22-D-0259
June 13, 2022

Highlights of General Heavy Machinery Manufacturers' Financial Results for Fiscal Year Ended March 2022

The following is 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 2022 (FY2021) and earnings forecasts for FY2022 of Japan's six general heavy machinery manufacturers (collectively, the "Companies"): SUMITOMO HEAVY INDUSTRIES, LTD. ("SHI"), Mitsui E&S Holdings Co., Ltd. ("Mitsui E&S"), Hitachi Zosen Corporation ("Hitachi Zosen"), Mitsubishi Heavy Industries, Ltd. ("MHI"), Kawasaki Heavy Industries, Ltd. ("KHI") and IHI Corporation ("IHI").

1. Industry Trend

General heavy machinery manufacturers operate in wide-ranging business domains, which can be roughly categorized into: aerospace; ship and ocean; and land.

In the aerospace sector, the business environment of commercial aircraft-related businesses, which was strongly affected by the COVID crisis, is still severe; however, passenger demand is on recovery. According to IATA (the International Air Transport Association), RPK (revenue passenger kilometers indicating passenger demand) in 2021 fell 58.4% from 2019 level, pre-pandemic, (in 2020, a 65.9% decrease from 2019 level). While countries around the world have been easing the entry restrictions, the recovery trend in passenger demand will likely continue hereafter as well. In relation to this, demand for spare parts for aircraft engines, which is closely linked with passenger demand, is expected to increase. On the other hand, joint aircraft production products for The Boeing Company ("Boeing") handled by MHI and KHI will highly likely take time for recovering the production rates partly because the products are mainly for B777 and B787 models, which assume long-distance transportation, such as international flights. For 787 models, handing over of the aircrafts to customers from Boeing has been suspended since revealing the quality issue found at the time of production.

In the ship and ocean sector, harshness in order intake environment for new ship building has been mitigated. Along with the upturn in the shipping market conditions, demand for new ship building has increased and U.S. dollar-denominated ship prices, which were sluggish for a long time, have also risen. On the other hand, profitability still remains severe as the profitability of constructions of low-priced ships, for which orders were received in the past, also need to be reviewed due to the soaring steel prices. In addition, exchange rates have become unstable due partly to increased concerns about inflation and geopolitical risks, and others. Earnings of the new shipbuilding business are susceptible to fluctuations in exchange rates and steel prices. Therefore future trends need to be closely watched.

The land sector can be roughly divided into mass-production businesses with shorter lead time and order-based businesses with longer lead time. The former include turbocharger for vehicles of MHI and IHI; power transmissions/control equipment and construction machinery of SHI; and robots and two-wheeled motor bikes of KHI. The latter include MHI's prime movers and construction of different types of plants. In FY2021, relatively rapid demand recovery from the COVID crisis was observed for many products in mass-production businesses. Despite the fact, turbocharger for vehicles has been affected by the reduction of automobile production caused by shortage of semiconductors. Contrarily, no major delays were observed in receiving orders and construction works caused by the impact of the pandemic in order-based businesses.

2. Financial Results

Orders received for FY2021 increased 20.1% over the year to 9,195.2 billion yen for the Companies combined. Orders received showed a year-on-year increase for the five companies excluding Mitsui E&S. In order-based businesses, orders received was steady for prime movers, nuclear power, and incineration facilities, among others. Orders received also increased for many products in mass-production businesses due partly to a reactionary rebound from the decline caused by COVID crisis. The factors causing the decline in orders received for Mitsui E&S were the withdrawal from the shipbuilding business, sale of an engineering subsidiary at the beginning of the fiscal year and others. In addition, deconsolidating its principal subsidiary, MODEC, Inc. ("MODEC"), since the fourth quarter was also attributable to the decline.

For FY2021, net sales (revenue for MHI and IHI) of the Companies combined increased 3.4% over the year to 8,499.2 billion yen, and operating income (gross profit less SG&A expenses for MHI and IHI) of the Companies combined was 248.9 billion yen , 2.1 times as large as that of the previous fiscal year. Net sales grew centering on mass-production products such as power transmissions/control equipment, robots, two-wheeled motor bikes, and construction machinery. The performance of commercial aircraft-related businesses have also recovered from the substantial decline reported in FY2020, contributed by increased sales of spare parts for aircraft engines in relation to the passenger demand recovery, cost reductions and others. For MHI, minimizing the Mitsubishi SpaceJet-related costs also contributed to the performance improvement.

As regards to the financial structure of the Companies combined at the end of FY2021, the equity ratio came to 29.0% and DER stood at 0.61x as opposed to 26.1% and 0.82x at the end of the previous fiscal year (equity capital equity attributable to owners of parent for MHI and IHI's equity capital). Improvement of the financial structure was partly contributed by increased equity capital through profit accumulation and a reduction in interest-bearing debt (interest-bearing debt includes corporate bonds, commercial paper and borrowings). Mitsui E&S reported a net loss for FY2021 due mainly to a large loss recorded by MODEC and impaired the equity capital. However, the equity ratio has improved as the total assets decreased through deconsolidating MODEC.

3. Highlights for Rating

For the FY2022 forecast, four companies, excluding IHI and SHI, expect a higher or positive operating income (profit from business activities / operating profit) (since SHI has changed the end of accounting period from March 31 to December 31, it will report nine-month results for FY2022; however, it also published a comparable performance forecast for twelve months covering from April 2022 to March 2023). Demand will likely continue to be steady centering on mass-production products. Performance of commercial aircraft-related businesses is expected to improve primarily for aircraft engines. Although IHI expects a decrease in profits due to elimination of a large amount of gain on sale of assets recorded in the previous fiscal year, it intends to ensure a certain level of profits. SHI also plans to maintain the almost same level of operating income as the previous fiscal year under the 12-month forecast. Key factors by domain are as noted below.

In the aerospace sector, the key factor is the degree of performance recovery of commercial aircraft-related businesses. The number of units sold for aircraft engines is expected to increase as passenger demand recovers. Sales increase of new aircraft engine models requiring a significant cost burden, will likely work negatively to profits; however, JCR views performance of the aircraft engine business as a whole will improve as an increase in sales of lucrative spare parts can also be expected. On the other hand, sales trends in joint aircraft production products sway depending on the production rates of Boeing. While rapid recovery of production rates cannot be expected, the business is still required to improve profitability through cost reductions. In the ship and ocean sector, steel prices have been hovering high, and the costs requiring for building new ships are still heavy for builders. The issue to address for the Companies will be to improve the profitability through the structural reforms and effects of alliances, which the Companies worked on to date and others. For the land sector, trends in demand vary depending on business categories and geographical locations of customers and therefore must be examined for each product for mass-production businesses. In addition, the impacts of semiconductor shortage, soaring transportation/material costs and others given to profit and loss should also need to be watched. In order-based businesses, JCR will continue to watch the profitability at the time of receiving orders and progress of projects.

Although the direct impact of Russia's invasion into Ukraine on the businesses of the Companies seems to be limited, it still needs to be closely watched as it may give indirect impacts through deterioration in the global economy and other factors.

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(Chart 1) Orders Received and Earnings

(JPY 100 mn)

		Orders Received	Net Sales	Operating Income	Net Income Attributable to Parent's Shareholders
SHI (6302)	FY2020	8,138	8,490	513	267
	FY2021	10,752	9,439	656	440
	Fiscal year ending December 2022 (F)	8,800	8,500	510	300
	Fiscal year ending March 2023 (F)	10,300	10,100	640	390
Mitsui E&S (7003)	FY2020	5,766	6,638	-122	1
	FY2021	5,110	5,793	-100	-218
	FY2022 (F)	2,700	2,500	50	20
Hitachi Zosen (7004)	FY2020	4,294	4,085	153	42
	FY2021	6,779	4,417	155	78
	FY2022 (F)	5,000	4,400	200	100
KHI (7012)	FY2020	14,024	14,884	-53	-193
	FY2021	16,021	15,008	458	218
	FY2022 (F)	15,700	16,800	610	290

		Orders Received	Revenue	Profit from Business Activities / Operating Profit	Gross Profit − SG&A Exp.	Profit Attributable to Owners of Parent
MHI (7011)	FY2020	33,363	36,999	540	520	406
	FY2021	40,677	38,602	1,602	991	1,135
	FY2022 (F)	37,000	39,000	2,000	-	1,200
IHI (7013)	FY2020	10,970	11,129	279	157	130
	FY2021	12,612	11,729	814	328	660
	FY2022 (F)	12,800	13,000	750	-	400

		Orders Received	Net Sales	Operating Income	Net Income Attributable to Parent's Shareholders
Total	FY2020	76,556	82,228	1,170	655
	FY2021	91,952	84,992	2,489	2,315
	FY2022 (F)	83,500	85,800	-	2,400

Notes:

1. MHI and IHI have adopted IFRS. MHI's profit from business activities was calculated by adding share of profit of investments accounted for using the equity method and other income to revenue less cost of sales, SG&A expenses and other expenses. IHI's operating profit was calculated by adding other income to revenue less cost of sales, SG&A expenses and other expenses.
2. KHI has adopted IFRS since FY2022; however, the figures in the above forecast for FY2022 are under JGAAP published by KHI considering comparability. Forecast of the operating profit for FY2022 is 53 billion yen under IFRS. The forecast of orders received, net sales and net income attributable to parent's shareholders are the same as these under JGAAP. KHI's operating income was calculated by adding share of profit of investments accounted for using the equity method and other income to net sales less cost of sales, SG&A and other expenses.
3. SHI has changed the end of accounting period from March 31 to December 31. Therefore, it will report nine-month results for FY2022. For ensuring comparability, 12-month performance forecast covering from April 2022 to March 2023 published by SHI is also indicated. For the total of the Companies, figures in SHI's 12-month performance forecast are used.
4. For the total net sales of the Companies, revenue was used for MHI and IHI
5. For the total operating income of the Companies, gross profit less SG&A expenses was used for MHI and IHI.

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

(Chart 2) Financial Structure

(JPY 100 mn, %, times)

		Equity Capital	Interest-bearing Debt	Equity Ratio	DER
SHI	End-FY2020	4,906	1,244	47.6	0.25
	End-FY2021	5,513	1,112	50.4	0.20
Mitsui E&S	End-FY2020	675	1,645	8.8	2.44
	End-FY2021	570	1,423	14.0	2.49
Hitachi Zosen	End-FY2020	1,363	841	31.8	0.62
	End-FY2021	1,412	778	30.6	0.55
KHI	End-FY2020	4,653	5,827	23.7	1.25
	End-FY2021	4,791	4,904	23.7	1.02

		Equity Attributable to Owners of Parent	Interest-bearing Debt	Ratio of Equity Attributable to Owners of Parent	DER
MHI	End-FY2020	13,663	9,056	28.4	0.66
	End-FY2021	15,766	7,349	30.8	0.47
IHI	End-FY2020	3,007	4,631	16.4	1.54
	End-FY2021	3,821	3,722	20.3	0.97

		Equity Capital	Interest-bearing Debt	Equity Ratio	DER
Total	End-FY2020	28,269	23,245	26.1	0.82
	End-FY2021	31,877	19,290	29.0	0.61

Notes:

1. Interest-bearing debt includes corporate bonds, commercial paper and borrowings (excluding lease obligations, etc.).
2. Figures of Hitachi Zosen shown above reflect the evaluation of equity content of subordinated loans.
3. MHI and IHI adopt IFRS.
4. Total equity capital of the Companies: equity capital under JGAAP; and equity attributable to owners of parent under IFRS

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

<Reference>

Issuer: SUMITOMO HEAVY INDUSTRIES, LTD.

Long-term Issuer Rating: A+ Outlook: Stable

Issuer: Mitsui E&S Holdings Co., Ltd.

Long-term Issuer Rating: BB+ Outlook: Negative

Issuer: Hitachi Zosen Corporation

Long-term Issuer Rating: BBB+ Outlook: Stable

Issuer: Mitsubishi Heavy Industries, Ltd.

Long-term Issuer Rating: AA- Outlook: Stable

Issuer: Kawasaki Heavy Industries, Ltd.

Long-term Issuer Rating: A Outlook: Negative

Issuer: IHI Corporation

Long-term Issuer Rating: A- Outlook: Stable

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