Evolving unique chemical company

First Quarter, 2015 Financial Results

- Consolidated -

SHOWA DENKO K.K.

May 8, 2015

Saburo Muto, CFO
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: 48

  4 companies newly consolidated

  Shanghai Showa Electronics Materials Co., Ltd.
  Shanghai Showa Highpolymer Co., Ltd.
  Showa Specialty Gas Singapore Pte. Ltd.
  SHOTIC MALAYSIA SDN. BHD.

  1 company excluded

  Shotan Shoji Kaisha Ltd.

- Equity method applied: 13

  1 company newly applied

  PT. Indonesia Chemical Alumina

Selected Data

(Average figure)

	Jan.- Mar. 2014	Jan.- Mar. 2015	Increase/ decrease
■Exchange rate: ¥/US$	102.8	119.1	Yen depreciated by ¥16.3/$
■Domestic naphtha price: ¥/KL	72,000	47,000	-25,000
■Aluminum			
LME price: US$/T	1,752	1,814	62
Domestic market*: K¥/T	244	308	64

Exchange rate at December 31, 2014 ¥120.6/US$, at March 31, 2015 ¥120.2/US$
⇒Yen appreciated by ¥0.4/US$

*Domestic market: data from Nikkei

Summary

(Unit: Billions of Yen)

	CQ1, 2014	CQ1, 2015	Increase/ decrease
Net Sales	209.6	193.2	-16.5
Operating Income	7.6	3.9	-3.7
Non-operating income and expense, net	-1.0	-1.1	-0.1
Interest/Dividend income and expense	-0.6	-0.7	-0.1
Equity Method	0.6	0.5	-0.1
Foreign exchange gain, net	-0.1	-0.9	-0.8
Other	-1.0	0.0	0.9
Ordinary Income	6.6	2.8	-3.8
Extraordinary Profit	0.7	0.0	-0.7
Extraordinary Loss	-1.0	-15.2	-14.1
Income before income taxes and minority interests	6.3	-12.4	-18.6
Income taxes	-4.9	-2.4	2.5
Minority Interests in income	-0.4	7.2	7.6
Net Income	0.9	-7.5	-8.5

Extraordinary Profit/Loss

(Unit: Billions of Yen)

	CQ1, 2014	CQ1, 2015	Increase/ decrease
■Extraordinary Profit	0.7	0.0	-0.7
●Gain on sales of investment securities	0.7	0.0	-0.7
●Other	0.0	0.0	0.0
■Extraordinary Loss	-1.0	-15.2	-14.1
●Loss on fixed assets sold or retired	-0.3	-0.9	-0.6
●Provision of allowance for doubtful accounts	—	-12.8	-12.8
●Other	-0.7	-1.5	-0.8
■Extraordinary Profit/Loss, Net	-0.3	-15.1	-14.8

Consolidated Sales by Segment

(Unit: Billions of Yen)

	CQ1, 2014	CQ1, 2015	Increase/ decrease	
Petrochemicals	62.1	57.1	-4.9	【Olefins】sales decreased (Impact of sharp fall in naphtha price) 【Organic chemicals】sales increased (shipment volumes of vinyl acetate, ethyl acetate up)
Chemicals	33.4	34.8	1.3	【Basic chemicals】sales decreased (AN: market price down, ammonia: shipment volumes down) 【Industrial gases】sales maintained at the CQ1, 2014 level 【Electronic chemicals】sales increased (shipment volumes up) 【Functional chemicals】sales increased (Shanghai Showa Highpolymer Co., Ltd.: newly consolidated)
Electronics	37.2	33.0	-4.3	【HDs】sales decreased (shipment volumes down) 【Compound semiconductors】sales maintained at the CQ1, 2014 level 【Rare earth】sales decreased (shipment volumes down)
Inorganics	16.0	15.7	-0.3	【Ceramics】sales maintained at the CQ1, 2014 level 【Graphite electrodes】sales maintained at the CQ1, 2014 level
Aluminum	21.2	23.1	1.8	【High-purity foil for capacitors】sales increased (price up reflecting metal costs up) 【Aluminum specialty components】sales slightly increased 【Aluminum cans】sales increased (Hanacans Joint Stock Company: newly consolidated in 2Q,2014)
Others	49.8	40.6	-9.2	【LIB materials】sales increased (shipment volumes up) 【SHOKO Co., Ltd. 】sales decreased (Business related to China)
Adjustments	-10.1	-11.1	-1.0	
Total	209.6	193.2	-16.5	

Consolidated Operating Income by Segment

(Unit: Billions of Yen)

	CQ1, 2014	CQ1, 2015	Increase/ decrease	
Petrochemicals	-0.1	-1.7	-1.7	【Olefins】profit decreased (Impact of sharp fall in naphtha price) 【Organic chemicals】profit increased (shipment volumes of vinyl acetate, ethyl acetate up)
Chemicals	1.0	2.1	1.2	【Basic chemicals】profit increased (Chloroprene rubber, AN) 【Industrial gases】, 【Functional chemicals】profit maintained at the CQ1, 2014 level 【Electronic chemicals】profit increased (shipment volumes up)
Electronics	8.1	5.4	-2.7	【HDs】profit decreased (shipment volumes down) 【Compound semiconductors】profit maintained at the CQ1, 2014 level 【Rare earth】profit maintained at the CQ1, 2014 level
Inorganics	-0.4	-0.3	0.2	【Ceramics】profit maintained at the CQ1, 2014 level 【Graphite electrodes】profit slightly increased
Aluminum	0.9	0.2	-0.7	【High-purity foil for capacitors】profit slightly increased 【Aluminum specialty components】profit slightly decreased 【Aluminum cans】profit decreased (metal costs up)
Others	0.2	0.1	-0.1	【LIB materials】profit increased (shipment volumes up) 【SHOKO Co., Ltd.】profit decreased
Adjustments	-2.1	-1.9	0.2	
Total	7.6	3.9	-3.7	

Consolidated Balance Sheet

(Unit: Billions of Yen)

Assets	Dec.31, 2014	Mar.31, 2015	Increase/ decrease	Liabilities and Net Assets	Dec.31, 2014	Mar.31, 2015	Increase/ decrease
Cash and deposits	66.8	60.1	-6.7	Notes and accounts payable	127.2	103.9	-23.3
Notes and accounts receivable	156.9	130.8	-26.1	Interest-bearing debt	383.1	405.0	21.9
Inventories	123.6	122.6	-1.0	Net defined benefit liability	22.1	16.2	-6.0
Other current assets	33.1	35.4	2.3	Other liabilities	158.1	136.8	-21.3
Total Current Assets	380.4	349.0	-31.5	Total Liabilities	690.6	661.8	-28.7
Buildings and structures	85.9	86.9	1.0	Capital stock	140.6	140.6	0.0
Machinery and equipment	119.9	120.4	0.5	Capital surplus	62.2	62.2	0.0
Land	254.1	254.1	0.0	Retained earnings	57.5	47.1	-10.4
Other tangible fixed assets	53.7	55.3	1.7	Treasury stock	-10.2	-10.2	0.0
Tangible Fixed Assets	513.7	516.8	3.1	Total Shareholders' equity	250.1	239.7	-10.4
Intangible Fixed Assets	13.7	13.5	-0.2	Valuation difference on available-for-sale securities	6.8	9.3	2.5
Investments and other assets	103.3	96.8	-6.5	Foreign currency translation adjustment, Deferred hedge gains	20.3	22.1	1.8
incl. investment securities	76.1	79.5	3.4	Revaluation reserve for land	27.9	31.5	3.5
				Remeasurements of defined benefit plans	-4.9	-2.1	2.8
				Total accumulated other comprehensive income	50.1	60.7	10.7
				Minority Interests	20.3	13.7	-6.6
Total fixed assets	630.6	627.1	-3.6	Total net assets	320.5	314.2	-6.3
Total Assets	**1,011.1**	**976.0**	**-35.1**	**Total Liabilities and Net Assets**	**1,011.1**	**976.0**	**-35.1**

Total Assets
Interest-bearing Debt and D/E ratio

(Unit: Billions of Yen)

	Dec.31, 2014	Mar.31, 2015	Increase/ decrease
● **Total assets**	1,011.1	976.0	-35.1
● **Interest-bearing debt**	383.1	405.0	21.9
● **Debt/Equity ratio**	1.20times	1.29times	0.09p
● **Stockholders' Equity ratio**	29.7%	30.8%	1.1p

2015 First Half Forecast

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

	2015 1H Earlier Forecast*	2015 1H Revised** Forecast	Increase/ decrease	2014 1H Results
Net Sales	430.0	403.0	-27.0	413.4
Operating Income	10.0	13.0	3.0	10.5
Ordinary Income	7.5	11.0	3.5	7.2
Net Income	2.0	-2.0	-4.0	-3.4
Net Income per Share	¥1.40	¥-1.40	¥-2.80	¥-2.30

*2015 earlier forecast was announced on Feb. 12, 2015.
**2015 forecast was revised on May 8, 2015.

Consolidated Net Sales by Segment, 2015 First Half Forecast

(Unit: Billions of Yen)

	2015 Earlier Forecast*	2015 Revised Forecast**	Increase/ decrease	2014 1H Results
Petrochemicals	122.0	117.0	-5.0	119.7
Chemicals	74.0	72.0	-2.0	67.3
Electronics	73.0	70.0	-3.0	69.5
Inorganics	37.0	33.0	-4.0	33.3
Aluminum	52.0	52.0	0.0	45.8
Others	90.0	81.0	-9.0	99.1
Adjustments	-18.0	-22.0	-4.0	-21.5
Total	430.0	403.0	-27.0	413.4

*2015 earlier forecast was announced on Feb. 12, 2015.
**2015 forecast was revised on May 8, 2015.

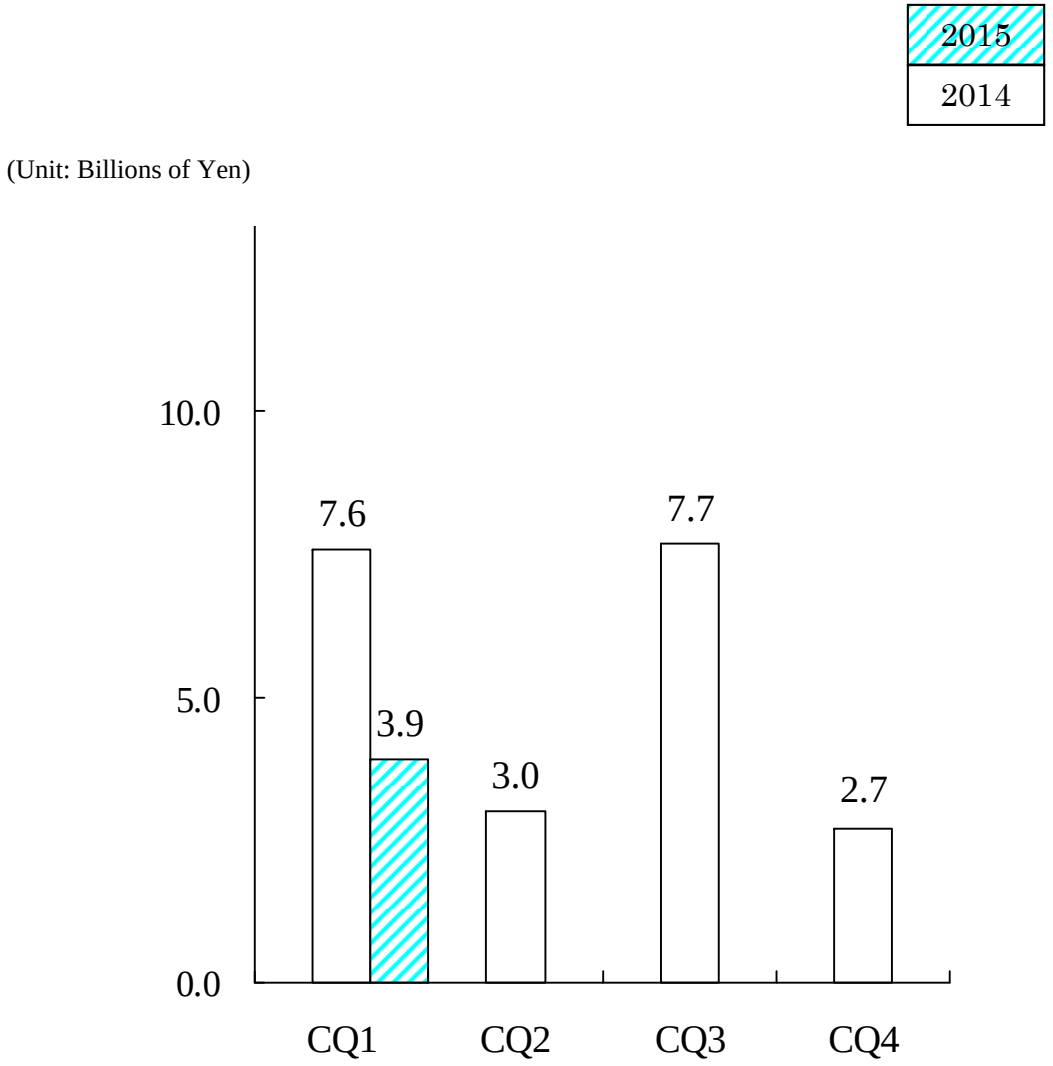
Consolidated Operating Income by Segment, 2015 First Half Forecast

(Unit: Billions of Yen)

	2015 Earlier Forecast*	2015 Revised Forecast**	Increase/ decrease	2014 1H Results
Petrochemicals	-2.5	2.0	4.5	-1.9
Chemicals	2.5	3.5	1.0	1.4
Electronics	12.5	12.0	-0.5	13.2
Inorganics	0.5	-0.5	-1.0	-0.8
Aluminum	1.0	0.5	-0.5	1.8
Others	0.0	0.0	0.0	0.3
Adjustments	-4.0	-4.5	-0.5	-3.5
Total	10.0	13.0	3.0	10.5

*2015 earlier forecast was announced on Feb. 12, 2015.
**2015 forecast was revised on May 8, 2015.

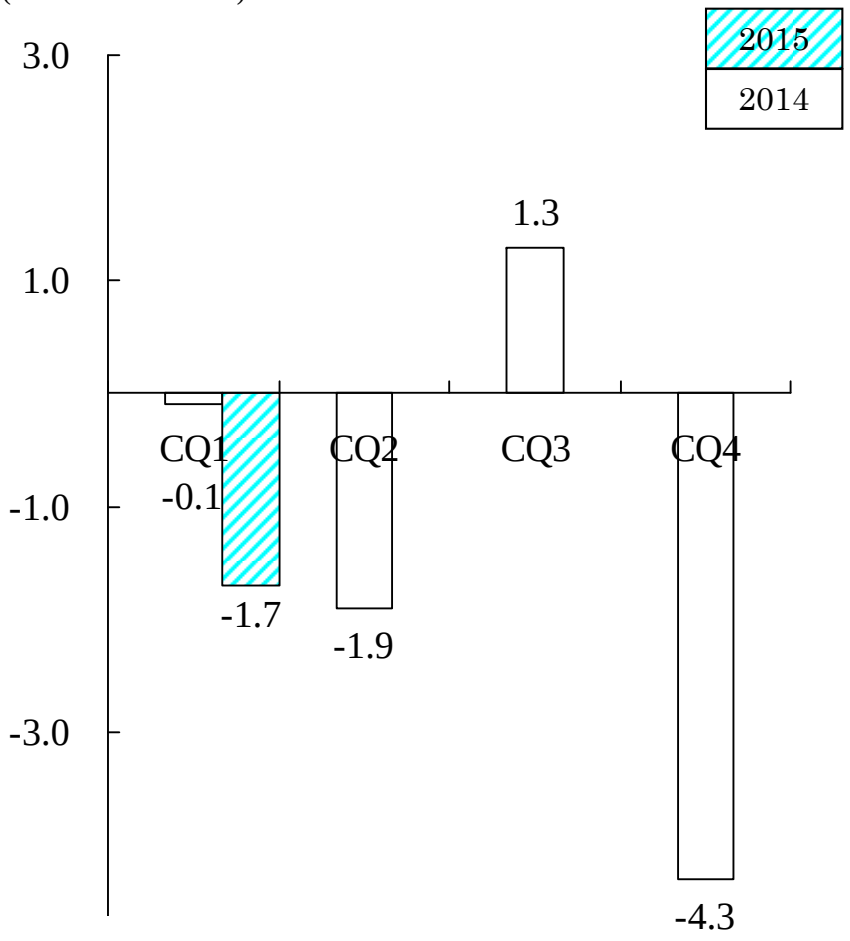
(Reference)　Quarterly Operating Income



(Reference) Quarterly Operating Income by Segment

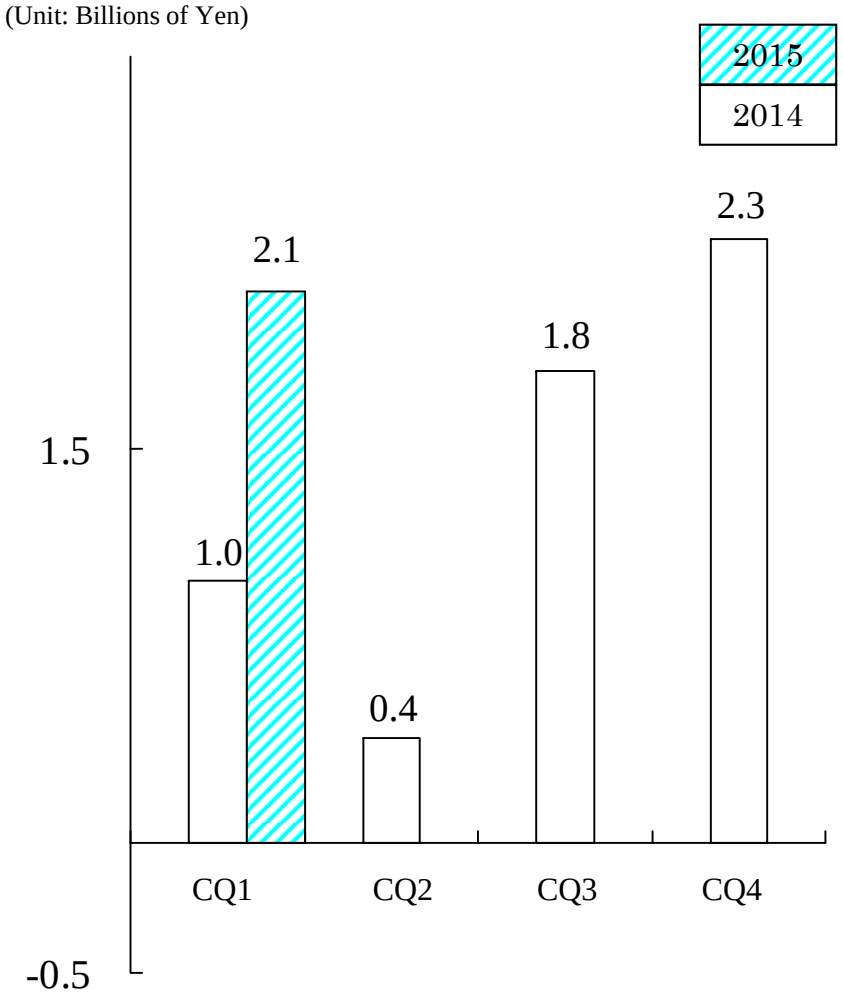
《Petrochemicals》

(Unit: Billions of Yen)



《Chemicals》

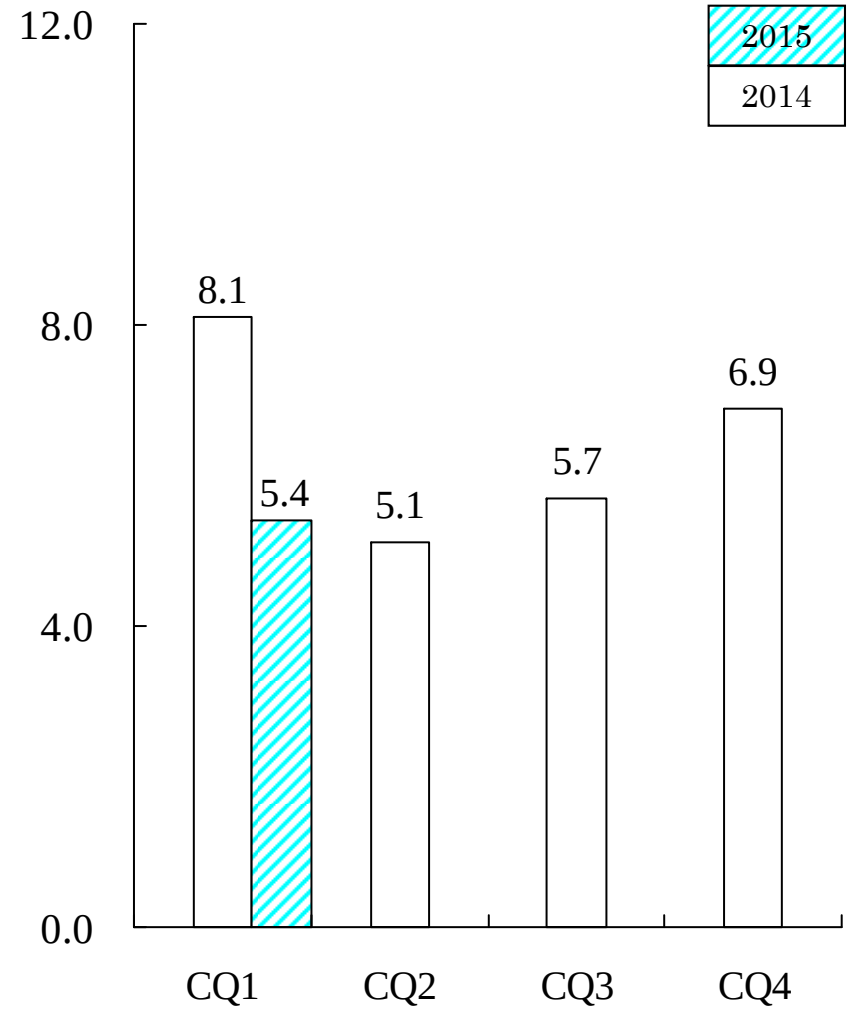
(Unit: Billions of Yen)



(Reference) Quarterly Operating Income by Segment

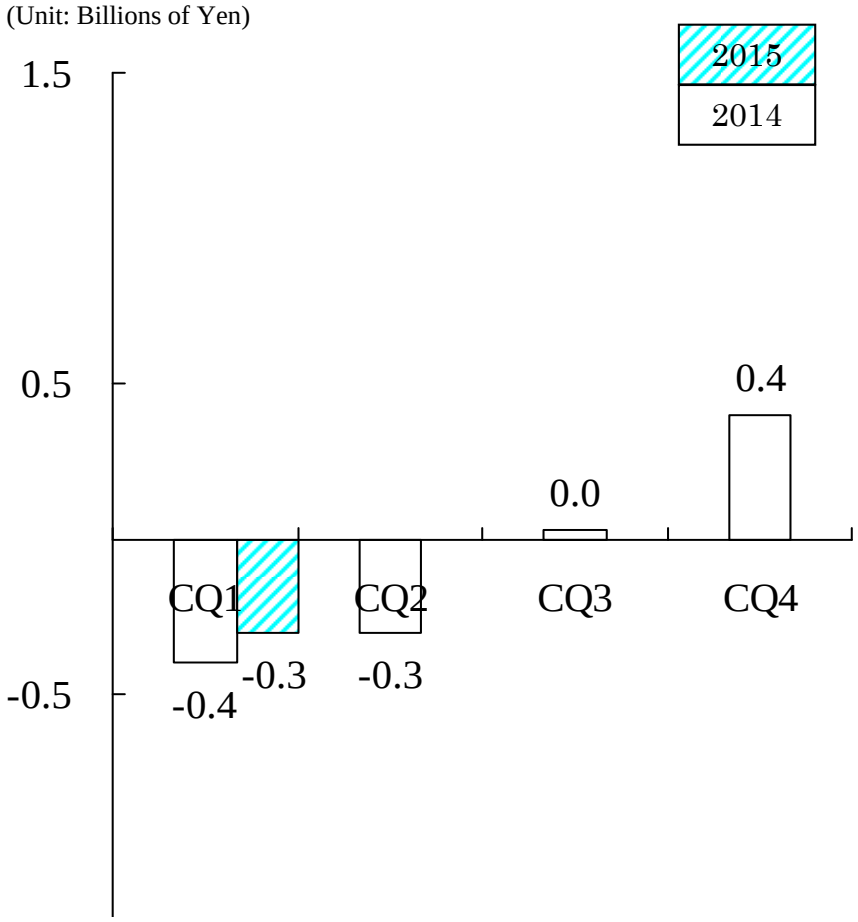
《Electronics》

(Unit: Billions of Yen)



《Inorganics》

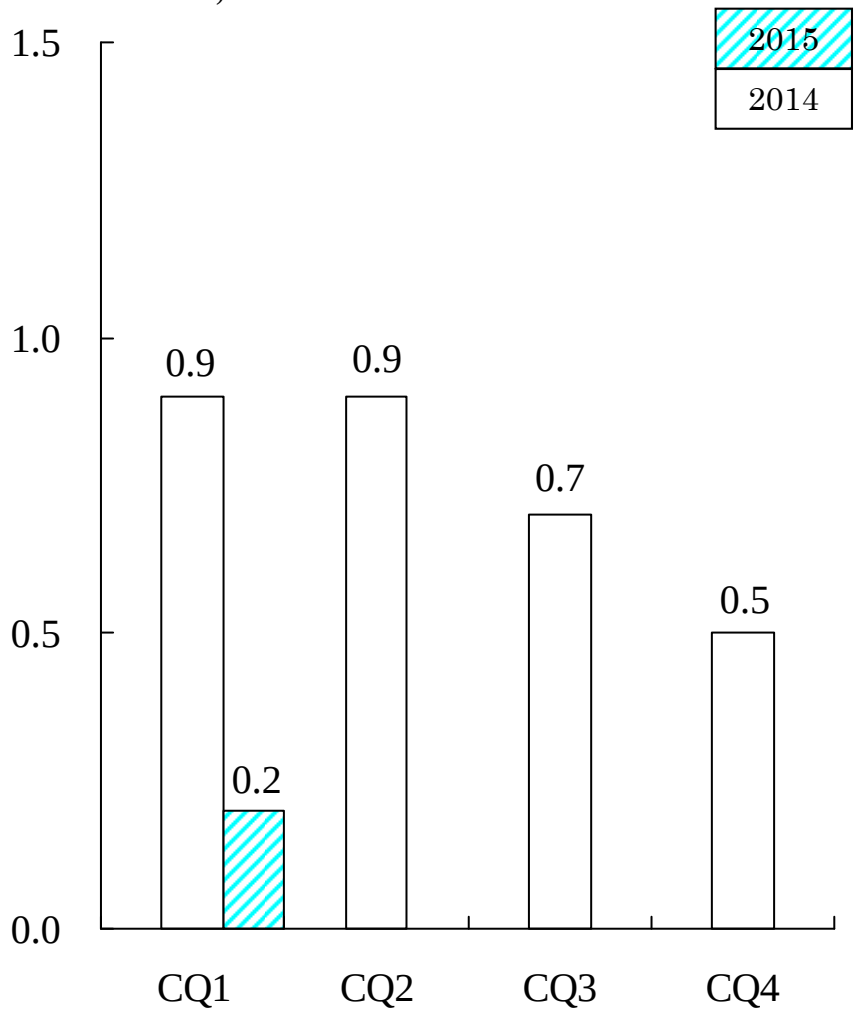
(Unit: Billions of Yen)



(Reference) Quarterly Operating Income by Segment

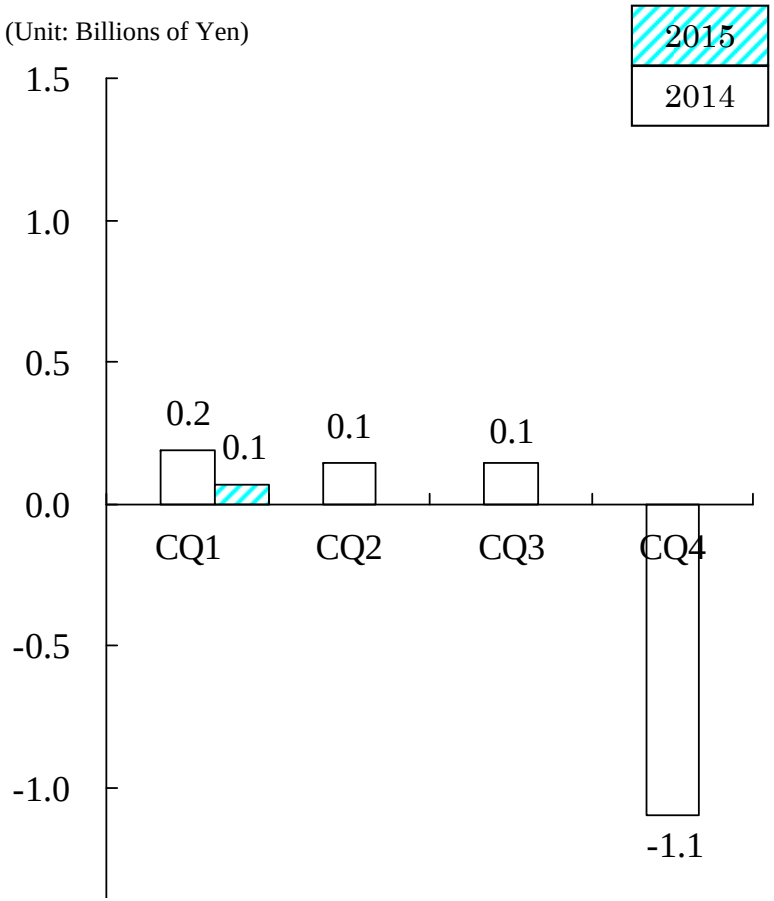
《Aluminum》

(Unit: Billions of Yen)



《Others》

(Unit: Billions of Yen)



Topics

[General]

- **Receipt of the Government's interest subsidy for resource utilization**

SDK is expanding its used plastic gasification facility at the Kawasaki Plant. The investment was recognized by the Ministry of Economy, Trade and Industry as part of the ministry's fiscal 2014 program for the promotion of effective utilization of resources*. Under the program, SDK received a loan from the Development Bank of Japan Inc. in January 2015. After the completion of the planned expansion, the percentage of hydrogen from used plastic as raw material to produce ammonia will increase to more than 60%. SDK's liquefied ammonia (trade name: *Ecoann*™) has been approved as "eco-friendly goods for procurement" by major electric power companies because the product is partly based on used plastic.

*The Government provides interest subsidies for bank loans to firms investing in plant and equipment that promote effective utilization of recyclable resources.

[Petrochemicals segment]

- **Signing multi-technology acetyls licensing agreement with KBR**

SDK concluded a business alliance agreement with KBR Inc., an engineering company headquartered in Texas, to cooperatively market SDK's proprietary technologies to produce acetic acid and its derivatives (acetyls). Under the licensing agreement, SDK will provide KBR with its proprietary technologies to catalyze and process acetic acid to produce its derivatives, and its skills and know-how on plant operation, which were cultivated over many years. SDK will aim to seek more opportunities to license its proprietary acetyls-related technologies by utilizing KBR's sales network.

Topics

[Chemicals segment]

- **Locating second bulk molding compound plant in China**

  In February 2015, SDK decided to establish a new production site for thermosetting bulk molding compound (BMC*) in Zhuhai, Guangdong Province, China, as its second BMC plant in China, jointly with Eternal Materials Co., Ltd., a synthetic resin manufacturer based in Taiwan. SDK Group's BMC business sector has production sites at three locations, in Japan, Shanghai, and Thailand. SDK Group's sales of BMC in China is expected to continue recording annual growth rate of 15% in average for quite a while, and will exceed the production capacity of the BMC plant in Shanghai. By establishing another BMC plant, SDK Group will strengthen its BMC supply system in the growing Chinese market.

  * BMC is a thermosetting bulk molding compound resin made from unsaturated polyester resin as main component, kneaded together with glass fiber and other additives. BMC is used as headlamp reflectors and engine covers for car applications, and encapsulation material for home electrical appliances and precision parts.

- **Completing high-purity N_2O base in South Korea**

  SDK increased its capacity for supplying high-purity nitrous oxide (N_2O), a specialty gas for semiconductor production, by cooperating with Dooam Industrial (Dooam), headquartered in Anseong, Gyeonggi Province, South Korea. The two companies jointly constructed a purification facility within the premises of Dooam's plant near Seoul, and started full-scale operation of the new facility in March 2015. With the addition of the newly completed 600t/y facility in South Korea to the existing 1,200t/y plant in Japan, the Showa Denko Group's high-purity N_2O supply capacity has increased to 1,800t/y in total, which is 1.5 times of the previous level. High-purity N_2O is used for deposition of an insulating oxide film in the process of chemical vapor deposition (CVD) for producing semiconductors and LCDs. For this application, demand for high-purity N_2O in Asia is expected to grow at an annual rate of 10% or more. Under its medium-term consolidated business plan "PEGASUS Phase II," SDK classifies its business in semiconductor processing high-purity gases in the category of "Growth" business. SDK will aim to further expand its production and delivery bases of the business, with focus on Asia.

Topics

[Electronics segment]

- **Starting commercial production of 2.5-inch 750 GB HD media**

  In March 2015, SDK started shipment of 2.5-inch hard disk (HD) media with storage capacity of 750 gigabytes per platter, the world's highest storage capacity for this size available on the market to date*. The new 2.5-inch HD media we started to ship is classified into the eighth-generation of perpendicular magnetic recording (PMR) technology based media. As the world's largest independent HD media supplier, SDK will aim to continue leading the development of HD media with higher capacities including next generation 2.5-inch HD media with storage capacity of 1 terabyte, following the launch of 750 gigabyte media. SDK will also aim to continue meeting expectations of our customers in HDD industry by ensuring stable supply of high-capacity media.

  *As of February 5, 2015 (To the best of SDK's knowledge)

[Inorganics segment]

- **Starting commercial operation of a new chemical alumina plant in Indonesia**

  PT. Indonesia Chemical Alumina, a joint corporation owned by SDK and PT ANTAM (Persero) Tbk, of Indonesia, started commercial operation of its new chemical alumina plant established in the Tayan District, West Kalimantan, Indonesia. Chemical alumina is used for various industrial applications including electronic materials, chemicals for water treatment, abrasives, and thermal conductive fillers.

Topics

[Aluminum segment]

- **Starting supply of cans for coffee beverages with milk**

  Showa Aluminum Can Corporation, a subsidiary of SDK, set up a new facility to produce aluminum cans for coffee beverages in its Oyama Plant located in Tochigi Prefecture, and started its commercial operation. The scale of domestic market for cans to be used to contain coffee beverages is about 10 billion cans per year, most of which are made of steel. In 2014, the self-restraint guideline set by the beverage makers' association was changed to allow use of aluminum cans to contain coffee with milk. Aluminum cans are expected to increase its share in the coffee beverage container market because aluminum cans are of lighter weight and recycle-friendly.

- **Completing expansion of high-purity aluminum foil plant in China**

  In April 2015, Showa Denko Aluminum (Nantong) Co., Ltd. (SDAN), a consolidated subsidiary of SDK, completed construction work to expand its capacity to produce high-purity aluminum foil for high-voltage use* to be applied to aluminum electrolytic capacitors from 400 tons per month to 600 tons per month, and started its commercial operation. Aluminum electrolytic capacitors are used in wide areas such as electric appliances, IT devices, electric vehicles, and hybrid cars. Especially in China, the demand for medium- and high-voltage electrolytic capacitors is increasing in applications including environment friendly cars and power conditioners for solar power generation. SDK will continue strengthening of SDAN as a base to provide our customers in China with high-purity aluminum foil for high-voltage use in a timely manner.

  *High-purity aluminum foil for high-voltage use is electrolytic foil made from 99.99% purity of aluminum or higher, and has a withstanding voltage of 200V or higher.

Topics

[Others segment]

- Launching new LIB-packaging laminates for downsizing

  Showa Denko Packaging Co., Ltd., a subsidiary of SDK, developed aluminum laminated films with electroconductivity, integrated with electrodes, to be used for packaging pouch type lithium ion batteries (LIBs). Aluminum laminated films with cathodic/anodic structure can eliminate necessity to deposit tab-leads on electrodes to conduct electricity to the outside of LIBs, and make downsizing of LIBs possible. The new laminates also eliminate electrolyte leakage from areas around through paths of tab-leads, and give more heat radiation capacity to LIBs than conventional ones. Moreover, by eliminating conventional cathodic/anodic-metal layers, these new laminates make it possible to manufacture LIBs with less than 50% thickness of conventional ones. Thus, these new laminates are expected to be applied to slim type products with batteries, and driving gears.

- SDK and Yamaguchi University ally to promote plant factories

  SDK and National University Corporation Yamaguchi University concluded a partnership agreement to jointly promote global dissemination of our original high-speed plant growth technology "*SHIGYO*™ method" for LED-based plant factories and the results of joint researches related to that method. *SHIGYO*™ method is a technology to accelerate growth of plants by irradiating light emitted from SDK's proprietary ultra-bright red LEDs and blue LEDs in optimum pattern for plant growth. The optimum irradiation methods differ depending on the plant and the environment in which it is grown. Therefore, it is necessary for plant factory operators to receive technical support after introduction of *SHIGYO*™ method. Thus, SDK, with Yamaguchi University, will aim to cooperate with research institutions in various countries in more effective way, and contribute to dissemination and development of plant factories optimized for conditions in each region.