commenced on or before December 31, 2008, are accounted for by the same methods as for operating lease transactions.

(k) Provision for Business Structure Improvement

The Company and some of the consolidated subsidiaries record the provision for business structure improvement on an accrual basis to provide for expenses and losses resulting from their restructuring programs.

(l) Provision for Bonuses

A provision for bonuses is provided at an amount estimated based on the bonus to be paid subsequent to the balance sheet date.

(m) Provision for Repairs

The Company and some of the consolidated subsidiaries provide a provision for repairs in an amount estimated to be necessary for the scheduled maintenance for certain production equipment.

(n) Provision for Stock Payments

To provide for the Company's share payment to its Directors and Corporate Officers, the provision is provided based on the Director Share Payment Regulations.

(o) Provision for Niigata Minamata Disease

To provide for lump-sum payments pursuant to the Special Measures Law Regarding Relief to Persons Suffering from Minamata Disease and Regarding Solutions to the Minamata Disease Problem, the Company makes a provision in the expected amount of such payments.

(p) Provision for loss on guarantees

To provide for loss on guarantees, the Company makes a provision in the expected amount of such losses based on the financial conditions of the guaranteed companies.

(q) Accounting Policy for Retirement Benefits

(1) Method of attributing expected benefits to periods

The attribution of expected benefits to periods up to the current consolidated fiscal year, upon calculating retirement benefit obligations, is done on the benefit formula basis.

(2) Method of amortization of actuarial gain or loss and past service costs

The actuarial gain or loss is amortized starting from the year after such an actuarial loss is determined on a straight-line basis over certain periods (mainly 12 years) within the average remaining service periods.

Past service costs are amortized on a straight-line basis over certain periods (mainly 12 years) within the average remaining service periods.

(3) Application of a simplified method to small businesses

For the calculation of liabilities concerning retirement benefits and retirement benefit expenses, some consolidated subsidiaries have adopted a simplified method, which deems term-end amounts payable for voluntary retirement related to retirement benefits as retirement benefit obligations.

(r) Income Taxes

Income taxes consist of corporation, enterprise, and inhabitants taxes. The provision for income taxes is computed based on the pretax income of each of the Company and its consolidated subsidiaries with certain adjustments required for consolidation and tax purposes. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. (Valuation allowances are recorded to reduce deferred tax assets based on the assessment of the realizability of the tax benefits.)

Application of the Consolidated Taxation System

The Company and certain domestic subsidiaries adopt the consolidated taxation system.

(s) Derivative Financial Instruments and Hedge Accounting

The Company and certain subsidiaries state all derivative financial instruments at fair value and recognize changes in fair value as gains or losses unless the derivative financial instruments are used for hedging purposes.

If the derivative financial instruments meet certain hedging criteria, the Company and certain subsidiaries defer recognition of gains or losses resulting from changes in fair value of derivative financial instruments until the related gains or losses on hedged items are recognized.

However, when forward exchange contracts meet certain hedging criteria, the hedged items are stated by the forward exchange contracts rate. If interest rate swap contracts meet certain hedging criteria, the net amount to be paid or received under the interest rate swap contracts is added to or deducted from interest on the assets or liabilities for which the interest rate swap contracts were executed.

Hedge accounting is not applied at some of the foreign subsidiaries.

(t) Reclassifications

Certain reclassifications have been made in the 2016 financial statements to conform to the presentation of 2017.

Notes to Financial Statements

Showa Denko K.K. and Consolidated Subsidiaries

3. ADDITIONAL INFORMATION

(a) Board Benefit Trust (BBT)

Based on the resolution at the 107th ordinary general meeting of shareholders held on March 30, 2016, the Company introduced a new stock compensation plan called the Board Benefit Trust (BBT) ("the Scheme") for Directors and Corporate Officers on May 11, 2016.

(1) Outline of the transaction

In this Scheme, the shares of the Company are granted to its directors (excluding outside directors) and corporate officers pursuant to the Director Share Grant Regulations set forth by the Company.

The Company grants performance-linked points to its directors and corporate officers every year, and grants shares of the Company to them based on the number of points granted when they resign from the Company. Provided that, however, with regard to a certain portion of the points, an amount of money corresponding to the prevailing market price of the Company's shares will be paid to any director or corporate officer meeting the relevant requirements set forth in the Director Share Grant Regulations. The Company's shares that are granted to directors and corporate officers, including those to be granted in the future, shall be acquired by the trust using the entrusted funds and separately managed as trusted assets.

For accounting treatment concerning this trust agreement, the Company applied the gross method in which the assets and liabilities of the trust are recorded as assets and liabilities in the balance sheet by referring to the Practical Solution on Transactions of Delivering the Company's Own Stock to Employees etc. through Trusts (ASBJ Practical Issues Task Force [PITF] No. 30, issued on March 26, 2015).

(2) Residual shares of the Company in the trust

Residual shares of the Company in the trust have been recorded as treasury stock under net assets at the book value in the trust (excluding the amount of ancillary expenses). The book value and the number of such treasury stock were ¥337 million and 300,000 shares at the end of the fiscal year ended December 31, 2016, and ¥327 million and 291,000 shares at the end of the fiscal year ended December 31, 2017, respectively.

(b) Application of Implementation Guidance on Recoverability of Deferred Tax Assets

The Company applied the "Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No.26, issued on March 28, 2016) effective from the year ended December 31, 2017.

4. JAPANESE YEN AND TRANSLATION INTO U.S. DOLLARS

The Companies' accounting records are maintained in yen. Yen amounts included in the financial statements are rounded to the nearest one million unit. Therefore, the total and subtotal amounts presented in the financial statements may not equal the exact sum of the individual balances. The U.S. dollar amounts appearing in the accompanying financial statements and notes thereto represent the arithmetical results of translating yen into U.S. dollars at the rate of ¥113.00 to US$1.00, the approximate rate of exchange at December 31, 2017. The inclusion of such U.S. dollar amounts is solely for the convenience of readers; it does not carry with it any implication that yen amounts have been or could be converted into U.S. dollars at that rate.

5. CASH FLOW STATEMENTS

(a) Cash and cash equivalents

Cash and deposits as of December 31, 2017 and 2016 on the consolidated balance sheets and cash equivalents at December 31, 2017 and 2016 on the consolidated statements of cash flows were reconciled as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Cash and deposits	**¥ 77,248**	¥ 69,914	**$ 683,613**
Original maturities more than three months	**(415)**	(13,728)	**(3,671)**
Cash and cash equivalents	**¥ 76,833**	¥ 56,186	**$ 679,942**

(b) Assets and liabilities of newly consolidated subsidiaries through acquisition shares

Breakdown of the major assets and liabilities of the Company's newly consolidated subsidiary obtained through a share acquisition A breakdown of the major assets and liabilities at the time of the initial consolidation of SHOWA DENKO CARBON Holding GmbH and its ten subsidiaries, obtained through a share acquisition, as well as the acquisition values and expenditures for the acquisition (net amount) ware as follows:

	Millions of yen	Thousands of U.S. dollars
	2017	**2017**
Current assets	**¥ 23,233**	**$ 205,605**
Noncurrent assets	**35,276**	**312,179**
Current liabilities	**(27,514)**	**(243,490)**
Noncurrent liabilities	**(8,589)**	**(76,005)**
Negative goodwill	**(3,115)**	**(27,571)**
Acquisition value of shares of the acquired company	**¥ 19,291**	**$ 170,717**
Accounts payables that are included in the acquisition value	**(3,015)**	**(26,684)**
Cash and cash equivalents of the acquired company	**(1,535)**	**(13,581)**
Less: Expenditures for the acquisition	**¥ 14,741**	**$ 130,452**

6. FINANCIAL INSTRUMENTS

(a) Overview

(1) Management policy relating to financial instruments

The Companies finance necessary long-term funds by bank loans and bond issues following the capital investment plans and finance short-term operating funds by bank loans and commercial paper. Temporary excess funds are invested exclusively in financial instruments which have fixed returns and low risk of falling below par values. The Companies use derivative transactions to hedge the following risks and do not enter into derivative transactions for speculative purposes.

(2) Types of financial instruments and related risks

Operating receivables, such as notes and accounts receivable, are exposed to credit risk. Foreign-currency-denominated accounts receivable incurred through exports are exposed to foreign currency fluctuation risk. However, the Companies hedge the risk by utilizing forward exchange contracts, currency options, and currency swaps based on internal rules that set out foreign currency risk management principles.

Marketable securities and investment securities mainly consist of the stocks of partner companies to maintain and strengthen their business relationships and are exposed to market fluctuation risk.

Operating payables, such as notes and accounts payable-trade and other, are due within one year. Foreign-currency-denominated accounts payable incurred through imports of raw materials are exposed to foreign currency fluctuation risk. The Companies hedge the risk by utilizing forward exchange contracts following internal rules that set out the foreign currency risk management principles. Short-term debt and commercial paper are mainly used to finance short-term operating funds, and long-term debts and bonds are mainly used to finance equipment funds. Since some of long-term debt is made up of variable interest rate loans, it is exposed to interest rate fluctuation risk. However, interest rate swaps are used for most loans to hedge the risk.

The Companies utilize derivative transactions, such as forward exchange contracts, currency options, and currency swaps, to hedge the foreign currency fluctuation risk of operating receivables and payables denominated in foreign currencies and financing transactions denominated in foreign currencies. Interest rate swaps are utilized to hedge the interest rate fluctuation risk, and aluminum forward transactions are utilized to hedge the market fluctuation risk.

(3) Risk management relating to financial instruments

(i) Credit risk management (risk of default by the counterparties)

The Company follows internal rules that set out accounts receivable management principles. The compliance department works with the sales division in each sector and monitors the customers' credit conditions periodically and reviews the sales policy checking the sales volume and balances. The Company takes measures to obtain information on and minimize the credit risk that may arise due to the deterioration in the financial condition of their customers. Consolidated subsidiaries monitor their customers' financial and credit conditions based on their internal rules.

The held-to-maturity debt are limited to only highly rated securities.

The Companies utilize derivative transactions only with creditworthy financial institutions and trading companies to minimize credit risk.

The maximum credit risk as of December 31, 2017 is disclosed as the balance sheet amount of financial instruments exposed to credit risk.

(ii) Market risk management (risk of fluctuations in foreign currency and interest rates)

For operating receivables and payables and loans denominated in foreign currencies, the Company and certain consolidated subsidiaries utilize forward exchange contracts, currency options, and currency swaps to hedge some of the foreign currency fluctuation risk, which is categorized by currency and maturity date. The Company and certain consolidated subsidiaries utilize currency swaps to hedge the interest rate fluctuation risk of loans.

For marketable securities and investment securities, the Companies regularly review the fair value and issuers' financial conditions and review the Companies' portfolio on an ongoing basis, except for held-to-maturity debt securities, according to market conditions and the business relationships with counterparties.

The Company has internal management rules that set out the approval authorities and procedures of the derivative transactions.

The derivative transactions are carried out based on the appropriate approver set out in the internal rules. For currency-related derivative transactions, each division and the treasury department perform and manage transactions and report to the director in charge periodically. For interest-related derivative transactions, the treasury department performs and manages the transactions and reports to the director in charge periodically. For commodity-related derivative transactions, each division performs and manages the transactions and reports to the director in charge periodically. Consolidated subsidiaries perform and manage derivative transactions based on their internal management standards.

(iii) Liquidity risk management (risk of default on payment due dates)

The Company manages liquidity risk by requiring the treasury department to prepare and update cash plans, based on the schedule for cash inflows and disbursements in each division. In addition, the Company signs commitment line contracts and makes other arrangements with financial institutions to secure the necessary liquidity. Consolidated subsidiaries manage their liquidity risk through similar procedures.

(4) Supplemental explanation on fair value of financial instruments

As well as the values being based on market prices, fair value of financial instruments includes values which are reasonably calculated in case market prices do not exist. As the calculation of those values uses certain assumptions, those values may vary in the case of different assumptions being applied. Also, for the contract amount and others regarding derivative transactions described in Note 8. DERIVATIVE FINANCIAL INSTRUMENTS, the contract amount itself does not indicate market risk related to derivative transactions.

(b) Fair Value of Financial Instruments

At December 31, 2017 and 2016 book value, fair value, and difference were as follows.

The financial instruments whose fair value is extremely difficult to determine are not included below.

Year ended December 31, 2017	Millions of yen		
	Book value	Fair value	Difference
(1) Cash and deposits	¥ 77,248	¥ 77,248	¥ —
(2) Notes and accounts receivable-trade	176,021	176,021	—
(3) Investment securities	60,780	60,780	—
Total assets	¥314,049	¥314,049	¥ —
(1) Notes and accounts payable-trade	¥120,762	¥120,762	¥ —
(2) Short-term debt	91,699	91,699	—
(3) Current portion of long-term debt	57,432	57,499	67
(4) Accounts payable-other	67,287	67,287	—
(5) Long-term debt less current portion	197,594	197,260	(335)
Total liabilities	¥534,775	¥534,507	¥(268)
Derivative transactions*	¥ 5,354	¥ 5,354	¥ —

Year ended December 31, 2016	Millions of yen		
	Book value	Fair value	Difference
(1) Cash and deposits	¥ 69,914	¥ 69,914	¥ —
(2) Notes and accounts receivable-trade	143,816	143,816	—
(3) Investment securities	44,184	44,184	—
Total assets	¥257,914	¥257,914	¥ —
(1) Notes and accounts payable-trade	¥104,005	¥104,005	¥ —
(2) Short-term debt	71,895	71,895	—
(3) Current portion of long-term debt	58,234	58,352	118
(4) Accounts payable-other	53,790	53,790	—
(5) Long-term debt less current portion	229,800	230,003	203
Total liabilities	¥517,724	¥518,045	¥ 320
Derivative transactions*	¥ 381	¥ 381	¥ —

Year ended December 31, 2017	Thousands of U.S. dollars		
	Book value	Fair value	Difference
(1) Cash and deposits	$ 683,613	$ 683,613	$ —
(2) Notes and accounts receivable-trade	1,557,704	1,557,704	—
(3) Investment securities	537,876	537,876	—
Total assets	$2,779,193	$2,779,193	$ —
(1) Notes and accounts payable-trade	$1,068,693	$1,068,693	$ —
(2) Short-term debt	811,499	811,499	—
(3) Current portion of long-term debt	508,250	508,841	592
(4) Accounts payable-other	595,458	595,458	—
(5) Long-term debt less current portion	1,748,622	1,745,661	(2,962)
Total liabilities	$4,732,522	$4,730,152	$(2,370)
Derivative transactions*	$ 47,385	$ 47,385	$ —

*Derivative assets and liabilities are on a net basis.

Notes: 1. Valuation method for financial instruments and information on marketable securities and derivative transactions

Assets

Cash and deposits and Notes and accounts receivable-trade

The book value is deemed to approximate the fair value since these are scheduled to be settled in a short period of time.

Investment securities

Fair value of these securities is based on the price on stock exchanges. Refer to Note 7. SECURITIES regarding the securities categorized by holding purposes.

Liabilities

Notes and accounts payable-trade, Short-term debt, Commercial paper (included in the above Short-term debt), and Accounts payable-other

The book value is deemed to approximate the fair value since these are scheduled to be settled in a short period of time.

Current portion of long-term debt and Long-term debt (included in the above Long-term debt less current portion)

The fair value is measured as the net present value of estimated cash flows by discounting the principal and interest value using the interest rate applied to the new loans. Part of the long-term loans are variable rate loans, and they are subject to special treatment of interest rate swaps (refer to Note 8. DERIVATIVE FINANCIAL INSTRUMENTS); the fair value is measured as the net present value of estimated cash flows by discounting the total amount of principal and interest processed as interest rate swaps using the interest rate applied to the new loans.

Current portion of bonds (included in the above Current portion of long-term debt) and Bonds (included in the above Long-term debt less current portion)

As for bonds with short maturities, the book value is deemed to approximate the fair value since these are scheduled to be settled in a short period of time. For others, fair value is based on the market prices.

Derivative transactions

Refer to Note 8. DERIVATIVE FINANCIAL INSTRUMENTS.

Notes: 2. Financial instruments for which fair value is extremely difficult to determine

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Non-listed equity securities	¥28,387	¥30,767	$251,215

These securities are not included in the above Investment securities, as there was no quoted market value, estimating the future cash flows is deemed to be practically impossible and it is extremely difficult to determine the fair value.

Notes: 3. The redemption schedule for financial assets and securities with maturities

Year ended December 31, 2017	Millions of yen			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits	¥ 77,248	¥—	¥—	¥—
Notes and accounts receivable-trade	176,021	—	—	—
Total	¥253,269	¥—	¥—	¥—

Year ended December 31, 2016	Millions of yen			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits	¥ 69,914	¥—	¥—	¥—
Notes and accounts receivable-trade	143,802	14	—	—
Total	¥213,716	¥ 14	¥—	¥—

Year ended December 31, 2017	Thousands of U.S. dollars			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits	$ 683,613	$—	$—	$—
Notes and accounts receivable-trade	1,557,704	—	—	—
Total	$2,241,317	$—	$—	$—

Notes: 4. The scheduled maturities of bonds and long-term debt after December 31, 2017 and 2016

Year ended December 31, 2017	Millions of yen					
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
(1) Short-term debt	¥ 91,699	¥ —	¥ —	¥ —	¥ —	¥ —
(2) Long-term debt	57,432	41,406	31,609	47,737	35,632	41,210
Total	¥149,132	¥41,406	¥31,609	¥47,737	¥35,632	¥41,210

Year ended December 31, 2016	Millions of yen					
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
(1) Short-term debt	¥ 71,895	¥ —	¥ —	¥ —	¥ —	¥ —
(2) Long-term debt	58,234	57,808	41,293	29,227	41,676	59,796
Total	¥130,129	¥57,808	¥41,293	¥29,227	¥41,676	¥59,796

Year ended December 31, 2017	Thousands of U.S. dollars					
	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
(1) Short-term debt	$ 811,499	$ —	$ —	$ —	$ —	$ —
(2) Long-term debt	508,250	366,425	279,726	422,451	315,327	364,693
Total	$1,319,749	$366,425	$279,726	$422,451	$315,327	$364,693

7. SECURITIES

(a) Available-for-sale securities

Year ended December 31, 2017	Millions of yen		
	Book value	Acquisition cost	Difference
Available-for-sale securities whose book value exceeds their acquisition cost Equity securities	¥54,675	¥29,211	¥25,465
Available-for-sale securities whose book value is less than their acquisition cost Equity securities	6,104	6,431	(326)
Total	¥60,780	¥35,641	¥25,138

Year ended December 31, 2016	Millions of yen		
	Book value	Acquisition cost	Difference
Available-for-sale securities whose book value exceeds their acquisition cost Equity securities	¥24,315	¥14,341	¥ 9,974
Available-for-sale securities whose book value is less than their acquisition cost Equity securities	19,869	22,027	(2,158)
Total	¥44,184	¥36,368	¥ 7,816

Year ended December 31, 2017	Thousands of U.S. dollars		
	Book value	Acquisition cost	Difference
Available-for-sale securities whose book value exceeds their acquisition cost Equity securities	$483,851	$258,501	$225,350
Available-for-sale securities whose book value is less than their acquisition cost Equity securities	54,021	56,909	(2,888)
Total	$537,872	$315,410	$222,462

(b) Available-for-sale securities sold in the years ended December 31, 2017 and 2016:

Year ended December 31, 2017	Millions of yen		
	Sales	Gross gain	Gross loss
Equity securities	¥ 1,116	¥ 218	¥ (3)
Total	¥ 1,116	¥ 218	¥ (3)

Year ended December 31, 2016	Millions of yen		
	Sales	Gross gain	Gross loss
Equity securities	¥ 30	¥ 26	¥ —
Total	¥ 30	¥ 26	¥ —

Year ended December 31, 2017	Thousands of U.S. dollars		
	Sales	Gross gain	Gross loss
Equity securities	$ 9,877	$ 1,927	$ (27)
Total	$ 9,877	$ 1,927	$ (27)

(c) Impairment of securities

For the year ended December 31, 2016, the Companies recorded an impairment loss of ¥55 million on available-for-sale securities with fair market values. For the year ended December 31, 2017, there were no impairment losses.

Securities are deemed to be "substantially declined" when their fair values have declined 30% or more. When their fair values have declined 50% or more, the impairment losses are recorded on those securities. When their fair values have declined between 30% and 50%, the impairment losses are recorded on those securities unless such values are considered to be recoverable on an individual basis.

8. DERIVATIVE FINANCIAL INSTRUMENTS

(a) Derivative Transactions to Which Hedge Accounting is Not Applied

	Millions of yen								Thousands of U.S. dollars			
	2017				2016				2017			
	Contract amount	Contract amount over 1 year	Fair value	Valuation gain (loss)	Contract amount	Contract amount over 1 year	Fair value	Valuation gain (loss)	Contract amount	Contract amount over 1 year	Fair value	Valuation gain (loss)
(1) Currency related:												
Forward exchange contracts:												
Buying												
U.S. Dollar	¥ —	¥ —	¥ —	¥ —	¥ 4	¥ —	¥ (0)	¥ (0)	$ —	$ —	$ —	$ —
Selling												
U.S. Dollar	¥ 625	¥ —	¥ (2)	¥ (2)	¥616	¥ —	¥(39)	¥ (39)	$ 5,535	$ —	$ (16)	$ (16)
Euro	5,613	—	(113)	(113)	42	—	(2)	(2)	49,674	—	(1,000)	(1,000)
(2) Interest rate related:												
Interest rate swaps:												
Receipt-variable rate/ Payment-fixed rate	¥ —	¥ —	¥ —	¥ —	¥442	¥ —	¥ (1)	¥ (1)	$ —	$ —	$ —	$ —

Note: Fair value calculation method:
Fair values of forward exchange contracts are stated by the forward exchange rates. Fair values of currency and interest rate swaps are measured at the quoted price obtained from the financial institutions.

(b) Derivative Transactions to Which Hedge Accounting is Applied

	Millions of yen						Thousands of U.S. dollars		
	2017			2016			2017		
	Contract amount	Contract amount over 1 year	Fair value	Contract amount	Contract amount over 1 year	Fair value	Contract amount	Contract amount over 1 year	Fair value
(1) Currency related:									
Principle method									
Forward exchange contracts:									
Buying									
U.S. Dollar	¥ 7,861	¥ 1,985	¥ 118	¥ 8,680	¥ 1,250	¥ 154	$ 69,566	$ 17,565	$ 1,045
Euro	29	—	0	5	—	0	260	—	1
Selling									
U.S. Dollar	9,108	—	29	11,880	—	(842)	80,602	—	257
Euro	306	—	(3)	211	—	(5)	2,711	—	(26)
Allocation method									
Forward exchange contracts:									
Buying									
U.S. Dollar	¥ 3,212	¥ —	¥ —	¥16,157	¥ —	¥ —	$ 28,423	$ —	$ —
Euro	53	—	—	3	—	—	472	—	—
Canadian Dollar	3	—	—	—	—	—	25	—	—
Selling									
U.S. Dollar	15,618	—	—	13,307	—	—	138,210	—	—
Euro	814	—	—	1,567	—	—	7,204	—	—
Yuan Renminbi	640	—	—	1,296	—	—	5,666	—	—
Currency swaps:									
Receipt U.S. Dollar									
Payment Yen	¥10,400	¥ 6,900	¥ —	¥10,400	¥10,400	¥ —	$ 92,035	$ 61,062	$ —
(2) Interest rate related:									
Special method									
Interest rate swaps:									
Receipt-variable rate/Payment-fixed rate	¥25,579	¥ 7,181	¥ —	¥39,175	¥29,990	¥ —	$226,363	$ 63,549	$ —
(3) Commodity related:									
Principle method									
Aluminum forward contracts:									
Buying	¥21,760	¥11,367	¥5,479	¥23,470	¥16,392	¥1,118	$192,562	$100,590	$48,488
Selling	2,093	—	(154)	1,792	—	(4)	18,521	—	(1,359)

Notes: 1. Main items hedged by forward exchange contracts are accounts payable for buying, accounts receivable for selling and long-term debt by interest rate swaps. Main items hedged by aluminum forward transactions are aluminum metal transactions.

Notes: 2. Fair value calculation method:
Fair values of forward exchange contracts are stated by the forward exchange rates. Fair values of currency swaps are measured at the quoted price obtained from the financial institutions. Fair values of aluminum forward transactions are stated by forward quotations of the London Metal Exchange.

Notes: 3. Fair values of forward exchange contracts and currency swaps that meet allocation method criteria are reflected in the fair values of accounts receivable, accounts payable and debts of their hedged items.

Notes: 4. Fair values of interest rate swaps that meet special treatment criteria are reflected in the fair values of long-term debt of their hedged item.

9. EFFECT OF YEAR-END DATE ON FINANCIAL STATEMENTS

The year-end date of 2017, namely, December 31, 2017, was a bank holiday. Although notes receivable and payable maturing on this date were accordingly settled on January 4, 2018, the Companies accounted for those notes in their financial statements as if they had been settled on the maturity date.

Notes outstanding at December 31, 2017 and 2016 dealt with in the above-mentioned manner were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Notes receivable	**¥938**	¥726	**$8,301**
Notes payable	**891**	816	**7,881**

10. SHORT-TERM DEBT AND LONG-TERM DEBT

At December 31, 2017 and 2016, the short-term debt of the Companies consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Bank loans at the average interest rate of 0.67%	**¥86,699**	¥66,895	**$767,251**
Commercial paper	**5,000**	5,000	**44,248**
Total	**¥91,699**	¥71,895	**$811,499**

At December 31, 2017 and 2016, the long-term debt of the Companies consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
0.63% bonds due 2017	**¥ —**	¥ 10,000	**$ —**
0.63% bonds due 2021	**15,000**	15,000	**132,743**
0.20% bonds due 2021	**10,000**	10,000	**88,496**
0.734% bonds due 2022	**10,000**	10,000	**88,496**
0.50% bonds due 2026	**7,000**	7,000	**61,947**
Loans principally from banks and insurance companies due 2018 to 2074 at the average interest rate of 0.93%	**213,026**	236,035	**1,885,190**
	255,026	288,035	**2,256,871**
Less: current portion	**(57,432)**	(58,234)	**(508,250)**
Total	**¥197,594**	¥229,800	**$1,748,622**

The aggregate annual maturities of the noncurrent portion of long-term debt were as follows:

Years ending December 31	Millions of yen	Thousands of U.S. dollars
2019	**¥ 41,406**	**$ 366,425**
2020	**31,609**	**279,726**
2021	**47,737**	**422,451**
2022	**35,632**	**315,327**
2023 and thereafter	**41,210**	**364,693**
Total	**¥197,594**	**$1,748,622**

At December 31, 2017 and 2016, the assets pledged as collateral for long-term debt were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Assets pledged as collateral			
Investment securities	**¥ 422**	¥ 3,786	**$ 3,735**
Property, plant and equipment, less accumulated depreciation	**144,945**	144,501	**1,282,699**
Total	**¥145,367**	¥148,288	**$1,286,434**
Secured short-term debt and long-term debt			
Long-term debt (includes due within 1 year)	**¥ 320**	¥ 400	**$ 2,832**
Notes and accounts payable-trade	**202**	121	**1,788**
Total	**¥ 522**	¥ 521	**$ 4,619**

11. RETIREMENT BENEFITS

(a) Defined-benefit pension plan, includes the plans using the simplified method

(1) Reconciliation of opening and closing balance of retirement benefit obligation for the years ended December 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Balance of retirement benefit obligation at the beginning of year	**¥ 99,169**	¥92,752	**$877,602**
Service cost	**2,928**	2,346	**25,912**
Interest cost	**219**	657	**1,938**
Actuarial gain and loss	**(2,418)**	9,513	**(21,398)**
Retirement benefits paid	**(6,979)**	(6,824)	**(61,761)**
Past service cost	**24**	(686)	**212**
Increase from changes in scope of consolidation	**8,943**	1,378	**79,142**
Other	**(732)**	33	**(6,478)**
Balance of the retirement benefit obligation at the end of year	**¥101,154**	¥99,169	**$895,168**

(2) Reconciliation of opening and closing balance of plan assets for the years ended December 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Balance of plan assets at the beginning of year	**¥77,613**	¥77,587	**$686,841**
Expected return on plan assets	**1,583**	1,634	**14,009**
Actuarial gain and loss	**4,654**	(1,021)	**41,186**
Contribution from employer	**4,519**	4,613	**39,991**
Retirement benefits paid	**(7,270)**	(6,695)	**(64,336)**
Increase from changes in scope of consolidation	**1,372**	1,458	**12,142**
Other	**(52)**	38	**(460)**
Balance of plan assets at the end of year	**¥82,419**	¥77,613	**$729,372**

(3) Reconciliation of the ending balance of retirement benefit obligations and plan assets, and the net defined benefit liability and the net defined benefit asset for the years ended December 31, 2017 and 2016 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Funded retirement benefit obligations	**¥ 98,015**	¥ 95,994	**$ 867,388**
Plan assets	**(82,419)**	(77,613)	**(729,372)**
	15,596	18,381	**138,016**
Unfunded retirement benefit obligations	**3,139**	3,176	**27,774**
Net amount of relevant liabilities and assets on the consolidated balance sheets	**18,734**	21,557	**165,790**
Net defined benefit liability	**18,966**	21,923	**167,843**
Net defined benefit asset	**(232)**	(365)	**(2,053)**
Net amount of relevant liabilities and assets on the consolidated balance sheets	**18,734**	21,557	**165,790**

(4) Retirement benefit expenses and the components of the amounts thereof for the years ended December 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Service cost	**¥ 2,928**	¥ 2,346	**$ 25,912**
Interest cost	**219**	657	**1,938**
Expected return on plan assets	**(1,583)**	(1,634)	**(14,009)**
Amortization of actuarial gain and loss	**2,019**	990	**17,867**
Amortization of past service cost	**26**	0	**230**
Retirement benefit expenses related to the defined-benefit pension plan	**¥ 3,609**	¥ 2,360	**$ 31,938**

(5) Remeasurements of defined benefit plans

The components of items (before tax) reported under remeasurements of defined benefit plans for the years ended December 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Past service cost	**¥ (1)**	¥ (102)	**$ (12)**
Actuarial gain and loss	**(9,071)**	8,983	**(80,276)**
Total	**¥(9,072)**	¥8,882	**$(80,288)**

(6) Accumulated remeasurements of defined benefit plans

The components of items (before tax) reported under accumulated remeasurements of defined benefit plans for the years ended December 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Unrecognized past service cost	**¥ (19)**	¥ (18)	**$ (168)**
Unrecognized actuarial gain and loss	**6,895**	15,966	**61,018**
Total	**¥6,876**	¥15,948	**$60,850**

(7) Matters regarding plan assets

(i) Major content of the plan assets

The percentages of major asset types that account for the total plan assets as of December 31, 2017 and 2016 were as follows:

	Ratio	
	2017	2016
Bonds	**30 %**	29 %
Stocks	**47**	44
General accounts of life insurance company	**21**	24
Cash and deposits	**2**	3
Total	**100 %**	100 %

(ii) Method for setting the long-term rate of expected return on plan assets

To determine the long-term rate of expected return on plan assets, the current and anticipated long-term yield rates of various assets that constitute the plan assets as well as the current and projected distribution of plan assets, have been taken into account.

(8) Matters regarding the assumptions for actuarial calculations

Key assumptions for actuarial calculations as of December 31, 2017 and 2016 were as follows:

	Ratio	
	2017	2016
Discount rate	**Mainly 0.4%**	Mainly 0.2%
Long-term rate of expected return on plan assets	**Mainly 2.0%**	Mainly 2.0%

(b) Defined contribution pension plan

The amounts required to be contributed by consolidated subsidiaries for the years ended December 31, 2017 and 2016 were ¥443 million (US$3,920 thousand), and ¥314 million, respectively.

12. INCOME TAXES

(a) At December 31, 2017 and 2016, significant components of deferred tax assets and liabilities were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Deferred tax assets:			
Write-down of marketable and investment securities	**¥ 15,218**	¥ 13,915	**$ 134,673**
Tax loss carryforwards	**10,643**	18,815	**94,186**
Impairment loss	**10,616**	7,894	**93,947**
Allowance for doubtful accounts	**7,031**	5,079	**62,221**
Net defined benefit liabillity	**4,360**	6,655	**38,584**
Depreciation and amortization	**3,789**	884	**33,531**
Deferred gains or losses on hedges	**1,676**	131	**14,832**
Provision for repairs	**1,307**	869	**11,566**
Provision for bonuses	**693**	703	**6,133**
Unrealized earnings from the sale of fixed assets	**629**	693	**5,566**
Loss on valuation of inventories	**592**	529	**5,239**
Undetermined accrued liabilities	**530**	753	**4,690**
Write-down of golf club memberships	**342**	352	**3,028**
Deduction of foreign corporation tax carried forward	**199**	407	**1,762**
Other	**5,747**	3,256	**50,858**
Subtotal of deferred tax assets	**63,373**	60,935	**560,823**
Valuation allowance	**(46,471)**	(41,653)	**(411,248)**
Total deferred tax assets	**16,902**	19,282	**149,575**
Deferred tax liabilities:			
Valuation difference on available-for-sale securities	**(7,675)**	(2,498)	**(67,924)**
Amount of revaluation from the book value	**(4,991)**	(3,524)	**(44,168)**
Special depreciation reserve	**(4,168)**	(1,558)	**(36,883)**
Foreign subsidiaries' undistributed retained earnings	**(1,981)**	(1,699)	**(17,531)**
Deferred gains or losses on hedges	**(1,692)**	(250)	**(14,974)**
Reserve for advanced depreciation of fixed assets	**(207)**	(158)	**(1,830)**
Other	**(1,149)**	(524)	**(10,168)**
Total deferred tax liabilities	**(21,863)**	(10,211)	**(193,478)**
Net deferred tax assets (liabilities)	**¥ (4,961)**	¥ 9,071	**$ (43,905)**

(b) The net deferred tax assets at December 31, 2017 and 2016 were included in the consolidated balance sheets as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Deferred tax assets — current	**¥ 6,898**	¥ 4,092	**$ 61,042**
Deferred tax assets — noncurrent	**1,080**	9,115	**9,554**
Other current liabilities	**(165)**	(95)	**(1,458)**
Deferred tax liabilities — noncurrent	**(12,774)**	(4,041)	**(113,042)**

(c) Significant items in the reconciliation of the normal income tax rate to the effective at December 31, 2017 and 2016 were as follows:

	2017	2016
Statutory tax rate	**30.9 %**	33.1 %
Differences of statutory tax rate in subsidiaries	**(4.2)**	(5.8)
Effect on the reexamination of recoverability	**(1.2)**	(0.9)
Consolidated adjustment for loss on valuation of investments in capital of subsidiaries and associates, etc.	**(1.1)**	(4.0)
Effects of changes in the effective statutory tax rate, etc.	**(0.6)**	1.2
Deferred taxes on undistributed earnings of foreign subsidiaries	**0.6**	(0.1)
Unrealized earnings from the sale of fixed assets	**0.1**	0.0
Other	**(1.2)**	(2.4)
Effective tax rate	**23.2 %**	21.1 %

Note: Amendment to the amount of deferred tax assets and deferred tax liabilities due to a change in the income tax rate.

When the Tax Cuts and Jobs Act of 2017 became the law in the U.S. on December 22, 2017, the federal corporate tax rate applicable to the Company's consolidated subsidiaries in the U.S. was reduced from 35% to 21% for the consolidated fiscal year and subsequent years. Since deferred tax assets and deferred tax liabilities are calculated using the new federal corporate tax rate, income taxes–deferred recorded in the current consolidated fiscal year fell by ¥261 million (US$2,310 thousand).

13. IMPAIRMENT LOSS

At December 31, 2017, major impairment losses on fixed assets were as follows:

Location	Major use	Asset category	Millions of yen	Thousands of U.S. dollars
Yokohama City, Kanagawa Prefecture	Production facilities	Buildings and structures, etc.	**¥2,312**	**$20,459**
Ichihara City, Chiba refecture	Land of rent	Land	**2,311**	**20,453**
Chichibu City, Saitama Prefecture	Production facilities	Construction in progress, etc.	**1,555**	**13,757**
Other			**1,027**	**9,085**
Total			**¥7,204**	**$63,753**

14. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

Reclassification adjustments and tax effects for components of other comprehensive income (loss) for the year ended December 31, 2017, were as follows:

	Millions of yen	Thousands of U.S. dollars
Valuation difference on available-for-sale securities		
Increase during the year	**¥17,350**	**$153,542**
Reclassification adjustments	**(32)**	**(281)**
Amount before income tax effect	**17,318**	**153,261**
Income tax effect	**(5,186)**	**(45,892)**
Total	**¥12,133**	**$107,369**
Deferred gains or losses on hedges		
Increase during the year	**¥ 6,280**	**$ 55,579**
Reclassification adjustments	**60**	**532**
Adjustments of acquisition cost of assets	**(1,296)**	**(11,465)**
Amount before income tax effect	**5,045**	**44,646**
Income tax effect	**(1,566)**	**(13,855)**
Total	**¥ 3,479**	**$ 30,791**
Foreign currency translation adjustments		
Increase during the year	**¥ 1,455**	**$ 12,878**
Reclassification adjustments	**—**	**—**
Amount before income tax effect	**1,455**	**$ 12,878**
Income tax effect	**—**	**—**
Total	**¥ 1,455**	**$ 12,878**
Remeasurements of defined benefit plans, net of tax		
Increase during the year	**¥ 7,027**	**$ 62,190**
Reclassification adjustments	**2,045**	**18,098**
Amount before income tax effect	**9,072**	**80,288**
Income tax effect	**(2,778)**	**(24,587)**
Total	**¥ 6,294**	**$ 55,700**
Share of other comprehensive income of unconsolidated subsidiaries and affiliates accounted for using equity method		
Increase during the year	**¥ 22**	**$ 197**
Reclassification adjustments	**—**	**—**
Total	**¥ 22**	**$ 197**
Total other comprehensive income	**¥23,384**	**$206,937**

15. LEASES

(a) Finance Leases as a Lessee

Finance lease transactions other than those involving transfer of ownership to the lessee

(1) Type of leased assets

a) Tangible fixed assets: Principally equipment for manufacturing hard discs and steam-powered electric generation equipment (machinery and equipment)

b) Intangible fixed assets: Software

(2) Method of depreciation

The depreciation method of leased assets is described in Note 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (j) Leased Assets.

(b) Operating Leases as a Lessee

At December 31, 2017 and 2016, assets leased under noncapitalized operating leases were as follows:

Future minimum lease payments for the remaining lease periods:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Due within 1 year	**¥ 366**	¥ 301	**$ 3,242**
Due over 1 year	**2,147**	2,460	**19,004**
Total	**¥2,514**	¥2,761	**$22,246**

(c) Operating Leases as a Lessor

At December 31, 2017 and 2016, noncancellable operating lease receivables for the remaining lease periods were as follows:

Future minimum lease receivables for the remaining lease periods:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Due within 1 year	**¥ 80**	¥ 80	**$ 704**
Due over 1 year	**514**	594	**4,552**
Total	**¥594**	¥674	**$5,256**

16. CONTINGENT LIABILITIES

At December 31, 2017 and 2016, the Companies were guarantors for the borrowings below. The guarantees were principally for unconsolidated subsidiaries, affiliates and others.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Guarantees	**¥1,509**	¥5,032	**$13,351**

As the amounts include joint and several guarantors' portions as well as the Companies', the actual amounts that the Companies were contingently liable to pay were smaller than the above.

The amount for 2016 in the above table included ¥3,963 million (US$34,019 thousand) of guarantee liabilities for PT. Indonesia Chemical Alumina (ICA; an equity method affiliate owned 20% by the Company). In addition to the guarantee liabilities, the Company invested in and provided long-term loans to ICA as described below. ICA did not pay back a loan due on December 15, 2016 to a syndicate of banks, and ICA was negotiating with them about its request for rescheduling of debt. The above-mentioned amount of guarantee liabilities (¥3,963 million, or US$34,019 thousand) was based on the Company's investment ratio of 20% in ICA, as agreed with the syndicate of banks.

	Millions of yen
Investment securities	¥4,109
Long-term loans	¥6,889
Other	1,134
Total	¥8,023

During the fiscal year ended December 31, 2017, ICA paid back loans due in December 2016, due in June 2017, and due in December 2017.

In light of ICA's financial condition, the Company posted a provision for loss on guarantees of ¥2,640 million (US$23,362 thousand) for the fiscal year ended December 31, 2017.

17. NET ASSETS

The Corporation Law of Japan (the "Law") provides that the entire amount paid for new shares may be credited to the stated capital, with the provision that, by resolution of the Board of Directors, up to one-half of such amount paid for new shares may be credited to additional paid-in capital, which is included in capital surplus.

The Law provides that an amount equal to 10% of cash appropriations of retained earnings shall be set aside as additional paid-in capital or a legal earnings reserve until the total of such reserve and additional paid-in capital equals 25% of the stated capital. Additional paid-in capital and the legal earnings reserve may be used to eliminate or reduce a deficit, if any, or be capitalized by resolution at the Ordinary General Meeting of Shareholders. All additional paid-in capital and the legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends. Additional paid-in capital and the legal earnings reserve are included in capital surplus and retained earnings, respectively.

The Law does not have a definition about the classification of paid-in capital between common stock and preferred stock. Accordingly, the Company states its capital in the total amount paid by issuing common stock and preferred stock.

The maximum amount that the Company can distribute as dividends is calculated based on the unconsolidated financial statements of the Company in accordance with Japanese laws and regulations.

18. REVALUATION RESERVE FOR LAND

The Company and some of its consolidated subsidiaries revalued the land they own for business in accordance with the Law concerning Revaluation of Land. The difference between the revalued amount and the book value, after the deduction of applicable tax, is stated as a land revaluation reserve. The revaluation was conducted using methods stipulated in the ordinance for enforcement of the law, specifically, the method in Item 4 of Article 2 (Reasonable Adjustment of the Appraised Value Relating to Land Price Tax), and the method in Item 5 of Article 2 (Estimation by Experts). The excess of the carrying amount of the revalued land over the market value at December 31, 2017 was ¥66,722 million (US$590,462 thousand).

19. SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses for the years ended December 31, 2017 and 2016 were summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	**2017**
Freight	**¥26,612**	¥20,379	**$235,502**
Employees' compensation	**21,582**	19,997	**190,987**
Other	**51,597**	43,735	**456,613**
Total	**¥99,791**	¥84,111	**$883,102**

Research and development expenses included in selling, general and administrative expenses for the years ended December 31, 2017 and 2016 were ¥18,419 million (US$163,000 thousand) and ¥17,304 million, respectively.

20. RESEARCH AND DEVELOPMENT

Research and development costs included in manufacturing costs, selling, general and administrative expenses for the years ended December 31, 2017 and 2016 were ¥18,539 million (US$164,059 thousand) and ¥17,313 million, respectively.

21. LOSSES FOR AFFILIATES

The Company discussed how to manage the alumina plant of PT. Indonesia Chemical Alumina (ICA)—in which the Company holds a 20% share—in the future with ICA's parent company, PT ANTAM Tbk.

However, the Company judged at its Board of Directors' meeting held on July 24, 2017, that it would be difficult for the two parties to reach an agreement on terms and conditions to restructure ICA.

As a result a loss on investment to companies under the application of the equity method of ¥9,948 million (US$88,035 thousands) in connection with the impairment loss of ICA's alumina plant was recorded as the other expenses for the fiscal year ended December 31, 2017.

In addition, in light of ICA's current financial conditions as a result of the above, the Company recorded losses including ¥2,648 million (US$23,433 thousands) in the provision of allowance for doubtful accounts for the loans to ICA and ¥2,640 million (US$23,362 thousands) in the provision for loss on guarantees for guarantee liabilities for ICA's borrowings.

22. BUSINESS COMBINATION

(a) Outline of the business acquisition

(1) Name of acquired company and business description

Name of acquired company: SGL GE Holding GmbH
Description of major businesses: Manufacture, research, development, and sales of graphite electrodes

The Company obtained approval for the share acquisition from the U.S. competition regulators based, as a prerequisite for approval, on the condition that the U.S. business of SGL GE be transferred to a third party.

To meet this condition, the Company transferred all shares of SGL GE Carbon Holding LLC which is operating SGL GE's business in the U.S., to Tokai Carbon US Holdings Inc., a wholly owned subsidiary of Tokai Carbon Co., Ltd.

(2) Background of the business acquisition

Low growth (around 1% per year) in global steel demand was predicted and the business environment in the graphite electrode industry remained challenging due to weak demand and severe competition.

Under these circumstances, the Company decided to increase the competitiveness of its graphite electrode business through a merger with SGL GE, which had a highly cost-competitive business in three key regions: Europe, the U.S. and Southeast Asia.

(3) Date of business acquisition:

October 2, 2017

(4) Legal form of business acquisition:

Cash acquisition of shares

(5) Name of the company following business acquisition:

SHOWA DENKO CARBON Holding GmbH (SGL GE Holding GmbH was renamed SHOWA DENKO CARBON Holding GmbH at the same time as the share acquisition.)

(6) Ratio of voting rights after acquisition:

100%

(7) Determination of the main reason for acquiring the company:

The Company obtained 100% of the voting rights through the cash acquisition of shares.

(b) Period of operational results of the acquired company included in the consolidated financial statements of the Company

From October 1, 2017 to December 31, 2017

(c) Acquisition cost and breakdown of the consideration

	Millions of yen	Thousands of U.S. dollars
Cash	¥ 19,291 (provisional)	$ 170,717 (provisional)
Acquisition cost	¥ 19,291 (provisional)	$ 170,717 (provisional)

Share transfer price of SGL GE Carbon Holding LLC's shares is ¥13,945 million (US$123,410 thousand) (provisional).

(d) Breakdown and amount of principal acquisition-related expenses

	Millions of yen	Thousands of U.S. dollars
Advisory fees, etc.	¥ 2,594	$ 22,958

(e) The amount of goodwill incurred, reasons for the goodwill and method and period of amortization

(1) Gain on negative goodwill

¥3,115 million (US$27,571 thousand)

The amount of goodwill is calculated provisionally since the allocation of the acquisition cost has not been completed.

(2) Reasons for goodwill

As the net amount of received assets and assumed liabilities exceeded the share acquisition cost, the difference is accounted for as gain on negative goodwill.

(f) Amount of assets acquired and liabilities assumed on the business acquisition date and their breakdown:

	Millions of yen	Thousands of U.S. dollars
Current assets	¥ 23,233	$ 205,605
Noncurrent assets	35,276	312,179
Total assets	¥ 58,510	$ 517,784
Current liabilities	¥ 27,514	$ 243,490
Noncurrent liabilities	8,589	76,005
Total liabilities	¥ 36,103	$ 319,495

(g) Allocation of acquisition cost

Since the valuation of assets and liabilities at fair value was not available at the end of the consolidated fiscal year ended December 31, 2017, the allocation of the acquisition cost has not been completed. Therefore, the Company used a provisional accounting treatment based on reasonable information available at the time.

(h) Estimated amount of impact and the method of calculation of the business acquisition on the consolidated statements of income for the consolidated fiscal year ended December 31, 2017, assuming that the business acquisition was completed on the date of the beginning of the consolidated fiscal year

	Millions of yen	Thousands of U.S. dollars
Net sales	¥ 28,093	$ 248,613
Ordinary income	48	421
Net income attributable to owners of the parent	(110)	(970)

(Method of calculation for the estimated amount)

The differences between net sales and profit and loss amounts was calculated based on the assumption that the business acquisition was completed at the date of the beginning of the consolidated fiscal year, and net sales and profit and loss amounts as stated in the consolidated statements of income of the acquired company are defined as the estimated amount of impact.

This note has not received audit certification.

23. SEGMENT INFORMATION

(a) Information about sales, operating income, assets, and other items by reportable segment

Year ended December 31, 2017	Millions of yen								
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Total	Adjustments	Consolidated
Sales									
Outside customers	**¥240,685**	**¥131,540**	**¥120,593**	**¥ 65,199**	**¥ 96,827**	**¥125,544**	**¥ 780,387**	**¥ —**	**¥ 780,387**
Inter-segment	**10,443**	**17,218**	**2,471**	**8,243**	**8,612**	**8,080**	**55,067**	**(55,067)**	**—**
Total	**251,128**	**148,758**	**123,064**	**73,442**	**105,439**	**133,624**	**835,454**	**(55,067)**	**780,387**
Operating income (loss)	**¥ 33,357**	**¥ 16,474**	**¥ 21,925**	**¥ 7,089**	**¥ 6,697**	**¥ 633**	**¥ 86,175**	**¥ (8,357)**	**¥ 77,818**
Assets	**¥146,608**	**¥215,641**	**¥144,939**	**¥202,274**	**¥169,561**	**¥166,540**	**¥1,045,563**	**¥(20,836)**	**¥1,024,727**
Depreciation and amortization	**6,850**	**8,460**	**9,598**	**5,463**	**5,356**	**1,614**	**37,341**	**1,113**	**38,454**
Amortization of goodwill	**—**	**(260)**	**12**	**8**	**228**	**(0)**	**(12)**	**—**	**(12)**
Investments in unconsolidated subsidiaries and affiliates	**11,148**	**2,301**	**—**	**1,789**	**—**	**340**	**15,578**	**—**	**15,578**
Increase in property, plant and equipment and intangible assets	**2,836**	**9,627**	**11,242**	**7,781**	**8,022**	**1,154**	**40,662**	**617**	**41,279**

Notes: 1. Adjustments are as follows:

(1) Elimination of intersegment transactions of ¥88 million (US$779 thousand) and total corporate expenses of ¥8,445 million (US$74,735 thousand) which were not allocated to any reportable segment were included in "Adjustments" for "Operating income" of ¥(8,357) million (US$(73,954) thousand). Total corporate expenses principally consist of total corporate common research expenses which are not attributable to any reportable segment.

(2) Elimination of intersegment receivables and payables and assets of ¥51,071 million (US$451,956 thousand) and total corporate assets of ¥30,235 million (US$267,566 thousand) which were not allocated to any reportable segment were included in "Adjustments" for "Assets" of ¥(20,836) million (US$(184,390) thousand). Total corporate assets principally consist of surplus funds of the Companies under management (in the form of cash and deposits), deferred tax assets and assets related to total corporate common research and development expenses.

Notes: 2. Amortization of negative goodwill was included in "Amortization of goodwill."

Year ended December 31, 2016	Millions of yen								
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Total	Adjustments	Consolidated
Sales									
Outside customers	¥180,178	¥118,433	¥115,748	¥ 43,776	¥ 90,715	¥122,309	¥671,159	¥ —	¥671,159
Inter-segment	5,605	16,096	4,713	7,094	7,860	6,431	47,800	(47,800)	—
Total	185,783	134,529	120,461	50,870	98,575	128,740	718,958	(47,800)	671,159
Operating income (loss)	¥ 20,690	¥ 13,824	¥ 15,015	¥ (5,758)	¥ 4,416	¥ 623	¥ 48,811	¥ (6,758)	¥ 42,053
Assets	¥135,411	¥205,555	¥148,218	¥152,976	¥148,415	¥159,833	¥950,408	¥ (17,710)	¥932,698
Depreciation and amortization	5,715	7,350	12,946	4,087	5,678	1,600	37,377	1,384	38,761
Amortization of goodwill	—	(261)	12	8	228	1	(11)	—	(11)
Investments in unconsolidated subsidiaries and affiliates	10,793	2,167	—	5,820	—	288	19,067	—	19,067
Increase in property, plant and equipment and intangible assets	3,397	12,937	7,636	8,221	5,193	1,046	38,430	846	39,276

Notes: 1. Adjustments are as follows:

(1) Elimination of intersegment transactions of ¥100 million (US$858 thousand) and total corporate expenses of ¥6,657 million (US$57,147 thousand) which were not allocated to any reportable segment were included in "Adjustments" for "Operating income" of ¥(6,758) million (US$(58,014) thousand). Total corporate expenses principally consist of total corporate common research expenses which are not attributable to any reportable segment.

(2) Elimination of intersegment receivables and payables and assets of ¥59,133 million (US$507,623 thousand) and total corporate assets of ¥41,422 million (US$355,584 thousand) which were not allocated to any reportable segment were included in "Adjustments" for "Assets" of ¥(17,710) million (US$(152,030) thousand). Total corporate assets principally consist of surplus funds of the Companies under management (in the form of cash and deposits), deferred tax assets and assets related to total corporate common research and development expenses.

Notes: 2. Amortization of negative goodwill was included in "Amortization of goodwill."

Year ended December 31, 2017	Thousands of U.S. dollars								
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Total	Adjustments	Consolidated
Sales									
Outside customers	**$2,129,954**	**$1,164,069**	**$1,067,192**	**$ 576,981**	**$ 856,877**	**$1,111,005**	**$6,906,077**	**$ —**	**$6,906,077**
Inter-segment	**92,416**	**152,374**	**21,867**	**72,947**	**76,212**	**71,505**	**487,322**	**(487,322)**	**—**
Total	**2,222,369**	**1,316,443**	**1,089,059**	**649,928**	**933,089**	**1,182,511**	**7,393,399**	**(487,322)**	**6,906,077**
Operating income (loss)	**$ 295,192**	**$ 145,787**	**$ 194,030**	**$ 62,738**	**$ 59,263**	**$ 5,603**	**$ 762,612**	**$ (73,954)**	**$ 688,658**
Assets	**$1,297,415**	**$1,908,327**	**$1,282,644**	**$1,790,034**	**$1,500,543**	**$1,473,805**	**$9,252,770**	**$(184,390)**	**$9,068,380**
Depreciation and amortization	**60,619**	**74,865**	**84,938**	**48,348**	**47,401**	**14,283**	**330,455**	**9,849**	**340,303**
Amortization of goodwill	**—**	**(2,304)**	**104**	**75**	**2,019**	**(0)**	**(106)**	**—**	**(106)**
Investments in unconsolidated subsidiaries and affiliates	**98,655**	**20,362**	**—**	**15,828**	**—**	**3,009**	**137,854**	**—**	**137,854**
Increase in property, plant and equipment and intangible assets	**25,099**	**85,195**	**99,486**	**68,858**	**70,991**	**10,211**	**359,840**	**5,458**	**365,298**

(b) Information about geographical areas

Year ended December 31, 2017	Millions of yen			
	Japan	Asia	Others	Total
Sales	**¥504,162**	**¥230,644**	**¥45,580**	**¥780,387**

Year ended December 31, 2016	Millions of yen			
	Japan	Asia	Others	Total
Sales	¥430,639	¥208,626	¥31,893	¥671,159

Year ended December 31, 2017	Thousands of U.S. dollars			
	Japan	Asia	Others	Total
Sales	**$4,461,614**	**$2,041,097**	**$403,365**	**$6,906,077**

Year ended December 31, 2017	Millions of yen		
	Japan	Others	Total
Property, plant and equipment	**¥402,889**	**¥103,011**	**¥505,900**

Year ended December 31, 2016	Millions of yen		
	Japan	Others	Total
Property, plant and equipment	¥410,099	¥77,035	¥487,135

Year ended December 31, 2017	Thousands of U.S. dollars		
	Japan	Others	Total
Property, plant and equipment	**$3,565,388**	**$911,600**	**$4,476,988**

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

Year ended December 31, 2017	Millions of yen							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Impairment loss on assets	**¥ 289**	**¥ 649**	**¥ 3,945**	**¥ 2,312**	**¥ 2**	**¥ 7**	**¥ —**	**¥ 7,204**

Year ended December 31, 2016	Millions of yen							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Impairment loss on assets	¥ 31	¥ 210	¥ 6,401	¥ 133	¥ 8,569	¥ 299	¥ —	¥ 15,644

Year ended December 31, 2017	Thousands of U.S. dollars							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Impairment loss on assets	**$ 2,562**	**$ 5,748**	**$ 34,908**	**$ 20,459**	**$ 14**	**$ 62**	**$ —**	**$ 63,753**

(d) Information about amortization of goodwill and unamortized balance by reportable segment

Year ended December 31, 2017	Millions of yen							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Amortization	¥ —	¥ 48	¥ 44	¥ 8	¥ 282	¥ 28	¥ —	¥ 410
Unamortized balance	—	186	288	46	2,660	148	—	3,328

Year ended December 31, 2016	Millions of yen							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Amortization	¥ —	¥ 47	¥ 44	¥ 8	¥ 282	¥ 29	¥ —	¥ 411
Unamortized balance	—	232	332	55	3,006	175	—	3,801

Year ended December 31, 2017	Thousands of U.S. dollars							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Amortization	$ —	$ 421	$ 392	$ 75	$ 2,494	$ 250	$ —	$ 3,632
Unamortized balance	—	1,649	2,548	410	23,540	1,310	—	29,456

Amortization of negative goodwill arose from business combinations prior to April 1, 2010 and its unamortized balance are as follows:

Year ended December 31, 2017	Millions of yen							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Amortization	¥ —	¥ 308	¥ 33	¥ —	¥ 54	¥ 28	¥ —	¥ 422
Unamortized balance	—	2,088	325	—	540	231	—	3,184

Year ended December 31, 2016	Millions of yen							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Amortization	¥ —	¥ 308	¥ 33	¥ —	¥ 54	¥ 28	¥ —	¥ 422
Unamortized balance	—	2,396	358	—	593	259	—	3,606

Year ended December 31, 2017	Thousands of U.S. dollars							
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminum	Others	Elimination	Total
Amortization	$ —	$ 2,725	$ 288	$ —	$ 475	$ 250	$ —	$ 3,738
Unamortized balance	—	18,478	2,878	—	4,774	2,045	—	28,174

24. RELATED PARTY INFORMATION

(a) Related party transactions

The information for the fiscal years ended December 31, 2017 and 2016 was not disclosed because there were no significant transactions with related parties.

(b) Summary financial statements of significant affiliates

A significant affiliate as of December 31, 2017 was PT. Indonesia Chemical Alumina (ICA), and summary of its financial statements was as follows:

	Millions of yen	Thousands of U.S. dollars
Balance Sheet		
Total current assets	¥ 3,078	$ 27,242
Total noncurrent assets	43,128	381,665
Total current liabilities	11,310	100,087
Total noncurrent liabilities	26,203	231,881
Total net assets	8,694	76,939
Statement of Income		
Net sales	2,830	25,043
Income before income taxes	(11,300)	(100,003)
Net income	(11,702)	(103,559)

In addition, in the consolidated financial statements for the current consolidated fiscal year and as a result of recording impairment losses from the alumina factory of this company, equity in losses of unconsolidated subsidiaries and affiliates of ¥10,533 million (US$93,212 thousand) was recorded as "other expenses."

A significant affiliate as of December 31, 2016 was Japan Polyethylene Corporation, and summary of its financial statements was as follows:

	Millions of yen
Balance Sheet	
Total current assets	¥ 41,536
Total noncurrent assets	14,161
Total current liabilities	32,348
Total noncurrent liabilities	262
Total net assets	23,087
Statement of Income	
Net sales	122,702
Income before income taxes	12,027
Net income	8,503

25. SIGNIFICANT SUBSEQUENT EVENTS

Disposal of Treasury Stock through International Offering

The Company passed a resolution for the disposal of treasury stock through an international offering at the meeting of the Board of Directors held on March 6, 2018, for which payment was completed on March 22, 2018. An outline of the disposal follows:

(a) Disposal of treasury stock through international offering

(1) Class and number of disposed treasury stock

6,000,000 shares of the Company's common stock

(2) Disposition price (amount to be paid)

¥4,350.6 (US$38.5) per share

(3) Total disposition value (amount to be paid)

¥26,103,600,000 (US$231,005,310)

(4) Payment date

March 22, 2018

(5) Method of disposition

In the offering to be made in overseas markets, mainly in Europe and Asia (provided that the U.S. and Canada are excluded), the underwriters, for which Mizuho International plc. acts as the sole bookrunner and lead manager, shall severally and not jointly underwrite and purchase all of the shares.

(b) Use of funds

The Company plans to apply the funds acquired by the disposal of treasury stock through the above-mentioned international offering in the following ways:

- ¥16 billion to be used by the end of December 2018 as funds for repayment of debt in connection with the acquisition of shares of SGL GE Holding GmbH ("SGL GE") and for various investments for the purpose of maximizing the synergistic effect of integration with SGL GE;
- ¥5 billion to be used by the end of December 2019 as funds for facility investment for the purpose of increasing domestic and international production capacity of high-purity gases for electronics;
- ¥2 billion to be used by the end of December 2018 as funds for facility investment for the purpose of increasing production capacity of aluminum cans in Vietnam and Thailand; and
- ¥3 billion to be used by the end of December 2019 as funds for facility investment for the purposes of strengthening the business foundation of LIB materials and for increasing production capacity of SiC epitaxial wafers for power devices.

Report of Independent Certified Public Accountants

KPMG

Independent Auditor's Report

To the Board of Directors of Showa Denko K.K.:

We have audited the accompanying consolidated financial statements of Showa Denko K.K. and its consolidated subsidiaries, which comprise the consolidated balance sheets as at December 31, 2017 and 2016, and the consolidated income statements, statements of comprehensive income, statements of changes in net assets and statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Showa Denko K.K. and its consolidated subsidiaries as at December 31, 2017 and 2016, and their financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2017 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 4 to the consolidated financial statements.

KPMG AzsA LLC

KPMG AZSA LLC
April 5, 2018
Tokyo, Japan

KPMG AZSA LLC, a limited liability audit corporation incorporated under the Japanese Certified Public Accountants Law and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Corporate Data

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Ordinary General Meeting
The Ordinary General Meeting of Shareholders was held on March 29, 2018.

Shareholders (Top 10) *(At December 31, 2017)*

Shareholder	Number of Shares Held (in thousands)	Rate of Shareholding (%)
The Master Trust Bank of Japan Ltd. (T)	9,166	6.42
Japan Trustee Services Bank Ltd. (T)	7,701	5.39
Fukoku Mutual Life Insurance Company	5,517	3.86
MORGAN STANLEY & CO. LLC	3,651	2.56
The Dai-ichi Life Insurance Company Limited	3,600	2.52
MSCO CUSTOMER SECURITIES	3,321	2.33
Japan Trustee Services Bank Ltd. (T9)	3,028	2.12
Sompo Japan Nipponkoa Insurance Inc.	3,007	2.11
NORTHERN TRUST CO. (AVFC) SUB A/C NON TREATY	2,956	2.07
Japan Trustee Services Bank Ltd. (T5)	2,659	1.86

Note: Each rate of shareholding was calculated after deducting the number of treasury shares (6,897 thousand) from the number of shares outstanding.

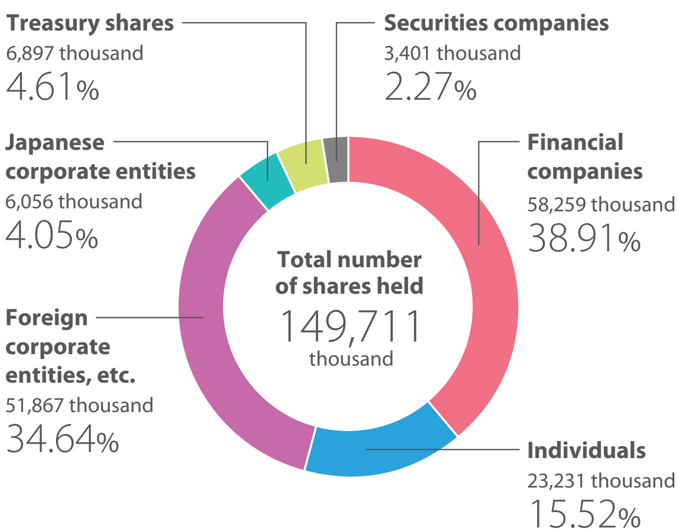
Number of Shares Outstanding
149,711,292 at December 31, 2017

Number of Shareholders
60,531 at December 31, 2017

Classification of Stock
All stock issued by Showa Denko is common stock.

Stock Transfer Agent
Mizuho Trust & Banking Co., Ltd.
2-1, Yaesu 1-chome, Chuo-ku, Tokyo 103-8670, Japan

Shareholders by Sector *(At December 31, 2017)*



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Printed in Japan