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ICRA Rating Feature

This methodology note stands superseded. Refer to ICRA's website www.icra.in to view the updated methodology note on the sector.

Rating Methodology for Entities in the Cement Industry

This rating methodology updates and supersedes ICRA's earlier methodology note on the sector, published in January 2013. While this revised version incorporates a few modifications, ICRA's overall approach to rating entities in the sector remains materially similar.

The methodology aims to help issuers, investors and other interested market participants understand ICRA's approach to analysing risks that are likely to affect rating outcomes in the cement industry. This document does not include an exhaustive discussion of all the rating factors that our analysis considers, but provides an overall perspective of the considerations that are usually the most important.

Overview

The Indian cement industry is the second largest in the world, with a total installed capacity of around 415 million tonnes per annum (MTPA) as on March 31, 2017 and cement production of 280 million metric tonnes (MMT) in FY2017. The industry occupies an important place in the national economy because of its strong linkages to other sectors such as housing, transportation, power, and construction.

Cement exhibits strong cyclicality, driven by the lumpiness in the capacity additions on the supply side. The industry is relatively insulated against global trends as the large freight component makes imports unviable. Thus, the competition in the Indian cement industry is largely restricted to domestic manufacturers. ICRA has observed that while no Indian cement entity, however strong, is immune to the cyclicality inherent in this business, companies with strong fundamentals are able to withstand the cyclicality better as compared with others. In addition to industry risks, ICRA's rating methodology, attempts to identify such entity-specific factors as locational advantages, proximity to consuming markets, cost efficiencies arising out of access to key inputs at competitive prices, and operating efficiencies for assessing business risk profile.

Rating Methodology

Following are the key rating factors that are assessed to assign ratings in the sector:

- **Industry Risk Analysis**
  - Regional demand-supply scenario
  - Government policies
- **Business Risk Analysis**
  - Scale of operations
  - Locational economics
  - Vintage of the plant, cost efficiencies and logistics
  - Product diversity and blending
  - Brand strength and marketing
- **Promoters/Management Quality**

- **Financial Risk Analysis**
  - Profitability margins
  - Capital structure, leverage and debt coverage indicators
  - Liquidity & financial flexibility
  - Sufficiency of funding availability
  - Adequacy of future cash flows

Industry Risk Analysis

Regional demand-supply scenario

Regional supply-demand scenario - Cement being a bulky low-value commodity is highly freight sensitive. A bulk of the cement produced within a region is usually consumed within the region itself, with the excess transported to adjacent regions. Thus, price trends and capacity utilisation levels in the cement industry are determined more by regional supply-demand dynamics than by the national supply-demand balance. Therefore, while rating a cement manufacturer, ICRA focuses on assessing the likely demand-supply scenario in the region in which the entity operates.

While projecting demand, ICRA takes into account past trends, the underlying economic growth drivers, and the cement-intensity of infrastructure projects planned and being implemented in the region. Similarly, ICRA attempts to project the likely supply position by looking at Greenfield and Brownfield expansion plans of manufacturers, besides low-cost supply additions through debottlenecking of existing capacities and blending[1]. Given the long gestation period for a Greenfield capacity addition, the cyclicality in the sector mainly arises on account of the bunching up of the capacity addition on the supply side, whereas the fluctuation in demand may not be significant.

ICRA assesses the capacity utilisation of the cement unit in comparison with the peers in its region of operations. While high capacity utilisation is a positive attribute which results in a better cost structure, it is seen in relation to the regional average. ICRA takes a favourable look at manufacturers with plants in different regions, as the geographical diversification usually allows players to better cope with the regional demand-supply volatility.

The domestic cement industry, which has traditionally been fragmented, has seen some consolidation off-late following a number of mergers and acquisitions. Such consolidation has also brought in a degree of supply rationalisation among manufacturers. As a result, cement prices tend to be steady despite significant supply pressures over the past few years. Thus, while rating a cement manufacturer, ICRA also takes into consideration the degree of consolidation that exists in the region(s) concerned, as that determines the extent of supply rationalisation and the intensity of pricing pressures.

Government policies

The auction of limestone mines is governed by the respective states, whereas royalty rates on limestone are notified by the Central Government. ICRA evaluates the impact on the contribution margins of the cement players on account of the increase in the royalty rate of limestone, given the commoditised nature of the product. Recent consolidation in the industry has brought in supply discipline as well as some pricing power to the cement players, however, this has also resulted in adverse regulatory action like the penalty imposed by the Competition Commission of India.

Apart from the above mentioned Government policies relating to rural housing, infrastructure development, incentives for urban housing (which are significant demand drivers), and captive power generation (covering cess, electricity duty and wheeling charges) also have a significant influence on the financial performance of the cement manufacturers.

Business Risk Analysis

[1] Clinker capacity is often a constraint in the production of cement. Blended cements are a blend of portland cement and a combination of any one or more supplementary cementing materials, such as slag cement, silica fume, or fly ash.

Scale of operations

Scale of operations for cement companies is measured in terms of revenues derived from sales volumes. Larger capacities result in better cost structure and offer the benefit of economies of scale for larger players. A larger scale, usually goes together with geographic diversity and reduces the regional demand and supply volatility.

Locational economics

The bulk of India's cement production capacity is concentrated in a few clusters, which are essentially regions where limestone is widely available, however, the major consumption centres are often states that are far away from these production centres. ICRA favourably views the entities that optimise the distance of the cement plants from the source of raw materials and the major consumption centres, and this supports the profitability over the long term on the strength of lower freight expenses.

In analysing the locational economics, ICRA also evaluates the strategies adopted by individual entities to offset their locational disadvantages, if any. One strategy, for instance, is to set up stand-alone grinding units close to the consuming markets and the clinker unit near the limestone quarry. This helps the manufacturers save the freight cost as clinker can be transported in open wagons or trucks. The benefit of this arrangement is even more marked in case the grinding unit is located close to a source of additive such as fly-ash or slag. Thus, ICRA assesses the entity's policy on setting up an integrated cement plant vis-à-vis having grinding units and clinker units at different locations and the cost versus benefits of the entity's approach.

Vintage factor of the plant, cost efficiencies and logistics

Vintage and cost efficiencies - Cement being a commodity item does not allow much premium pricing and thus most manufacturers are price takers in the markets they operate. In such a scenario, control over operating expenses is essential not only to maintain cost competitiveness and maximise profitability, but also withstand cyclical downturns, and is, therefore, one of the most important rating determinants. The major operating cost head for cement companies (apart from freight) is power and fuel. Power & fuel expenses in turn depend on two factors: the consumption norms, and the cost per unit of input consumed. Thus, ICRA analyses consumption norms such as kCal/kg clinker, kwh/kg clinker and kwh/MT cement produced for the manufacturer being rated. Since the power consumption norms for cement production can vary depending on the product mix, these are analysed with suitable adjustments to assess the efficiency. ICRA also assesses the manufacturer's efforts at reducing input costs through measures such as setting up captive thermal power plants[2], using economic sources of power from mini-hydroelectric plants, windfarms and so on, and using alternative fuels[3] that are available locally.

The vintage of a cement plant also influences its cost structure significantly. While an older plant enjoys the advantage of lower capital cost, such benefit is usually offset by higher power and fuel costs, significant repair and maintenance expenses, and generally higher manpower expenses. Size is another factor that determines the overall cost structure of a cement plant, as larger plants usually enjoy better control over infrastructure and overhead expenses.

Logistics - Cement manufacturers use a mix of rail, road and coastal sea transport to distribute their products. While rail transportation is more economical over longer distances, for shorter hauls road transportation is more cost-effective and reliable. Coastal sea transportation of cement, as on date, is limited in India because of the limited availability of infrastructure, and is largely confined to supplies by shore-based manufacturers in Gujarat to Mumbai and its neighbourhood. ICRA assesses a manufacturer's logistics development efforts in terms of reliability and cost.

Product diversity and blending

Ordinary Portland Cement (OPC) accounts for one-third of India's cement production and is widely used in the construction industry. Recently, cement companies have been popularising the use of blended cement/ Portland Pozzolana Cement (PPC), with the result that the proportion of PPC in the total production has

[2] as the full cost of producing thermal power based on either domestic or imported coal is substantially lower than grid power
[3] such as lignite, petcoke or agro-waste

increased over the years. The cost of production of PPC is lower vis-à-vis OPC as the cost of additives such as fly-ash and slag (which are used in the production of PPC) is usually lower than the cost of clinker. Further, PPC allows a manufacturer to produce more cement using the same amount of limestone and clinkerisation capacities. A cement player manufactures OPC/PPC based on the contribution margins from these products. Therefore, ICRA views favourably companies with a demonstrated ability to develop and promote blended products, as also special products such as oil well cement, railway sleeper cement, and sulphate resistant cement, in addition to the OPC.

Brand strength and marketing

Brand equity remains a largely regional factor (given that sales are regional), with some local players enjoying considerable brand equity in their areas of operations. ICRA views favourably sustained efforts by manufacturers towards brand development, as it expects brand strength to allow market acceptance in the long term. ICRA looks at the market share of an entity across geographies while assessing an entity's brand strength and market presence.

Management Quality

All ratings necessarily incorporate an assessment of the quality of the entity's management, as well as the strengths/weaknesses arising from the entity's being a part of a "group". Also of importance are the entity's likely cash outflows arising from the possible need to support other group entities, in case the entity is among the stronger entities within the group. Usually, a detailed discussion is held with the management to understand its business objectives, plans and strategies, and views on past performance, besides the outlook on the (entity's) industry.

Some of the other points assessed are:

- Experience of the promoter/management in the line of business concerned
- Commitment of the promoter/management to the line of business concerned
- Attitude of the promoter/management to risk taking and containment
- The entity's policies on leveraging, interest risks and currency risks
- The entity's plans on new projects, acquisitions, expansion, etc.
- Strength of the other companies belonging to the same group as the entity
- The ability and willingness of the group to support the entity through measures such as capital infusion, if required

Financial Risk Assessment[4]

Apart from the operational risk profile, the rated entity's financial profile is also an important consideration from a credit perspective. While ICRA believes that the strong operational profile drives strong financial profile in long-term, however the financial profile of the entity is also governed by the risk appetite and growth plans of the management. Accordingly, while assessing the financial risk profile, apart from the past and the current financial position, ICRA also takes note of the growth plans of the entity and its impact on the financial position in future. The past and the current financial position can be analysed by the financial statements of the entity, financial ratios and suitable adjustments in accounts to align them with accounting principles and also make them comparable for meaningful peer comparison.

Profitability

Given the commoditised nature of cement and market participants being price-takers, profitability of a cement manufacturer is primarily a function of its cost structure and product mix. However, since cement is a cyclical industry the profitability of the companies in this industry varies significantly along the cycle. Nevertheless, producers having cost structures better than the industry median level can generally be expected to remain profitable across cycles. The profitability margins in terms of ratios like OPBDITA/OI (Operating profits before depreciation, interest and amortisation / Operating Income) and PAT/OI (Profit After Tax / OI) are seen in relation to changes in contribution margins and OPBDITA/MT of cement sold. The revenue and various cost items are analysed on per MT of cement sold and produced to ascertain the

[4] Refer to ICRA's approach for Financial Ratio Analysis for more information on ICRA's assessment of financial ratios

reasons for changes in the profitability and these parameters are compared with relevant peers in the market to ascertain the reasons for efficiency/in-efficiencies.

Higher OPBDITA margins are also seen in relation to the return on capital employed (RoCE[5]). While the entity may have an OPBDITA margin similar to or better than the industry average, but in case the RoCE is lower, then the reasons for the same are analysed, which could be lower fixed asset turnover than the industry average.

Capital structure, leverage and coverage metrics

Companies that pursue an aggressive financial policy, including heavy reliance on debt financing, are likely to be more vulnerable to cyclical downturns than companies that have a lesser degree of financial leverage in their business. ICRA takes into account the financing pattern of long term and short term assets with reference to the entity's long-term and short-term debt.

Some of the key indicators assessed by ICRA include –

- Leverage indicators: Total Debt/Tangible Net Worth, Total Outside Liabilities/Tangible Net Worth, Total Debt/OPBDITA, Net Cash Accruals/Total Debt
- Debt coverage ratios: Interest Coverage, DSCR

Liquidity & financial flexibility

The cement industry is not significantly working capital intensive as the inventory levels and the credit period to the dealers is generally limited. Hence, the short term funding requirements are limited. For an entity with an operational project, ICRA assesses liquidity by analysing the trends in working capital limit utilisation. ICRA also evaluates the entity's relationships with banks, financial institutions and other intermediaries, its financial flexibility - as reflected by its unutilised bank/credit limits, cash balances and liquid investments besides assessing the financial strength of the promoter group to infuse funds to meet cash flow shortfall, if any.

Sufficiency of funding availability

While an entity may have DSCR >1 over the projected period, despite a satisfactory DSCR, the entities, which are experiencing high growth may find themselves stretched on liquidity as their incremental funding requirements may be much higher than the cash generation. In such cases, ICRA analyses the sufficiency of the cash accruals (after meeting scheduled repayment) to fund the targeted growth. The funding requirements can partially be met through additional debt, however, even in such a scenario, the lenders seek at least the margin funding from the borrowers. Hence if the projected levels of cash accruals (after repayments) are lower than the margin funding requirement for capital expenditure and enhanced working capital requirements, then despite a satisfactory projected DSCR, the entity may find itself stretched on liquidity. In such a situation, the financial flexibility of the entity to fund its growth requirements is seen as an important factor.

Adequacy of future cash flows

Since the prime objective of the rating exercise is to assess the adequacy of the entity's debt servicing ability, ICRA draws up projections on the likely financial position of the entity under various scenarios of capacity utilisation and contribution margins (which are analysed based on the outlook on the cost structure and sales realisations). Besides, ICRA takes into account the commitments of the entity towards other group companies, and its investments in new ventures.

Foreign currency-related risks

For companies in the cement industry, while the revenues and costs are mostly denominated in Indian rupee, however, they can still have risks arising because of foreign currency movements due to their dependence on imported coal. The entities with high dependence on a single source of fuel (especially the imported) may see volatility in costs not only because of volatility in international coal prices but also because of currency vis-a-vis other players having access to diversified fuel sources. Additionally, the plant and machinery of the project could be imported and may be funded through foreign currency loans. An unhedged foreign currency liability in absence of corresponding foreign currency revenues may expose

[5] RoCE is defined as profit before interest and taxes / average capital employed for the year

companies to foreign currency risk. The focus here is on assessing the natural hedge available as well as hedging policy of the entity concerned in the context of the tenure and nature of its contracts with clients (short term/long term, fixed price/variable price) to mitigate such risk for the net exposure.

Accounting quality

Here, the accounting policies, notes to accounts and auditors' comments that are part of the annual report are reviewed. Any deviation from the Generally Accepted Accounting Practises is noted and the financial statements of the entity are adjusted to reflect the impact of such deviations.

Contingent liabilities/Off-balance sheet exposures

In this case, the likelihood of devolvement of contingent liabilities/off-balance sheet exposures and the financial implications of the same are evaluated.

Summing up

ICRA's credit ratings are a symbolic representation of its opinion on the relative credit risk associated with the instrument being rated. This opinion is arrived at following a detailed evaluation of the entity's business and financial risks, its competitive strengths, its likely cash flows over the life of the instrument being rated and the adequacy of such cash flows vis-à-vis its debt-servicing obligations and other funding requirements. The credit profile of the cement companies involves an assessment of geographical diversity, raw material security, cost competitiveness, product diversity, management strategies for managing cyclical downturns and an overall approach towards investment and growth. The operational strengths are typically reflected in financial performance; however, the financial risk profile for the entity is also governed by its future growth plans and the ability to fund the same.

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