

## Third Quarter, 2017 Consolidated Financial Results (Summary)

### 1. Third Quarter Results 2017

#### (1) Summary

(Unit: billions of yen)

Items	2016	2017	Increase/ decrease	2017 Forecast *
	Jan.1 - Sept.30	Jan.1 - Sept.30		
Net Sales	484.4	563.8	79.4	762.0
Operating Income	25.5	55.9	30.5	60.0
Net income attributable to owners of the parent	11.5	23.4	11.9	21.0

\*Forecast revised on Jul. 24, 2017.

#### (2) Net Sales and Operating Income by Segment

(Unit: billions of yen)

Segment	2016	2017	Increase/ decrease	2017 Forecast *	
	Jan.1 - Sept.30	Jan.1 - Sept.30			
Net Sales	Petrochemicals	130.1	183.2	53.0	240.0
	Chemicals	98.8	108.5	9.7	148.0
	Electronics	86.8	95.3	8.5	130.0
	Inorganics	37.5	42.6	5.1	56.0
	Aluminum	72.5	77.3	4.8	105.0
	Others	92.9	98.1	5.1	131.0
	Adjustments	-34.3	-41.1	-6.8	-48.0
	Total	484.4	563.8	79.4	762.0
Operating Income	Petrochemicals	13.4	24.1	10.7	25.0
	Chemicals	9.7	11.3	1.6	15.0
	Electronics	9.2	18.4	9.2	22.0
	Inorganics	-5.0	2.4	7.4	0.0
	Aluminum	2.8	4.8	2.1	6.0
	Others	0.5	0.4	-0.1	0.0
	Adjustments	-5.1	-5.6	-0.4	-8.0
	Total	25.5	55.9	30.5	60.0

LIB materials business was transferred from the Others segment to the Electronics segment at the beginning of 2017. The above data are based on this new segmentation.

(Unit: billions of yen)

Segment	2017 CQ1	2017 CQ2	2017 CQ3	
	Jan.1 - Mar.31	Apr.1 - Jun.30	Jul.1 - Sept.30	
Net Sales	Petrochemicals	64.6	59.3	59.2
	Chemicals	33.3	36.8	38.4
	Electronics	29.7	33.3	32.3
	Inorganics	13.1	13.5	16.0
	Aluminum	23.6	27.3	26.4
	Others	32.0	33.0	33.0
	Adjustments	-13.1	-14.2	-13.8
	Total	183.2	189.0	191.6
Operating Income	Petrochemicals	10.6	5.6	7.9
	Chemicals	3.1	3.8	4.4
	Electronics	6.0	6.1	6.3
	Inorganics	-0.1	0.2	2.3
	Aluminum	1.5	1.7	1.6
	Others	0.2	-0.1	0.4
	Adjustments	-1.7	-2.0	-2.0
	Total	19.7	15.3	20.9

### 2. Cash dividends

Items	2016	2017 Forecast
Cash dividends per share (yen)	* ---	30.0 (planned)

\*SDK resolved payment of dividends of Yen 30 per share based on the record date of May 11, 2017 at the extraordinary general meeting of shareholders held on June 27, 2017, and paid dividends on the next day. The Company plans to pay term-end dividends of Yen 30 per share for the fiscal year of 2017.

### 3. Reference

Items	2016	2017	Increase/ decrease
	Jan.1 - Sept.30	Jan.1 - Sept.30	
Exchange rate (yen/US\$)	108.7	111.9	Yen depreciated by 3.2
Domestic naphtha price (yen/kl)	32,400	39,050	6,650

(Unit: billions of yen)

Items	Dec. 31, 2016	Sept. 30, 2017	Increase/ decrease
	Total assets	932.7	
Interest-bearing debt	359.9	351.0	-8.9

#### Note:

The above forecast is based on the information available as of today and assumptions as of today regarding risk factors that could affect our future performance. Actual results may differ materially from the forecast due to a variety of risk factors, including, but not limited to, the economic conditions, costs of naphtha and other raw materials, demand for our products, market conditions, and foreign exchange rates. We undertake no obligation to update the forward-looking statements unless required by law. The forecast stated above does not include the expected effect of business integration between SDK and SGL GE (currently SHOWA DENKO CARBON Holding GmbH) which was preannounced in October 2016 and implemented on October 2, 2017, because it takes time to securely grasp the effect of the business integration.

## Consolidated Financial Statements

For the first three quarters ended September 30, 2017



## I. Consolidated Financial Results

Nov. 14th, 2017

## (1) Results of operations:

(¥ in millions, US\$ in thousands, except for net income attributable to owners of the parent per share)

	Results for the first three quarters (Jan.1-Sep.30)			
	2016	2017	Increase (Decrease)	2017
Net sales	¥ 484,410	¥ 563,813	% 16.4	\$ 5,001,444
Operating income	25,475	55,944	119.6	496,270
Ordinary income	20,650	42,381	105.2	375,952
Net income attributable to owners of the parent	11,538	23,437	103.1	207,904
Net income attributable to owners of the parent per share: Basic	80.87	164.44	—	1.46
Net income attributable to owners of the parent per share: Diluted	—	—	—	—

## Notes

Important changes in accounting policies : not applicable

Comprehensive income :

Results for the year ended September 30,2017 ¥33,744 million

Results for the year ended September 30,2016 ¥-8,243 million

## (2) Financial position:

(¥ in millions, US\$ in thousands, except for stockholders' equity ratio)

	Dec.31, 2016	Sep.30, 2017	Sep.30, 2017
Total assets	¥ 932,698	¥ 965,126	\$ 8,561,396
Total equity	311,231	339,668	3,013,107
Stockholders' equity ratio	% 31.8	% 33.6	% 33.6

## (3) Dividends:

	2016	2017 Forecast
Q1 dividends per share (¥)	—	—
Q2 dividends per share (¥)	0.00	0.00
Q3 dividends per share (¥)	—	0.00
End of Term dividends per share (¥)	0.00	30.00
Annual dividends per share (¥)	0.00	30.00

As announced on April 25, 2017, the Company resolved payment of dividends of ¥30 per share based on the record date of May 11, 2017 at the extraordinary general meeting of shareholders held on June 27, 2017, and paid dividends on the next day. The Company plans to pay term-end dividends of ¥30 per share for the fiscal year of 2017.

## II. Forecast of performance for the year ending December 31, 2017

(¥ in millions, US\$ in thousands, except for net income attributable to owners of the parent per share)

	fiscal year	
	¥	\$
Net sales	762,000	6,759,514
Operating income	60,000	532,245
Ordinary income	43,500	385,878
Net income attributable to owners of the parent	21,000	186,286
Net income attributable to owners of the parent per share: Basic	147.34	1.31

\*There is no change from the full-year 2017 performance forecast announced on July 24, 2017.

The above forecast is based on the information available at this point of time. Actual results may differ materially due to a variety of reasons, including such economic factors as fluctuations in foreign currency exchange rates as well as market supply and demand conditions.

The forecast stated above does not include the expected financial results of SHOWA DENKO CARBON Holding GmbH (SDCH), which is to be consolidated in the fourth quarter of 2017.

## Note

The U.S. dollar is valued at ¥112.73 throughout this statement for convenience only.

## [Business Results and Financial Conditions]

### 1. Analysis of business results

#### (1) Summary

During the first three quarters of 2017 (January 1 – September 30), the Japanese economy continued to recover gradually. Production maintained a high level due partly to the increase in export backed by strong overseas economy. Consumer spending also recovered gradually against the background of good employment situation. Corporate earnings improved due to stable yen-dollar exchange rate. As for overseas economies, the US economy continued to recover. The European economy recovered gradually. The economies of China and ASEAN countries showed signs of recovery. The economies of resource producing countries and emerging countries including Russia and Brazil bottomed out and showed improvement.

In the petrochemicals industry, domestic plants to 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 demand for semiconductors for use in electronic devices including smartphones.

Under these circumstances, the Showa Denko Group has been promoting its medium-term consolidated business plan “Project 2020+” since 2016. Under this business plan, in order to achieve continuous growth of the Showa Denko Group, we will expand and strengthen our “individualized businesses,” reform our business structure, and strengthen our revenue base, thereby enhancing our corporate value.

The Group recorded consolidated net sales of ¥563,813 million in the first three quarters of 2017, up 16.4% from the same period of the previous year. Sales increased in all segments. In the Petrochemicals segment, sales significantly increased due to rises in product prices and the consolidation of SunAllomer Ltd. in the second half of 2016. In the Electronics segment, sales increased due to the increase in shipment volumes of HD media. Operating income of the Group substantially increased by 119.6%, to ¥55,944 million. The Petrochemicals segment recorded considerably higher income due to a strong market caused by a tight supply-demand balance in East Asia. The Electronics segment recorded considerably higher income due to an increase in shipment volumes of HD media. The Inorganics segment also recorded considerably higher income due to an increase in shipment volumes of graphite electrodes, in addition to the effect of a reduction in the cost of graphite electrode production. Chemicals and Aluminum segments also recorded higher income.

The Group recorded ordinary income of ¥42,381 million, up 105.2%. Though the Group recorded a loss on investment to companies under the application of equity method with regard to P.T. Indonesia Chemical Alumina (ICA), the Group’s ordinary income considerably increased in the end.

The Group recorded net income attributable to owners of the parent of ¥23,437 million in the first three quarters of 2017, up 103.1% from the same period of the previous year. The Group recorded extraordinary losses including the posting of a loss on provision of allowance for doubtful accounts with regard to ICA. Corporate tax and other expenses also increased. However, the Group’s net income attributable to owners of the parent considerably increased in the end.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	484,410	563,813	79,403	165,746	191,620	25,874
Operating income	25,475	55,944	30,470	13,910	20,918	7,007
Ordinary income	20,650	42,381	21,731	12,908	20,143	7,236
Net income attributable to owners of the parent	11,538	23,437	11,899	9,207	15,600	6,394

(2) A breakdown of net sales and operating income by segment (January 1 - September 30, 2017)

[Petrochemicals segment]

In the Petrochemicals segment, sales increased 40.7%, to ¥183,157 million. Production of ethylene in the first three quarters of 2017 increased from the same period of the previous year in which we had coinciding periodic shutdown maintenance of plants to produce derivatives in Oita Complex. Sales of olefins increased due to an increase in prices of products caused by a rise in raw naphtha price and the strong demand. Sales of organic chemicals increased due to higher shipment volumes and a rise in prices of products including vinyl acetate. Consolidation of SunAllomer Ltd. in the second half of 2016 also increased the sales of the segment. Operating income of the segment increased 80.4%, to ¥24,105 million.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	130,145	183,157	53,012	44,102	59,234	15,132
Operating income	13,366	24,105	10,739	6,000	7,948	1,949

[Chemicals segment]

In the Chemicals segment, sales increased 9.8%, to ¥108,520 million. Production of liquefied ammonia and high purity gases for electronics in the first three quarters of 2017 increased from the same period of the previous year. In the basic chemicals business, sales of chloroprene rubber increased due to strong demand for export including that to the United States. Sales of acrylonitrile increased due to a rise in price. Sales of liquefied ammonia slightly increased. Sales of electronic chemicals increased due to higher shipment volumes of high-purity gases for electronics caused by an increase in production in the semiconductor and LCD panel industries. Sales of functional chemicals increased due to higher shipment volumes for use in the domestic automotive industry. However, sales of industrial gases slightly decreased. Operating income of the segment rose 16.1%, to ¥11,312 million.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	98,794	108,520	9,725	33,882	38,403	4,522
Operating income	9,744	11,312	1,568	4,274	4,421	146

[Electronics segment]

In the Electronics segment, sales increased 9.8%, to ¥95,285 million. Production of HD

media in the first three quarters of 2017 increased from the same period of the previous year due to an increase in shipment volumes for use in data centers. Thus, sales of HD media increased. Sales of rare earth magnetic alloys and compound semiconductors increased from the same period of 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 this year, decreased due to lower shipment volumes to China in the first quarter. Operating income of the segment increased 100.6%, to ¥18,429 million.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	86,801	95,285	8,484	31,420	32,315	894
Operating income	9,187	18,429	9,242	4,427	6,285	1,858

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.

#### [Inorganics segment]

In the Inorganics segment, sales increased 13.5%, to ¥42,581 million. Production of graphite electrodes in the first three quarters of 2017 increased from the same period of the previous year due to an improvement in the situation of the electric steel industry as the customer. Sales of graphite electrodes increased due to an increase in shipment volumes resulting from an increase in production in the electric steel industry and a rise in prices of graphite electrodes in Chinese market. Sales of ceramics increased due to an increase in shipment volumes for the steel and electronics industries. The segment recorded operating income of ¥2,399 million, an improvement of ¥7,422 million due partly to the effect of cost reduction.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	37,506	42,581	5,075	12,603	15,996	3,393
Operating income	-5,024	2,399	7,422	-674	2,256	2,930

#### [Aluminum segment]

In the Aluminum segment, sales increased 6.6%, to ¥77,286 million. Production of high-purity foil for aluminum electrolytic capacitors in the first three quarters of 2017 increased from the same period of the previous year. Shipment volumes and sales of rolled products increased due to higher shipment volumes of high-purity foil for aluminum electrolytic capacitors for use in home electrical appliances and automotive applications. Sales of aluminum specialty components increased due partly to higher shipment volumes of large-sized aluminum extrusions and aluminum cylinders for use in laser-beam printers. Sales of aluminum cans increased due to higher shipment volumes recorded by Hanacans Joint Stock Company of Vietnam. Operating income of the segment increased 73.2%, to ¥4,849 million.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	72,485	77,286	4,800	24,707	26,406	1,699
Operating income	2,799	4,849	2,050	1,328	1,612	284

[Others segment]

In the Others segment, sales increased 5.5%, to ¥98,066 million. Shoko Co. Ltd.'s sales increased. Operating income of the segment decreased to ¥430 million, down 19.3%, due partly to a decrease in operating income of Shoko Co., Ltd.

(Unit: millions of yen)

	2016 1Q - 3Q (Jan.-Sept.)	2017 1Q - 3Q (Jan.-Sept.)	Increase/ decrease	2016 July-Sept.	2017 July-Sept.	Increase/ decrease
Sales	92,931	98,066	5,135	29,905	33,027	3,122
Operating income	533	430	-103	206	360	154

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.

(3) Major steps taken or decided after the settlement of accounts for the first half of 2017

[General]

- Incorporated into ESG indexes for investment

In July 2017, SDK was incorporated into 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); and "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. In addition to these three ESG indexes, SDK has been included in the "Morningstar Socially Responsible Investment (SRI) Index," which is provided by Morningstar Japan K.K., for four consecutive years and the "SNAM Sustainability Index," which is provided by Sompo Japan Nipponkoa Asset Management Co., Ltd., for six consecutive years.

[Chemicals segment]

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

In July 2017, SDK established a wholly-owned subsidiary, "Showa Chemicals of America Inc." (SCA), in Austin, Texas, aiming to strengthen its sale of high-purity gases for electronics in the U.S. American semiconductor manufacturers have 15-percent share of the global semiconductor production capacity. SDK established SCA in order to further expand its high-purity gas business in the U.S., strengthen relationship between SDK and major semiconductor manufacturers in the U.S., and gather information about state-of-the-art semiconductor-processing technologies. SCA will start sale of high-purity gases in 2018. SDK sells various high-purity gas products in many areas where manufacturers of semiconductors and display panels are located. SCA will function as the Showa Denko Group's base in the U.S. to promote marketing, sale and distribution of high-purity gas products.

- Decided to found new liquefied CO<sub>2</sub> gas plant in Oita Petrochemical Complex

In August 2017, Showa Denko Gas Products Co., Ltd. (SGP), a consolidated subsidiary of SDK, decided to found a new plant to produce liquefied carbon dioxide (CO<sub>2</sub>) gas in

SDK's Oita Petrochemical Complex. SDK and SGP plan to make the new plant utilize stable CO<sub>2</sub> gas sources in the chemical plant of the Complex. The new plant is scheduled to start operation in August 2018, and will have annual production capacity of 15,000 tons. The supply-demand situation for liquefied CO<sub>2</sub> gas and dry ice is expected to be even tighter in the future. To cope with this problem and maintain stable supply of liquefied CO<sub>2</sub> gas and dry ice to our customers in Kyusyu, Chugoku, and Shikoku regions, SDK and SGP decided to found the new plant.

- Established fourth bulk molding compound plant in Asia

In September 2017, Showa Denko New Material (Zhuhai) Co., Ltd. (SDNZ), a consolidated subsidiary of SDK, had a ceremony for the completion of its new plant to produce thermosetting bulk molding compound (BMC) in Zhuhai, Guangdong Province, China. The Showa Denko Group formerly had BMC production bases at three locations, namely, in Japan, Shanghai and Thailand. The production base in Shanghai has been supplying BMC to customers mainly in East China, and has been operating at full capacity because sales of BMC in China have been rapidly increasing centering on the application for automobiles and home electrical appliances. The new plant of SDNZ will supply BMC to customers mainly in South China. SDK Group will make its BMC production system, which comprises four production bases located in Japan, Shanghai, Zhuhai and Thailand, ready to be operated at full capacity as soon as possible, and aggressively expand its functional chemicals business especially in China and ASEAN region where rapid growth of the market is expected.

- Started to supply hydrogen made from used plastics to a hydrogen station

In July 2017, SDK started to supply "low-carbon" hydrogen gas made from used plastics (low-carbon hydrogen) at its Kawasaki Plant to TOMOE SHOKAI Co., Ltd.'s Shinsuna Hydrogen Station located in Koto-ku, Tokyo. SDK's "Demonstration Project to Promote Local Consumption of Locally Produced Low-carbon Hydrogen Gas Made from Used Plastics" had been accredited as an official project under the framework of "FY 2015 Regional Cooperation and Low-carbon Hydrogen Technology Demonstration Project" commissioned by the Ministry of Environment. SDK has been promoting this demonstration project in cooperation with Kawasaki City since July 2015, aiming to realize low-carbon hydrogen based society. In this project, SDK plans to 1) refine hydrogen suitable for use in fuel cell (FC) and fuel cell vehicle (FCV), 2) supply hydrogen gas to a coastal zone (Tonomachi) through a pipeline, and 3) build a regional supply chain model of low-carbon hydrogen through demonstrational use of hydrogen in FCs and FCVs. This time, in cooperation with TOMOE SHOKAI, SDK supplies hydrogen gas to Shinsuna Hydrogen Station owned and operated by TOMOE SHOKAI, and fills the tanks of FCVs with hydrogen. SDK will continue contributing to creation of sustainable society through development of environment-friendly products and production processes.

[Electronics segment]

- Started shipment of 2.5-inch 1 TB HD media, best in class

In September 2017, SDK started shipment of 2.5-inch HD media with storage capacity of 1 terabyte (TB) per disk, which feature the world's highest storage capacity for this size available on the market at that time\*. SDK's 2.5-inch 1 TB HD media have been adopted into Toshiba Electronic Devices & Storage Corporation's hard disk drive (HDD), "MQ04ABF100," for client. SDK started supplying its 2.5-inch HD media for this application, using the ninth-generation perpendicular magnetic recording (PMR) technology. In 2005, SDK had become the world's first to manufacture and sell PMR-technology-based HD media. As the world's largest independent HD media supplier with a market share of about 25%, SDK will continue to strengthen its HD media

business in accordance with the company's motto of "Best in Class."

\*As of September 25, 2017, according to our research.

- Expanded lineup of infrared LEDs for high-output uses

In August 2017, SDK expanded its product lineup of infrared LED chips (IR-LEDs), which are mainly used as parts of photo-couplers for gate drivers in power semiconductor modules and parts of sensors for IoT-related devices. SDK's product lineup of IR-LEDs has three categories, namely, conventional LEDs made with Liquid Phase Epitaxy (LPE) method\*<sup>1</sup>, transparent type LEDs and reflection type LEDs made with Metal Organic Chemical Vapor Deposition (MOCVD) method\*<sup>2</sup>. This time, SDK upgraded its technology to manufacture reflection type LEDs, and successfully added "Double Junction Reflection Type LED" and "P-up Reflection Type LED"\*<sup>3</sup> to its product lineup of IR-LEDs. Double Junction Reflection Type LED realizes output nearly twice as much as that of conventional reflection type LED. It is suitable for uses that require high output LEDs such as biometric sensors, surveillance or security cameras, virtual reality, and sensors for automotive equipment. P-up Reflection Type LED is a product which realizes the P-up polarity structure in Reflection Type LED, where N-up structure manufactured through LPE method is the main stream. SDK developed this P-up Reflection Type LED in order to respond to the requests from customers who desire to develop high-power modules which are compatible with circuit designs for conventional P-up non-reflection type LEDs, which are manufactured through LPE method. The market for IR-LEDs is expected to expand concurrently with the expansion of IoT-related device market. SDK will continue to expand its lineup of LED products, and respond to the needs of the market.

\*1 LPE method: Liquid Phase Epitaxy method. Under this crystal growth method, solid phase crystal crystalizes and grows on a substrate dipped into the solution of the target material. Due to the rapid growth of crystal, this method easily realizes thick film.

\*2 MOCVD method: Metal Organic Chemical Vapor Deposition method. Under this crystal growth method, an organometallic compound is vaporized, and crystal of the target material grows on a substrate in the gas. Through proper control of the flow of the gas containing vaporized organometallic compound, you can form homogenous thin crystal efficiently.

\*3 P-up: An LED chip consists of P-side electrode and N-side electrode. "P-up" indicates an LED chip with P-side electrode on the top.

#### [Inorganics segment]

- Completed acquisition of all shares in SGL GE, a graphite electrode production company  
By late September 2017, SDK obtained approval from all required competition authorities for its acquisition of all shares in SGL GE Holding GmbH (SGL GE), a graphite electrode production company, from its parent company, SGL Carbon GmbH, which is a wholly owned subsidiary of SGL Carbon SE, a world carbon and graphite product manufacturer based in Germany. Effective on October 2, 2017, SDK completed acquisition of all shares in SGL GE and made it a wholly owned subsidiary of SDK. The acquired company's name was changed to "SHOWA DENKO CARBON Holding GmbH" as of the same date. Through acquisition of full ownership of former SGL GE, SDK now has graphite electrode production bases in Europe and Southeast Asia, in addition to its existing bases in Japan, the U.S. and China, and becomes the leading supplier in the global graphite electrode industry. SDK will strive to generate synergy as early as possible, pursue more cost effectiveness, enhance business durability, and achieve further growth in a highly competitive market. On the other hand, effective on November 7, 2017, SDK completed transfer of former SGL GE's graphite electrode business in the U.S. to Tokai Carbon Co., Ltd. as SDK previously decided in its board meeting held on September 27, 2017. This transfer was implemented in order to make the acquisition of former SGL GE in line with the condition given by the U.S. competition authorities as a prerequisite to give approval to the acquisition.



[Aluminum segment]

- New aluminum can JV has a foundation stone-laying ceremony in Thailand  
SDK, Showa Aluminum Can Corporation (SAC), which is a consolidated subsidiary of SDK, and Carabao Group Public Company Limited (CBG), which is a leading beverage maker headquartered in Bangkok, Thailand, established a joint corporation “Asia Pacific Can Company Limited” (APC) to manufacture and sell aluminum cans in June 2017, and had a foundation stone-laying ceremony for its factory in July, 2017. After the start-up of operations of the factory which is scheduled for October 2018, APC will mainly manufacture aluminum cans for CBG’s beverages for export from Thailand. CBG aims to expand its overseas sales, centering on Southeast Asian countries, China and the United Kingdom. APC will support CBG’s overseas operations through stable supply of high-quality aluminum cans manufactured by leading-edge technologies and quality management system built up by SAC over many years. APC will be the Showa Denko Group’s second overseas can production base following Hanacans Joint Stock Company of Vietnam. The Showa Denko Group has been promoting aluminum can business expansion strategy that targets Southeast Asia, and will utilize APC’s business development for the formation of its best marketing mix in Southeast Asia.

[Others segment]

- Decided to expand capacity for producing high-grade SiC epitaxial wafers  
In September 2017, SDK decided to expand its capacity for producing 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). SDK will expand its facilities to produce HGE to increase their production capacity from current 3,000 wafers per month to 5,000 wafers per month\*<sup>1</sup>. In HGE developed by SDK, the number of surface defects and basal plane dislocation (BPD)\*<sup>2</sup>, which is typical crystal defect, is controlled to be within 0.1/cm<sup>2</sup>. Since the launch in October 2015, HGE has been acclaimed by many device manufacturers at home and abroad, and adopted as a key component to produce SiC-MOSFET for practical use. SDK decided to expand its capacity to produce HGE because SDK’s facilities to produce HGE are operating at full capacity these days and we expect that the market for SiC-MOSFET will start to take-off in and after 2018. The size of the market for SiC epitaxial wafers for power devices is expected to reach ¥20 billion in 2020\*<sup>3</sup> as 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.

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

\*2 Basal plane dislocation: Dislocation that occurs on a basal plane of a single crystal SiC.

\*3 Estimated by SDK.

- Decided to acquire assets concerning SiC for power devices from Nippon Steel & Sumitomo Metal Group

SDK has decided to acquire assets concerning Sublimation-recrystallization Method to manufacture silicon carbide (SiC) wafers from Nippon Steel & Sumitomo Metal Corporation and Nippon Steel & Sumikin Materials Co., Ltd. by around the end of January 2018. Development of full-SiC-based power modules including MOSFET requires SiC wafers with fewer crystal defects and further cost reduction. This time, SDK aims to improve the quality of its SiC epitaxial wafers through the acquisition of SiC-wafer-related assets currently owned by Nippon Steel & Sumitomo Metal Group.

2. Financial conditions for the January 1 - September 30, 2017 period (as compared with the conditions at December 31, 2016)

Total assets at September 30, 2017 amounted to ¥965,126 million, an increase of ¥32,428 million from the level at December 31, 2016. Total assets increased due partly to increases in notes and accounts receivable-trade and cash and deposits. Total liabilities increased ¥3,992 million, to ¥625,459 million, due partly to the increase in notes and accounts payable-trade, despite the decrease in interest-bearing debts. Net assets at September 30, 2017 amounted to ¥339,668 million, an increase of ¥28,437 million from the level at December 31, 2016, due partly to the increase in retained earnings caused by the recording of net income attributable to owners of the parent.

3. Performance forecast

The consolidated performance forecast for full-year 2017 we announced on July 24, 2017 remains unchanged.

(Unit: millions of yen)

	Net sales	Operating income	Ordinary income	Net income attributable to owners of the parent
Forecast for full-year 2017	762,000	60,000	43,500	21,000

The forecast stated above does not include the expected financial results of SHOWA DENKO CARBON Holding GmbH (SDCH), which is to be consolidated in the fourth quarter of 2017. At this point in time, we expect that, in the fourth quarter of 2017, SDCH's net sales will be about ¥10,000 million, and its operating income will be in the small black. On the other hand, SDK will additionally incur cost of the acquisition of SDCH.

Since our close examination of the value of SDCH's assets and other management indexes is expected to take time, we plan to report the expected influence of the consolidation of SDCH on SDK's net income attributable to owners of the parent and the amount of goodwill resulting from the acquisition of SDCH as soon as they are fixed.

## Consolidated Balance Sheets

(¥ in millions, US\$ in thousands)

	Dec. 31, 2016	Sep. 30, 2017	Sep. 30, 2017
	¥	¥	\$
<b>Assets</b>			
Current assets			
Cash and deposits	69,914	89,291	792,079
Notes and accounts receivable-trade	143,816	151,087	1,340,253
Merchandise and finished goods	45,838	49,254	436,924
Work in process	8,576	9,991	88,628
Raw materials and supplies	36,933	37,737	334,759
Other	30,698	38,591	342,328
Allowance for doubtful accounts	(699)	(2,174)	(19,287)
<b>Total current assets</b>	<b>335,077</b>	<b>373,777</b>	<b>3,315,684</b>
Noncurrent assets			
Property, plant and equipment			
Buildings and structures, net	77,446	79,363	704,011
Machinery, equipment and vehicles, net	110,213	130,860	1,160,830
Land	242,816	242,713	2,153,048
Other, net	56,660	31,757	281,713
<b>Total property, plant and equipment</b>	<b>487,135</b>	<b>484,694</b>	<b>4,299,603</b>
Intangible assets			
Other	11,712	11,870	105,294
<b>Total intangible assets</b>	<b>11,712</b>	<b>11,870</b>	<b>105,294</b>
Investments and other assets			
Investment securities	74,951	80,136	710,869
Other	32,630	24,531	217,611
Allowance for doubtful accounts	(8,807)	(9,882)	(87,665)
<b>Total investments and other assets</b>	<b>98,775</b>	<b>94,785</b>	<b>840,816</b>
<b>Total noncurrent assets</b>	<b>597,621</b>	<b>591,349</b>	<b>5,245,712</b>
<b>Total assets</b>	<b>932,698</b>	<b>965,126</b>	<b>8,561,396</b>
<b>Liabilities</b>			
Current liabilities			
Notes and accounts payable-trade	104,005	111,365	987,890
Short-term loans payable	66,895	96,587	856,796
Current portion of long-term loans payable	48,234	55,052	488,351
Commercial papers	5,000	3,000	26,612
Current portion of bonds	10,000	—	—
Provision	2,815	9,626	85,387
Other	73,843	72,184	640,325
<b>Total current liabilities</b>	<b>310,792</b>	<b>347,813</b>	<b>3,085,362</b>
Noncurrent liabilities			
Bonds payable	42,000	42,000	372,572
Long-term loans payable	187,800	154,408	1,369,716
Provision	4,012	4,242	37,634
Net defined benefit liability	21,923	19,445	172,494
Other	54,940	57,550	510,510
<b>Total noncurrent liabilities</b>	<b>310,675</b>	<b>277,646</b>	<b>2,462,926</b>
<b>Total liabilities</b>	<b>621,467</b>	<b>625,459</b>	<b>5,548,289</b>
<b>Net assets</b>			
Shareholders' equity			
Capital stock	140,564	140,564	1,246,904
Capital surplus	62,033	61,663	546,997
Retained earnings	65,358	84,665	751,040
Treasury stock	(10,502)	(10,499)	(93,130)
<b>Total shareholders' equity</b>	<b>257,453</b>	<b>276,393</b>	<b>2,451,811</b>
Accumulated other comprehensive income			
Valuation difference on available-for-sale securities	4,519	10,183	90,329
Deferred gains or losses on hedges	320	3,234	28,690
Revaluation reserve for land	31,026	31,023	275,196
Foreign currency translation adjustment	14,239	13,064	115,891
Remeasurements of defined benefit plans	(10,996)	(10,058)	(89,221)
<b>Total accumulated other comprehensive income</b>	<b>39,107</b>	<b>47,446</b>	<b>420,884</b>
<b>Non-controlling interests</b>	<b>14,671</b>	<b>15,829</b>	<b>140,412</b>
<b>Total net assets</b>	<b>311,231</b>	<b>339,668</b>	<b>3,013,107</b>
<b>Total liabilities and net assets</b>	<b>932,698</b>	<b>965,126</b>	<b>8,561,396</b>

## Consolidated Statements of Income

(¥ in millions, US\$ in thousands)

	Results for the first three quarters (Jan.1-Sep.30)		
	2016	2017	2017
	¥	¥	\$
Net sales	484,410	563,813	5,001,444
Cost of sales	398,218	436,360	3,870,838
Gross profit	86,192	127,453	1,130,606
Selling, general and administrative expenses	60,717	71,509	634,337
Operating income	25,475	55,944	496,270
Non-operating income			
Interest income	286	383	3,395
Dividends income	742	809	7,172
Equity in earnings of affiliates	4,138	—	—
Rent income on noncurrent assets	1,180	1,042	9,243
Miscellaneous income	1,201	947	8,398
Total non-operating income	7,548	3,180	28,208
Non-operating expenses			
Interest expenses	2,376	2,207	19,579
Equity in losses of affiliates	—	8,466	75,097
Miscellaneous expenses	9,996	6,070	53,850
Total non-operating expenses	12,372	16,743	148,526
Ordinary income	20,650	42,381	375,952
Extraordinary income			
Gain on sales of noncurrent assets	334	134	1,190
Gain on sales of investment securities	70	236	2,093
Gain on bargain purchase	686	—	—
Other	64	5	45
Total extraordinary income	1,154	375	3,329
Extraordinary loss			
Loss on sales and retirement of noncurrent assets	2,634	1,583	14,046
Provision of allowance for doubtful accounts	—	2,412	21,396
Provision for loss on guarantees	—	3,082	27,340
Other	5,229	2,747	24,367
Total extraordinary losses	7,863	9,824	87,149
Profit before income taxes	13,941	32,932	292,133
Income taxes	1,375	7,880	69,900
Net income	12,566	25,052	222,233
Net income attributable to non-controlling interests	1,028	1,615	14,329
Net income attributable to owners of the parent	11,538	23,437	207,904

## Consolidated Statements of Comprehensive Income

(¥ in millions, US\$ in thousands)

	Results for the first three quarters (Jan.1-Sep.30)		
	2016	2017	2017
Profit (loss)	¥ 12,566	¥ 25,052	\$ 222,233
Other comprehensive income:			
Valuation difference on available-for-sale securities	(3,009)	5,818	51,613
Deferred gains or losses on hedges	(951)	2,938	26,064
Revaluation reserve for land	1,824	—	—
Foreign currency translation adjustments	(19,601)	(1,026)	(9,106)
Remeasurements of defined benefit plans, net of tax	968	958	8,501
Share of other comprehensive income of entities accounted for using equity method	(41)	4	32
Total other comprehensive income	(20,809)	8,692	77,105
Comprehensive income	(8,243)	33,744	299,337
(Comprehensive income attributable to)			
Comprehensive income attributable to owners of the parent	(8,581)	31,905	283,018
Comprehensive income attributable to non-controlling interests	337	1,840	16,319

(Reference)

SEGMENT INFORMATION (previous 3Q ended)

The operations of the Companies for the 9 Months ended September 30, 2016 and 2017 was summarised by industry segment as follows:

<b>9 Months ended September 30, 2016</b>		Millions of yen						
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminium	Others	Elimination	Consolidated
<b>Sales</b>								
Outside customers	¥127,022	¥86,768	¥83,413	¥32,350	¥66,757	¥88,100	¥-	¥484,410
Inter-segment	3,124	12,027	3,388	5,156	5,728	4,831	(34,253)	-
Total	130,145	98,794	86,801	37,506	72,485	92,931	(34,253)	484,410
Operating income (loss)	¥13,366	¥9,744	¥9,187	(¥5,024)	¥2,799	¥533	(¥5,131)	¥25,475

<b>9 Months ended September 30, 2017</b>		Millions of yen						
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminium	Others	Elimination	Consolidated
<b>Sales</b>								
Outside customers	¥175,692	¥95,539	¥93,229	¥36,347	¥70,852	¥92,154	¥-	¥563,813
Inter-segment	7,465	12,981	2,056	6,234	6,434	5,912	(41,082)	-
Total	183,157	108,520	95,285	42,581	77,286	98,066	(41,082)	563,813
Operating income (loss)	¥24,105	¥11,312	¥18,429	¥2,399	¥4,849	¥430	(¥5,579)	¥55,944

<b>9 Months ended September 30, 2017</b>		Thousands of U.S. dollars						
	Petrochemicals	Chemicals	Electronics	Inorganics	Aluminium	Others	Elimination	Consolidated
<b>Sales</b>								
Outside customers	\$1,558,521	\$847,499	\$827,016	\$322,424	\$628,507	\$817,478	\$-	\$5,001,444
Inter-segment	66,222	115,152	18,238	55,300	57,074	52,440	(364,427)	-
Total	1,624,743	962,651	845,254	377,724	685,581	869,918	(364,427)	5,001,444
Operating income (loss)	\$213,831	\$100,345	\$163,476	\$21,278	\$43,014	\$3,819	(\$49,493)	\$496,270