

Highlights of Major General Chemical Manufacturers' Financial Results for Fiscal Year Ended March 2021

The following are Japan Credit Rating Agency, Ltd. (JCR)'s perception of the current status and highlights for rating concerning the financial results for the fiscal year ended March 2021 (FY2020) and earnings forecasts for FY2021 of Japan's 7 general chemical manufacturers: ASAHI KASEI CORPORATION, Showa Denko K.K. (with January-December accounting period), SUMITOMO CHEMICAL COMPANY, LIMITED, TOSOH CORPORATION, Mitsui Chemicals, Inc., Mitsubishi Chemical Holdings Corporation ("Mitsubishi Chemical HD") and Ube Industries, Ltd.

1. Industry Trend

In recent years, business environment of chemical industry has been somewhat severe. Since 2018, trade friction between the U.S. and China has been a negative factor, and in 2020, the COVID-19 pandemic broke out. The COVID-19 pandemic has had a significant negative impact on social and economic activities around the world. Although uncertainty about the future of economic trend has lessened compared to the time when the pandemic broke out, the containment cannot still be foreseen.

With regard to bulk chemicals, average utilization rate of domestic ethylene centers in fiscal 2020 was 93.9% (compared to an average of 94.2% in fiscal 2019), falling below the full utilization level of 95% for the second consecutive year. However, the monthly capacity utilization rate hovered around 90% in the first half of the fiscal year, but began to pick up in the second half, with some months exceeding 95%. In addition to recoveries in consumer activity and demand for downstream products, recent cold wave in the U.S. suppressed the inflow of overseas products. On the other hand, price of naphtha (per kiloliter) fell from 44,800 yen in the January-March period of 2020 to 25,000 yen in the April-June period of 2020, due to a significant drop in crude oil prices at the beginning of the COVID-19 pandemic outbreak. As a result, market prices for petrochemical products and basic chemical products softened in general during the April-June period. However, market trend has reversed thereafter. Against the backdrop of a recovery in demand and equipment trouble in the U.S. due to the cold wave, some products saw a surge in market prices.

Among specialty chemicals, demand for high-functional materials and synthetic rubbers for the automotive industry fell sharply in the April-June period of 2020 due to a significant reduction in automobile production. However, after the July-September period, demand recovered steadily as automobile production picked up. In addition, demand for LCD-related and semiconductor-related products increased with expanding telework, increased stay-at-home consumption, and expanding market for 5G products. On the other hand, lithium-ion secondary battery materials were boosted by the electrification of automobiles and other positive factors, but were also negatively affected by intensifying competition, resulting in a mixed picture. Among healthcare-related products, life-saving equipment and hygiene-related materials were strong thanks to today's special demand. However, some companies recorded relatively large impairment losses (in-process R&D expenses) in FY2020 due to poor progress and test results for drugs under development. This was a manifestation of the risks faced by the business.

2. Financial Results

Total EBITDA (*1) of the 7 companies for FY2020 (fiscal year ended December 2020 for Showa Denko) was 1.4 trillion yen (down 3.4% YoY). The earnings forecasts were not disclosed by several companies due to difficulty in making reasonable calculations at the beginning of the fiscal year. Later, as of the first quarter of FY2020, when the COVID-19 pandemic impact became strongest, total operating income of the 7 companies for the full fiscal year was forecasted at around 400 billion yen, which was about half the previous year's figure (based on forecasts and some are estimates by them). In addition to the decline in demand for major products, a sharp drop in naphtha price had a significant negative impact on inventory valuation. These were major factors for this decline. However, from the second quarter of FY2020, pace of recovery has been faster than previously expected, and the companies revised their performance upward one after another.

On an individual company basis for operating income (core operating income in cases of IFRS), SUMITOMO CHEMICAL, TOSOH, and Mitsui Chemicals posted higher profit for FY2020, while ASAHI KASEI, Showa Denko, Mitsubishi Chemical HD, and Ube Industries posted lower profit. SUMITOMO CHEMICAL's performance was boosted by strong demand for IT-related products, feed additives, and agricultural chemicals. TOSOH's operating income increased thanks to higher market prices for polyvinyl chlorides in the second half. Mitsui Chemicals also reported higher operating income thanks to turnaround in profitability of phenol chain products in the second half and increased demand for healthcare-related products against the backdrop of changes in consumer lifestyles. On the other hand, the 4 companies that reported a decrease in their operating income all shared the same negative factor of deteriorating profitability of bulk chemicals. Showa Denko was in the red at the operating income and below this level due to prolonged inventory adjustment of graphite electrodes, falling market prices, and heavy burden of costs associated with the acquisition of Hitachi Chemical Company, Ltd. (current Showa Denko Materials Company, Ltd.). However, the negative impact of the COVID-19 pandemic on the industry as a whole was limited compared to the initially expected.

Total net interest-bearing debt of the 7 companies at the end of FY2020 (considering equity content of hybrid financing; the same applies hereinafter) was 4.7 trillion yen (4.2 trillion yen at the end of FY2019). While the amount had been hovering around 3 trillion yen from the 2000s to FY2018, this increase was mainly due to the increased investment for growth by companies in recent years. On the other hand, total equity capital of the 7 companies (equity attributable to owners of the parent under IFRS) totaled 6.0 trillion yen at the end of FY2020, compared to 5.5 trillion yen at the end of FY2019. The main reasons for the increase include accumulation of profit and an increase in the market value of securities. This total amount was around 2 trillion yen in the early 2000s and around 3 trillion yen just before and after economic downturn precipitated by the Lehman Brothers bankruptcy in 2008. Despite the impact of changes in accounting standards, the industry as a whole has significantly increased its equity capital compared to the past.

*1: Gross profit – SG & A expenses + depreciation expenses is used under IFRS

3. Highlights for Rating

Assuming the forecasts at the beginning of fiscal year by each company, total EBITDA (*2) of the 7 companies for FY2021 (fiscal year ending December 2021 for Showa Denko) is expected to be in the range between 1.7 trillion yen to 1.8 trillion yen, a record high level. On an individual company basis for operating income (core operating income in cases of IFRS), all 7 companies expect their operating income to increase. Mitsui Chemicals expects to set a new record in the operating income in effect (applying IFRS from FY2020), and Showa Denko expects to make a significant improvement in the income, getting out of the red in the previous fiscal year. Increasing demand for high-functional materials in the information & electronics and automotive industries, etc. are common positive factors. Bulk chemical products, which are profitable with the recent cold wave in North America, are expected to see the market conditions calm down going forward, but this is a factor for an increase in the operating income for the full fiscal year.

JCR pays attention to the sustainability of the recovery from the second half of the previous fiscal year for the business performance, but there are a number of concerns. The first is the COVID-19 pandemic conditions and the resulting global economic trend. While the COVID-19 vaccinations are progressing in the U.S., U.K. and other countries, the situation in Japan remains severe and continues to have a negative impact on social activities. Quick progress in vaccination will be a prerequisite for a recovery in business performance. The second is trend in automobile production. Supply-demand condition for semiconductors for the automotive industry has been tightening recently due to increased demand for information terminals and accidents at suppliers. In addition, re-expansion of COVID19 pandemic in India has caused some automakers to suspend production. It is necessary to pay attention to whether these factors may constrain demand for high-performance materials for the automotive industry. The third is trend in raw material prices. If the price of raw materials continues to rise while the economic recovery is delayed, the negative impact may increase.

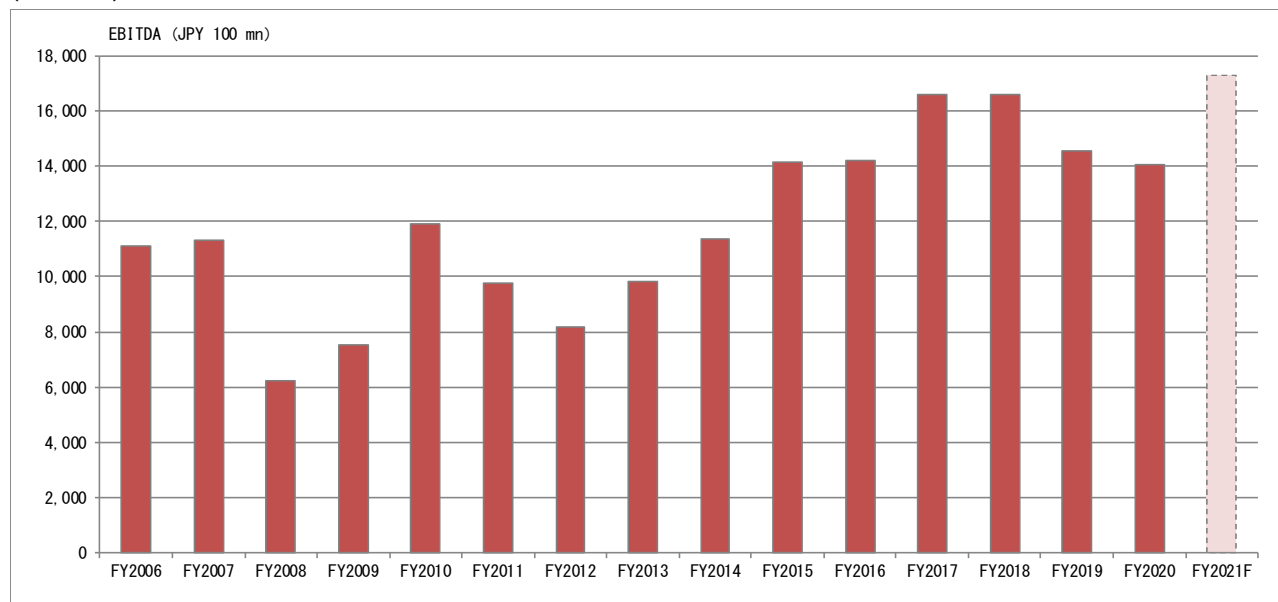
Apart from business performance, JCR is paying attention to three major points. The first is progress in financial improvement. As mentioned earlier, interest-bearing debt has been increasing in the industry as a whole in recent years, and at some companies, the increase has been significant. In such cases, it is necessary to improve the financial structure as soon as possible by capturing results from growth investments and adhering to investment discipline. The second is business structure reform. Recently, there has been a growing trend among companies to restructure their business structure, including promotion of growth strategies and response to digitalization. JCR will pay attention to whether they can enhance the competitive advantage and sustainability of their businesses through these efforts. The third is environmental issues. As social demands such as ESG

and carbon neutrality are increasing, it has become essential for the industry to address these issues. From a medium- to long-term perspective, JCR needs to keep a close eye on how these issues will affect individual companies and the industry and what business opportunities will arise, including investment and cost burdens.

*2: JCR forecasts for Gross profit – SG & A expenses + depreciation expenses under IFRS are used.

Shigenobu Tonomura, Takeshi Fujita

(Chart 1) Total EBITDA of 7 General Chemical Manufacturers



EBITDA = Operating Income + Depreciation Expenses + Amortization Expenses (Gross profit – SG & A expenses + depreciation expenses under IFRS)

(Chart 2) Consolidated Business/Financial Performance of 7 General Chemical Manufacturers

(JPY 100 mn, times)

		Net Sales	Operating Income	Ordinary Income	Net Income	Interest-bearing Debt	Equity Capital	Total Assets	DER	Equity Ratio
ASAHI KASEI (3407)	FY2019	21,516	1,772	1,840	1,039	7,038	13,593	27,979	0.52	48.6%
	FY2020	21,060	1,718	1,780	797	6,589	14,674	29,189	0.45	50.3%
	FY2021F	23,750	1,900	1,960	1,550	—	—	—	—	—
Showa Denko (4004)	FY2019	9,064	1,207	1,192	730	2,985	4,993	10,763	0.60	46.4%
	FY2020	9,737	-194	-439	-763	11,728	5,434	22,036	2.16	24.7%
	FY2021F	13,450	680	640	110	—	—	—	—	—
TOSOH (4042)	FY2019	7,860	816	859	555	958	5,675	8,865	0.17	64.0%
	FY2020	7,328	878	951	632	1,265	6,155	9,827	0.21	62.6%
	FY2021F	8,000	930	920	600	—	—	—	—	—
Ube Industries (4208)	FY2019	6,678	340	357	229	1,879	3,323	7,272	0.57	45.7%
	FY2020	6,138	259	232	229	2,092	3,590	7,697	0.58	46.6%
	FY2021F	5,700	370	345	210	—	—	—	—	—

		Sales Revenue	Core Operating Income	Operating Income	Net Income	Interest-bearing Debt	Equity Attrib. to Owners of the Parent	Total Assets	DER	Ratio of Equity Attrib. to Owners of the Parent
SUMITOMO CHEMICAL (4005)	FY2019	22,258	1,326	1,375	309	11,796	10,473	36,503	1.13	28.7%
	FY2020	22,869	1,476	1,371	460	12,260	11,442	39,902	1.07	28.7%
	FY2021F	26,100	2,000	1,800	1,000	—	—	—	—	—
Mitsui Chemicals (4183)	FY2019	13,495	723	645	339	5,460	5,292	15,305	1.03	34.6%
	FY2020	12,117	851	780	578	5,102	6,079	15,581	0.84	39.0%
	FY2021F	14,000	1,150	1,130	790	—	—	—	—	—
Mitsubishi Chemical HD (4188)	FY2019	35,805	1,948	1,442	540	22,832	11,702	51,321	1.95	22.8%
	FY2020	32,575	1,747	475	-75	23,495	12,363	52,872	1.90	23.4%
	FY2021F	36,600	2,300	2,160	970	—	—	—	—	—

*1 IFRS for SUMITOMO CHEMICAL, Mitsui Chemicals and Mitsubishi Chemical HD

*2 Core operating income is obtained by excluding non-recurring items from operating income under IFRS.

*3 Net income is net income attributable to shareholders of the parent (JGAAP) or net income attributable to owners of the parent (IFRS).

*4 Interest-bearing debt is the sum of borrowings, corporate bonds and CP. Equity content is considered in cases where there is hybrid financing.

(Source: Prepared by JCR based on financial materials of above companies)

<Reference>

Issuer: ASAHI KASEI CORPORATION

Long-term Issuer Rating: AA Outlook: Stable

Issuer: Showa Denko K.K.

Long-term Issuer Rating: A- Outlook: Stable

Issuer: SUMITOMO CHEMICAL COMPANY, LIMITED

Long-term Issuer Rating: A+ Outlook: Stable

Issuer: TOSOH CORPORATION

Long-term Issuer Rating: A+ Outlook: Stable

Issuer: Mitsui Chemicals, Inc.

Long-term Issuer Rating: A+ Outlook: Stable

Issuer: Mitsubishi Chemical Holdings Corporation

Long-term Issuer Rating: A+ Outlook: Stable

Issuer: Ube Industries, Ltd.

Long-term Issuer Rating: A Outlook: Stable

Japan Credit Rating Agency, Ltd.

Jiji Press Building, 5-15-8 Ginza, Chuo-ku, Tokyo 104-0061, Japan
Tel. +81 3 3544 7013, Fax. +81 3 3544 7026

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