Evolving unique chemical company

Second Quarter, 2017 Financial Results
- Consolidated -

SHOWA DENKO K.K.

August 8, 2017

Toshiharu Kato, CFO
Director & Corporate Officer

Performance forecast and other statements pertaining to the future as contained in this presentation are 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. Performance forecast does not include the effect of planned integration of graphite electrode businesses of SDK and SGL GE, which we announced in October 2016, because the date of business integration has not been specified yet as of today.

Consolidated Companies

- Consolidated subsidiaries: 50
  - 2 companies newly consolidated
    - Showa Denko New Material (Zhuhai) Co., Ltd.
    - Shanghai Showa Highpolymer Trading Co., Ltd.
- Equity method applied: 12
  - Newly applied or excluded: none

Selected Data

(Average figure)

	Jan.- Jun. 2016	Jan.- Jun. 2017	Increase/ decrease
■Exchange rate:¥/US$	111.8	112.4	Yen depreciated by 0.6
■Domestic naphtha price: ¥/KL	33,000	40,500	7,500
■Aluminum			
LME price: US$/T	1,548	1,886	337
Domestic market*: K¥/T	227	267	40

Exchange rate at December 31, 2016 ¥116.5/US$, at June 30, 2017 ¥112.0/US$
⇒Yen appreciated by ¥4.5/US$

*Domestic market: data from Nikkei

Summary

2016 (Jan.1 – Jun.30) vs. 2017 (Jan.1 – Jun.30)

(Unit: Billions of Yen)

	Jan.-Jun. 2016	Jan.-Jun. 2017	Increase/ decrease
Net Sales	318.7	372.2	53.5
Operating Income	11.6	35.0	23.5
Non-operating income and expenses, net	-3.8	-12.8	-9.0
Interest/Dividends income and expenses	-0.9	-0.6	0.3
Equity in earnings of affiliates	2.7	-8.7	-11.4
Foreign exchange gains or losses	-4.0	-2.9	1.2
Other	-1.5	-0.6	1.0
Ordinary Income	7.7	22.2	14.5
Extraordinary Profit	0.5	0.2	-0.2
Extraordinary Loss	-6.1	-9.6	-3.6
Income before income taxes	2.1	12.8	10.7
Income taxes	0.8	-4.2	-4.9
Profit	2.9	8.6	5.7
Net income attributable to non-controlling interests	-0.6	-0.8	-0.2
Net income attributable to owners of the parent	2.3	7.8	5.5

Extraordinary Profit/Loss

(Unit: Billions of Yen)

	Jan.-Jun., 2016	Jan.-Jun., 2017	Increase/decrease
■Extraordinary Profit	0.5	0.2	-0.2
●Gain on sales of fixed assets	0.3	0.1	-0.3
●Gain on sales of investment securities	0.1	0.2	0.1
●Other	0.1	0.0	-0.1
■Extraordinary Loss	-6.1	-9.6	-3.6
●Loss on sales and retirement of noncurrent assets	-2.0	-1.2	0.9
●Provision of allowance for doubtful accounts	—	-2.2	-2.2
●Provision for loss on guarantees	—	-4.0	-4.0
●Other	-4.0	-2.3	1.8
■Extraordinary Profit/Loss, Net	-5.6	-9.4	-3.8

● Recording of losses concerning P.T. Indonesia Chemical Alumina* (ICA)

Non-operating cost	Loss on investment to companies under the application of equity method	About 10.0
Extraordinary loss	Provision of allowance for doubtful accounts, Provision for loss on guarantees etc.	About 6.6
	Total	About 16.7

(*Outline of ICA)
Shareholders:
ANTAM 80%, SDK 20%
Products:
Alumina,
Aluminum hydroxide

→ SDK decided to start negotiations for the sale of its whole shares in ICA due to disagreement between shareholders over new terms and conditions to revive ICA.

Consolidated Sales by Segment

(Unit: Billions of Yen)

	Jan.-Jun. 2016	Jan.-Jun. 2017	Increase/ Decrease	
Petrochemicals	86.0	123.9	37.9	【Olefins】sales increased (naphtha price up, shipment volumes slightly up) 【Organic chemicals】sales increased (vinyl acetate, ethyl acetate: shipment volumes up, market price improved) Consolidation of SunAllomer Ltd. (2H, 2016)
Chemicals	64.9	70.1	5.2	【Basic chemicals】sales increased (chloroprene rubber: export remains strong, AN and ammonia: shipment volumes up) 【Industrial gases】sales slightly decreased 【Electronic chemicals】sales increased (shipment volumes of high-purity gases for electronics up) 【Functional chemicals】sales increased
Electronics	55.4	63.0	7.6	【HDs】sales increased (shipment volumes up) 【Compound semiconductors】【Rare earths】sales increased (shipment volumes up) 【LIB materials】sales decreased (shipment volumes bound for China down)
Inorganics	24.9	26.6	1.7	【Ceramics】sales increased (shipment volumes for steel and electronic materials up) 【Graphite electrodes】sales increased (shipment volumes up)
Aluminum	47.8	50.9	3.1	【High-purity foil for capacitors】sales increased (shipment volumes up) 【Aluminum specialty components】sales increased (shipment volumes of railcars and aluminum cylinders for LBPs up) 【Aluminum cans】sales increased (Hanacans Joint Stock Company: shipment volumes up)
Others	63.0	65.0	2.0	【SHOKO Co., Ltd.】sales slightly increased
Adjustments	-23.4	-27.3	-3.9	
Total	318.7	372.2	53.5	

(note) From 2017 SDK changes the segmentation (LIB materials is transferred from “Others” to “Electronics”) . Figures of 2016 are based on the new segmentation.

Consolidated Operating Income by Segment

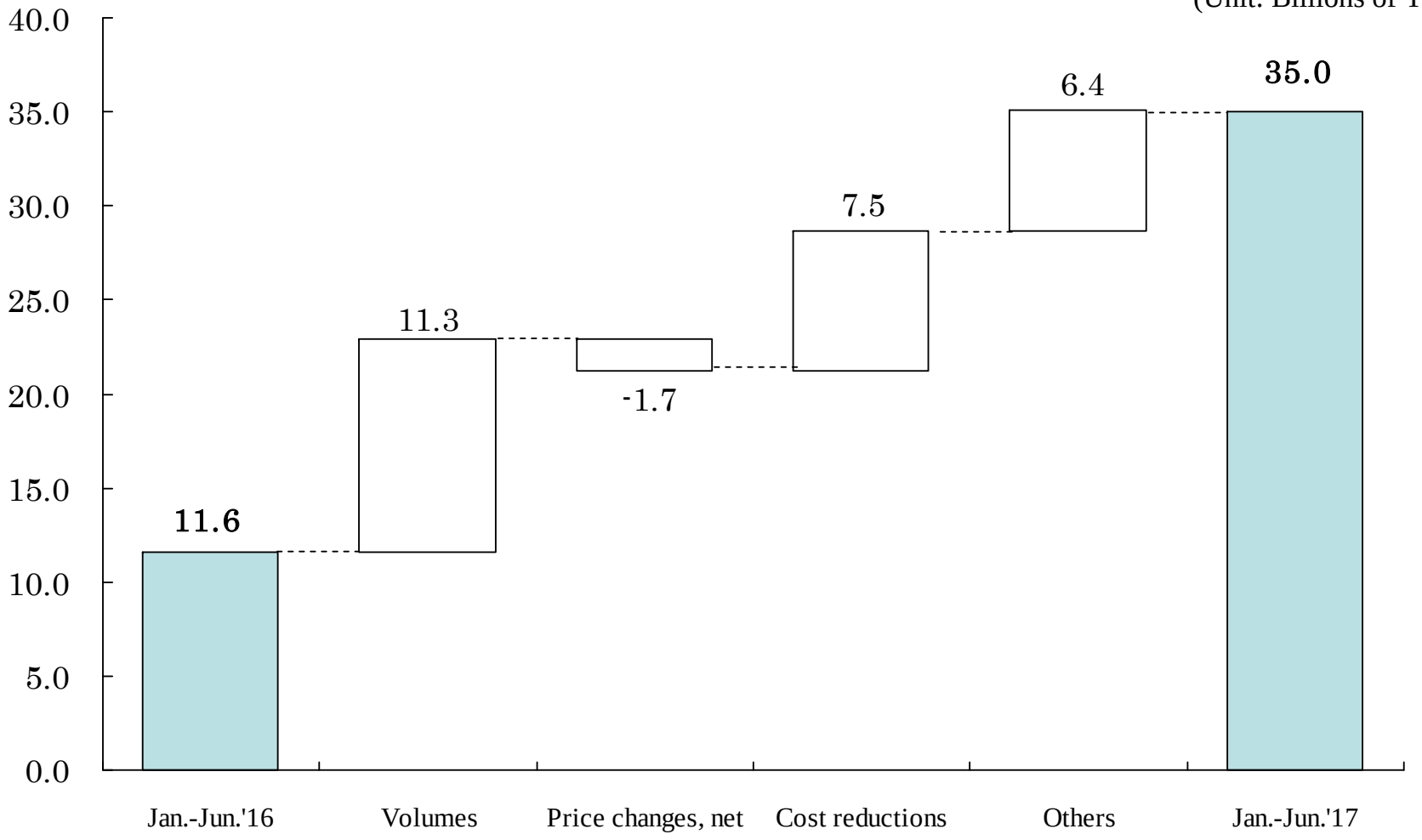
(Unit: Billions of Yen)

	Jan.-Jun. 2016	Jan.-Jun. 2017	Increase/ Decrease	
Petrochemicals	7.4	16.2	8.8	【Olefins】profit significantly increased (continuation of high operation, market price up) 【Organic chemicals】profit increased (vinyl acetate, ethyl acetate: shipment volumes up) Consolidation of SunAllomer Ltd. (2H, 2016)
Chemicals	5.5	6.9	1.4	【Basic chemicals】profit increased (AN: market price up) 【Industrial gases】【Functional chemicals】profit maintained at the year-earlier level 【Electronic chemicals】profit increased (shipment volumes up) 【Power generating business】profit decreased (fuel price up)
Electronics	4.8	12.1	7.4	【HDs】profit increased (shipment volumes up, cost reduction) 【Compound semiconductors】profit slightly increased 【Rare earths】profit increased (improvement in the loss on reduction in the book value of inventories, shipment volumes up) 【LIB materials】profit decreased (shipment volumes bound for China down)
Inorganics	-4.4	0.1	4.5	【Ceramics】profit increased (shipment volumes up) 【Graphite electrodes】profit increased (high operation, shipment volumes up, renovation of the hydropower facilities)
Aluminum	1.5	3.2	1.8	【High-purity foil for capacitors】profit increased (shipment volumes up) 【Aluminum specialty components】profit increased (shipment volumes up) 【Aluminum cans】profit increased (Hanacans Joint Stock Company: shipment volumes up)
Others	0.3	0.1	-0.3	【SHOKO Co., Ltd.】profit decreased
Adjustments	-3.5	-3.6	-0.1	
Total	11.6	35.0	23.5	

(note) From 2017 SDK changes the segmentation (LIB materials is transferred from “Others” to “Electronics”) . Figures of 2016 are based on the new segmentation.

Operating Income Breakdown by Factor

(Unit: Billions of Yen)



Consolidated Balance Sheet

(Unit: Billions of Yen)

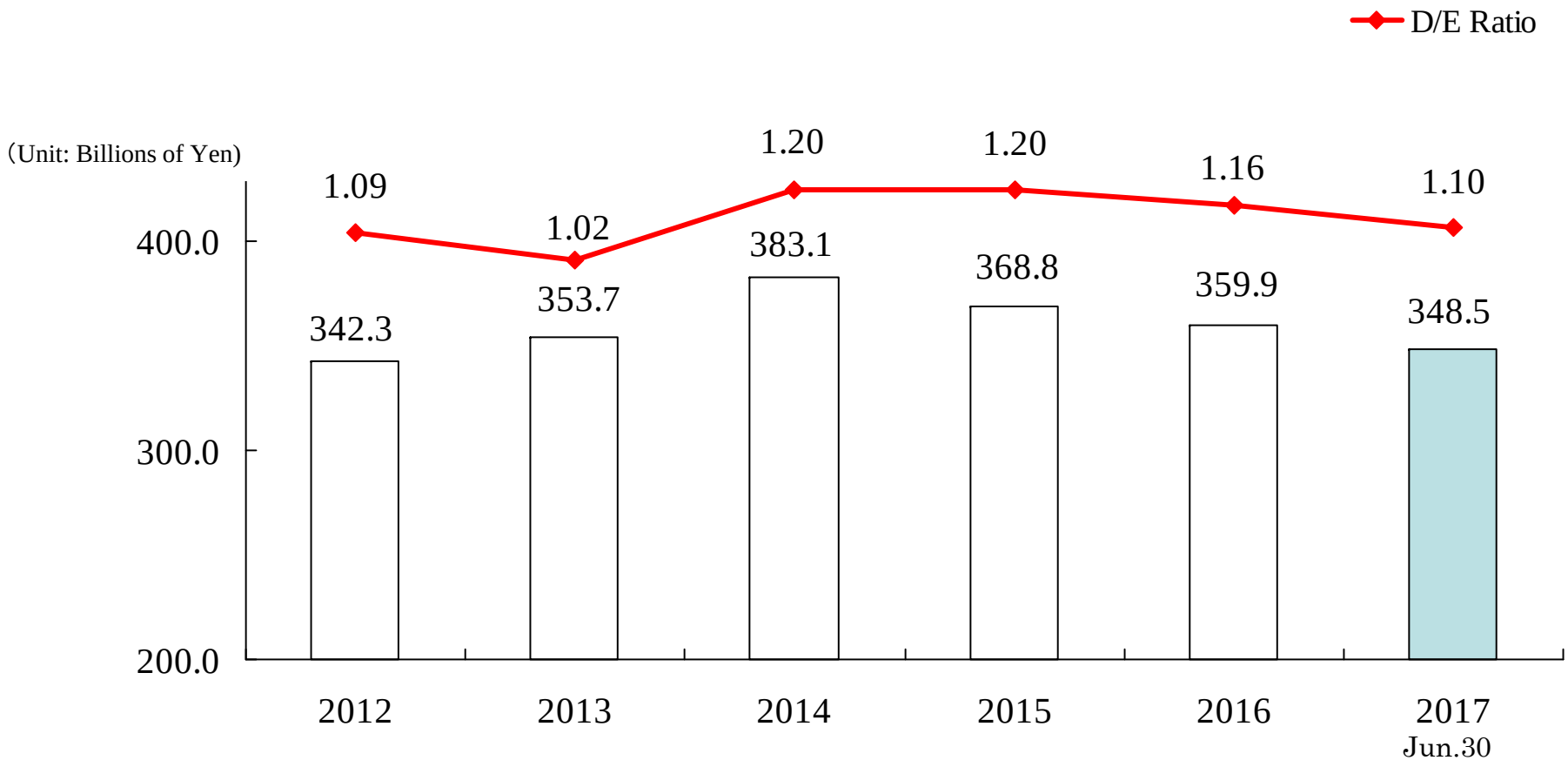
Assets	Dec. 31, 2016	Jun.30, 2017	Increase/ decrease	Liabilities and Net Assets	Dec. 31, 2016	Jun.30, 2017	Increase/ decrease
Cash and deposits	69.9	76.5	6.6	Notes and accounts payable	104.0	102.5	-1.5
Notes and accounts receivable	143.8	139.2	-4.6	Interest-bearing debt	359.9	348.5	-11.4
Inventories	91.3	94.3	2.9	Net defined benefit liability	21.9	20.4	-1.6
Other current assets	30.0	33.7	3.7	Other liabilities	135.6	140.1	4.5
Total Current Assets	335.1	343.7	8.6	Total Liabilities	621.5	611.5	-9.9
Buildings and structures	77.4	78.6	1.1	Capital stock	140.6	140.6	0
Machinery and equipment	110.2	127.7	17.4	Capital surplus	62.0	61.7	-0.4
Land	242.8	242.8	-0.1	Retained earnings	65.4	69.1	3.7
Other tangible fixed assets	56.7	34.6	-22.1	Treasury stock	-10.5	-10.5	0
Total Tangible Fixed Assets	487.1	483.6	-3.6	Total Shareholders' equity	257.5	260.8	3.4
Intangible Fixed Assets	11.7	11.8	0.1	Valuation difference on available-for-sale securities	4.5	7.6	3.1
Investments and other assets	98.8	90.1	-8.7	Deferred gains or losses on hedges	0.3	1.5	1.2
incl. investment securities	75.0	76.1	1.2	Foreign currency translation adjustment	14.2	12.2	-2.1
				Revaluation reserve for land	31.0	31.0	0
				Remeasurements of defined benefit plans	-11.0	-10.4	0.6
				Total accumulated other comprehensive income	39.1	41.9	2.8
				Non-controlling interests	14.7	14.9	0.2
Total fixed assets	597.6	585.4	-12.2	Total net assets	311.2	317.6	6.4
Total Assets	**932.7**	**929.1**	**-3.6**	**Total Liabilities and Net Assets**	**932.7**	**929.1**	**-3.6**

Total Assets
Interest-bearing Debt and D/E ratio

(Unit: Billions of Yen)

	Dec. 31, 2016	Jun.30, 2017	Increase/ decrease
● Total assets	932.7	929.1	-3.6
● Interest-bearing debt	359.9	348.5	-11.4
● Debt/Equity ratio	1.16 times	1.10 times	-0.06p
● Stockholders' Equity ratio	31.8%	32.6%	0.8p

Interest-bearing Debt



Equity ratio	29.2%	30.6%	29.7%	31.5%	31.8%	32.6%

Consolidated Cash Flows

(Unit: Billions of Yen)

	Jan.-Jun. 2016	Jan.-Jun. 2017	Increase/ decrease
●CF from Operating Activities	21.0	43.0	22.0
●CF from Investing Activities	-33.6	-11.3	22.3
●Free CF	-12.6	31.7	44.3
●CF from Financing Activities	0.1	-16.2	-16.3
●Others	-3.8	-0.2	3.7
Increase/decrease in cash and cash equivalents	-16.4	15.3	31.7

Selected Data (Consolidated)

(Unit: Billions of Yen)

	Jan.-Jun. 2016	Jan.-Jun. 2017	Increase/ decrease
●Interest/dividend income less interest expenses	-0.9	-0.6	0.3
●Capital expenditures	16.9	17.4	0.5
●Depreciation and amortization	19.6	18.7	-0.9
●R&D expenditures	8.7	9.0	0.3
●Number of employees: people	10,147	10,097	-50
●Total employment cost	34.8	36.3	1.5

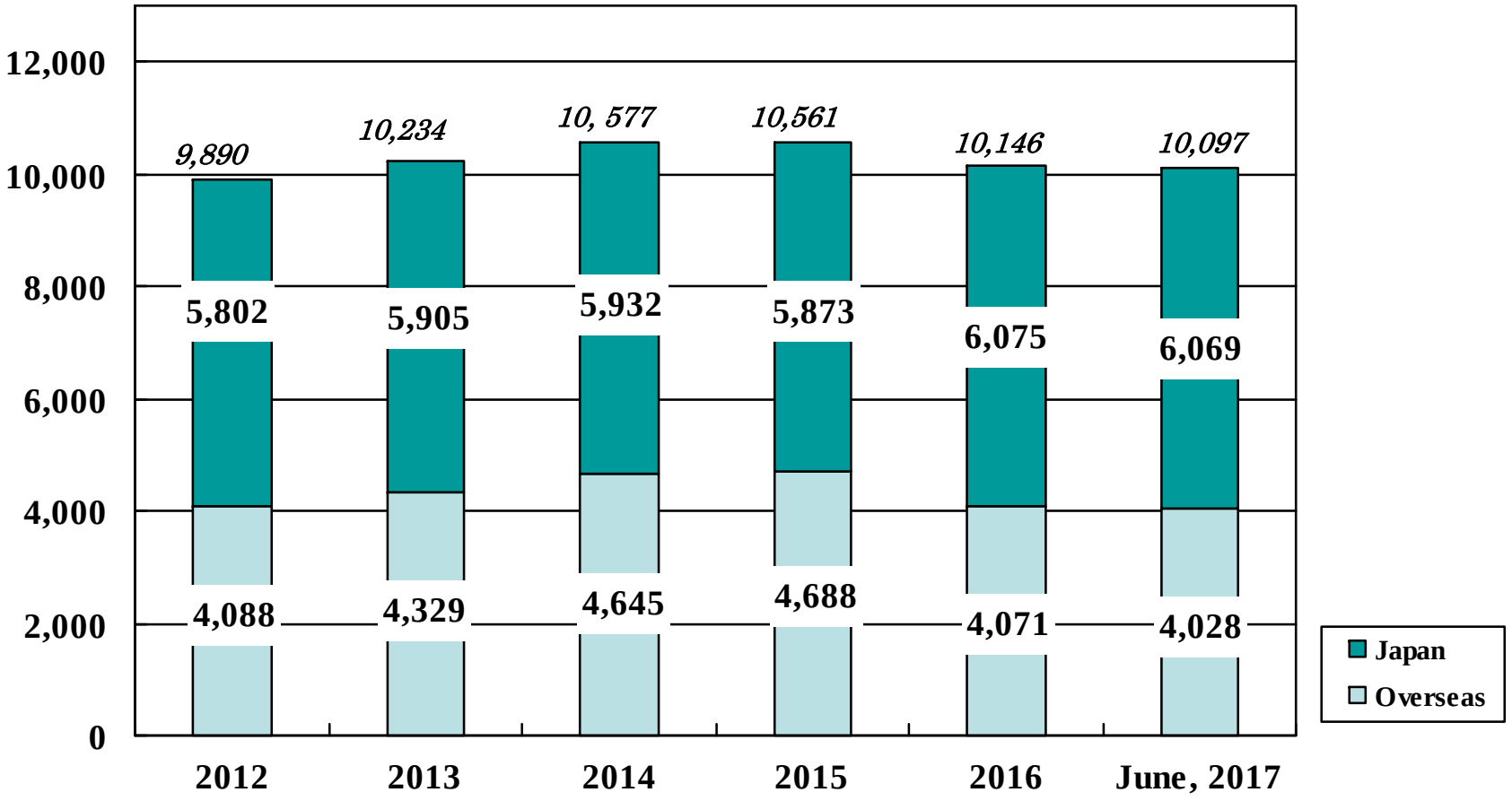
Capital expenditures/ Depreciation by Segment

(Unit: Billions of Yen)

	Jan.-Jun., 2016		Jan.-Jun., 2017		Increase/decrease	
	Capital expenditures	Depreciation	Capital expenditures	Depreciation	Capital expenditures	Depreciation
Petrochemicals	1.5	2.7	1.1	3.4	-0.4	0.7
Chemicals	3.8	3.7	5.2	4.1	1.4	0.3
Electronics	3.9	6.9	5.4	5.0	1.5	-1.9
Inorganics	4.8	2.0	2.2	2.2	-2.7	0.2
Aluminum	2.0	2.8	2.6	2.6	0.6	-0.2
Others	0.9	1.5	0.8	1.4	-0.0	-0.1
Total	16.9	19.6	17.4	18.7	0.5	-0.9

(note) From 2017 SDK changes the segmentation (LIB materials is transferred from “Others” to “Electronics”) .
Figures of 2016 are based on the new segmentation.

Total number of employees and breakdown by location



Japan	58.7%	57.7%	56.1%	55.6%	59.9%	60.1%
Overseas	41.3%	42.3%	43.9%	44.4%	40.1%	39.9%

Selected Data, Forecast

(Unit: Billions of Yen)

	2016 Actual	2017 Revised Forecast*	Increase/ decrease
● Exchange rate: ¥/US$		2017 earlier forecast** 108.4	
	1H 111.8	1H actual 112.4	1H 0.6
	2H 105.9	2H revised 105.0	2H -0.9
● Domestic naphtha price: ¥/KL		2017 earlier forecast** 38,600	
	1H 33,000	1H actual 40,500	1H 7,500
	2H 32,700	2H revised 38,000	2H 5,300
● Aluminum LME price: US$/T		2017 earlier forecast** 1,781	
	1H 1,548	1H actual 1,886	1H 337
	2H 1,671	2H revised 2,100	2H 429
● Interest-bearing debt at year end	359.9	335.0	-24.9
● Interest/dividend income less interest expenses	-1.6	-1.4	0.2
● R&D expenditures	17.3	18.9	1.6
● Number of employees: people	10,146	10,258	112
● Total employment cost	70.2	72.9	2.7

* 2017 revised forecast was announced on July 24, 2017.
**2017 earlier forecast was announced on April 25, 2017.

2017 Forecast

(Unit: Billions of Yen except Cash dividends per Share and Net income per Share)

	2016 Actual	2017 Revised Forecast*	Increase/ decrease	2017 Earlier Forecast**	Increase/ decrease (against earlier)
Net Sales	671.2	762.0	90.8	745.0	17.0
Operating Income	42.1	60.0	17.9	54.5	5.5
Non-operating income and expense	-3.4	-16.5	-13.1	-7.0	-9.5
Ordinary Income	38.7	43.5	4.8	47.5	-4.0
Extraordinary Profit	-21.2	-14.0	7.2	-17.0	3.0
Extraordinary Loss					
Net income attributable to owners of the parent	12.3	21.0	8.7	25.0	-4.0
Net income attributable to owners of the parent per share ***	¥86.27	¥147.34	¥61.07	¥175.42	¥-28.08
Cash dividends per share***	—	¥30 (planned)	—	¥30 (planned)	—

(note) Performance forecast does not include the effect of planned integration of graphite electrode businesses of SDK and SGL GE, which we announced in October 2016, because the date of business integration has not been specified yet as of today.

* 2017 revised forecast was announced on July 24, 2017. **2017 earlier forecast was announced on Apr. 25, 2017.

***SDK consolidated every ten shares of its common stock into one share on July 1, 2016. The above-mentioned "Net income attributable to owners of the parent per share" for 2016 actual are calculated on the basis of the number of outstanding shares after this consolidation. SDK paid a dividend of ¥30 per share based on the record date of May 11, 2017 at the extraordinary general meeting of shareholders which was held in June 2017.

Consolidated Net Sales by Segment, 2017 Forecast

(Unit: Billions of Yen)

	2016 Actual	2017 Revised Forecast*	Increase/ decrease	2016 Earlier Forecast**	Increase/ decrease (against earlier)
Petrochemicals	185.8	240.0	54.2	235.0	5.0
Chemicals	134.5	148.0	13.5	145.0	3.0
Electronics	120.5	130.0	9.5	123.0	7.0
Inorganics	50.9	56.0	5.1	57.0	-1.0
Aluminum	98.6	105.0	6.4	106.0	-1.0
Others	128.7	131.0	2.3	134.0	-3.0
Adjustments	-47.8	-48.0	-0.2	-55.0	7.0
Total	671.2	762.0	90.8	745.0	17.0

(note) From 2017 SDK changes the segmentation (LIB materials is transferred from “Others” to “Electronics”). Figures of 2016 actual are based on the new segmentation.

*2017 revised forecast was announced on Jul. 24, 2017. **2017 earlier forecast was announced on Apr. 25, 2017.

Consolidated Operating Income by Segment, 2017 Forecast

(Unit: Billions of Yen)

	2016 Actual	2017 Revised Forecast*	Increase/ decrease	2017 Earlier Forecast**	Increase/ decrease (against earlier)
Petrochemicals	20.7	25.0	4.3	23.5	1.5
Chemicals	13.8	15.0	1.2	15.0	0.0
Electronics	15.0	22.0	7.0	18.5	3.5
Inorganics	-5.8	0.0	5.8	-1.0	1.0
Aluminum	4.4	6.0	1.6	6.0	0.0
Others	0.6	0.0	-0.6	0.5	-0.5
Adjustments	-6.8	-8.0	-1.2	-8.0	0.0
Total	42.1	60.0	17.9	54.5	5.5

(note) From 2017 SDK changes the segmentation (LIB materials is transferred from “Others” to “Electronics”). Figures of 2016 actual are based on the new segmentation.

*2017 revised forecast was announced on Jul. 24, 2017. **2017 earlier forecast was announced on Apr. 25, 2017.

Capital expenditures/Depreciation Forecast by Segment for 2017

(Unit: Billions of Yen)

	2016 Actual		2017 Revised Forecast*		Increase/decrease	
	Capital expenditures	Depreciation	Capital expenditures	Depreciation	Capital expenditures	Depreciation
Petrochemicals	3.4	5.7	4.0	6.9	0.6	1.2
Chemicals	12.9	7.4	11.7	8.5	-1.2	1.2
Electronics	7.6	12.9	13.5	9.7	5.9	-3.2
Inorganics	8.2	4.1	6.2	5.0	-2.0	0.9
Aluminum	5.2	5.7	8.8	5.5	3.6	-0.2
Others	1.9	3.0	4.1	3.0	2.2	-0.0
Total	39.3	38.8	48.3	38.6	9.0	-0.1

(note) From 2017 SDK changes the segmentation (LIB materials is transferred from “Others” to “Electronics”). Figures of 2016 actual are based on the new segmentation.

*2017 revised forecast was announced on Jul. 24, 2017.

Summary (Reference)

CQ1 (Jan.1 – Mar.31), 2017 v s. CQ2 (Apr.1 – Jun.30), 2017

(Unit: Billions of Yen)

	CQ1, 2017	CQ2, 2017	Increase/ decrease
Net Sales	183.2	189.0	5.8
Operating Income	19.7	15.3	-4.4
Non-operating income and expenses, net	-2.0	-10.8	-8.8
Interest/Dividends income and expenses	-0.3	-0.3	-0.0
Equity in earnings of affiliates	1.6	-10.4	-12.0
Foreign exchange gains or losses	-3.0	0.1	3.1
Other	-0.3	-0.2	0.1
Ordinary Income	17.7	4.5	-13.2
Extraordinary Profit	0.2	0.0	-0.2
Extraordinary Loss	-1.6	-8.0	-6.4
Income before income taxes	16.3	-3.4	-19.7
Income taxes	-1.3	-2.9	-1.6
Profit	15.0	-6.3	-21.3
Net income attributable to non-controlling interests	-0.4	-0.4	-0.0
Net income attributable to owners of the parent	14.6	-6.7	-21.3

(Reference) Consolidated Sales by Segment

(Unit: Billions of Yen)

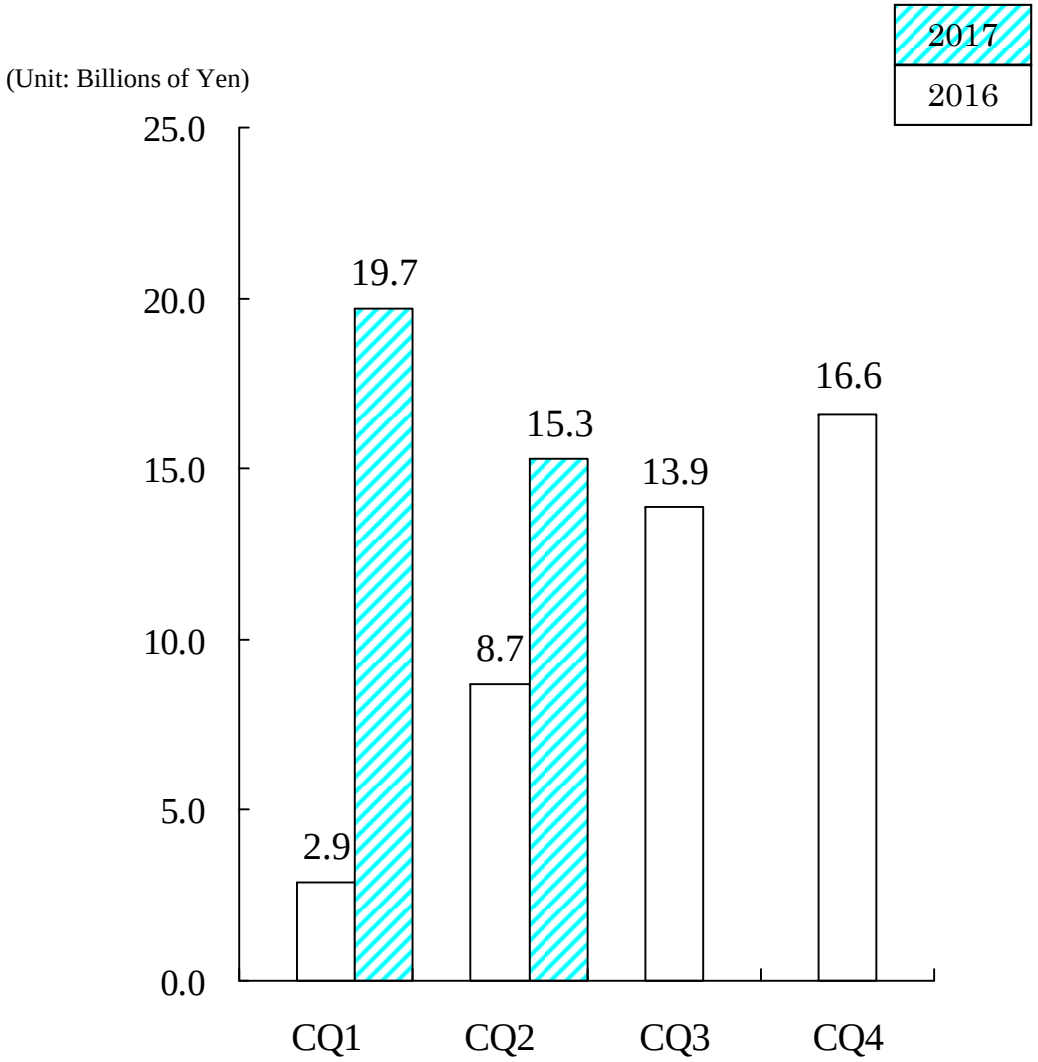
	CQ1, 2017	CQ2, 2017	Increase/ decrease	
Petrochemicals	64.6	59.3	-5.3	【Olefins】sales decreased (C4 fraction, cracked fuel oil: market price down) 【Organic chemicals】sales slightly decreased 【SunAllomer Ltd.】sales slightly increased
Chemicals	33.3	36.8	3.4	【Basic chemicals】sales increased (shipment volumes of AN and chloroprene rubber up) 【Electronic chemicals】sales increased (shipment volumes up) 【Industrial gases】sales increased (seasonal) 【Functional chemicals】sales increased
Electronics	29.7	33.3	3.6	【HDs】sales slightly increased (shipment volumes up) 【Compound semiconductors】sales increased (shipment volumes up) 【Rare earths】sales increased (shipment volumes up) 【LIB materials】sales increased (shipment volumes bound for China up)
Inorganics	13.1	13.5	0.4	【Ceramics】sales maintained at the CQ1 level 【Graphite electrodes】sales increased (shipment volumes up)
Aluminum	23.6	27.3	3.7	【High-purity foil for capacitors】sales increased (shipment volumes up) 【Aluminum specialty components】sales maintained at the CQ1 level 【Aluminum cans】sales increased (shipment volumes up: seasonal in Japan)
Others	32.0	33.0	1.0	【SHOKO Co., Ltd. 】sales increased
Adjustments	-13.1	-14.2	-1.1	
Total	183.2	189.0	5.8	

(Reference) Consolidated Operating Income by Segment

(Unit: Billions of Yen)

	CQ1, 2017	CQ2, 2017	Increase/ decrease	
Petrochemicals	10.6	5.6	-5.0	【Olefins】profit decreased (C4 fraction, cracked fuel oil: market price down) 【Organic chemicals】profit maintained at the CQ1 level 【SunAllomer Ltd.】profit increased
Chemicals	3.1	3.8	0.6	【Basic chemicals】profit increased (shipment volumes of AN and chloroprene rubber up) 【Electronic chemicals】profit increased (shipment volumes up) 【Industrial gases】profit increased 【Functional chemicals】profit slightly decreased 【Power generating business】profit decreased (conducted shutdown maintenance in CQ2)
Electronics	6.0	6.1	0.1	【HDs】profit decreased 【Compound semiconductors】profit slightly increased 【Rare earths】profit slightly increased (shipment volumes up) 【LIB materials】profit slightly increased
Inorganics	-0.1	0.2	0.3	【Ceramics】profit maintained at the CQ1 level 【Graphite electrodes】profit increased (shipment volumes up)
Aluminum	1.5	1.7	0.2	【High-purity foil for capacitors】profit maintained at the CQ1 level 【Aluminum specialty components】profit slightly decreased 【Aluminum cans】profit increased (shipment volumes up: seasonal in Japan)
Others	0.2	-0.1	-0.3	【SHOKO Co., Ltd.】profit decreased
Adjustments	-1.7	-2.0	-0.3	
Total	19.7	15.3	-4.4	

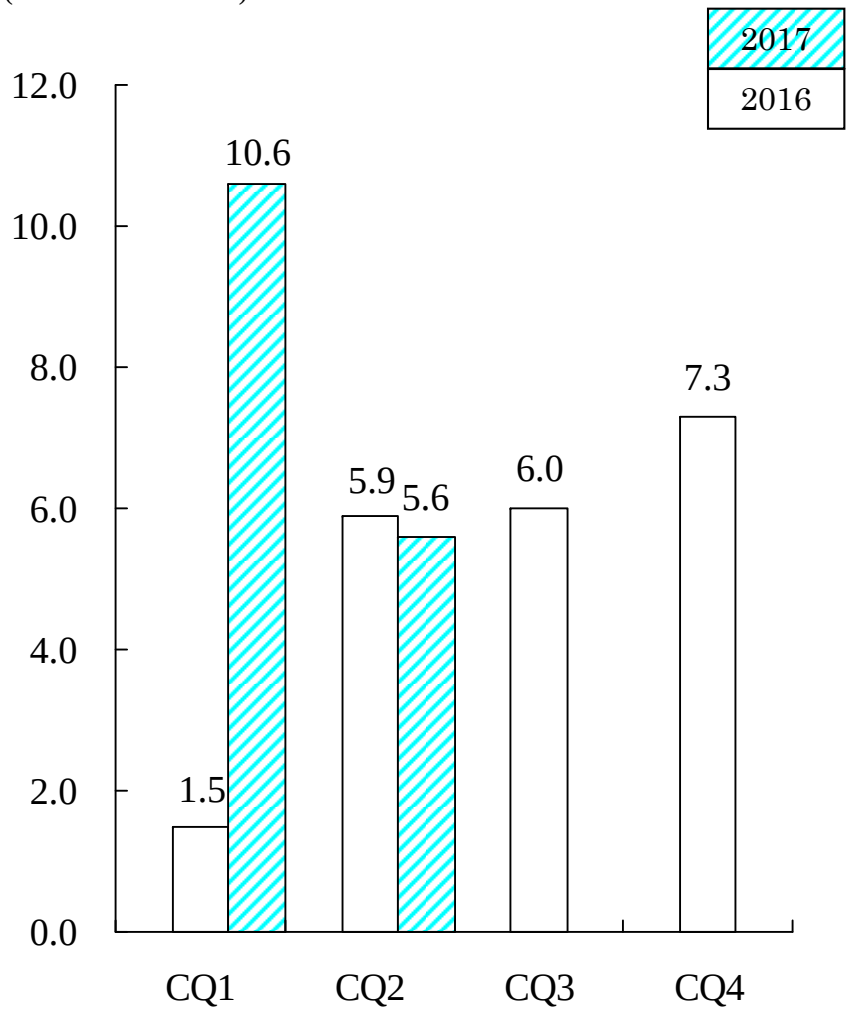
(Reference)　Quarterly Operating Income



(Reference) Quarterly Operating Income by Segment

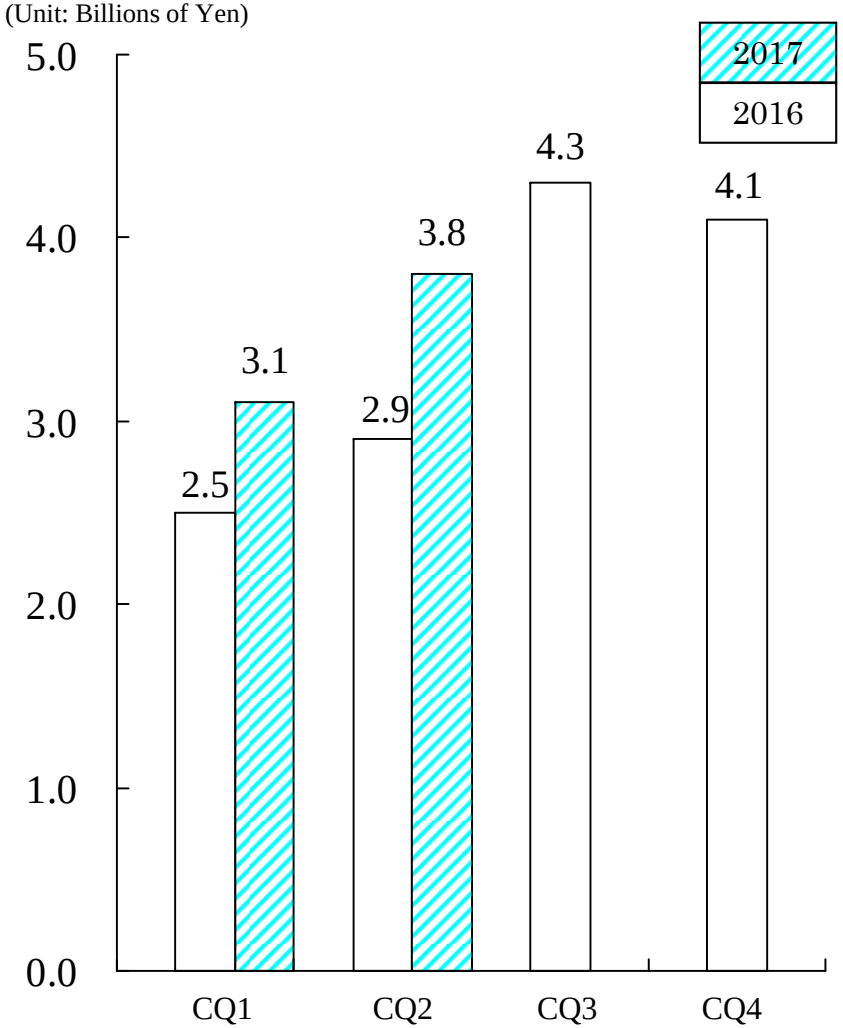
《Petrochemicals》

(Unit: Billions of Yen)



《Chemicals》

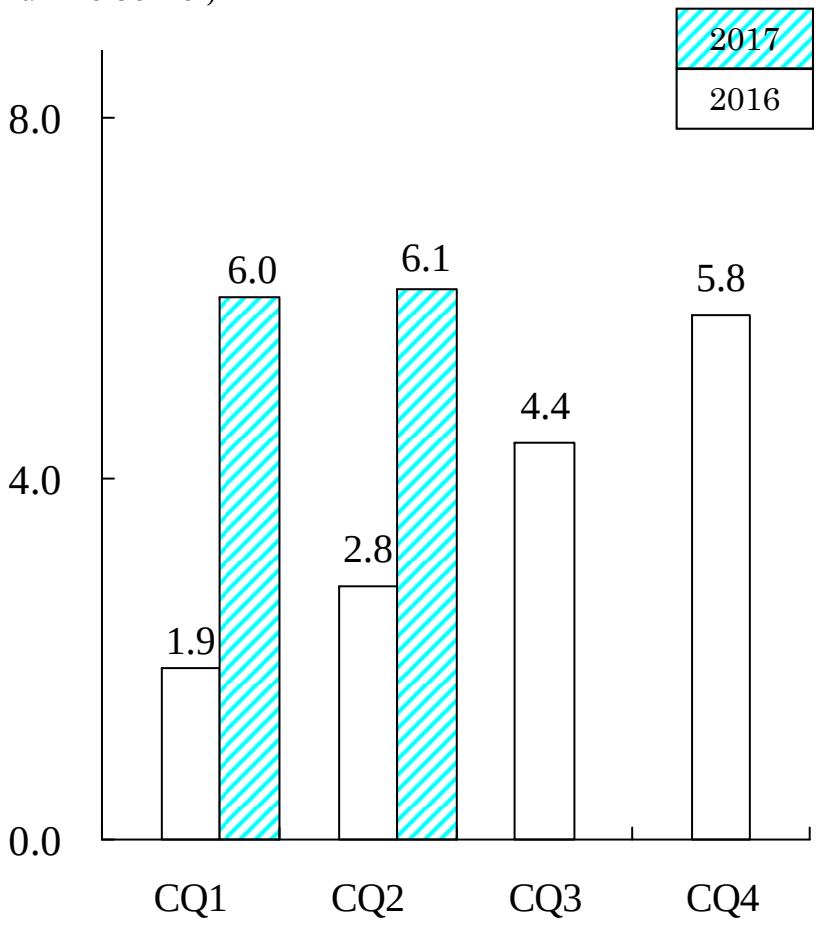
(Unit: Billions of Yen)



(Reference) Quarterly Operating Income by Segment

《Electronics》

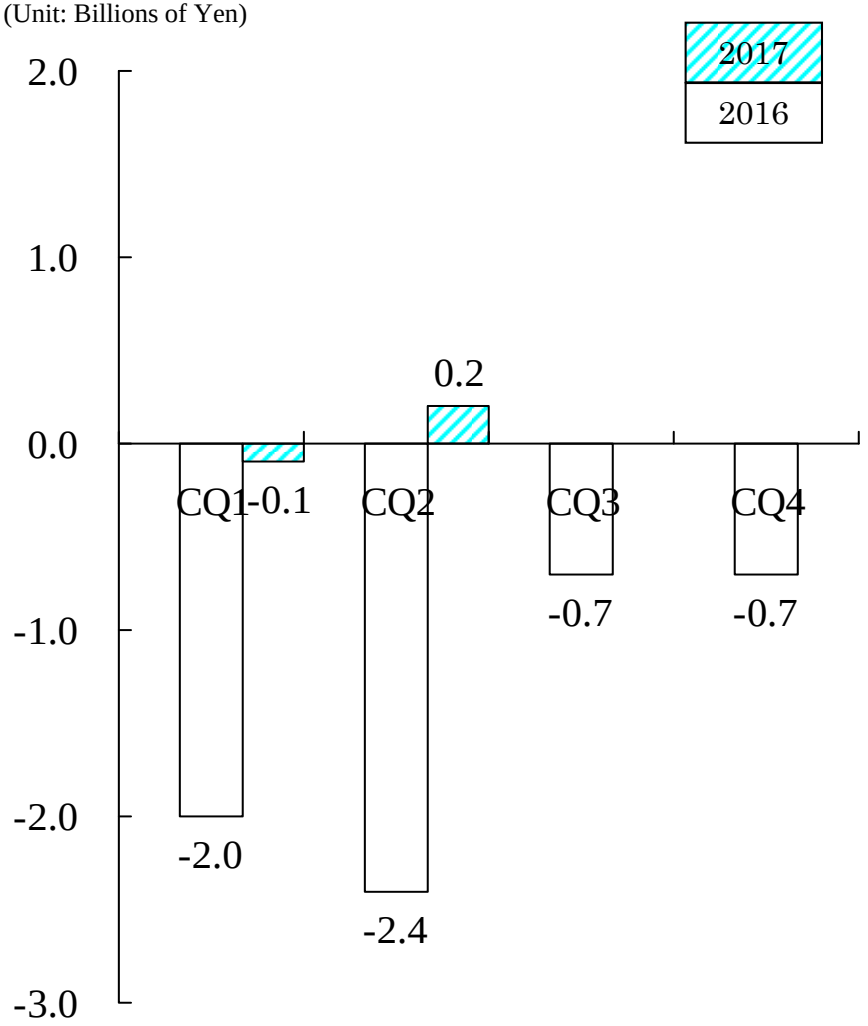
(Unit: Billions of Yen)



(note) From 2017 SDK changes the segmentation (LIB materials is transferred from "Others" to "Electronics") . Figures of 2016 are based on the new segmentation.

《Inorganics》

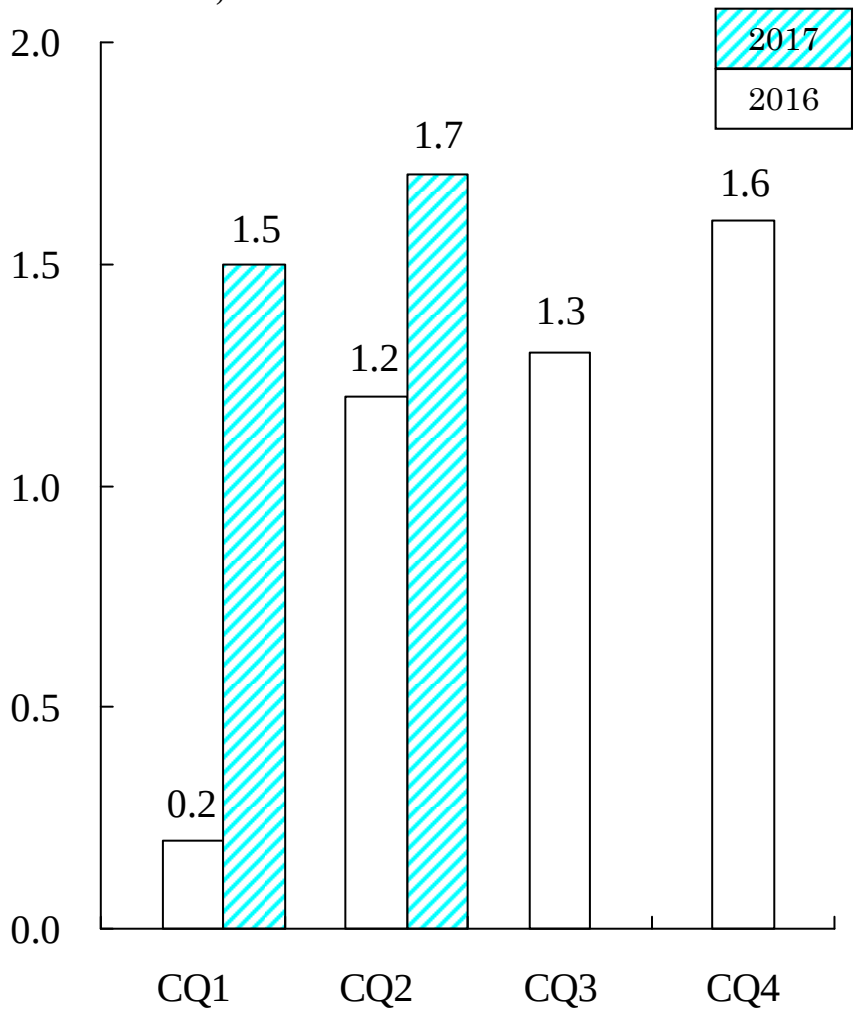
(Unit: Billions of Yen)



(Reference) Quarterly Operating Income by Segment

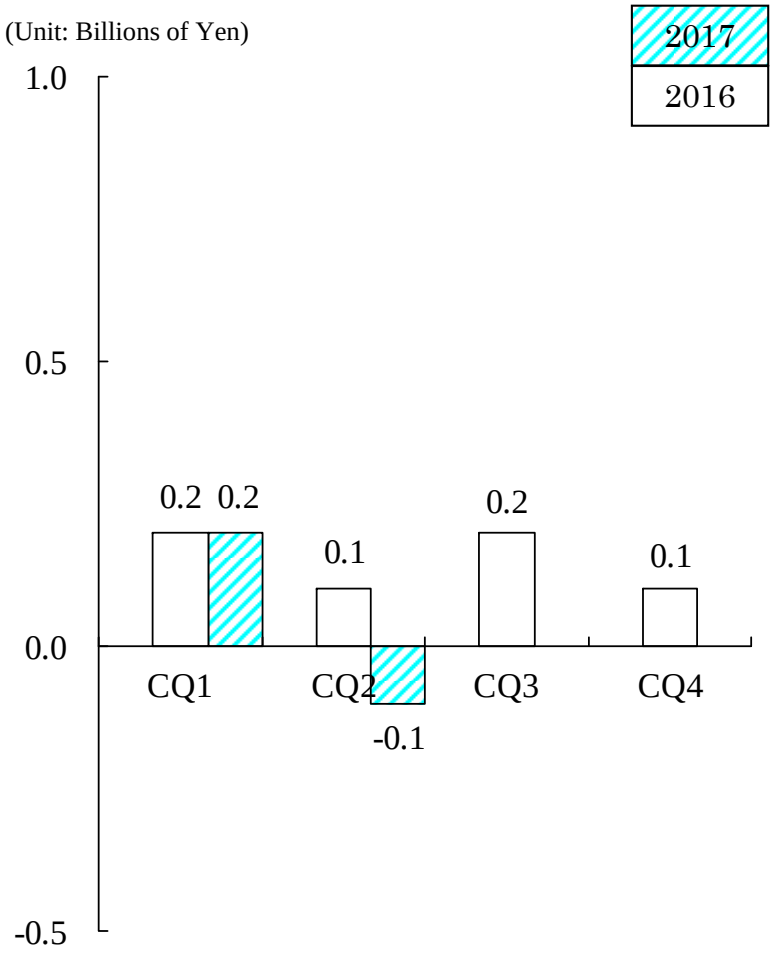
《Aluminum》

(Unit: Billions of Yen)



《Others》

(Unit: Billions of Yen)



(note) From 2017 SDK changes the segmentation (LIB materials is transferred from "Others" to "Electronics") . Figures of 2016 are based on the new segmentation.

Delay in announcement of 2016 financial results and other related documents

SDK postponed announcement of its consolidated financial results for the year ended in December 2016, which was originally scheduled to be on February 14, 2017, until April 25, 2017. This delay was caused by the occurrence of necessity to investigate details of transactions between BE International Corporation (BE, a subsidiary of Shoko Co., Ltd.) and its specific customer. Shoko Co., Ltd. (Shoko) is a consolidated subsidiary of SDK.

In order to examine the issue from professional and objective point of view, Shoko established the Special Examination Committee including outside experts. On April 17, 2017, Shoko disclosed the results of the examination reported by the Committee. In the report, the Special Examination Committee concluded that the subject of the relevant transactions had no substance, no one among officers/employees of Shoko or BE had the perception that the subject of transactions had no substance, those transactions were only circulation of funds, and there was no similar transaction at Shoko or its subsidiaries.

SDK accordingly amended accounting of those transactions as normal commercial transactions which were posted as sales, submitted its annual securities report for the 108th business term and amended prior-year annual securities reports to Kanto Local Finance Bureau on April 25, 2017. On the same day, SDK also disclosed 2016 financial statements and amended prior-year financial statements.

Under these circumstances, SDK could not report its business report and consolidated financial statements for the fiscal year ended in December 2016 to the 108th ordinary general meeting of shareholders held on March 30, 2017, which was based on the record date of December 31, 2016, and decided to abandon payment of year-end dividend to shareholders. However, SDK had an extraordinary general meeting of shareholders on June 27, 2017 based on the record date of May 11, 2017, submitted business report, consolidated financial statements, and other related documents for the fiscal year ended in December 2016, and paid dividend of ¥30 per share.

We sincerely apologize for any inconvenience caused to our shareholders, investors, and other stakeholders.

On June 26, Shoko submitted the “Report on the Reform Plan” which had been required by the Tokyo Stock Exchange, and reported the details of the issue and the results of the special examination. Shoko will implement its plan for improvement including establishment of procedure for M&A, revision of its rules on credit management, and strengthening of the organization responsible for internal control and inspection, as scheduled in the Report on the Reform Plan.

SDK will give full support to Shoko’s implementation of the Reform Plan, recognize strengthening of group-wide risk management function as an urgent task, and further strengthen internal control of the Showa Denko Group.

Topics

[General]

- **Decided not to renew reaction policy on large-scale share purchases**

  SDK decided not to renew its Reaction Policy on Large-scale Purchases of the Company's Stock Certificates (Reaction Policy), which was due to expire at the close of its 108th ordinary general meeting of shareholders held on March 30, 2017. SDK introduced the Reaction Policy at the 99th ordinary general meeting of shareholders held in March 2008, and maintained it until this March. However, SDK carefully studied the changes in social environment following the application of the Corporate Governance Code and other factors as well as their influence, and decided not to renew the Reaction Policy at its expiration date. SDK will continue its efforts to enhance its corporate value and the common interests of its shareholders. With regard to persons who intend to make large-scale purchases of SDK's stock certificates, SDK will ask them to provide sufficient information necessary for the shareholders in making an appropriate decision regarding the propriety of such large-scale purchases. At the same time, SDK will disclose the opinion of its Board of Directors, secure sufficient time for consideration by shareholders, and take other steps within the framework of relevant laws and regulations.

- **Received "2016 Top 100 Global Innovators" Award, 2 years in a row**

  In January 2017, SDK received "The Clarivate Analytics 2016 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 utilizing strict and objective data compiled from its value-added patent citation database which is the world's largest one in this category, its intellectual property intelligence platform, and the company's original basis for evaluation. In the screening process of the award, Clarivate Analytics used scientific and objective methodology involving four main criteria of "patent volume," "application-to-grant success," "globalization" and "citation influence." This time, Clarivate Analytics commended SDK's high performance in "globalization" and "citation influence," and rated the latter especially high. The Showa Denko Group has designated its intellectual property strategy as an important part of its overall business strategies. The Group will continue its intellectual property strategy through close integration with business and R&D strategies.

Topics

[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.

Topics

[Inorganics segment]

- **Decided to sell the whole shares of ICA**

  ICA, in which SDK holds a 20% stake, operates an alumina plant located in Tayan District, West Kalimantan, Indonesia. Recently, SDK discussed about the way to manage the plant of ICA in the future with ANTAM, which is the parent company of ICA. However, there was still a great difference between the shareholders' opinions on new terms and conditions to revive ICA. Thus SDK judged it is difficult for the two parties to reach an agreement on this matter in the future. In consideration of these circumstances, at the meeting of the Board of Directors held on July 24, 2017, SDK decided to report, in its financial statements for the second quarter of 2017, a loss on investment to companies under the application of equity method (non-operating cost) with regard to ICA, and an extraordinary loss on the whole amount of SDK's surety obligations and long term loans to ICA at the end of June 2017. SDK also decided to start negotiations with ANTAM and/or third party for the sale of the whole shares of ICA that SDK holds now. With regard to our ceramics business in the future, we will focus on high value-added products including heavy duty grinding materials, filler for electronic parts, and titanium oxides for ceramic capacitors.

Topics

[Aluminum segment]

- **Decided to expand high-purity aluminum foil plant in China**

  SDK decided to increase its capacity in China to produce high-purity aluminum foil, which is a major material for aluminum electrolytic capacitors. SDK will increase the capacity of Showa Denko Aluminum (Nantong) Co., Ltd. (SDAN) to produce high-purity aluminum foil from 600 tons per month to 800 tons per month, and start operation of the expanded plant in November 2017. In China, backed by increasing demand for solar batteries and industrial machines for automation, and also backed by rapid electrification of cars, the market for high capacitance and high strength aluminum foil produced by SDAN has been rapidly expanding. SDAN has been conducting final processing of rolled aluminum foil supplied from SDK's Sakai Plant as intermediate product, and SDAN's factory continues to operate at full capacity these days. In order to ensure stable supply of high-purity aluminum foil to the growing Chinese market, SDK decided to increase SDAN's production capacity. On the other hand, Showa Denko Group's total capacity to produce high-purity aluminum foil, which is the aggregate of the capacity of SDK's Sakai Plant and that of SDAN, will be maintained at 3000 tons per month. Aluminum electrolytic capacitors are used in wide areas such as electric appliances, IT devices, electric vehicles, hybrid cars and equipment for power generation utilizing renewable energy sources. The demand for aluminum electrolytic capacitors is expected to increase especially in the fields of environment and energy.

Topics

[Aluminum segment]

- **Showa Aluminum Can decided to establish second production base in Vietnam**

  Showa Aluminum Can Corporation (SAC), a consolidated subsidiary of SDK, acquired Hanacans Joint Stock Company, a can manufacturer of Vietnam, in May 2014. Since then, SAC has been introducing its leading-edge production technologies and quality control system into Hanacans, and successfully expanding Hanacans' sales in Vietnam. In February 2017, SAC decided to establish Hanacans' second base to produce aluminum cans, aiming to expand its business in Vietnam further. This new production base is to be located in Quang Nam Province, which occupies the mid-portion of Vietnam. Quang Nam Province is contiguous with Da Nang City, the largest city in the mid-portion of Vietnam. Many Vietnamese and foreign beverage manufacturers have decided to establish, or already established their factories in Quang Nam Province. At the new factory, SAC will install a line that can produce 700 million can bodies a year. In addition, synchronizing with this installation, SAC will install an additional line to produce can ends in Hanacans' existing factory in the suburbs of Hanoi in northern Vietnam. Through the installation of these new lines, Hanacans' capacity to produce can bodies and can ends in Vietnam will be expanded to that for 2 billion cans a year by October 2018. SAC will pursue further expansion of its aluminum can business in Vietnam through quickly and timely offer of products which meet needs of the market.

Topics

[Aluminum segment]

- **Showa Denko Group established JV with Carabao Group 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 beverage maker and has the second largest share in the energy drink market of Thailand, agreed in March 2017 to establish “Asia Pacific Can Company Limited” (APC) as a joint corporation to manufacture and sell aluminum cans, and established APC in June 2017. The Showa Denko Group positions its aluminum can business as a “Growth-accelerating” business, and has investigated the feasibility of its entrance into another emerging country’s market after its entrance into the Vietnamese market. CBG is expected to continue expanding its business because it already has majority shares in the markets of many emerging countries including Cambodia, where increases in population and improvements in standards of living are expected. Thus SDK and SAC decided to establish the joint corporation with CBG. At the factory of APC, we will install one production line with production capacity of 1 billion cans per year. APC will supply aluminum cans to the adjacent factory of CBG to fill beverages into containers. Hanacans will have the right of priority to supply aluminum can lids to the new company.

PROJECT 2020+

