

Rating Methodology by Sector **General Construction**

Business model of general construction (general contractor) industry is to receive orders for construction work in bulk from the client, and to complete the work while coordinating specialized contractors, etc. The range of players is wide, from major contractors with annual sales of over 2 trillion yen, known as “super general contractors,” to small- and medium-sized enterprises. This rating methodology is applied to general contractors of a listed scale, and does not cover specialized contractors for electrical, air conditioning, telecommunications work, etc.

1. Business base

The general construction industry is essentially an industry driven by domestic demand. It undertakes building construction and civil engineering works related to social infrastructure and living infrastructure that are essential to people's lives. It is unable to create demand on its own and is affected by government construction investment, private housing investment, and private non-housing investment. In general, companies are classified into tiers such as major (super), second-tier, and midsize companies, according to their sales scale. As it is difficult to differentiate between companies in the same tier, competition tends to intensify during periods of declining demand. In rating assessment, JCR places emphasis on factors such as strength of competitiveness that can allow steadily winning orders even during periods of declining demand.

(1) Characteristics of industry

(i) Market overview

According to the Ministry of Land, Infrastructure, Transport and Tourism, domestic construction investment amount in FY2023 was 71 trillion yen. After peaking at 84 trillion yen in FY1992, it halved to 42 trillion yen in FY2010, but has since continued to increase. It is thought that domestic construction investment will remain steady over the medium term. In the building construction sector, investment is expected to be made in urban redevelopment, logistics facilities, and factories related to semiconductors and electronic devices. In the civil engineering sector, investment is expected to be made in response to the strengthening of national resilience and the aging of infrastructure.

In addition, mainly major and second-tier companies are strengthening their overseas expansion. However, in the past, there have been cases where construction projects have become unprofitable and large losses have been recorded. Therefore, it seems that the issue overseas is to generate stable profits by developing business, focusing on their areas of expertise, and promoting localization.

(ii) Competitive situation

The number of major players has not changed significantly since the 1990s.

Competition often takes place among players in the same tier such as among major players and among second-tier players, or between players of close tiers such as between major players and second-tier players and such as between second-tier players and midsize players. During periods of expanding demand, construction capacity of upper tiers is limited (demand is larger than supply), so there are cases where lower-tier players can win orders for larger-scale construction projects than that they would receive in normal periods. On the other hand, during periods of declining demand, there is room for construction capacity, so upper-tier players win orders for smaller-scale construction projects than that they would receive in normal periods, more intensifying competition for lower-tier players.

(iii) Cost structure

The business model of general contractors is to receive orders for construction work in bulk from the client, and then to outsource the majority of that work to specialized contractors and other partner companies. There are many outsourcing costs (including outsourced labor costs) and material costs that are variable costs, and few fixed costs. Thanks to this flexible cost structure, although there are fluctuations in the amount of work carried out from fiscal year to fiscal year, there is almost no chance of operating losses unless there is unprofitable work. Furthermore, outsourcing costs are affected by balance of supply and demand for labor, etc., while material costs are affected by market conditions, etc., but the higher the tier, the more likely the economies of scale can work.

(2) Important factors in market position and competitiveness

(i) Market position

A multi-tiered structure with major companies at the top can be seen. There are large differences among the tiers in terms of sales, technical strength, mobilization strength, and name recognition, and the higher the tier, the stronger the competitiveness. In rating assessment, JCR understands the tier to which a company being rated belongs, and then checks how differentiation is carried out within the tier and how competitive advantage is built.

(ii) Business structure

Demand trends and competitive situations for building construction and civil engineering works differ. In general, building construction work, which is often private sector construction, is less profitable and has greater earnings volatility. On the other hand, civil engineering work, which is often public sector construction, is relatively more profitable and has less earnings volatility. In addition, since the number of competitors is limited in marine civil engineering work, which has high barriers to entry, it is often more profitable than land civil engineering work.

In addition, many of the rated companies also operate real estate businesses. Real estate business can be

broadly divided into two categories: leasing of offices, condominiums, etc., and development of condominiums, logistics facilities, etc. Leasing is considered to contribute to stabilization of earnings if there are no problems with location or rent setting. On the other hand, while development is a factor that adds to earnings as long as market conditions are strong, there is a concern that if market conditions worsen, there will be valuation losses and losses on sales, so JCR pays particular attention to status of real estate assets related to development.

JCR evaluates stability of earnings while confirming business composition of building construction, civil engineering, real estate, etc.

(iii) Customer base

Customers have different investment appetites. JCR evaluates customer base by understanding the main customers and their attributes (private companies, public organizations, industry, region, construction content, etc.). Technical strength and mobilization strength discussed in the following sections are important for maintaining and strengthening the customer base.

(iv) Technical strength

Technical strength is essential for creating a workpiece that customers want. In the construction industry, there are no standardized products, and each workpiece is made to order. Therefore, it is essential to have a technical strength to create a workpiece according to predetermined specifications, budgets, and construction periods, and it is also necessary to make customers aware of such technical strength.

JCR checks the specific construction track record of the company and evaluates whether it has a technical strength for similar construction work.

(v) Mobilization strength

As construction industry is a labor-intensive industry, manpower that can be mobilized has a direct impact on earnings. If the company has strong mobilization strength, it can increase the volume of construction work it undertakes, but if it has weak mobilization strength, it will not be able to increase the volume of construction work, and this will become a bottleneck for the earnings growth. The number of people working in the construction industry is decreasing year by year, and in the future there is a possibility that differences in the mobilization strength can lead to differences in earnings among companies. For this reason, JCR pays attention to the initiatives that the company is taking to maintain and strengthen its mobilization strength.

(vi) Risk management capacity

The main business risk is an occurrence of unprofitable construction project. Unprofitable construction project occurs when additional costs are incurred due to events that were not anticipated at the time of receiving order, such as construction defects. In response to this, the company is working to curb unprofitable construction projects through measures such as (a) identifying risks before orders are received, (b) selecting orders based on profitability, and (c) implementing monitoring after orders are received. In recent years, there has been an

increase in large-scale construction projects with long construction periods. If such projects become unprofitable, earnings will deteriorate over a long period of time, so JCR pays particular attention to progress of large-scale construction projects. In the past, there were cases where it became difficult to recover construction payments from a bankrupt emerging developer and a foreign government, so credit management for the client is also an important point.

It can also be said that holding real estate related assets that are subject to market conditions is a business risk. Among the rated companies, there are those who (a) bring land and other real estate to developers and other companies and receive orders for construction work, and (b) carry out condominium development and sales, real estate development of leasing buildings, etc. themselves. For these rated companies, in addition to an ability to assess business potential of individual real estate, it is also necessary to control balance of real estate related assets so that they can withstand financial difficulties even in times of market deterioration.

2. Financial base

(1) Earnings strength

In order to maintain and improve earnings strength, it is essential to strengthen competitiveness and risk management capacity. If the company has strong competitiveness, it can win orders on relatively favorable terms and earn excess earnings. If it has high risk management capacity, it can control an occurrence of unexpected expenses due to unprofitable construction projects, etc.

In order to estimate future earnings strength, it is essential to understand the timing at which the construction projects, for which the orders were received (order backlog), are recorded as sales and the assumed profitability of the projects at the time of receiving the orders. JCR evaluates the medium-term earnings strength by confirming the general situation of the construction projects, for which the orders were received, to the extent possible through interviews and other means.

Key financial indicators:

- Gross margin on construction revenues
- Amount of orders received
- Order backlog
- Operating income
- Net income

(2) Cash flow generation capacity

The company's ability to generate cash flow is an important factor in assessing its ability to repay debts. In general construction industry, there is a time lag between accounting profits recorded as construction projects progress and cash flows obtained. For this reason, in addition to the accounting profit, JCR also checks the level of cash flow and its sustainability.

Key financial indicators:

- Operating cash flow
- Ratio of net interest-bearing debt before and after deducting working capital to EBITDA

(3) Safety

As mentioned in the previous section, there is a time lag between the accounting profit and cash flow in general construction industry. In particular, for large-scale construction projects with long construction periods, this time lag becomes even greater, and it is necessary to procure interest-bearing debt as working capital (notes receivable, accounts receivable from completed construction contracts + costs on uncompleted construction contracts - notes payable, accounts payable for construction contracts - advances received on uncompleted construction contracts, etc.) to bridge the fund gap. As the repayment source for such interest-bearing debt is the payments for construction projects, JCR pays attention to the payment capacity of the client.

From the perspective of medium-term debt repayment capacity, JCR places importance on balance of cash flow against interest-bearing debt. When confirming this balance, JCR also uses interest-bearing debt after deducting working capital, which is associated with construction projects mentioned above. JCR believes that working capital associated with real estate for sale and development projects in progress differs in nature from the fund gap associated with construction projects.

JCR confirms the actual amount of shareholders' equity as a risk buffer in the event of occurrence of unexpected circumstances. In addition, JCR also pay attention to the balances between shareholders' equity and (a) risk assets that are subject to price fluctuations and (b) interest-bearing debt (including interest-bearing debt after deducting working capital, which is associated with construction projects).

Key financial indicators:

- Net interest-bearing debt before and after deducting working capital
- Real estate related assets such as real estate for sale and development projects in progress
- Shareholders' equity
- Ratio of net interest-bearing debt before and after deducting working capital to shareholders' equity

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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