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Rating Methodology by Sector

Cement

1. Business base

Domestic demand for cement in Japan has long been in decline. The demand may rise temporarily in the future, but in the long run, the demand will highly likely fall further due to a structural problem. Each company in the cement industry is always required to establish a production system and cost structure to meet the shrinking domestic demand. The rating methodology in this document is applied to companies specializing in manufacturing cement and this can also be partially applied to cement manufacturers which also engage in other businesses.

(1) Characteristics of the industry

(i) Market overview

The domestic demand for cement had been increasing along with the rapid economic growth in Japan; however, after 1970s, it repeatedly increased and decreased in alignment with trends of construction demand. After having reached a peak in the final phase of the bubble economy in 1990, the demand for cement has since been in decline for a long time due to the economic downturn and reduction in public works, etc. After entering into 2010s, the rate of decrease declined; however, there are a number of negative factors for the future demands. Due to a shortage of manpower, construction capability has nearly reached its limit; thereby, it is difficult to increase the amount of construction work. Further to this, considering the diminishing need for strengthening infrastructure and construction works due to decreasing population, the declining demand is said to be a structural problem of the industry. Nevertheless, considering the fact that cement is essential for the maintenance of domestic infrastructure and the living and working environments and given the absence of alternative materials, a certain level of demand can be maintained.

Cement is mainly used in construction projects, and demand is influenced by trends in public and private investments. Companies dealing cement tend to deal other materials such as the aggregate and limestone, building materials, etc., but demand for these products is also principally dependent on investment in construction. Estimates of demand for cement over the medium and long terms are based on forecasts of future investment in construction, which is then applied to the expected income of each company. Because demand trends have a significant effect on the production and sales strategies of each company, these strategies is also necessary to be assessed carefully.

In terms of geographical diversifications, cement companies finds a larger market in advanced countries such as North America, as well as emerging countries in Asia, etc. The future direction of demand for cement will depend on trends in construction investment, demographic movements or infrastructure development by country. Even though the future demand is likely to grow in these countries, it is necessary to ascertain that there are no excessive competitions in the market where a company intends to penetrate into due to oversupply of cement.

(ii) Competitive situation

The cement industry is a typical process industry, and companies in the industry will likely fall into overproduction to increase utilization ratio of the facilities. In addition, they will likely face price competitions once the balance of supply and demand breaks as products are difficult to differentiate. The industry in Japan was reorganized in the 1990s and it became an oligopolistic market comprised by a few large companies. However, a reduction in production capacity progressed relatively at a slow pace against the subsequent decline in demand. The industry still has characteristics of easily falling into price competitions. Each company in the cement industry is aiming to sell products at fair prices to secure enough cash to properly maintain and renew facilities.

(iii) Cost structure

Because the cement industry is a process industry, the plant utilization ratio is one of the essential indicators in the light of assessing the profitability. When demand for cement decreases, companies close their plants or stop their kilns to prevent a decline in plant utilization ratio. Together with processing the cost cut, cement companies makes fees for waste and byproducts into raw materials and fuel for cement into one of the large source of earnings.

Cement manufacturing costs are likely to be affected by coal prices used as fuel. Coal prices have generally been high from the past due to rising demand in emerging economies. Prices of cement, in contrast, have remained low, partly because of sustained levels of excess competition. Cement manufacturers have sought to improve or maintain earnings capacity largely through cost cutting and the waste treatment business.

Downward pressure on cement prices and the increasingly volatile price of coal constitute risk factors for cement companies. Unless products are sold at fair prices,, JCR sees that it is a negative factor in determining a credit rating.

(2) Key factors in market position and competitiveness

(i) Market position and selling system

Sales volume is an important determinant of the size of earnings of each company. Since the reorganization of the industry in the 1990s, however, market shares have not changed significantly. With cement a commodity, likelihood of major changes in the market shares of the leading manufacturers is low unless another industry shakeup substantially alters the production capacity of each company.

In selling cement, ready-mixed concreate companies, which are generally small- and medium-sized enterprises, exist as intermediaries between manufacturers and general construction companies, the end-users, and this complex distribution route is a factor holding down the manufacturers' price controlling power. JCR sees that the system will remain unchanged.

(ii) Adjusting supply capacity

Amid the continuous decline in the demand for cement, reductions in production costs are necessary by reducing supply capacity with plant closures and kiln shutdowns. In view of sales areas and disaster risks, however, the number of plants that a manufacturer can be close is limited. Considering also the efficiency of distribution channels and logistics, plant closures may cause problems that attenuate the effect of cost reduction. Further, some cement plants also support local economy and act as waste treatment plants for their communities, and they cannot easily be shut down. If, in fact, production capacity is reduced, the likelihood of its contribution to earnings will be determined and scope for further reductions in the supply capacity of each company will be examined. JCR sees that a movement of forming alliances through subcontracting, integration of production and other means is also important.

(iii) Room for rationalization

Because the domestic cement market is not expected to grow, ongoing cost reduction is essential for maintaining and improving earnings capacity. It is important for cement companies to cut the costs of production, but also of distribution by streamlining service stations or efficient use of transportation facilities such as tankers. It is also essential for them to make use of waste materials not only for reducing the cost of raw materials and fuel, but also for securing profit from processing fees by utilizing waste materials and byproducts. JCR will try to seize their capacity to process waste and byproducts as well as the ability of cement manufacturers to collect waste and the degree to which that contributes to profits.

(iv) International business development

With no potential seen in the future of the domestic cement market, some cement manufacturers have been expanding their market abroad. Besides the Asian region, which offers the prospect of future growth, the United States also represents a market with possibilities since its population is rising. In these markets, however, competition is fierce, as the local manufacturers and the world's largest cement manufacturers already exist. In addition to a trend in the market in which a company operates and degree of revenue contribution; JCR will also check a future overseas business policy.

JCR will analyze the types of overseas businesses operated by Japanese cement companies; for instance, whether they are establishing subsidiaries or only investing in other companies, and whether they are investing in cement manufacturing or also in downstream industries, such as the ready-mixed concrete business.

(v) Earnings strength in other businesses

Companies specializing in manufacturing cement are also entering non-cement business areas including electronic components and real estate other than cement related businesses such as the collection and sale of limestone and aggregate, the production and sale of building materials. While these businesses are not sufficient in themselves to offset the fall in earnings capacity of the cement business, the development is appropriate if it helps stabilize revenue in the future. Meanwhile, from viewpoint of asset efficiency and reduction in interest-bearing debt, businesses with low degree of profit contribution, inefficient assets and an absence of alliance prospects must be sold or liquidated. Whether these businesses are contributing to overall earnings strength, asset efficiency, and financial strength will be determined.

2. Financial base

(1) Earnings strength

Taking into account the long-term domestic demand for cement, scope for growth in sales is limited. Cement manufacturers must find a way to improve earnings strength in the context of limited resources . In addition to improvements in production efficiency combined with cost cutting and streamlining, for instance through the use of hard-to-process waste materials, factors including the appropriate passing on of the cost of fuel such as coal will be vital to profitability. Overseas businesses have a brighter sales outlook than their domestic counterparts. Large cement companies have strong earnings capacities; therefore, competing with them would require sustained earnings strength based on limited management resources.

Key financial indicators:

- Gross margin
- Operating margin
- Return on assets

(2) Cash flow

With high depreciation expenses, cement manufacturers maintain a certain capacity to generate cash even with falling earnings capacity. Investments in maintaining and renewing production facilities are relatively heavy; therefore, investment in labor saving and streamlining is essential. There may also be times when some investment is needed to enter overseas markets or other industries. Sustained financial improvement is needed in light of the future investment risk, and free cash flow that could reduce interest-bearing debt must also be maintained. This requires some capacity is generate cash flow, and JCR tracks any changes in cash flow levels.

Key financial indicators:

- EBITDA
- Free cash flow

■ Ratio of interest-bearing debt to EBITDA

(3) Safety

Since cement manufacturing is a process industry, and manufacturers carry a heavy burden of capital expenditure for maintaining and renewing facilities, which in turn means they have considerable interest-bearing debt. This debt may increase in the future with additional investment, such as in mergers and acquisitions involving overseas or non-cement businesses, and in the cost of restructuring domestic businesses. JCR constantly monitors the level of interest-bearing debt and the balance with cash flow. Additionally, the financial strength to withstand the risks associated with new businesses and overseas businesses as well as the extraordinary losses incurred when restructuring the domestic businesses will also be important.

Key financial indicators:

■ Shareholders' equity

■ Debt equity ratio

■ Equity ratio

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