MANAGEMENT'S DISCUSSION AND ANALYSIS

Analysis of Operating Results

Overview of FY ended March 2017 (April 1, 2016 to March 31, 2017)

In FY ended March 2017, among the JSR Group's main customer industries, automobile tire production and automobile production rose slightly above the previous year's level globally. However, despite returning to the previous year's level in the latter half of the year, domestic tire production declined from the previous year level due to sluggish production in the first half of the year. Demand in the semiconductor grew, and production in the flat panel display (FPD) market was robust. The exchange rate had a stronger yen compared to the previous year.

Amid these circumstances, the Petrochemicals Business of the JSR Group saw net sales rise in the Elastomers Business over the previous year due to an increase in exports and significant growth in sales of Solution Styrene-Butadiene Rubber (SSBR) for fuel-efficient tires. This was despite a sluggish elastomer products market, where there was no improvement in the supply-and-demand balance due to excessive supply of elastomers in East Asia in the first half of the year. On the other hand, the Plastics Business saw sales fall below the previous year's level, being significantly affected by a drop in product prices on the back of a fall in raw material prices. Thus, sales of the Petrochemicals Business as a whole remained unchanged from the previous year. Meanwhile, operating profit of the Petrochemicals Business decreased from the previous year. Operating profit of the Elastomers Business saw worsened profitability due to a strong yen and deteriorating market conditions in the first half of the year; however, improved profitability and an increase in sales volume attributable to a market recovery in the latter half drove operating profit above the previous year's level. At the same time, operating profit of the Plastics Business fell below the previous year as a result of worsening profitability arising from a drop in product prices associated with a fall in raw material prices.

The Fine Chemicals and Other Products Business saw the sales volume of semiconductor materials and display materials increase above the previous year's levels due to improving demand in both the semiconductor market and FPD market. On the other hand, net sales of the Fine Chemicals Business fell below the previous year's level as a result of a strong yen and a drop in prices resulting from intensifying competition in display materials. Net sales of the Life Sciences Business, which is a new business mainstay of the JSR Group, had a notable increase, and net sales of the Fine Chemicals and Other Products Business increased compared to the previous year. Operating profit of the Fine Chemicals and Other Products Business fell below the previous year's level, as it was significantly affected by the drop in sales of the Fine Chemicals Business.

Ordinary profit increased compared to the previous year due to a reduction in the exchange losses in Group companies that occurred in the previous year among other factors.

Profit attributable to owners of parent rose above the previous year's level due to the fact that impairment losses in Group companies of the previous year did not apply to this fiscal year, profit from sales of deposits and securities, and other factors.

In the fiscal year ended March 31, 2017, we reported net sales of ¥390,599 million (up 1.0% year-on-year), operating profit of ¥32,370 million (down 5.9% year-on-year), ordinary profit of ¥36,264 million (up 7.8% year-on-year), and profit attributable to owners of parent of ¥30,078 million (up 25.0% year-on-year).

Review of Operations

Elastomers Business Segment

The production of automobile tires, one of the segment's main customer industries, increased from the previous year in North America, China, and Europe, while it fell below the previous year's level in Japan.

Under such circumstances, the Elastomers Business's net sales increased above the previous year's level. This was achieved despite sluggish sales for domestic tires due to a significant increase in the sales volume of SSBR, which came in part from

Segment Sales/Operating Profit (¥ millions)

Years ended March 31	2013	2014	2015	2016	2017
Elastomers Business	¥195,797	¥203,478	¥198,958	¥179,253	¥185,345
Operating profit	17,923	17,330	10,736	7,492	8,340
Plastics Business	51,759	57,764	55,161	52,207	46,035
Operating profit	2,962	3,919	2,842	5,114	3,773
Fine Chemicals and Other Products Business	123,931	133,067	149,954	155,250	159,218
Operating profit	14,321	14,813	24,490	21,803	20,257
Net Sales	371,487	394,309	404,073	386,709	390,599
Operating profit	¥ 35,206	¥ 36,062	¥ 38,068	¥ 34,409	¥ 32,370

growing exports and the attainment of high-level operations by the first phase facilities for SSBR for fuel-efficient tires at JSR BST Elastomer Co., Ltd. (JBE), a joint venture in Thailand. Operating profit also increased above the previous year's level, despite a sluggish elastomer products market resulting from excessive supply in the first half of the year and a worsening of margins (the difference between the selling price and major raw material prices), as profitability improved in the second half of the year due to rising product prices on the back of rising prices for butadiene, which is a raw material, and sales volume expanded.

As a result, the Elastomers Business segment posted operating profit of ¥8,340 million (up 11.3% year-on-year) on net sales of ¥185,345 million (up 3.4% year-on-year).

Plastics Business Segment

The sales volume of plastics increased from the previous year owing to growing sales volume for automobiles, which came on the back of globally robust production of automobile tires, one of the segment's main customer industries. Net sales declined from the previous year, as they were significantly affected by a strong yen and a fall in product prices owing to the drop in raw material costs. Operating profit also declined from the previous year due to worsened profitability that was largely a result of a drop in product prices.

As a result, the Plastics Business segment posted operating profit of ¥3,773 million (down 26.2% year-on-year) on net sales of ¥46,035 million (down 11.8% year-on-year).

Fine Chemicals and Other Products Business Segment

Net sales rose from the previous year, but operating profit fell below that of the previous year in the Fine Chemicals and Other Products Business segment as a whole.

In the semiconductor materials business, although sales volume grew particularly for cutting-edge photoresists due to healthy growth in demand for semiconductors, net sales decreased from the previous sales, largely as a result of a strong yen. In the display materials business, sales volume increased from the previous year, supported by robust panel production; however, net sales decreased from the previous year due to intensified competition in the materials market and a strong yen. Net sales of the Life Sciences Business grew significantly owing to the JSR Group's making MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. (MBL) a consolidated subsidiary in the latter half of the previous year and increased sales by KBI Biopharma, Inc. (KBI). Operating profit fell below the previous year's level, as it was significantly affected by a drop in sales by the Fine Chemicals Business.

As a result, the Fine Chemicals and Other Products Business segment posted operating profit of ¥20,257 million (down 7.1% year-on-year) on net sales of ¥159,218 million (up 2.6% year-on-year).

Business Outlook

The following is the outlook of our main customer industries at a time of uncertainty in global economic trends. JSR forecasts that the production of automobile tires and automobiles in Japan will remain unchanged from the 2016 level, but will grow globally, particularly in China and other Asian countries. The semiconductor market will see growing new demand for cutting-edge semiconductor chips for smartphones, data centers, and the like. The FPD market will also likely see increased production in China as panel production becomes more robust.

In the Elastomers Business, although there is some uncertainty about whether the market recovery that began in the second half of the previous year will stabilize and continue, JSR forecasts growing global demand for the medium and long term. As part of this, we anticipate that demand for SSBR will grow steadily in line with growth in the fuel-efficient tire market. Under such circumstances, we will strive to expand sales globally by adding the newly launched second phase facilities at JBE in Thailand to the first phase facilities, which have attained high-level operations.

In the Fine Chemicals and Other Products Business, our semiconductor materials business will endeavor to increase sales of various semiconductor materials, such as cutting-edge lithography materials, packaging materials, detergents, and CMP materials, amid the expected full-scale mass production of the 10 nm (nanometer) generation, a cutting-edge process. Moreover, we will move toward mass production of EUV (extreme ultraviolet) lithography materials for the 7 nm generation, which will become the next generation, at EUV Resist Manufacturing & Qualification Center N.V. (EUV RMQC), a company that provides manufacturing and quality control services that we established as a joint-venture with imec, an advanced research institute for nanoelectronics in Belgium. We will also strive to increase sales of display materials by starting operations at JSR Micro (Changshu) Co., Ltd., a joint venture manufacturing company in the Chinese market, where growth is particularly expected, while simultaneously proceeding with business reforms to secure business revenues as materials become more generalized and competition intensifies. In the Life Sciences Business, we will expand KBI's contract development and manufacturing business for biopharmaceuticals, and focus on expanding sales of Amsphere^{TM}A3, a carrier for antibody purification expected to see growing demand in the future. We will also strive to expand global sales of in vitro diagnostics and research drugs at MBL.

For FY ending March 2018, JSR forecasts consolidated sales revenue of ¥405,000 million, operating profit of ¥35,000 million, and profit for the year attributable to owners of parent of ¥26,500 million. These forecasts assume an exchange rate of ¥110 per U.S. dollar and a naphtha price of ¥40,000 per kiloliter.

The consolidated performance forecasts for FY ending March 2018 are calculated based on the International Financial Reporting Standards (IFRS), which the JSR Group decided to voluntarily adopt beginning with first three months of FY ending March 2018. Accordingly, rates of change from the performance values of FY ended March 2017, for which Japanese standards were used, are not provided here.

Analysis of Financial Position

Analysis of Assets, Liabilities, and Net Assets

Total assets as of March 31, 2017 amounted to ¥576,016 million, up ¥59,657 million from a year earlier.

Current assets totaled ¥348,212 million, up ¥47,680 million, due to an increase in cash and deposits and notes and accounts receivable-trade, despite a decrease in securities.

Non-current assets totaled ¥227,805 million, up ¥11,977 million, due to an increase in property, plant and equipment.

Total liabilities amounted to ¥199,302 million, up ¥45,296 million from a year earlier, due to an increase in notes and accounts payable-trade and long-term loans payable.

In net assets, shareholders' equity amounted to ¥335,940 million, up ¥6,519 million. Accumulated other comprehensive income increased by ¥1,730 million to ¥25,454 million. Consequently, total net assets (the total of shareholders' equity, accumulated other comprehensive income, subscription rights to shares, and non-controlling interests) amounted to ¥376,715 million, up ¥14,361 million from a year earlier.

Analysis of Cash Flows

Cash and cash equivalents ("funds") as of March 31, 2017 stood at ¥97,416 million, up ¥8,021 million from a year earlier.

Net cash provided by operating activities amounted to ¥47,506 million, down ¥622 million from the previous year. The main factors included profit before income taxes of ¥38,327 million, an increase in notes and accounts payable—trade of ¥21,407 million, depreciation and amortization of ¥14,676 million, and increase in notes and accounts receivable—trade of ¥13,068 million.

Net cash used in investing activities totaled ¥41,807 million, up ¥22,769 million from the previous year. The main factors were ¥33,727 million in the purchase of non-current assets, ¥19,714 million in expenditures purchases from an increase in time deposits, and ¥5,417 million in proceeds from sales of investment securities.

Net cash used in financing activities totaled ¥3,510 million, down ¥12,750 million from the previous year. The main factors were ¥24,034 million in proceeds from long-term loans payable, ¥11,200 million in cash dividends paid, ¥8,098 million in expenditure from payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation, and ¥5,285 million in expenditure from repayment of long-term loans payable.

Basic Policy on Profit Allocation and Dividends for the Fiscal Year ended March 31, 2017 and the Fiscal Year ending March 31, 2018

With respect to profit appropriation, the Company regards business growth over the long term as its top priority. To generate sustainable long-term growth, JSR strives to increase its competitiveness by developing new businesses through the reinforcement of research and development activities.

The Company will appropriate profits by taking into account business performance and medium- and long-term demand for funds, while paying continuous, stable cash dividends based on consideration of a balance between appropriating profits and retaining earnings necessary for future business advancement. Carefully considering the stock market environment and other factors, JSR will comprehensively study purchases of treasury shares as a measure to return profits to shareholders. JSR allocates retained earnings to a variety of investments linked to future growth businesses, contributing to the enhancement of corporate value.

As already announced, we have decided to pay a year-end dividend of ¥25.00 per share, the same amount as the interim dividend. Including the interim dividend already paid, the total annual dividend for FY ended March 2017 will be ¥50.00 per share.

With regard to the dividend for the next fiscal year (FY ending March 2018), JSR plans to pay ¥50.00 annually (an interim dividend of ¥25.00 and a year-end dividend of ¥25.00), taking into account the business outlook.

Risk Information

JSR Group is exposed to the following risks that may impact on operating results, financial position, cash flows and other aspects of performance. Forward-looking statements in this discussion are based on JSR's judgments as of March 31, 2016. Risks at JSR include, but are not limited to, the following items:

(1) Changes in Demand due to Economic Trends

In the major industries where JSR Group's products are sold, such as automobiles and electronics, demand is influenced by the economic climate in a country or region. An economic slowdown could reduce demand in an industry and adversely affect JSR Group's operating results.

(2) Fluctuation in Prices for Crude Oil, Naphtha and Other Major Raw Materials

Higher prices for crude oil and naphtha, or changes in the markets for JSR's major raw materials, could raise prices of raw materials and adversely affect JSR Group's operating results, especially in the petrochemical products sector of elastomers, emulsions and plastics.

(3) Fluctuation in Exchange Rates

As JSR Group undertakes product exports in foreign currencies and imports goods such as raw materials, the Company takes measures to reduce risks such as entering into forward exchange contracts; however, fluctuation in exchange rates could give rise to adverse outcomes. In addition, operating results of consolidated subsidiaries and equity-method affiliates located overseas are converted into Japanese yen amounts for the purposes of preparing the consolidated financial statements. However, due to the yen's appreciation, JSR Group's business results could be adversely affected.

(4) Procurement of Raw Materials

JSR Group works to ensure a stable supply of raw materials by procuring materials from a number of sources. However, an interruption to the supply of raw materials due to an accident, bankruptcy or quality problem at a supplier could adversely affect production activities and JSR Group's operating results.

(5) Development of New Products

Rapid technological progress is constantly taking place in the electronics industry, which is the primary source of demand for semiconductor manufacturing materials, FPD materials and optical materials, the major products of JSR Group's fine chemicals and other products business. JSR is constantly working on developing state-of-the-art materials in line with this progress. However, unforeseen changes in the industry or market could prevent the timely development of new products and adversely affect JSR Group's operating results.

(6) R&D Involving Next-Stage Growth Businesses

JSR Group makes substantial investments in R&D to create next-stage growth businesses. However, there is no guarantee that these R&D activities will always yield worthwhile results. Depending on R&D results, there could be an adverse effect on JSR Group's operating results.

(7) Protection of Intellectual Property

Protection of intellectual property is extremely important for JSR Group's business activities. JSR has established a system for protecting its intellectual property and takes various actions as required. However, a dispute about intellectual property with another company or an infringement on JSR's intellectual property by another company could adversely affect JSR Group's operating results.

(8) Product Quality Assurance and Product Liability

JSR Group has a product quality assurance system and product liability insurance. However, damage or injury caused by a product manufactured by JSR Group could adversely affect JSR Group's operating results.

(9) Natural Disasters and Accidents

To minimize the negative effect on its business activities of any disruption to manufacturing activities, all JSR Group manufacturing facilities have established countermeasures based on the identification of all potential sources of a crisis and conducts periodic inspections of facilities. The Group also works constantly on safety measures with regard to earthquakes and other natural disasters. However, a major natural disaster or accident that damages a production facility or disrupts manufacturing could adversely affect JSR Group's operating results.

JSR's main production facility, the Yokkaichi Plant, houses private power generation equipment, and the Kashima Plant is able to access electric power from shared power generation facilities when necessary. In the event that electric power shortages become severe due to natural disasters and the like, however, JSR Group's operating results could be affected.

(10) Environmental Issues

Positioning environmental protection as an important element of its operations, JSR Group complies with all laws and regulations concerning the environment. The Group also takes actions aimed at reducing its environmental impact, lowering and eliminating waste materials, and cutting energy and resource consumption. The Group has taken many actions to prevent the external release of all types of chemicals.

However, in the event that a spill occurs or that environmental regulations become stricter, the Group's business activities could be restricted, the Group may have to pay compensation and other expenses, or the Group may have to make substantial capital expenditures. Any of these events could adversely affect JSR Group's operating results.

(11) Overseas Operations

JSR Group is aggressively expanding operations on a global scale, conducting manufacturing, sales and other activities in countries and regions in the North America, Europe, Asia and other parts of the world. Overseas operations are exposed to a number of risks that include, but are not limited to, an unfavorable political environment or economic trends; labor disputes and other problems due to differences in labor laws and other working conditions; difficulty in recruiting and retaining employees; an adverse impact on business activities due to an inadequate social infrastructure; and the impact of wars, terrorism and other social instability. Any of these events could adversely affect JSR Group's operating results.

(12) Laws and Regulations

In the countries where it operates, JSR Group is subject to various laws and regulations involving business and investment permits, export and import activities, trade, labor relations, intellectual property, taxes, foreign exchange and other items. The Group has established a clear compliance policy in order to ensure strict observance of laws and regulations as well as ethical standards. In the event that a law or regulation is violated, or a law or regulation becomes stricter or is significantly altered, there could be limitations to the Group's business activities or additional compliance costs. Any of these events could adversely affect JSR Group's operating results.

(13) Litigation

In conjunction with its business activities in Japan and overseas, JSR Group may be sued or be involved in other litigation concerning a dispute with a supplier, customer or other external party. The outcome of significant litigation could adversely affect JSR Group's operating results.