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Rating Methodology by Sector

General Construction

*This rating methodology is a modification of the rating methodology made public on July 13, 2011, and modifications are made to the key financial indicators in narrowing down these indicators by significance as part of clarification of rating methodology.

1. Business base

The general construction industry is by nature competitive, and the domestic market has long been shrinking. In this extremely harsh environment, each company must find a way to balance the amount of orders received with profitability, one of the key factors in JCR's determining a rating.

(1) Characteristics of the industry

(i) Market overview

According to the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), the amount of investment in domestic construction in 2010 was approximately 40 trillion yen. The most recent peak, at 83 trillion yen, was in fiscal 1996, and the figure has been almost consistently sliding since then, to its current level of about half that amount. Investment in domestic construction is broadly divided into construction and civil engineering. While investment in the former is slightly larger, comprising approximately 60%, both segments have been on a decline. However, the demand for reconstruction following the Great East Japan Earthquake of March 2011 is expected to bolster the two segments for several years to come. Nevertheless, the impact on the earnings of general contractors is mostly uncertain, and JCR will examine the budgetary steps and responses of such contractors in each case.

Construction is divided into housing and non-housing (office buildings, factories, commercial facilities, etc.), and both are strongly affected by economic trends. The housing segment is further affected by structural changes, such as a declining birthrate and aging population as well as domestic deindustrialization, caused by companies moving to overseas locations, and other factors that have contributed to the long-term decline in the investment.

Meanwhile, civil engineering includes a high proportion of public works projects. While the number of such projects, in some cases, increases as an economic measure against recession, the fall in this segment has been particularly sharp, reflecting severe financial conditions. Although the aforementioned earthquake necessitates the review of public works projects in view of disaster prevention, the financial environment remains a restriction. JCR takes note of the priorities concerning regions and facilities to be constructed.

While the construction industry is basically led by domestic demand, some major and quasi-major companies have entered global markets and successfully established certain business bases abroad. There have been cases, however, in which the recovery of invested capital in a large project became a major management challenge, and JCR observes that risks in global markets far exceed the risks in the domestic market.

(ii) Competitive situation

In general, the company that receives orders for construction and civil engineering projects directly from the parties placing the orders and then organizes the projects is called a general contractor. Depending on the size or type of company, the range of such contractors includes super general contractors, quasi-major general contractors, middle-sized general contractors, regional general contractors, and marine contractors who take on ocean civil engineering and harbor facilities construction projects. In fiscal 2010, completed construction projects by super general contractors accounted for approximately one trillion yen in earnings, and the share of the five companies combined made up approximately 10% of the domestic construction segment.

The construction business is a typical contractor-based industry, and the competition is intense in the shrinking market. Because today's decreased profitability has resulted from excessive orders received in the past, companies are now prioritizing profitability and have become more selective in receiving orders. In public works projects, the use of a comprehensive evaluation bidding system that focuses on factors other than prices, such as technology, has increased, and the basic starting point for bidding has been raised. While this has reduced the excessive price competition of the past, new strategies are required now. Under such circumstances, JCR examines how companies balance the amount of orders received with profitability as well as the ideas behind the balance.

(iii) Cost structure

A general contractor involves subcontracts with other companies. Large cost items, therefore, include the cost of outsourcing, with the related outsourced labor costs, and the cost of materials, which are both variable costs. While the former reflects the relationship with subcontractors, the latter is affected by the trends in material prices.

Caution should be used in regard to additional outlays in the cost borne by a general contractor. If a project period is extended or additional work is required for corrections or adjustments, determining who is responsible for paying the additional outlays can become a problem. When establishing a contract price upon an order's receipt, the contract terms should clearly define the responsibility for such costs in advance. If the payment for additional construction work cannot be made, due to the relationship with the customer or inadequacy in the contract, the cost of outsourcing and materials as fixed costs incrementally reduces the profit. Further, a penalty may be charged for the delayed construction. Other than material price trends, the basics of ensuring profit are calculation skills, process management skills, and construction quality management skills. JCR assesses not only earnings, but also the aforementioned abilities as it follows the progress of major individual projects.

When responding to urgent and high demand, such as recovery from a major disaster, the cost of outsourcing and materials soars and may reduce the earnings. Unless the impact affects the management and financial affairs for a prolonged period, however, JCR considers this to be a temporary effect.

(2) Important factors in market position and competitiveness

(i) Market position

The construction industry has a multi-tiered structure, with super general contractors at the top. Each tier has its own level of competition, and companies are increasingly separated due to large disparities among the tiers. The number of companies positioned at the same level is large, as exemplified by the five super general contractors, and competition is intense, given the declining demand for construction. JCR first identifies to which level a company belongs. Subsequently, the competitiveness primarily within the same level is assessed based on the following criteria.

(ii) Business structure

The percentage of actual construction projects in the total amount of completed projects or orders received is generally 70% to 80%, although the figures may vary slightly in the case of super general contractors. For quasi-major and smaller general contractors, the ratios of civil engineering projects and construction projects are different for each company. Regional general contractors, in many cases, are more dependent on public works projects than others. As described earlier, excessive price competition in public works projects, in most cases, no longer exists. The amount of orders, however, is strongly affected by the state of public finances, and the decline is expected to continue in many regions in the medium- and long-term, despite a certain increase reflecting the improvement of disaster prevention systems.

The construction segment has the advantage of having super general contractors and quasi-major general contractors in their ability to respond to customer needs, and larger projects, such as office buildings and factories, are often received by the larger companies. Middle-sized and smaller general contractors more frequently receive orders for less-profitable condominium buildings.

In addition to construction projects, some companies engage in real estate business, particularly in relation to development (sale of condominiums, development assets, etc). Development business, however, is strongly affected by conditions in the real estate market, which is more volatile than the construction industry.

JCR analyzes the trends and characteristics of the earnings of the companies to be rated by understanding the business composition in the form of a three-dimensional matrix, comprising projects (construction, civil engineering, real estate, and others), customers (domestic and overseas private companies and public entities), and the regions in which projects take place.

(iii) Customer base

Customers of the construction industry include many regular customers from both the private and public sectors (including local governments), and the characteristics of the customer base are directly connected to competitiveness. The customer base can also be an indicator of the company's credibility. JCR, therefore, observes the customer base of the company to be rated. More specifically, not only individual customers, but also attributes (composition of private and public sectors, regions, fields, etc.) and construction experience are surveyed. The customer bases are not limited to domestic ones, as some quasi-major general contractors have established such bases in overseas markets.

JCR considers that the following technical skills are important in maintaining and expanding a customer base.

(iv) Technical strength

Technical strength determines the ability to serve the needs of customers. Large construction projects, including the construction of high-rise buildings, have always required a certain level of technical know-how. Customer needs have become increasingly diversified in recent years, and companies need to take on, for instance, projects to improve quake resistance and reduce CO_2 emissions through energy-saving specifications. In such technical skills, super general contractors, having greater levels of human resources and capital, have far more advantages than quasi-major and smaller general contractors. Among the super general contractors, however, the capacities are comparable to one another, and how they can differentiate themselves from the others is important.

In addition to prices, technical factors are significant for a successful bid in the comprehensive evaluation bidding system for public works projects. More specifically, a technical proposal is required for matters relating to reductions in the total cost for the customer by, for example, extending the life-span of a proposed building along with improving its performance and functions. Appropriate responses consistent with the buildings to be constructed are essential, even for super general contractors as well as quasi-major general contractors.

While it is difficult to assess technical strength, JCR makes evaluations based on specific cases of a company's construction history and future direction.

(v) Risk management capacity

General contractors' business risks primarily lie within the cost structure described earlier and their customer base, and risk management is extremely important.

In the aspect of cost, appropriate project management, i.e., completing the construction work as scheduled and as budgeted is the basic assumption. However, there are cases of delay due to force majeure or a need for additional construction. In addition to carrying out thorough prior surveys and preparation, establishing the contract terms in detail to avoid the payment of any unexpected additional cost is also extremely important. Material prices may affect the competitiveness, and they are dependent on procurement abilities based on the relationships with suppliers.

General contractors often advance the construction cost for a certain period of time and, therefore, must perform adequate credit management of their customers. However, among general contractors, particularly when there is a disparity in the quality of customers at different levels, the credit management of customers in the private sector is naturally limited.

JCR tries to figure out the specific conditions of risk management of the companies to be rated and established the situation of large customers through conducting interviews.

2. Financial base

(1) Earnings strength

General contractors may be able to buffer the earnings to some extent by adjusting the cost of outsourcing. The basics of ensuring earnings, however, are to receive orders at appropriate price levels and to avoid any payments related to unexpected costs. While general contractors have become far more selective in the orders they receive and the increased use of the comprehensive evaluation bidding system has had a positive effect on profitability, the necessary amount of work must be continuously maintained when the market is shrinking. In the harsh business environment, general contractors must achieve the antinomic goals of maintaining profitability and ensuring the amount of work. Their success is determined by the aforementioned various components of competitiveness, including customer base and technical strengths. The disparities among the companies and among the levels are likely to grow depending on the quality of such factors.

Reactions to particular cases, such as an emergency, are as described in the previous section.

Key financial indicators:

- ■ Gross margin on construction revenues
- ■ Amount of orders received
- ■ Operating income
- ■ Ordinary income

(2) Cash flow

While construction projects rarely require a large capital expenditure, funds for advancing working capital, i.e., funds for the construction itself, are necessary. Funding needs will increase if the project is unprofitable or the customer goes bankrupt. Meanwhile, middle-sized and smaller general contractors in particular have limited hypothecated assets, and external financing is not always easy for many of them. The ability to generate cash flow based on earnings strength is important and, additionally, JCR monitors an increase in advanced funds or the progress of recovery.

Key financial indicators:

- ■ Cash flow from operating activities

■ Ratio of interest-bearing debt to EBITDA

(3) Safety

As stated in the preceding paragraph, general contractors need to finance working capital. Contractors operating real estate business also need related funds, such as those for acquiring land. Many general contractors, therefore, carry a reasonable amount of interest-bearing debt, which varies among companies, especially quasi-major and smaller general contractors. Solvency depends largely on the ability to generate cash flow, which, however, is not necessarily stable. JCR, therefore, prioritizes the amount of interest-bearing debt carried by a company.

Equity capital can buffer a loss on a large construction or development project, and it acts as a form of risk tolerance, which JCR considers may affect not only the degree of a company's current strength, but its corporate strategy and future business performance.

Key financial indicators:

■ Interest-bearing debt

■ Shareholders' equity

■ Debt equity ratio

■ Inventory (related to such development work as real estate for sale)

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