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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 in the short term, but in the long run it can't be denied a possibility of further demand falls. Besides the necessity of such production systems and cost structures that fit to the shrinking domestic demand, the importance of overseas businesses and non-cement businesses as alternative profit sources other than that from domestic cement has been growing. In rating analyses, great importance shall be placed on these factors.

(1) Characteristics of the industry

(i) Market overview

The domestic demand for cement fell sharply due to the oil crisis and other factors once in the 1970s as well as in 1980s. After having reached a peak in 1990, demand has since been in decline for a long time. In particular, the demand was reduced significantly following the collapse of Lehman Brothers. There are a number of issues to be concerned about the future demand. Considering the reduction in public works projects under the government's strained financial circumstances as well as the diminishing need for infrastructure and construction works amid decreasing population, the declining demand is apparently affected by structural problems within the industry. Nevertheless, considering the fact that cement is essential for the maintenance of domestic infrastructure and the living and working environments. In addition, given the absence of alternative materials, a certain level of demand is expected to be maintained. Further, reconstruction demand following the Great East Japan Earthquake that struck in March 2011 is likely to increase domestic needs for cement. Since this is unlikely to be enough for a long-term turnaround in demand trends, it is necessary to follow the government's guidelines and plans for the future development of infrastructure for disaster prevention.

Cement is used largely in construction projects, and demand is influenced by trends in public and private investment such as housing and capital expenditures. 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 whether there are excessive competitions or not.

(ii) Competitive situation

The industry was reorganized in the 1990s as demand for cement decreased, forming an oligopolistic domestic market comprised by a few large companies. However, the decline in demand has still continued, which makes demand and supply balance unstable. In addition, the market tends to become an oversupply of goods. Although cement has been exported in order to restore the balance, cement exports offer little profitability and should not be considered a complete safety valve for stabilize domestic supply and demand balance. In addition, cement products are difficult to differentiate from those of competitors and are always exposed to the risk of severe price competition. If supply becomes excessive, then, production must be adjusted to maintain prices. Conversely, excess demand could emerge in the short run given reconstruction demand following the earthquake and tsunami. JCR analyzes whether or not fair prices can be maintained, taking into account the supply-demand balance.

(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 in recent years, driven by rising demand in emerging economies. Prices of cement, in contrast, have remained low, partly because of sustained levels of excess competition, and cement makers have sought to improve or maintain profitability 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 fair prices are achieved and a sustainable system is built, they must be considered as negative factors in determining a credit rating.

In fact, fair prices are likely to be hard to achieve, largely because of the susceptibility of cement manufacturers to excess supply and difficulties in product differentiation. Meanwhile, the conditions of the ready-mixed concrete industry, the principal buyer of cement, are also influential. This industry has similarly had problems with excess capacity, which must be eliminated to adjust the scale of production and placement. The adjustment of cement prices also requires action by the ready-mixed concrete industry, and JCR will monitor future changes in this industry.

(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, major changes in the market shares of the leading manufacturers are unlikely unless another industry shakeup substantially alters the production capacity of each company. The lower-ranking manufacturers, on the other hand, need to examine their sales systems. Caution must be used if any or all of the cement products are sold on consignment, as the risk of the products being used as a safety valve when demand falls increases, and may cause a serious setback in sales.

(ii) Adjusting supply capacity

Amid the continuous decline in the demand for cement, consistent 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 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 is also tracking trends such as alliances involving the integration of production and other means.

(iii) Room for rationalization

Because the domestic cement market is not expected to grow, ongoing cost reduction is essential for maintaining and improving profitability. It is important for cement companies to cut the costs of production, but also of distribution by streamlining service stations or reducing the number 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 makers to collect waste and the degree to which that contributes to earnings.

(iv) International business development

With no potential seen in the future of the domestic 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 still rising.

In these markets, however, competition is fierce, as the world's largest cement manufacturers—with overwhelming financial strength—are already exists. Yet overseas expansion is a must if Japanese cement makers are to find new demand to offset the shrinking domestic market. The contribution to revenue of their overseas businesses will be confirmed.

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

Cement manufacturers are entering new businesses such as the collection and sale of limestone and aggregate, the production and sale of building materials, and electronics and ceramics. While these businesses are not sufficient in themselves to offset the fall in earnings from cement, the development is appropriate if it helps stabilize revenue in the future. Meanwhile, in view of asset efficiency and the need to reduce interest-bearing debt, unprofitable businesses with 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 makers must find a way to improve earnings strength in the context of limited sales. 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 in overseas markets are highly profitable, however, and 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 makers maintain a certain capacity to generate cash flow even with falling earnings. Although investment in production facilities is controlled, given fears of overcapacity, 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

Cement manufacturing is a process industry, and manufacturers consequently carry a heavy burden of capital expenditure, which in turn means they have considerable interest-bearing debt. This debt may well 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 trends in 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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