

*Evolving unique chemical company*

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# First Quarter, 2013 Financial Results

- Consolidated -

## SHOWA DENKO K.K.

May 8, 2013

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This presentation contains statements relating to management's projections of future profits and expectations for the Company's product development program. The Company cannot guarantee that these expectations and projections will be realized or correct. Please note that actual results may differ materially from the forecast due to a variety of factors, including changes in the market conditions. The timely commercialization of products under development by the Company may be disrupted or delayed by a variety of factors, including market acceptance, and the introduction of new products by competitors. The foregoing list of factors is not inclusive.

## Consolidated Companies

- Consolidated subsidiaries: 42
  - Newly consolidated: 4
    - Korea Showa Chemicals Co. (Chemicals segment)
    - Showa Denko Sichuan Carbon Inc. (Inorganics segment)
    - Nagoya Kenmazai Kogyo K.K. (Inorganics segment)
    - SHOKO (Shanghai) Co., Ltd. (Others segment)
- Equity method applied: 18
  - Excluded: 1 Techno Namiken Co., Ltd. (Others segment, Liquidation)

### Selected Data

(Average figure)

	Jan.- Mar. 2012	Jan.- Mar. 2013	Increase/ decrease
■ Exchange rate: ¥/US\$	79.3	92.4	Yen depreciated by ¥13.1/\$
■ Domestic naphtha price: ¥/kl	54,100	63,800	9,700
■ Aluminum LME price: US\$/T	2,215	2,041	-174

Exchange rate at December 31, 2012 ¥86.6/US\$, at March 31, 2013 ¥94.1/US\$

⇒ Yen depreciated by ¥7.5/US\$

# Summary

(Unit: Billions of Yen)

	CQ1, 2012	CQ1, 2013	Increase/ decrease
Net Sales	181.4	192.5	11.1
Operating Income	9.5	3.4	-6.2
Non-operating income and expense, net	-1.2	0.5	1.7
Interest/Dividend income and expense	-0.9	-0.8	0.2
Equity Method	0.5	0.3	-0.2
Foreign exchange gain	0.0	1.3	1.3
Other	-0.7	-0.4	0.4
Ordinary Income	8.3	3.9	-4.4
Extraordinary Profit	0.3	1.0	0.6
Extraordinary Loss	-1.6	-2.3	-0.7
Income before income taxes and minority interests	7.0	2.5	-4.5
Income taxes	-1.3	1.9	3.2
Income before minority interests	5.8	4.4	-1.3
Minority Interests in income	-0.4	-0.3	0.1
Net Income	5.3	4.1	-1.3

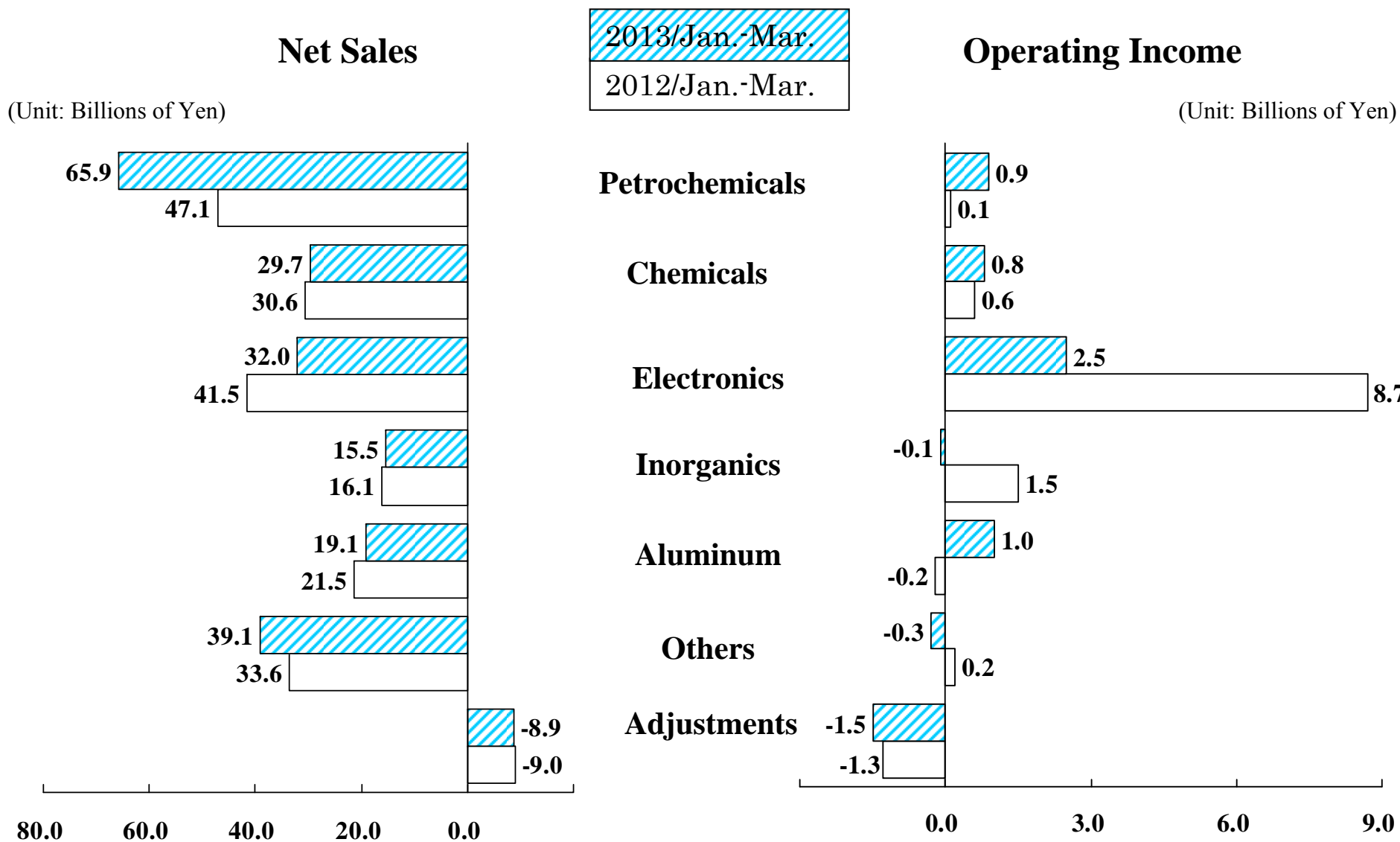
# Extraordinary Profit/Loss

(Unit: Billions of Yen)

	CQ1, 2012	CQ1, 2013	Increase/ decrease
<b>■ Extraordinary Profit</b>	<b>0.3</b>	<b>1.0</b>	<b>0.6</b>
● Compensation income from cancellation of contracts	-	0.8	0.8
● Other	0.3	0.2	-0.1
<b>■ Extraordinary Loss</b>	<b>-1.6</b>	<b>-2.3</b>	<b>-0.7</b>
● Loss on fixed assets sold or retired	-0.3	-0.4	-0.1
● Provision for business structure improvement	-	-1.4	-1.4
● Loss on impairment of fixed assets	-0.4	-0.1	0.3
● Other	-0.9	-0.4	0.5
<b>■ Extraordinary Profit/Loss, Net</b>	<b>-1.3</b>	<b>-1.3</b>	<b>0.0</b>



# Sales and Operating Income by Segment



## Consolidated Sales by Segment

(Unit: Billions of Yen)

	CQ1, 2012	CQ1, 2013	Increase/ decrease	
Petrochemicals	47.1	65.9	18.8	Olefins: sales increased (shipment volumes up due to the settlement of the problem with ethylene equipment in CQ1, 2012, price up) Organic chemicals: sales increased (shipment volume of vinyl acetate up)
Chemicals	30.6	29.7	-0.9	Basic chemicals: sales increased (sales of AN slightly up) Industrial gases, functional chemicals: sales slightly decreased (shipment volumes down) Electronic chemicals: sales maintained at the CQ1, 2012 level
Electronics	41.5	32.0	-9.5	HDs: sales decreased (shipment volumes down) Electronics materials: sales decreased (sales of compound semiconductors down due to the transfer of the GaN-based blue LED business, sales of rare earth substantially down due to lower shipment volumes)
Inorganics	16.1	15.5	-0.6	Ceramics: sales slightly increased (shipment volumes for electronic applications up) Graphite electrodes: sales decreased (shipment volumes down both in Japan and U.S.)
Aluminum	21.5	19.1	-2.3	High-purity foils for capacitors: sales decreased (shipment volumes down) Aluminum specialty components: sales decreased (sales of cylinders for LBPs slightly up, sales of Shotic down) Aluminum cans: sales maintained at the CQ1, 2012 level
Others	33.6	39.1	5.5	LIB materials: sales slightly decreased (shipment volumes for automobiles down) SHOKO Co.,Ltd.: sales slightly increased, SHOKO (Shanghai) Co., Ltd. was newly consolidated.
Adjustments	-9.0	-8.9	0.1	
Total	181.4	192.5	11.1	

# Consolidated Operating Income by Segment

(Unit: Billions of Yen)

	CQ1, 2012	CQ1, 2013	Increase/ decrease	
Petrochemicals	0.1	0.9	0.9	Olefins: profit increased (shipment volumes up, price up) Organic chemicals: profit slightly increased (shipment volumes up)
Chemicals	0.6	0.8	0.2	Basic chemicals: profit slightly increased (profit of ammonia and others) Industrial gases: profit slightly decreased Electronic chemicals: profit slightly increased Functional chemicals: profit maintained at the CQ1, 2012 level
Electronics	8.7	2.5	-6.2	HDs: profit decreased (shipment volumes down due to production adjustments in HDD industry) Electronics materials: profit decreased (profit of compound semiconductors up, profit of rare earth substantially down due to the influence of reductions in book value of inventory, shipment volumes down)
Inorganics	1.5	-0.1	-1.6	Ceramics: profit decreased (price for electronic applications down) Graphite electrodes: profit decreased (shipment volumes down both in Japan and U.S.)
Aluminum	-0.2	1.0	1.2	High-purity foils for capacitors: profit slightly increased Aluminum specialty components: profit slightly decreased (profits of cylinders for LBPs and Shotoc maintained at the CQ1,2012 level, profit of heat exchangers down) Aluminum cans: profit increased Aluminum ingots: decrease in the procurement cost
Others	0.2	-0.3	-0.5	LIB materials: profit decreased (shipment volumes for automobiles down) SHOKO Co.,Ltd.: profit maintained at the CQ1, 2012 level
Adjustments	-1.3	-1.5	-0.2	
Total	9.5	3.4	-6.2	



## Consolidated Balance Sheet

(Unit: Billions of Yen)

Assets	Dec.31, 2012	Mar.31, 2013	Increase/ decrease	Liabilities and 'P gv/Cuugw	Dec.31, 2012	Mar.31, 2013	Increase/ decrease
Cash and deposits	51.6	41.5	-10.1	Notes and accounts payable	107.2	111.0	3.8
Notes and accounts receivable	138.2	148.3	10.1	Interest-bearing debt	342.3	362.9	20.7
Inventories	121.8	129.3	7.6	Provision for retirement benefits	23.4	22.7	-0.7
Other current assets	30.6	36.5	5.9	Other liabilities	145.3	135.0	-10.2
<u>Total Current Assets</u>	<u>342.1</u>	<u>355.6</u>	<u>13.5</u>	<u>Total Liabilities</u>	<u>618.2</u>	<u>631.7</u>	<u>13.5</u>
Buildings and structures	81.6	84.7	3.1	Capital stock	140.6	140.6	0.0
Machinery and equipment	115.2	117.1	1.9	Capital surplus	62.2	62.2	0.0
Land	254.3	254.6	0.3	Retained earnings	53.2	53.3	0.2
Other tangible fixed assets	22.2	26.8	4.6	Treasury stock	-0.1	-0.1	0.0
<u>Tangible Fixed Assets</u>	<u>473.3</u>	<u>483.3</u>	<u>10.0</u>	<u>Total Shareholders' equity</u>	<u>255.8</u>	<u>256.0</u>	<u>0.2</u>
Intangible Fixed Assets	10.3	11.7	1.3	Valuation difference on available-for-sale securities	0.9	3.1	2.2
Investments and other assets	107.5	105.6	-1.9	Foreign currency translation adjustment, Deferred hedge gains	-12.0	-5.8	6.3
Incl. Investment securities	67.8	72.0	4.2	Revaluation reserve for land	28.0	28.0	0.0
				<u>Total accumulated other comprehensive income</u>	<u>16.9</u>	<u>25.4</u>	<u>8.5</u>
				Minority Interests	42.2	43.1	0.8
<u>Total fixed assets</u>	<u>591.1</u>	<u>600.5</u>	<u>9.5</u>	<u>Total net assets</u>	<u>315.0</u>	<u>324.4</u>	<u>9.5</u>
<b>Total Assets</b>	<b>933.2</b>	<b>956.1</b>	<b>22.9</b>	<b>Total Liabilities and Net Assets</b>	<b>933.2</b>	<b>956.1</b>	<b>22.9</b>

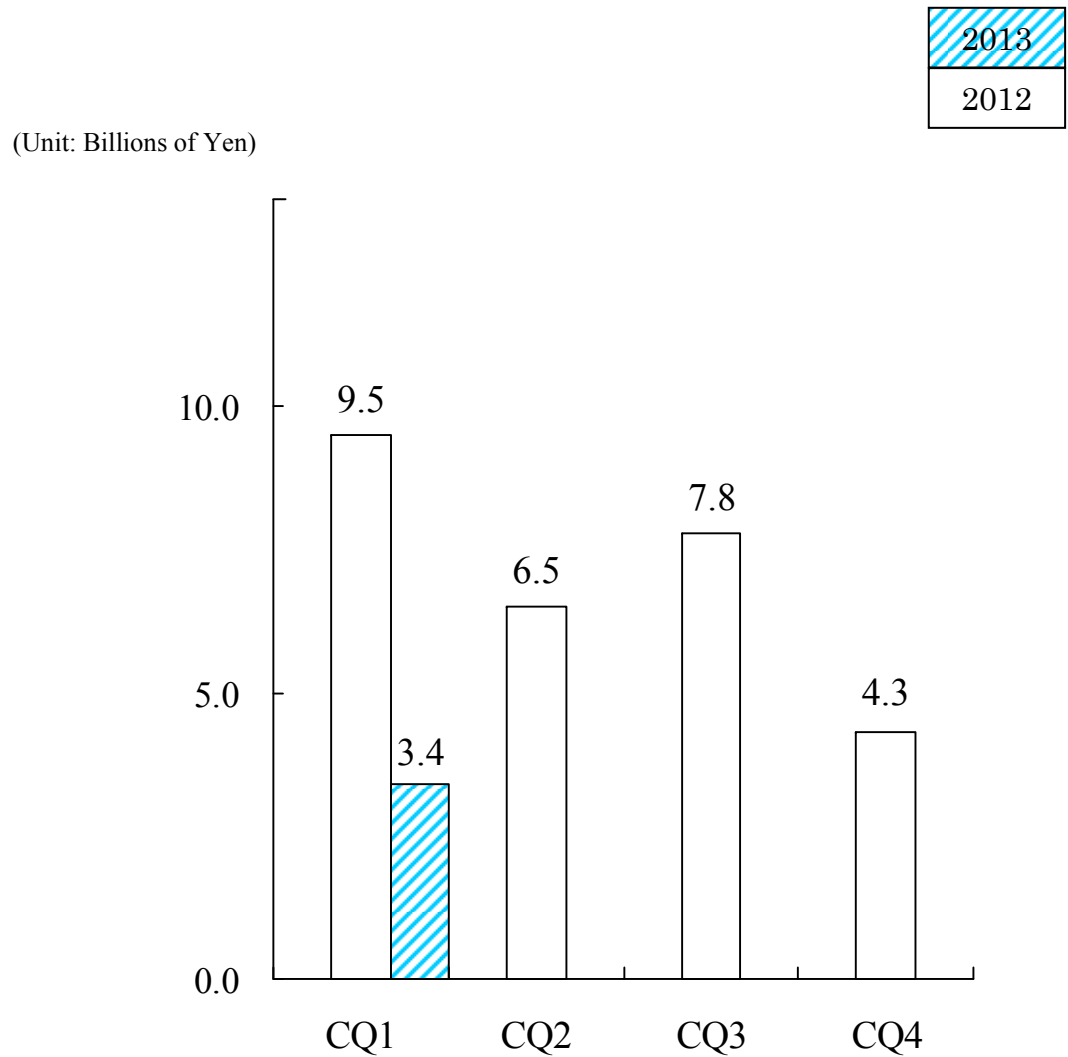


## Total Assets Interest-bearing Debt and D/E ratio

(Unit: Billions of Yen)

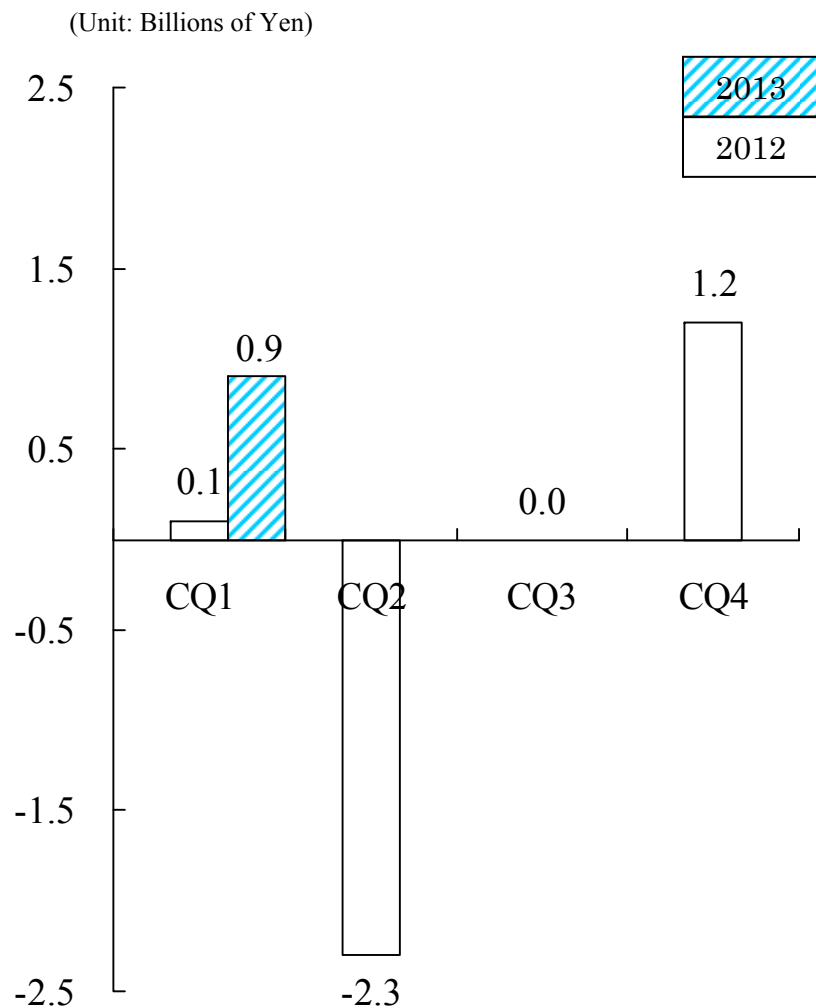
	Dec.31, 2012	Mar.31, 2013	Increase/ decrease
● <b>Total assets</b>	933.2	956.1	22.9
● <b>Interest-bearing debt</b>	342.3	362.9	20.7
● <b>Debt/Equity ratio</b>	1.09times	1.12times	0.03p
● <b>Stockholders' Equity ratio</b>	29.2%	29.4%	0.2p

# (Reference) Quarterly Operating Income

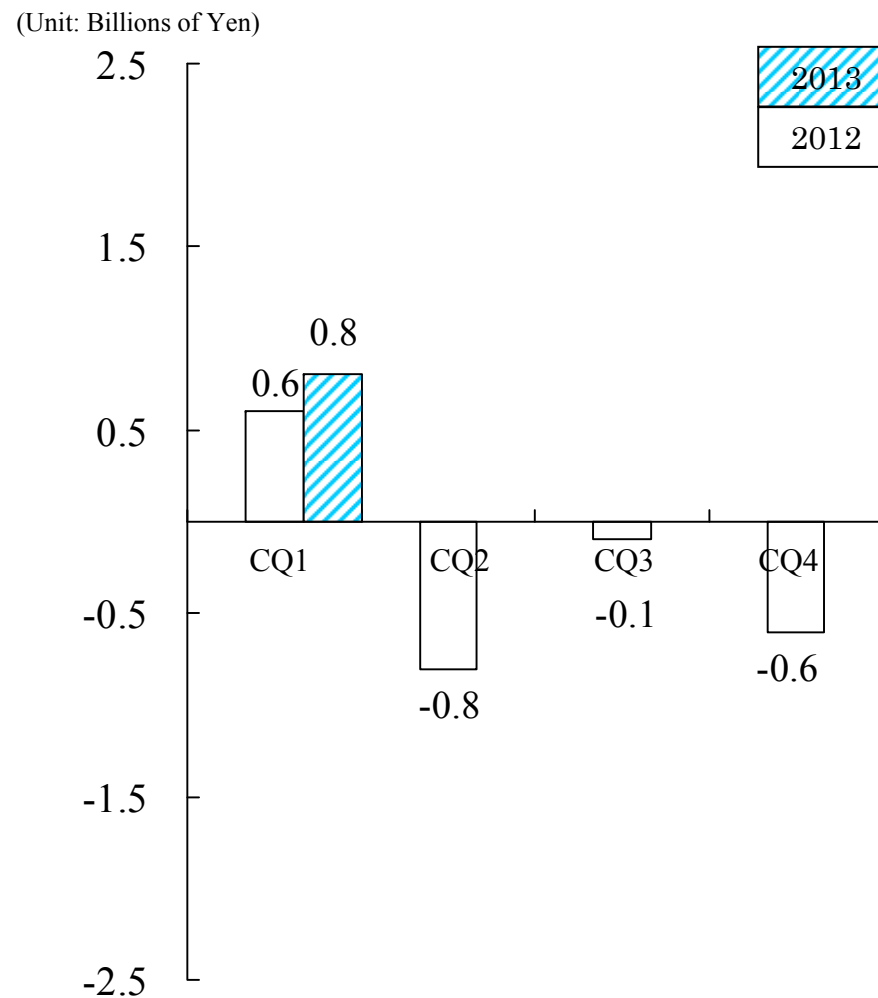


# Quarterly Operating Income by Segment

## 《Petrochemicals》



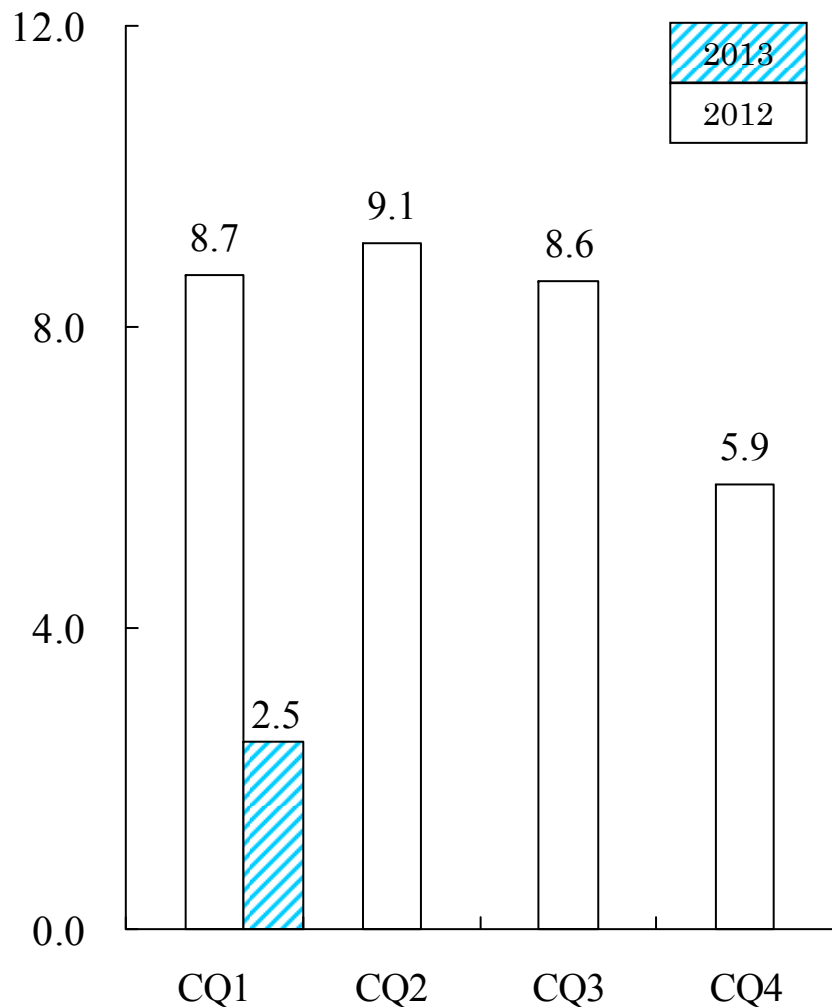
## 《Chemicals》



# (Reference) Quarterly Operating Income by Segment

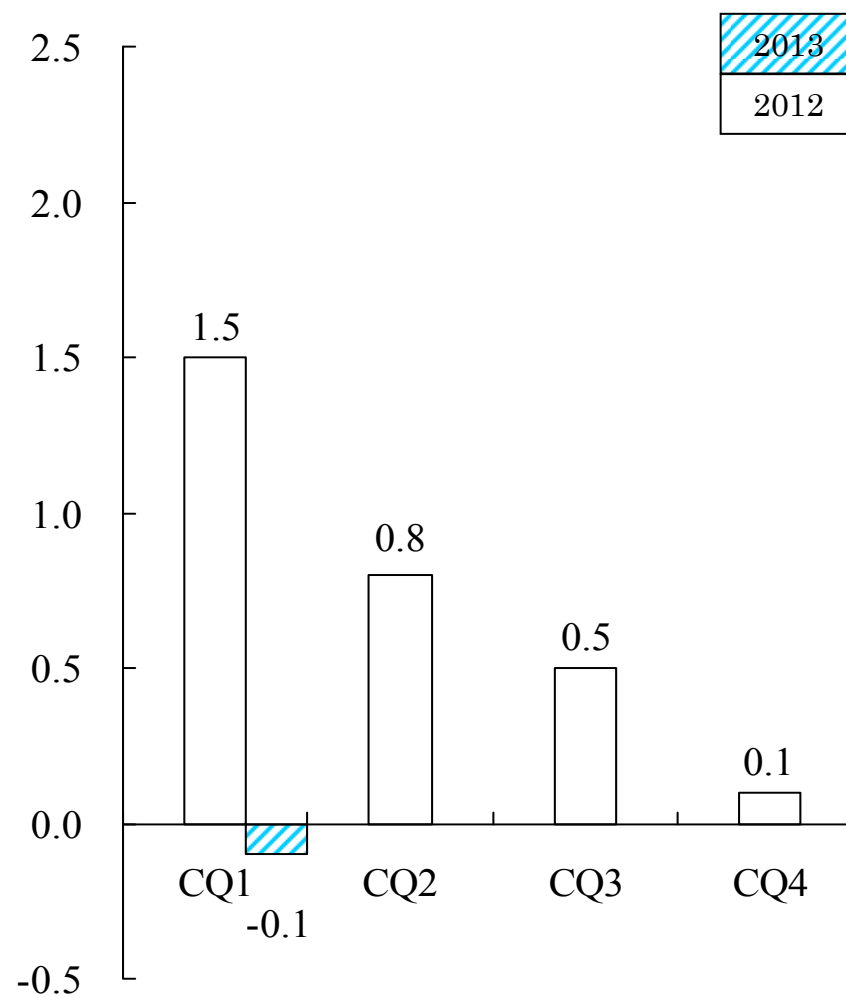
## 《Electronics》

(Unit: Billions of Yen)



## 《Inorganics》

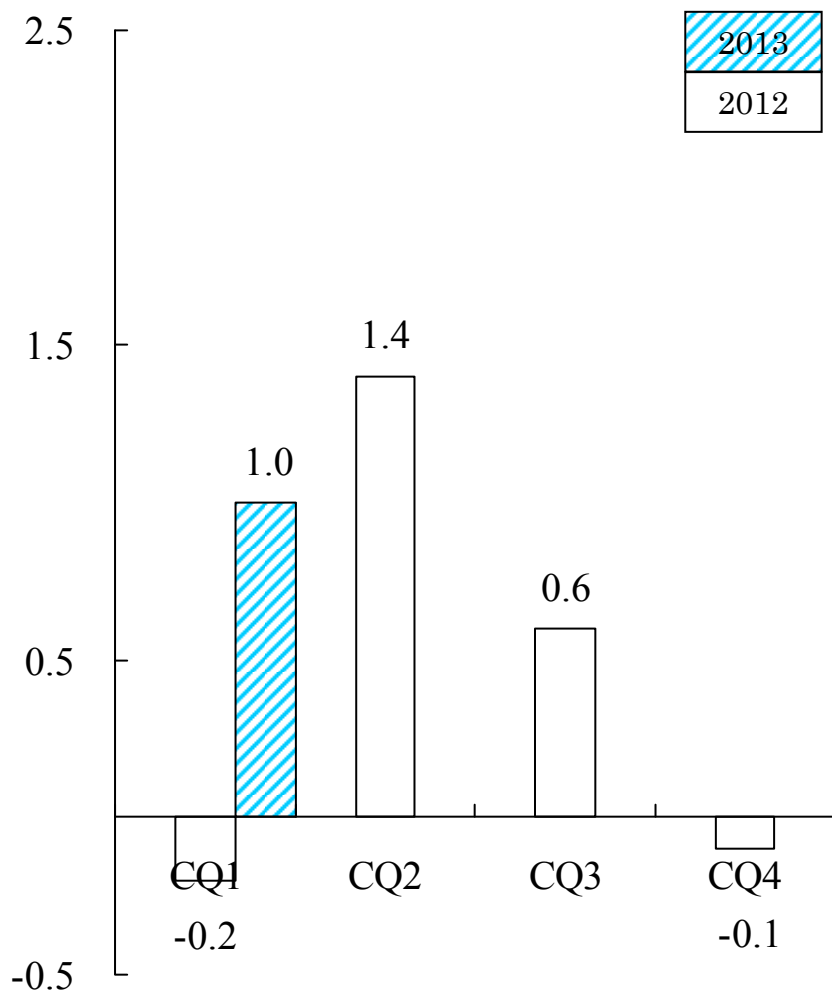
(Unit: Billions of Yen)



# (Reference) Quarterly Operating Income by Segment

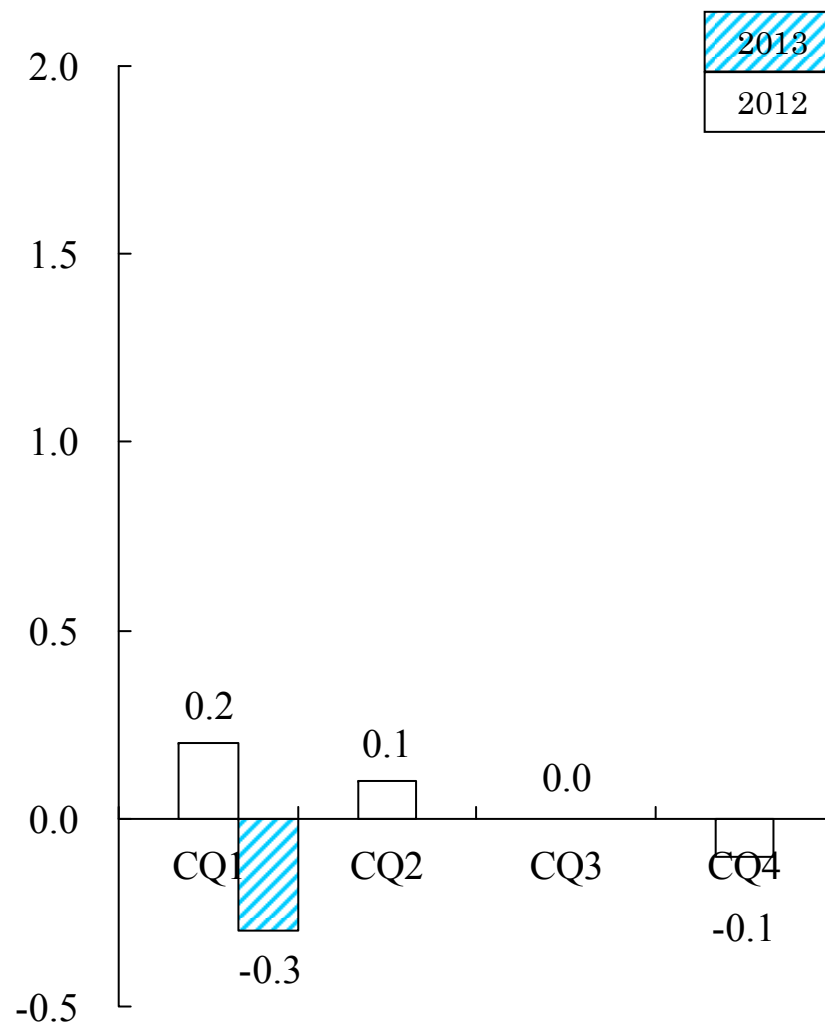
## 《Aluminum》

(Unit: Billions of Yen)



## 《Others》

(Unit: Billions of Yen)



## ■ Corporate

### ● Strategic partnership in the fullerene business

- ◆ In January, SDK entered into a strategic partnership with Mitsubishi Corporation (MC) in the fullerene business. As part of the arrangement, SDK acquired from MC a 50% stake in Frontier Carbon Corporation (FCC), a producer and marketer of fullerene products, thereby making FCC a 50-50 joint venture between MC and SDK. Fullerene is a molecule composed entirely of carbon. It takes the form of a soccer ball and is one nanometer in diameter. As the molecule is soluble in organic solvents and is an excellent electron acceptor, it is seen as a promising material in the field of electronics, particularly for such applications as n-type material for organic photovoltaic cells. SDK has over 10 years of experience commercially producing carbon nanotube (VGCF<sup>TM</sup>). SDK is therefore confident that its nanotechnology acquired through the VGCF business can be practically applied to the fullerene business. SDK and FCC will jointly undertake R&D and marketing activities towards the commercialization of fullerene products.

### ● Developing technology for volume production of graphene

- ◆ SDK developed, in cooperation with Tohoku University's Institute of Multidisciplinary Research for Advanced Materials and as part of the Japan Science and Technology Agency's Adaptable and Seamless Technology Transfer Program, a volume production technology for graphene—an innovative carbon material—using supercritical fluid. Graphene, a single-layer sheet of carbon atoms arranged in a regular hexagonal pattern, has advantages such as high electron mobility (more than 100 times that of silicon) and thermal/chemical stability. The newly developed technology enables the speedy and low-cost production of high-quality graphene by using organic solvents in the form of supercritical fluid and by a peeling process. The technology will open up a new field of applications, including light/strong components, battery materials, and power generation, in addition to the existing electronic materials applications.

## ■ Chemicals

- Expanding sales of liquefied ammonia in the Tohoku region
  - ◆ SDK decided to reconstruct its liquefied ammonia distribution base in Soma District, Fukushima Prefecture, which was damaged by the Great East Japan Earthquake. Reconstruction work will begin in June this year, and the new facility will open in March next year. SDK's liquefied ammonia (*Ecoann*<sup>TM</sup>) is approved as “eco-friendly goods for procurement” by major electric power companies because the product is partly based on used plastics. Liquefied ammonia is used in the production of synthetic fibers. It is also used for removing nitrogen oxides contained in exhaust gas from thermal electric power plants. SDK forecasts steady demand for *Ecoann*<sup>TM</sup> as thermal electric power plants are expected to continue operating at high rates. To further expand sales of *Ecoann*<sup>TM</sup> as an important component of the basic chemicals business, SDK decided to operate the liquefied ammonia distribution base in Soma District by itself. In this connection, SDK merged Marusho Kogyo Co., Ltd., a wholly owned subsidiary for operating the base, on April 25.
- Starting commercial production of anode binder for LIBs
  - ◆ In February, SDK started volume production of “*Polysol*<sup>TM</sup> LB Series” water-based anode binder for LIBs. The product is a water-based emulsion containing acrylic synthetic resin particles, ensuring lower environmental impact at the time of LIB production compared with solvent-based binders. It provides such advantages as low electrical resistance, good temperature characteristics, and good adhesion to anode collectors, thereby contributing toward extending the life and increasing the capacity of LIBs. A binder causes cathode/anode active materials (for release and intake of lithium ions) to stick together. It also causes additives to stick together, and active materials to adhere to collectors. Thus, the product is attracting attention as one of the key materials that largely influence the performance of LIBs.

## ■ Chemicals

- Receipt of award for energy-saving project
  - ◆ SDK's Kawasaki Plant completed a project for energy-saving by integrating boiler operations at the plant site. Specifically, the steam generated at boiler facilities of the Ohgimachi district is sent to Showa Denko Gas Products' Kawasaki facility (which is located within the same plant site) through a pipeline, and to the Ohkawa district across a canal, using a seabed tunnel. The new system has enabled the Kawasaki Plant to reduce energy consumption by 42% and CO2 emissions by around 2,400 tons a year. Owing to this achievement, the Kawasaki Plant received an award from Kawasaki City on the occasion of its event of "Kawasaki Environment Show Window 2012."

## ■ Inorganics

- Establishing a graphite electrode subsidiary in China
  - ◆ SDK completed its procedure for acquiring a controlling stake in Sinosteel Sichuan Carbon Co., Ltd., a manufacturer of graphite electrodes in China. On March 18, SDK made the company a subsidiary, renaming it as Showa Denko Sichuan Carbon Inc. SDK has so far been supplying high-quality graphite electrodes mainly to the markets in advanced countries from its production sites, one each in Japan and the United States. With the establishment of its Chinese subsidiary, SDK is now ready to supply "volume-zone" products for emerging markets. Thus, SDK will steadily promote its strategy of "being active on two fronts," serving both the high-end and volume-zone product markets.



## ■ Aluminum

### ● New sensor chosen for hospital beds

- ◆ In February, SDK's aluminum-based sensor was chosen by France Bed Co., Ltd. for use in its sensor system for hospital beds. Owing to the light and rigid nature of aluminum, the system catches a very small amount of sensor deformation under a bed-user's weight and converts it into electric signals. SDK's proprietary algorithm is used to detect a user's movement, such as turning over, getting up, sitting on, and leaving the bed, based on the changes of weight following the move of a user. SDK is also developing devices for measuring a user's biological information, such as a non-contact-type sleep (breathing) sensor, aiming to expand sales in the area of health-care and security.