News Release



Japan Credit Rating Agency, Ltd.

19-D-0853 November 27, 2019

JCR's Financial Indicators by Rating Range 2019

JCR calculated the average financial indicators for each rating category, using financial data of the corporations to which JCR assigns ratings (including 'p' ratings and ratings under Credit Monitor). The ratings are determined not only by quantitative but also qualitative assessment, but JCR confirmed that the relationship between the ranks of the ratings and the performance of financial indicators is consistent in general for the calculated results. As JCR also sees other financial indicators, qualitative assessment and prospects for future developments in the actual ratings, these ratings are not necessarily assigned to the corporations which satisfy these calculated averages. JCR releases these calculated results as a part of its efforts to improve its rating transparency. JCR revised this time some of these financial indicators and calculating formulas.

Time Period for Data Collection

Two time periods are adopted for data collection: "the most recent FY" (from April 2018 to March 2019) and "the most recent 5 FYs" (from April 2014 to March 2019). (The previous two time periods were from April 2017 to March 2018 for the most recent FY and from April 2013 to March 2018 for the most recent 5 FYs.)

Data Used

Data for JCR's rated Japanese industrial corporations (excluding financial institutions, electric power and gas companies, air transport, agriculture and forestry, fishery, and mining industries, with ratings of BB range and above) were used. JCR related these indicators at the end of the fiscal year to the JCR's ratings that were assigned when 5 months have passed since the end of the fiscal year (for example, FY ended March 2019 referenced to JCR's rating as of August 31, 2019). As a result, the number of corporations subject to data collection from April 2014 to March 2019 totaled 955 for manufacturing industry (190 for the most recent FY) and totaled 829 for non-manufacturing industry (167 for the most recent FY).

(Information Services Department)



Table 1: Average Values of Financial Indicators by Rating Range

	Average values of Fin			Manufac	<u> </u>			Non-Manu	facturing	
			Most Recent 5	•			Most Recent 5 Fiscal Years Most Recent FY			
			till FY2018	till FY2017	FY2018	FY2017	till FY2018	till FY2017	FY2018	FY2017
Number of C		AAA	0		0	0		23	5	ł
		AA Range	137	131	32	28		86	22	20
		A Range	524	522	103	106		428	92	87
		BBB Range	279	290	53	55		275	46	49
		BB Range	15	15	2	3	15	18	2	2
Profitability	Operating Income Margin (%)	AAA	-	-	-	-	21.68	21.62	22.36	21.96
		AA Range	11.28	10.65	11.76	12.46	10.03	9.76	10.65	10.01
		A Range	7.04	6.88	7.07	7.64	7.85	7.74	8.18	8.27
		BBB Range	5.04	4.94	4.77	5.36	6.61	6.50	6.53	6.71
		BB Range	4.36	4.23	5.11	4.52	13.50	13.60	16.03	16.70
	Net Income Margin (%)			-	-	-	12.95	12.57	13.61	13.80
		AA Range	7.21	6.59	8.12	8.51	6.14	5.78	6.88	6.54
		A Range	4.56	4.39	4.80	5.29	5.41	5.23	5.84	6.96
		BBB Range	2.99	2.89	3.05	2.92	3.86	3.74	3.84	4.03
	Business Income/Total Capital	BB Range AAA	0.04	0.12	2.63	1.40	9.38 8.36	8.13 8.40	7.37 8.29	7.55 8.30
		AAA AA Range	- 0.05		- 9.38	- 10.21		8.40 6.46	8.29 6.95	
		A Range	9.05 6.35	8.57 6.28	9.30 6.36	10.31 6.95	6.59 5.28	5.28	5.26	6.71 5.45
		BBB Range	6.35 4.77		0.30 4.44	5.23	5.28	5.28 4.90	5.26 5.16	
		-		4.79						5.41
Debt	Interest-bearing Debt/EBITDA Ratio	BB Range AAA	4.12	3.90	5.11	4.90	4.19 2.67	4.58 2.65	2.95 2.89	3.08 2.89
Service Capacity		AA Range	1.64	- 1.70	- 1.54	- 1.48	3.64	3.74	3.38	2.09
		A Range	2.59	2.66	2.47	2.10	4.69	4.70	4.93	4.64
		BBB Range	3.42	3.38	4.32	3.00	4.09 5.50	4.70 5.60	4.95	4.04
		BB Range	4.00	3.88	4.52	4.64	10.60	9.39	4.90	4.33
	Net Interest-bearing Debt/EBITDA	AAA	4.00			4.04	2.45	2.45	2.64	2.63
		AA Range	1.14	1.16	1.06	1.03	2.40	2.43	2.54	2.63
		A Range	1.14	1.10	1.58	1.03	3.64	3.63	3.84	3.60
		BBB Range	1.80	1.89	1.99	1.60	4.11	4.20	3.69	3.35
		BB Range	2.54	2.37	3.40	3.32	7.54	6.78	10.04	9.82
	Interest-bearing Debt/Operating Cash	AAA	- 2.04	2.01	- 0	0.02	3.54	3.50	3.98	3.77
		AA Range	2.38	2.47	2.16	2.06	7.02	7.04	4.91	8.15
		A Range	3.57	3.64	3.77	3.29	7.88	7.64	8.39	8.46
		BBB Range	5.44	5.51	5.54	4.45	7.99	7.80	9.07	6.82
		BB Range	8.01	7.16	10.51	7.19	17.18	14.72	29.11	22.53
Financial Structure	Equity Ratio (%)	AAA	-	-	-	-	45.72	45.33	45.86	45.49
		AA Range	55.70	55.22	56.87	56.25	41.82	41.81	40.65	41.76
		A Range	49.11	48.52	49.32	50.16	39.67	39.14	40.74	40.34
		BBB Range		44.37	45.47	45.70	38.41	37.67	39.10	39.28
		BB Range	25.08	28.35	17.52	16.90	37.59	39.92	30.64	29.64
	Debt/Equity Ratio (Interest-bearing	AAA	-	-	-	-	0.83	0.87	0.80	0.84
	Debt) (Times)	AA Range	0.41	0.43	0.36	0.36	0.81	0.83	0.80	0.75
		A Range	0.56	0.59	0.54	0.50	1.00	1.01	0.98	0.99
		BBB Range	0.76	0.82	0.68	0.63	1.19	1.24	1.14	1.09
		BB Range	1.90	1.65	2.43	2.82	1.58	1.47	1.91	2.02
	Debt/Equity Ratio (Net Interest-bearing	AAA	-	-	-	-	0.76	0.81	0.72	0.76
	Debt) (Times)	AA Range	0.29	0.29	0.25	0.25	0.62	0.65	0.61	0.56
		A Range	0.38	0.41	0.36	0.32	0.78	0.79	0.76	0.77
		BBB Range	0.49	0.54	0.43	0.37	0.93	0.98	0.86	0.84
		BB Range	1.32	1.12	1.83	2.13	1.16	1.10	1.37	1.42
Size	Equity Capital (JPY 100 mn)	AAA	-	-	-	-	39,043	35,607	43,708	43,432
		AA Range	12,273	11,589	12,733	13,095	10,109	9,530	10,981	10,328
		A Range	3,226	3,078	3,756	3,322	2,953	2,738	3,423	3,139
		BBB Range	686	693	699	697	790	794	741	814
		BB Range	1,182	902	2,372	1,799	215	227	209	200
	EBITDA (JPY 100 mn)	AAA	-	-		-	11,918	11,020	13,007	12,764
		AA Range	3,103	2,923	3,138	3,274	2,372	2,154	2,900	2,341
		A Range	794	773	869	889	788	760	817	812
		BBB Range	159	174	147	170	181	181	178	192
		BB Range	526	374	1,191	883	33	34	30	30



Table 2: Calculating Formulas for Financial Indicators

Financial Indicator	Formula					
Operating Income Margin	Operating Income/Net Sales x 100					
Net Income Margin	Net After-tax Income/Net Sales x 100					
Business Income/Total Capital Employed Ratio	Y (Operating Income + Total Amount of Interest and Dividend Income)/A (Total Capital Employed) x 100					
Interest-bearing Debt/EBITDA Ratio	Interest-bearing Debt/EBITDA					
Net Interest-bearing Debt/EBITDA Ratio	Net Interest-bearing Debt/EBITDA					
Interest-bearing Debt/Operating Cash Flow Ratio	Interest-bearing Debt/Operating Cash Flow					
Equity Ratio	Equity Capital/(Total Assets - Paid-in Advances on New Stocks) x 100					
Debt/Equity Ratio (Interest-bearing Debt)	Interest-bearing Debt/Equity Capital					
Debt/Equity Ratio (Net Interest-bearing Debt)	Net Interest-bearing Debt/Equity Capital					
Equity Capital	Capital - Paid-in Advances on New Stocks - Treasury Stock					
EBITDA	Operating Income + Total Amount of Interest and Dividend Income + Depreciation Expense + Amortization Goodwill					
Total Capital Employed	Total Assets - Paid-in Advances on New Stocks - Treasury Stock + Notes Receivable Discount + Notes Receivable Transfer					
Interest-bearing Debt	Short-term Loans Payble + CP + Current Portion of Long-term Loans + Current Portion of Bonds + Bonds Payable + Long-term Loans Payable + Current Portion of Lease Obligations, etc. + Lease Obligations, etc.					
Net Interest-bearing Debt	Interest-bearing Debt - Cash and Deposits					

Notes:

- 1: Y...: In cases where the number of months of a fiscal year is less than 1 year, indicators are annualized.
- 2: A...: Average of the beginning value and ending value.
- 3: In the calculation of the Net Interest-bearing Debt, in cases where the interest-bearing debt is less than cash and deposits, the amount is zero.
- 4: In the calculation of the averages, excluded are outliers in the ratios for Interest-bearing Debt/ Operating Cash Flow, Interest-bearing Debt/EBITDA, and Net Interest-bearing Debt/EBITDA.

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

Information herein has been obtained by JCR from the issuers and other sources believed to be accurate and reliable. However, because of the possibility of human or mechanical error as well as other factors, JCR makes no representation or warranty, express or implied, as to accuracy, results, adequacy, timeliness, completeness or merchantability, or fitness for any particular purpose, with respect to any such information, and is not responsible for any errors or omissions, or for results obtained from the use of such information. Under no circumstances will JCR be liable for any special, indirect, incidental or consequential damages of any kind caused by the use of any such information, including but not limited to, lost opportunity or lost money, whether in contract, tort, strict liability or otherwise, and whether assumed by the use of innenial products, and not statements of JCR's current and comprehensive opinion regarding redemption possibility, etc. of financial obligations assumed by the issuers of financial products, and not statements of devices or recommendations regarding decisions to purchase, sell or hold any securities such as individual bonds or commercial paper. The ratings and credit assessments as a result of changes in or unavailability of information as well as other factors. JCR receives a rating fee paid by issuers of the solution risk. JCR retains all rights pertaining to this document, including JCR's rating data. Any reproduction, alteration, etc. of this document, including JCR's rating data. Any reproduction, alaptation, alteration, etc. (JC is reacised Bating Pario Constrained Bating Constrained Statement as provide Bating Constrained Bating Constrained Bating Constrained Statements on the following four classes (J) Einancial institutions. brokes

JCR is registered as a "Nationally Recognized Statistical Rating Organization" with the U.S. Securities and Exchange Commission with respect to the following four classes. (1) Financial institutions, brokers and dealers, (2) Insurance Companies, (3) Corporate Issuers, (4) Issuers of government securities, municipal securities and foreign government securities.

JCR publishes its press releases regarding the rating actions both in Japanese and in English on the same day. In case that it takes time to translate rating rationale, JCR may publicize the summary version, which will be replaced by the full translated version within three business days. (Regarding Structured Finance products, JCR only publicize the summary version in English.)

Copyright $\ensuremath{\mathbb{C}}$ Japan Credit Rating Agency, Ltd. All rights reserved.