

# Management's Discussion and Analysis

## Results of Operations

Consolidated net sales in 2014 totaled ¥876,580 million (US\$7,272 million), an increase of ¥28,509 million, or 3.4%, from the previous year due mainly to higher sales reflecting the increase in shipment volumes in five segments other than the Petrochemicals segment, whose sales decreased due to the periodic shutdown maintenance of our ethylene plant.

The cost of sales increased ¥28,832 million, or 3.9%, to ¥767,849 million (US\$6,370 million), reflecting the increase in net sales.

Selling, general and administrative expenses increased ¥4,715 million, or 5.7%, to ¥87,816 million (US\$728 million).

We recorded operating income of ¥20,915 million (US\$174 million), down ¥5,039 million, or 19.4%, due to the decrease in operating income in the Petrochemicals segment in consequence of periodic large-scale shutdown maintenance and the sharp drop in naphtha price at the end of the year, and due also to the decrease in operating income in the Aluminum segment reflecting the rise in prices of aluminum ingots.

R&D expenditures decreased ¥73 million, to ¥20,362 million (US\$169 million).

## Information by Business Segment

A breakdown of net sales and operating income by business segment is as follows.

### Petrochemicals

Production of ethylene and propylene decreased from the previous year due to the periodic large-scale shutdown maintenance implemented from March to April, which is conducted once every four years. Sales of olefins decreased due to lower shipment volumes reflecting this shutdown maintenance. Sales of organic chemicals increased due to higher shipment volumes of ethyl acetate and vinyl acetate.

As a result, the Petrochemicals segment's sales decreased ¥5,332 million, or 1.9%, to ¥281,400 million (US\$2,334 million). The segment recorded an operating loss of ¥4,930 million (US\$41 million), down ¥9,328 million from the previous year, due to the periodic shutdown maintenance and the sharp drop in naphtha price at the end of the year.

### Chemicals

Sales of basic chemicals increased from the previous year due to the improvement in acrylonitrile market, and higher export volumes of chloroprene rubber to the US market, in addition to the effect of a weak yen. Sales of electronic chemicals increased due to higher shipment volumes of specialty gases for semiconductor processing to the East Asian market. Sales of functional chemicals slightly increased.

As a result, the Chemicals segment's sales increased ¥8,408 million, or 6.4%, to ¥139,064 million (US\$1,154 million). The segment recorded an operating income of ¥5,460 million (US\$45 million), up ¥2,901 million from the previous year.

### Electronics

Sales of HD media increased due to steady shipment volumes for PCs and other applications. Sales of rare earth magnetic alloys decreased due to lower shipment volumes. Sales of compound semiconductors increased due to higher shipment volumes.

As a result, the Electronics segment's sales increased ¥1,988 million, or 1.5%, to ¥138,537 million (US\$1,149 million). Operating income of the segment increased 17.5%, to ¥25,770 million (US\$214 million) due to the decrease in influence of the depreciation of rare earth inventory that accrued in 2013.

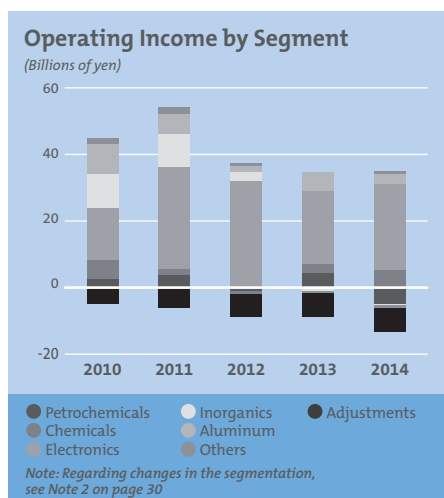
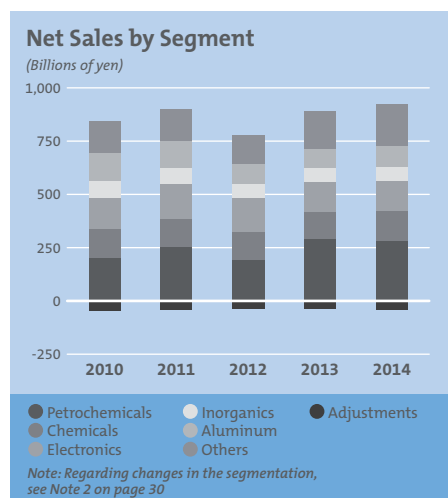
### Inorganics

Sales of graphite electrodes slightly increased due to higher shipment volumes, reflecting gradual recovery of demand for steel in developed countries including the United States and Japan, notwithstanding continued oversupply situation in the steel industry of Asia. Sales of ceramics increased due partly to higher shipment volumes of abrasives.

As a result, the Inorganics segment's sales increased ¥1,638 million, or 2.5%, to ¥67,557 million (US\$560 million). The segment recorded operating loss of ¥300 million (US\$2 million), an improvement of ¥538 million from the previous year.

### Aluminum

Sales of rolled products increased due partly to higher shipment volumes of high-purity foil for aluminum electrolytic capacitors reflecting the



capacitor industry's increased production of parts for use in home electric appliances and cars. Sales of aluminum specialty components increased due partly to higher shipment volumes of components for automotive applications. Sales of aluminum cans increased due to consolidation of the newly acquired subsidiary, Hanacans Joint Stock Company, of Vietnam.

As a result, the Aluminum segment's sales increased ¥7,573 million, or 8.4%, to ¥97,956 million (US\$813 million). However, operating income of the segment decreased ¥2,846, to ¥2,999 million (US\$25 million) due partly to the influence of sharp increases in prices of aluminum ingots.

### Others

Sales of lithium ion battery (LIB) materials were maintained at the level of the previous year. Shoko Co., Ltd.'s sales increased, reflecting higher shipment volumes in overseas businesses. SDK's consolidation of BE International Corporation, a subsidiary of Shoko Co., Ltd., also increased the sales of the segment.

As a result, the Others segment's sales increased ¥18,508 million, or 10.5%, to ¥195,024 million (US\$1,618 million). However, the segment recorded an operating loss of ¥678 million (US\$6 million), down ¥52 million from the previous year.

## Information by Geographic Area

### Sales in Japan

Sales of the Petrochemicals segment decreased due to the periodic large-scale shutdown maintenance conducted once every four years. Sales of the Chemicals segment increased due to the improvement in acrylonitrile market. Sales of the Electronics segment increased, reflecting the steady demand for HD media for PCs. Sales of the Inorganics segment increased due to higher shipment volumes of ceramics. Sales of the Aluminum segment increased due partly to higher shipment volumes of high-purity foil for aluminum electrolytic capacitors. Sales of the Others segment increased due to SDK's consolidation of BE International Corporation.

As a result, consolidated sales from operations in Japan increased ¥23,607 million, or 4.5%, to ¥549,910 million (US\$4,562 million).

### Sales in China

Sales of rolled aluminum products increased due to SDK's consolidation of Showa Denko Aluminum (Nantong) Co., Ltd. However, sales of the

Petrochemicals segment decreased due to lower shipment volumes of products including ethylene, reflecting the periodic large-scale shutdown maintenance conducted once every four years.

As a result, consolidated sales from operations in China decreased ¥8,133 million, or 7.7%, to ¥97,525 million (US\$809 million).

### Sales in Asia (Excluding Japan and China)

Sales of the Chemicals segment increased due to higher shipment volumes of high-purity semiconductor-processing gases in electronic chemicals business. Sales of the Aluminum segment increased due to the consolidation of Hanacans Joint Stock Company, a can manufacturer of Vietnam.

As a result, consolidated sales from operations in Asia (excluding Japan and China) increased ¥11,570 million, or 6.6%, to ¥187,073 million (US\$1,552 million).

### Sales in the Rest of the World

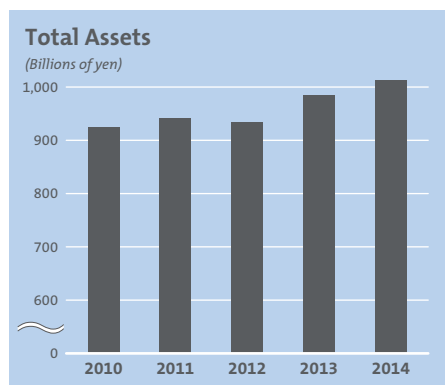
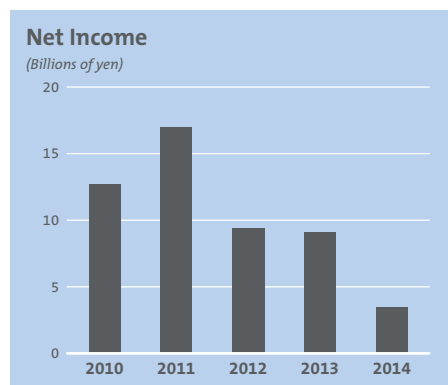
Sales of the Inorganics segment increased due to higher shipment volumes of graphite electrodes, reflecting the recovery of demand for steel in the United States. Sales of the Chemicals segment increased due to higher shipment volumes of chloroprene rubber in basic chemicals business.

As a result, consolidated sales from operations in the rest of the world increased ¥1,466 million, or 3.6%, to ¥42,073 million (US\$349 million).

## Other Income (Expenses) and Net Income

The gap between interest expenses and interest and dividends income decreased ¥1,996 million, to expenses of ¥831 million (US\$7 million), due partly to SDK's receipt of a dividend from Nippon Asahan Aluminum Co., Ltd., to which we had made a contribution, as a result of that company's withdrawal from an aluminum smelting joint venture of Indonesia. We recorded a gain in the equity in earnings of unconsolidated subsidiaries and affiliates to which the method is applied in the amount of ¥1,212 million (US\$10 million), an improvement of ¥1,476 million, due partly to an improvement in business results of affiliates in synthetic-resin-related operations. Foreign exchange gains improved ¥2,266 million, to ¥4,431 million (US\$37 million) due to continuous weakening of yen throughout the year.

We recorded a loss of ¥4,140 million (US\$34 million), net, on retirement and sales of noncurrent assets, an increase of ¥2,762 million, due partly to the Inorganics segment's termination of alumina production in Yokohama Plant. We also recorded a loss of ¥3,747 million (US\$31 million) for the impairment loss, an increase of ¥2,390



million due partly to the withdrawal from the ethyl acetate business in Indonesia and reorganization of ceramics related subsidiaries in Japan.

Loss on valuation of investment securities increased ¥3,567 million, to ¥4,032 million (US\$33 million) due to recognition and record of valuation loss on our investment to an aluminum smelting company of Venezuela. Gain on sales of investment securities decreased ¥2,157 million, to ¥2,986 million (US\$25 million).

Overall, the total of other income (expenses), net, i.e., the total of non-operating income (expenses) and extraordinary income (expenses), net, deteriorated ¥9,031 million, to a loss of ¥10,951 million (US\$91 million).

As a result, the Company posted income before taxes and minority interests of ¥9,964 million (US\$83 million), down ¥14,069 million from the previous year. The Company recorded net income of ¥3,500 million (US\$29 million), down ¥5,564 million from the previous year.

## Financial Position

### Total Assets

Total assets increased ¥25,312 million from the end of the previous year, to ¥1,011,083 million (US\$8,387 million), due partly to the additional consolidation of subsidiaries including Showa Denko Aluminum (Nantong) Co., Ltd. and appreciation of overseas subsidiaries' assets in terms of Japanese yen derived from depreciation of the yen. Cash and deposits decreased ¥1,410 million, to ¥66,840 million (US\$554 million).

Inventories increased ¥3,443 million, to ¥123,600 million (US\$1,025 million), reflecting the additional consolidation of subsidiaries and appreciation of overseas subsidiaries' assets in terms of Japanese yen derived from depreciation of the yen. Net property, plant and equipment increased ¥19,569 million, to ¥513,656 million (US\$4,261 million), due partly to the increase in the amount of newly acquired plants and equipment far above the amount of depreciation of existing plants in consequence of capacity expansion work in Showa Denko Carbon, Inc., of the United States, and the additional consolidation of subsidiaries including Hanacans Joint Stock Company.

Total investments and other assets decreased ¥2,078 million, to ¥115,007 million (US\$954 million), due partly to the recognition and record of valuation loss on our investment to an aluminum smelting company of Venezuela.

### Liabilities

Interest bearing debt increased ¥29,438 million, to ¥383,124 million (US\$3,178 million), due partly to the refinancing of existing Hybrid

Securities by subordinated loan and additional consolidation of subsidiaries. Total liabilities increased ¥50,618 million, to ¥690,579 million (US\$5,729 million), due to the increase in the interest bearing debt and notes and accounts payable-trade.

### Net Assets

Net assets decreased ¥25,306 million from the end of the previous year, to ¥320,504 million (US\$2,659 million), due partly to the repurchase of own shares, and decrease in minority interests resulting from the repurchase and cancellation of Euroyen perpetual preferred convertible securities issued by SD Preferred Capital Limited, SDK's wholly-owned special purpose company.

### Capital Expenditures

Capital expenditures increased ¥2,948 million, to ¥47,318 million (US\$393 million), due to completion of establishment of production facilities for aluminum cans to contain coffee beverages, establishment of new ethyl acetate plant, increase in production capacity of LIB packaging laminates, increase in production capacity of SiC epitaxial wafers for power devices, and reconstruction of distribution center for liquefied ammonia in the Tohoku Region (northeast region of Japan hit by earthquake and tsunami in 2011). We also implemented construction works for various purposes including expansion of production capacity of graphite electrodes, reinforcement of other production facilities, efficiency improvement, maintenance of production facilities, and environmental preservation.

### Cash Flows

Net cash provided by operating activities increased ¥2,431 million from the previous year, to ¥65,996 million (US\$547 million), due partly to an increase in dividends income, despite the decrease in operating income. Net cash used in investing activities increased ¥487 million, to ¥47,225 million (US\$ 392 million), due partly to the increase in purchase of investments in subsidiaries resulting in change in scope of consolidation. Cash flows from financing activities ended up in net payment of ¥25,024 million (US\$208 million), an increase of ¥18,219 million in payment, as a result of the purchase of preferred securities and the repurchase of own shares, despite the rise in interest-bearing debt.

As a result, taking into the effects of exchange rate fluctuations into account, cash and cash equivalents at the end of 2014 decreased ¥1,660 million, to ¥66,515 million (US\$552 million).

