

*Evolving unique chemical company*

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# First Quarter, 2016 Financial Results

- Consolidated -

## SHOWA DENKO K.K.

May 10, 2016

(Corrected on April 25, 2017)

Saburo Muto, CFO

Director & Managing 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.

## Consolidated Companies

- Consolidated subsidiaries: 49
  - 1 company newly consolidated
  - Shoko Highpolymer Co., Ltd.
  
- Equity method applied: 13
  - Newly applied or excluded: none

### Selected Data

(Average figure)

	Jan.- Mar. 2015	Jan.- Mar. 2016	Increase/ decrease
■ Exchange rate: ¥/US\$	119.1	115.5	Yen appreciated by ¥3.6/\$
■ Domestic naphtha price: ¥/KL	47,000	34,300	-12,700
■ Aluminum			
LME price: US\$/T	1,814	1,515	-299
Domestic market*: K¥/T	308	231	-77

Exchange rate at December 31, 2015 ¥120.6/US\$, at March 31, 2016 ¥112.7/US\$

⇒ Yen appreciated by ¥7.9/US\$

\*Domestic market:  
data from Nikkei

# Summary

(Unit: Billions of Yen)

	CQ1, 2015	CQ1, 2016	Increase/ decrease
Net Sales	191.9	156.0	-35.9
Operating Income	3.8	2.9	-0.9
Non-operating income and expenses, net	-1.1	-1.2	-0.1
Interest/Dividends income and expenses	-0.7	-0.5	0.2
Equity in earnings of affiliates	0.5	1.7	1.1
Foreign exchange gains or losses	-0.9	-1.9	-1.0
Other	0.0	-0.4	-0.4
Ordinary Income	2.7	1.7	-1.0
Extraordinary Profit	0.0	0.0	0.0
Extraordinary Loss	-15.2	-1.6	13.6
Income before income taxes	-12.5	0.1	12.6
Income taxes	-2.4	1.1	3.5
Profit	-14.9	1.2	16.1
Profit attributable to non-controlling interests	7.3	-0.3	-7.6
Profit attributable to owners of parent	-7.6	0.9	8.5

# Extraordinary Profit/Loss

(Unit: Billions of Yen)

	CQ1, 2015	CQ1, 2016	Increase/ decrease
■ Extraordinary Profit	0.0	0.0	0.0
■ Extraordinary Loss	-15.2	-1.6	13.6
● Loss on sales and retirement of noncurrent assets	-0.9	-0.7	0.2
● Provision for business structure improvement	-0.8	-0.4	0.4
● Provision of allowance for doubtful accounts	-12.8	—	12.8
● Other	-0.7	-0.5	0.3
■ Extraordinary Profit/Loss, Net	-15.1	-1.6	13.6

## Consolidated Sales by Segment

(Unit: Billions of Yen)

	CQ1, 2015	CQ1, 2016	Increase/ decrease	
Petrochemicals	57.1	42.9	-14.2	【Olefins】 sales decreased (naphtha price down, shipment volumes slightly down due to shutdown maintenance of derivative plants) 【Organic chemicals】 sales decreased (vinyl acetate, ethyl acetate: shipment volumes down due to shutdown maintenance, price down)
Chemicals	34.6	32.1	-2.4	【Basic chemicals】 sales decreased (AN: market price down, chloroprene rubber: shipment volumes for Asia down) 【Industrial gases】 sales slightly decreased 【Electronic chemicals】 sales increased (shipment volumes up) 【Functional chemicals】 sales decreased (transferred phenolic resin business)
Electronics	33.0	22.3	-10.7	【HDs】 sales decreased (shipment volumes down) 【Compound semiconductors】 sales decreased (shipment volumes down) 【Rare earth】 sales decreased (shipment volumes down)
Inorganics	15.7	12.4	-3.3	【Ceramics】 sales decreased (shipment volumes of alumina down) 【Graphite electrodes】 sales decreased (market price down)
Aluminum	23.1	22.0	-1.1	【High-purity foil for capacitors】 sales slightly increased (shipment volumes up) 【Aluminum specialty components】 sales decreased (shipment volumes for automotive applications down) 【Aluminum cans】 sales slightly increased (Hanacans Joint Stock Company: shipment volumes up)
Others	39.5	34.8	-4.7	【LIB materials】 sales increased (shipment volumes up) 【SHOKO Co., Ltd.】 sales decreased
Adjustments	-11.1	-10.5	0.6	
Total	191.9	156.0	-35.9	

# Consolidated Operating Income by Segment

(Unit: Billions of Yen)

	CQ1, 2015	CQ1, 2016	Increase/ decrease	
Petrochemicals	-1.7	1.5	3.3	【Olefins】 profit increased (profit margin improved ) 【Organic chemicals】 profit increased (ethyl acetate: lower raw material cost)
Chemicals	2.1	2.5	0.4	【Basic chemicals】 profit maintained at the CQ1, 2015 level (ammonia: profit up, AN: profit down) 【Industrial gases】 profit increased 【Electronic chemicals】 profit decreased 【Functional chemicals】 profit increased 【Power generating business】 profit increased
Electronics	5.4	1.7	-3.7	【HDs】 profit decreased (shipment volumes down) 【Compound semiconductors】 profit decreased (shipment volumes down) 【Rare earth】 profit decreased (shipment volumes down, loss on lower of cost or market value method)
Inorganics	-0.3	-2.0	-1.7	【Ceramics】 profit decreased (shipment volumes of alumina down) 【Graphite electrodes】 profit decreased (market price down)
Aluminum	0.2	0.2	0.1	【High-purity foil for capacitors】 profit slightly increased (shipment volumes up) 【Aluminum specialty components】 profit decreased (shipment volumes for automotive applications down) 【Aluminum cans】 profit increased (Hanacans Joint Stock Company: shipment volumes up)
Others	0.0	0.5	0.5	【LIB materials】 profit increased (shipment volumes up) 【SHOKO Co., Ltd.】 profit increased
Adjustments	-1.9	-1.7	0.3	
Total	3.8	2.9	-0.9	



## Consolidated Balance Sheet

(Unit: Billions of Yen)

Assets	Dec.31, 2015	Mar.31, 2016	Increase/ decrease	Liabilities and Net Assets	Dec.31, 2015	Mar.31, 2016	Increase/ decrease
Cash and deposits	64.1	62.6	-1.5	Notes and accounts payable	103.7	88.6	-15.1
Notes and accounts receivable	135.1	111.6	-23.5	Interest-bearing debt	368.8	374.0	5.2
Inventories	105.9	103.6	-2.3	Net defined benefit liability	15.2	14.4	-0.8
Other current assets	26.5	30.6	4.1	Other liabilities	144.6	138.4	-6.2
<u>Total Current Assets</u>	331.5	308.3	-23.2	<u>Total Liabilities</u>	632.4	615.4	-16.9
Buildings and structures	81.5	79.3	-2.2	Capital stock	140.6	140.6	0.0
Machinery and equipment	112.9	108.5	-4.5	Capital surplus	62.2	62.2	0.0
Land	251.9	251.8	-0.1	Retained earnings	55.2	52.1	-3.2
Other tangible fixed assets	56.0	58.1	2.1	Treasury stock	-10.2	-10.2	0.0
<u>Total Tangible Fixed Assets</u>	502.3	497.6	-4.7	<u>Total Shareholders' equity</u>	247.8	244.7	-3.2
Intangible Fixed Assets	12.3	11.9	-0.4	Valuation difference on available-for-sale securities	3.9	0.6	-3.3
Investments and other assets	94.4	92.3	-2.1	Deferred gains or losses on hedges	-0.3	-1.1	-0.8
incl. investment securities	76.6	72.9	-3.6	Foreign currency translation adjustment	18.6	10.9	-7.7
				Revaluation reserve for land	31.3	33.0	1.7
				Remeasurements of defined benefit plans	-4.8	-4.8	0.1
				<u>Total accumulated other comprehensive income</u>	48.7	38.6	-10.1
				Non-controlling interests	11.6	11.3	-0.3
<u>Total fixed assets</u>	609.0	601.7	-7.3	<u>Total net assets</u>	308.1	294.6	-13.6
<b>Total Assets</b>	<b>940.5</b>	<b>910.0</b>	<b>-30.5</b>	<b>Total Liabilities and Net Assets</b>	<b>940.5</b>	<b>910.0</b>	<b>-30.5</b>

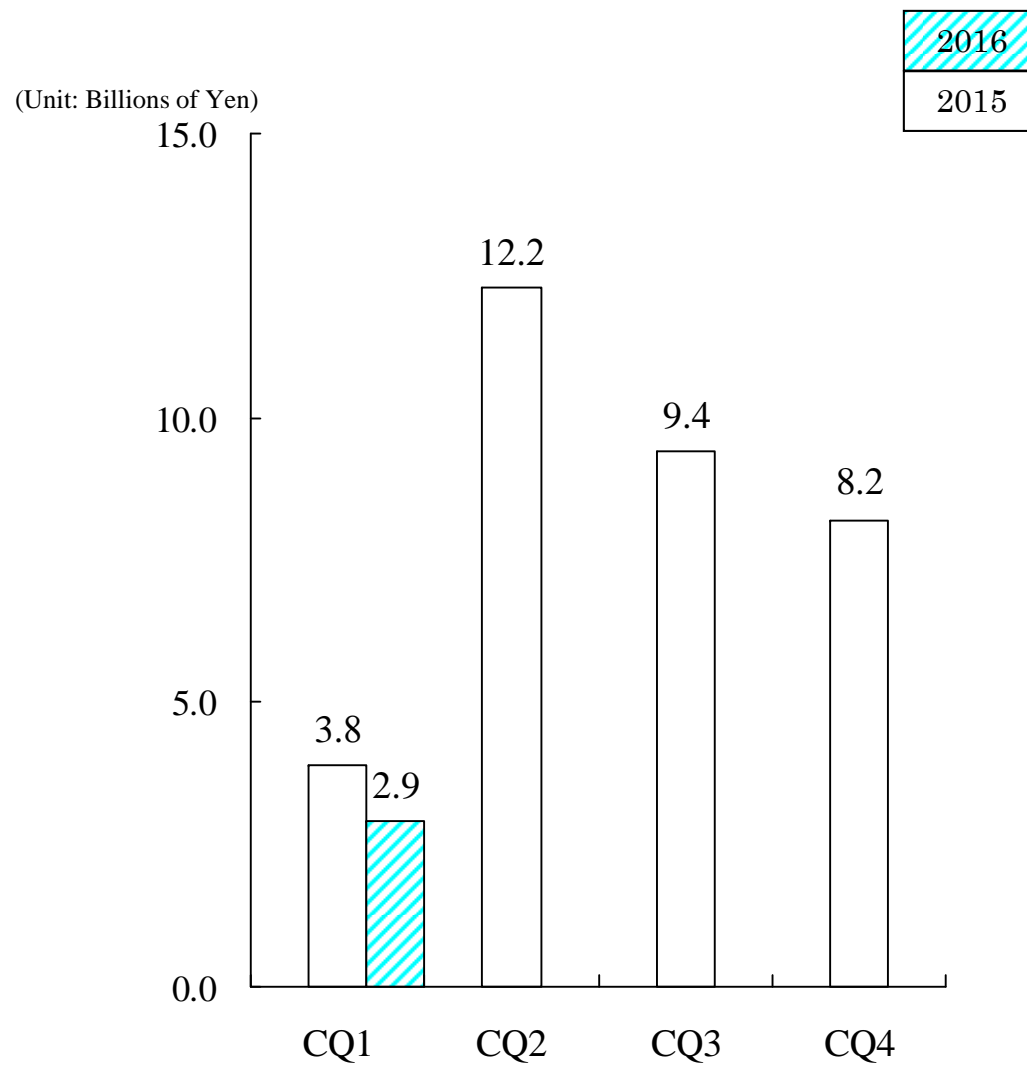
## Total Assets Interest-bearing Debt and D/E ratio

(Unit: Billions of Yen)

	Dec. 31, 2015	Mar.31, 2016	Increase/ decrease
● <b>Total assets</b>	940.5	910.0	-30.5
● <b>Interest-bearing debt</b>	368.8	374.0	5.2
● <b>Debt/Equity ratio</b>	1.20times	1.27times	0.07p
● <b>Stockholders' Equity ratio</b>	31.5%	31.1%	-0.4p



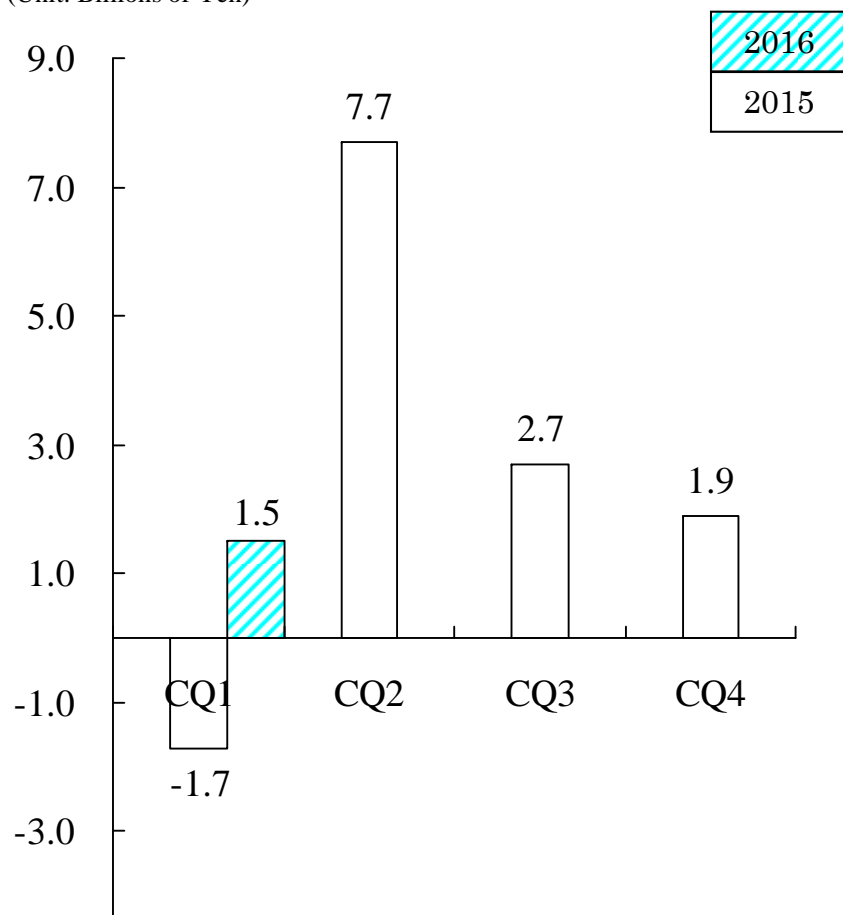
# (Reference) Quarterly Operating Income



# (Reference) Quarterly Operating Income by Segment

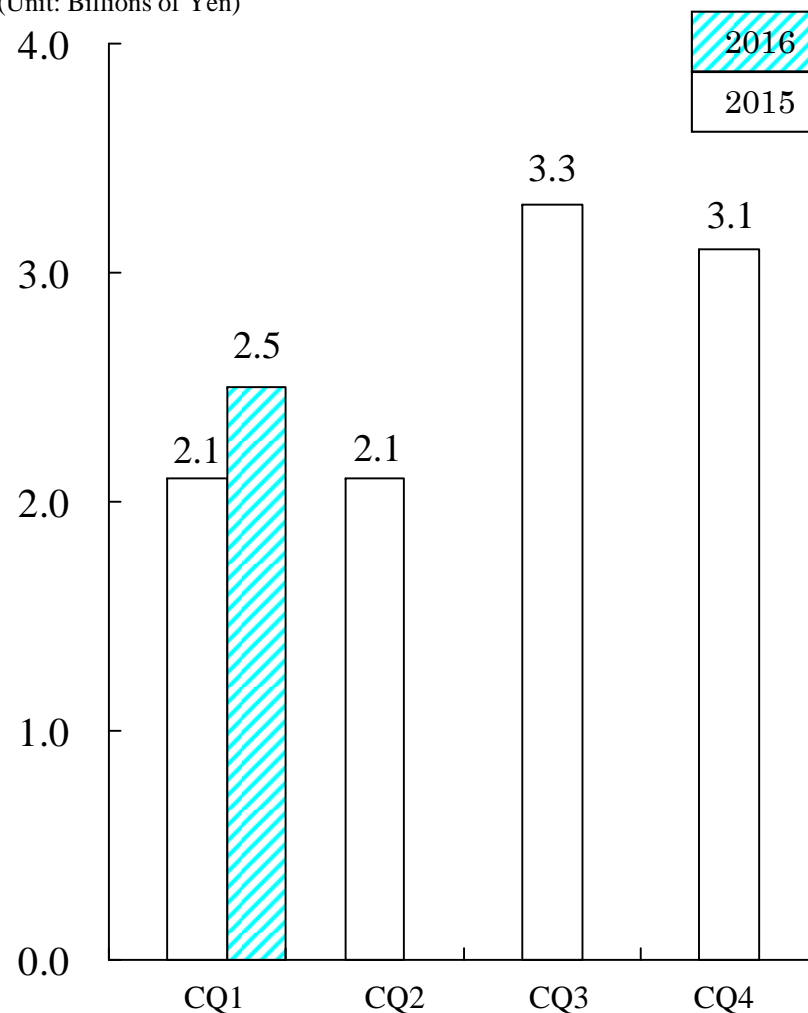
## 《Petrochemicals》

(Unit: Billions of Yen)



## 《Chemicals》

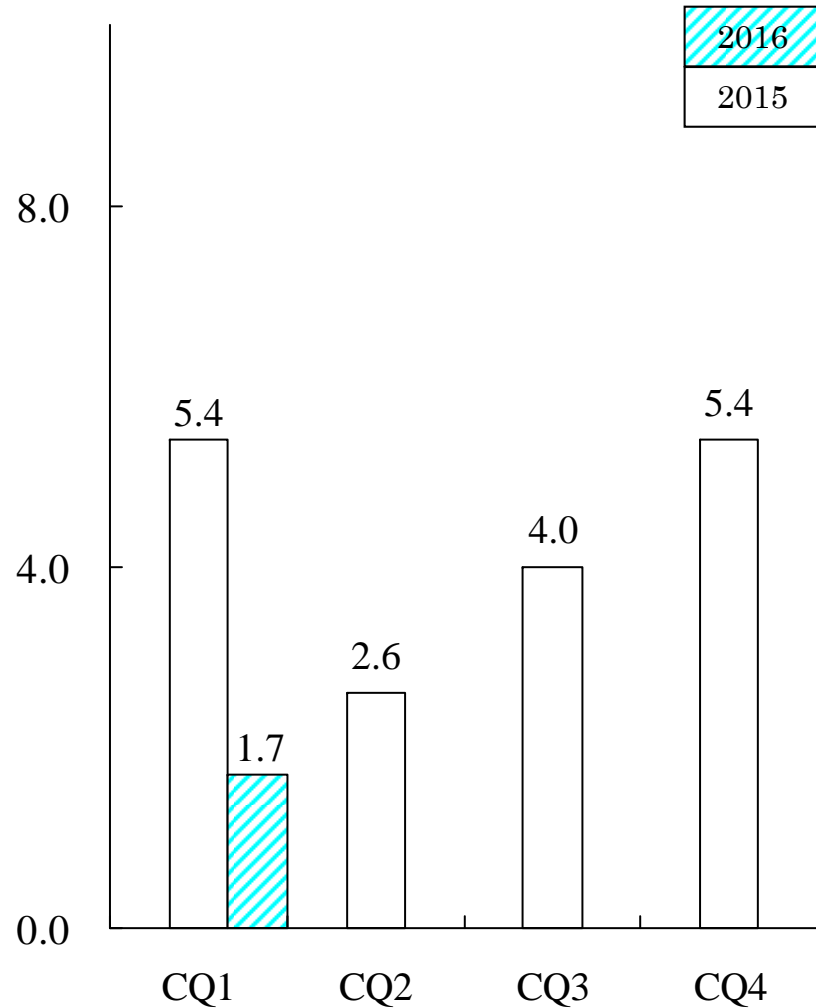
(Unit: Billions of Yen)



# (Reference) Quarterly Operating Income by Segment

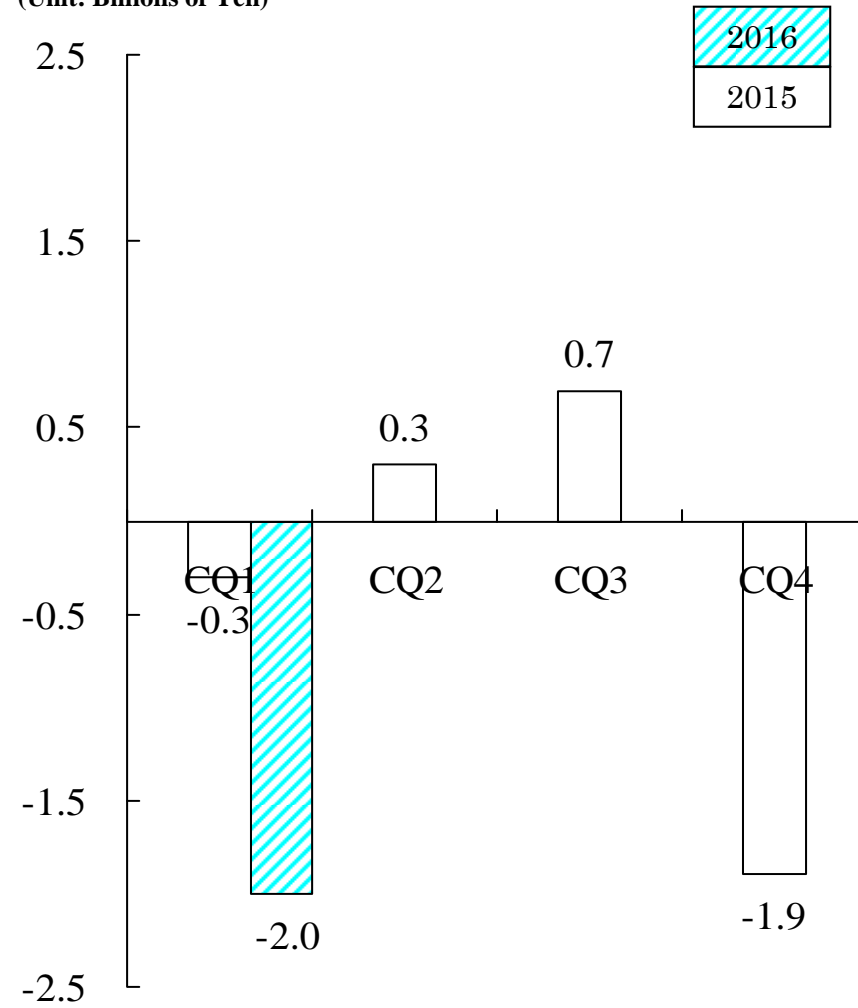
## 《Electronics》

(Unit: Billions of Yen)



## 《Inorganics》

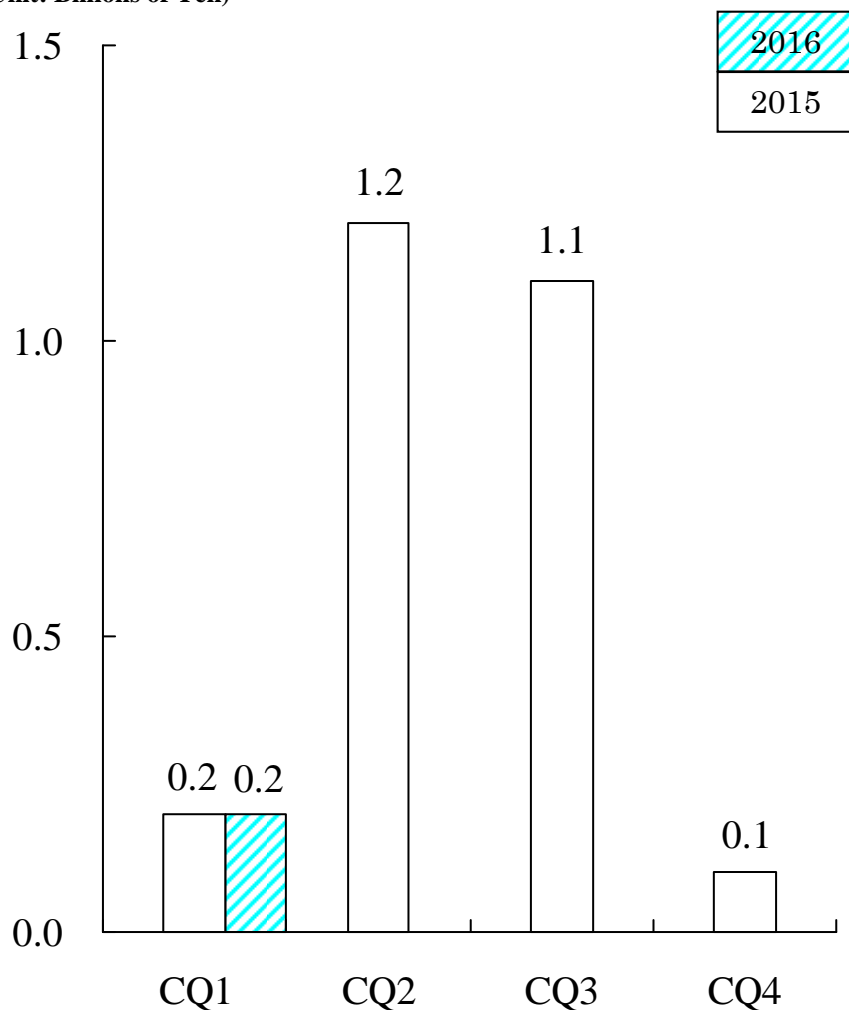
(Unit: Billions of Yen)



# (Reference) Quarterly Operating Income by Segment

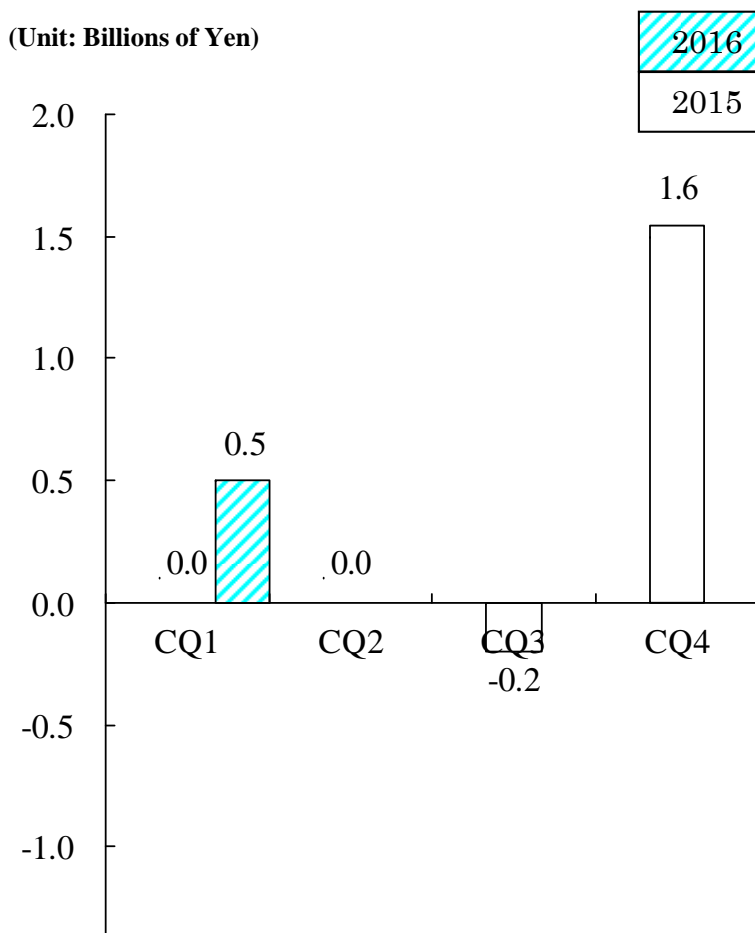
## 《Aluminum》

(Unit: Billions of Yen)



## 《Others》

(Unit: Billions of Yen)



# Topics

## [General]

- **Consolidation of shares and change in the number of shares per share unit**

SDK resolved at its 107th ordinary general meeting of shareholders held on March 30, 2016 that it will consolidate its shares and change number of shares per trading unit (share unit). On July 1, 2016, SDK will change number of shares per share unit from 1,000 shares to 100 shares. Along with the change in the share unit, SDK will also consolidate its shares (ten shares into one share) in order to maintain the level of investment unit considered desirable for SDK's shares by Japan's stock exchanges (50,000 yen or more and less than 500,000 yen). Number of authorized shares will be decreased from 3.3 billion shares to 330 million shares according to the ratio of the consolidation of shares.
- **Introduction of performance-linked stock compensation scheme**

SDK resolved at its 107th ordinary general meeting of shareholders held on March 30, 2016 that it will revise its compensation scheme for Directors and Corporate Officers, and introduce a performance-linked stock compensation scheme utilizing a trust service ("the Scheme"). The purpose of the introduction of the Scheme is to further clarify the linkage between compensation for non-Outside Directors and Corporate Officers and the share value of SDK, thereby enhancing their awareness of the need to contribute to the efforts to achieve improved business performance and greater enterprise value in the medium to long term. SDK has in place a Compensation Advisory Committee, a majority of which comprises Outside Directors and Outside Audit and Supervisory Board Members, which serves as an advisory body to the Board of Directors. Prior to the board meeting resolution to introduce the Scheme that decides compensation for Directors and Corporate Officers, this committee deliberated on the proposal.

# Topics

## [General]

- Acquisition of highest-level environmental rating from Development Bank of Japan  
In March 2016, SDK received a loan from Development Bank of Japan (DBJ) under the scheme of DBJ Environmentally Rated Loan Program, after acquiring the highest-level rating from DBJ for its environmental management. This Program is a loan program utilizing a rating system developed by DBJ that evaluates enterprises on the level of their environmental management and then sets preferential loan conditions when an enterprise is rated high. This time, SDK has acquired the highest-level environmental rating from DBJ because of its identification of important issues related to its own medium to long term management themes, continuous activities to improve its CSR-conscious procurement, its introduction of an integrated comprehensive chemicals management system, and promotion of Diversity Management, which is a management policy to enhance the value of diversity among its employees.

## [Chemicals segment]

- Increasing capacity to produce high-purity boron trichloride  
In March 2016, SDK increased its capacity to produce high-purity boron trichloride ( $\text{BCl}_3$ ), which is a kind of high-purity gas for electronics, to 1.5 times of the previous level and started operation of the expanded facilities. High-purity  $\text{BCl}_3$  is a specialty gas mainly used for fine-etching of aluminum circuits in the manufacturing process of LCD panels and silicon semiconductors. In recent years, electronic material manufacturers have been making capital investment in the fields of organic light emitting diode (OLED) display panels and low temperature poly-silicon (LTPS) LCD panels, both of which are equipped with aluminum circuits. Therefore, the demand for high-purity  $\text{BCl}_3$  gas is expected to be stable in the future. Under its ongoing medium-term consolidated business plan “Project 2020+,” SDK classifies its business in high-purity gases for electronics into the category of “Growth-accelerating” business. SDK will continue aiming to further strengthen and expand its business in high-purity gases for electronics, responding rapidly to the expansion of the global electronic materials market.

## Topics

### [Chemicals segment]

- Ammonia production process utilizing used plastic containers received Silver Prize in the Eco-Mark Awards 2015

In January 2016, SDK's ammonia production process that recycles plastic containers received a "Silver Prize in the Eco-Mark Awards 2015" hosted by Japan Environment Association (JEA). The award-winning ammonia production process utilizes hydrogen gas extracted from gasified used plastics through chemical recycling method as a part of raw materials, and synthesizes ammonia. In July 2015, this process was accredited by JEA to be eligible for Eco-Mark as the first case of production process in the world. This time, JEA awarded a Silver Prize to the production process as commendation for its innovative technologies and contribution to promotion of resource recycling. SDK will continue developing environment friendly products and production processes, thereby contributing to the sustainability of society.

- Developing carbon-coated foil-tape heat spreader for electronics

SDK developed new types of carbon-coated foil-tape heat spreader to be used to enhance heat radiation efficiency of electronic materials and parts. SDK added these new products to its lineup of carbon-coated foil-tape heat spreader, "HS Series," and started shipment of their samples in January 2016. In recent years, miniaturization and integration of electronic parts have been progressing, and the amount of heat generated per unit area of electronic device has been increasing. Therefore, the quality of applied heat radiation technology has a great influence on the life and reliability of electronic devices. "HS Series" is a lineup of foil-tape heat spreader for electronic materials and parts, consisting of carbon and metal foil. Its carbon layer enhances heat dissipation efficiency of the surface of metal, and suppresses rises in temperature of electronic devices. In addition, HS Series is easy to be punched or bended. The new products SDK developed this time were "HS-2500" which has more flexible aluminum layer, and "HS-3000" which consists of carbon and copper-foil with less thickness. Both new products have more adaptability to three-dimensional curved surfaces than conventional ones because HS-2500 and HS-3000 have metal layer with more flexibility or less thickness. Thus, HS-2500 and HS-3000 have enhanced adhesive strength, and can be attached to complex surfaces of electronic parts with unevenness and many curves.

# PROJECT 2020+

