Rating Methodology – Construction Sector

[In supersession of "Rating Methodology – Construction Sector" issued in November 2019]

Industry Overview

The construction industry contributes around 8% to India's Gross domestic product (GDP) and has an important role in the development of infrastructure in the economy.

The companies operating in the sector include contractors which derive revenue from execution of projects broadly classified under three heads - (I) Civil Infrastructure, (II) Industrial Infrastructure and Real Estate. The civil infrastructure space includes segments such as transportation (roads, bridges, tunnel, railway, ports, civil aviation), utilities (dams, power) and urban development. Industrial infrastructure includes construction work associated with manufacturing units of various industries like steel, textile, cement, chemicals, etc. The construction work in the real estate segment pertains to construction of buildings for commercial/residential purpose, hospitals, malls, educational institutes, etc.

The civil infrastructure projects are generally undertaken at the instance of the Government with some projects, particularly in the transportation segment, undertaken through Public–Private–Partnership (PPP) route. The private players may operate as both contractor as well as developer/sponsor of such projects. The urban development projects under civil infrastructure are primarily undertaken by the Government entities. There has been an increased focus of the Government on the urban development front with a large budget allocation and several projects tendered in the segment over the past two-three years. The projects in the industrial and real estate space are initiated both by the public as well as private sectors.

Characteristics

Close linkage with the economy

The contribution of construction to GDP has been about 8% over the past several years. Growth in infrastructure is critical for development of the economy. Focus on developing infrastructure in the country like roads, rails, airports, power, ports, etc., in turn results in growth in construction activity. The industry depends significantly on budgetary allocation and government spending on infrastructure development.

Highly fragmented

Construction industry in India is highly fragmented. There are few large, organised players and a considerable number of medium and small-sized players in the industry. These would also include players operating as subcontractors.

High working capital intensity

Construction contracts are associated with relatively large working capital requirement (mainly non-fund-based). The working capital requirement depends upon a host of factors like size of the project, order mix, tenure, clientele, project advances associated with the order and credit policy of the company. Majority of the projects are labour intensive and accordingly, construction industry is the second-largest employer in India after agriculture. However, off-late the construction activities across real-estate; urban development and civil space are getting mechanized with specialized construction equipment being used for faster project execution.
The industry largely operates on a milestone-based payment mechanism for the contracts linked to physical and financial progress on the project. Delays in receipt of dues from clients along-with delays in project execution results in receivable and inventory build-up and increase in working capital requirements.

Rating Methodology

Considering the size and diversity of the construction sector, CARE has developed a methodology for the sector which attempts to analyse factors, over and above the broad corporate rating methodology. This methodology is used to analyse entities operating in the Engineering, Procurement and Construction (EPC) space.

CARE's rating process begins with a review of the economic as well as industry scenario in which the entity operates along with an assessment of the business risk factors specific to the entity. Analysing industry factors includes analysis of demand in terms of infrastructure requirement as well as industrial and real estate construction expected in the area catered to, level of competition in the sector and geographies in which the entity operates, financing options and interest rate scenario, inflationary factors affecting the input cost, etc. This is followed by an assessment of the financial and operational risk factors and quality of management of the entity. The various sub-elements of each risk factor are described below-

A. Management Evaluation

CARE interacts with the management of the entity to understand the management's vision, focus and growth strategy. Management evaluation includes evaluation of experience of the management in the industry, quality of accounts and nature of related party transactions, among others.

The quality of accounts is assessed on studying the company's accounting policies towards revenue recognition, disclosures on contingent liabilities and extent of unbilled revenue.

For more details on management evaluation, please refer to CARE's 'Rating Methodology – Manufacturing Companies*' which is available on our website* *www.careratings.com*

B. Business/Operation Risk

Evaluation of the track record of the entity in the industry and execution capability is critical for business risk analysis as it would determine the ability to get new orders. An assessment of the order book indicates the revenue visibility and profitability.

Evaluation of past projects executed

Assessing the size and past track record of the entity is a key factor in assessing its future prospects. The entity's overall size indicates the scale of projects that it would be able to bid for, whereas past track record indicates the competence and ability to execute projects efficiently. Major projects executed in the past are evaluated including details with respect to the size of the projects, type of clientele and complexity level of projects.

Order book analysis

The order book of a construction company summarizes the core business activity of the company and is the most important exhibitor of the business profile of the company in terms of revenue visibility. For assessing revenue visibility, slow-moving/passive orders are excluded from the order book. Furthermore, status of requisite approvals required for project execution is also ascertained to gauge the revenue visibility. Land acquisition, Right of Way (RoW), Environmental / Forest Clearances, financial closure are among common factors which impact the project timelines affecting the status of order book.

The construction contracts, by terms of agreement, can be classified as, lump-sum contracts, item-rate contracts, cost-plus-percentage contracts, cost-plus-fixed fee contracts, turnkey contracts, etc. Raw material/input prices are the major determinant of the cost of contracts along with labour cost. Any steep rise in the input prices due to macro-economic factors and/or delays associated with the project execution may have an adverse bearing on the profitability of the companies in case of fixed-cost contracts. Companies having majority of contracts with in-built escalation clauses may be viewed favourably. However, the cost escalation may be linked to Wholesale Price Index (WPI) or any other index and any cost increase higher than the Index may limit the benefit from the presence of escalation clause.

Diversity and credit quality of counterparty

A company which operates across various segments and geographies is more protected against a slowdown or issues in a particular segment or geography as compared to a company with high concentration in a particular segment or geography. Further, diversification can be seen on the basis of total number of orders, clients, nature and size of projects undertaken, etc.

CARE also ascertains the credit profile of the clientele for whom the work order is being executed. Client composition is important in ascertaining the liquidity associated with the work orders. The bifurcation can be broadly in terms of central government, state government or various state departments, private clients and Principal/Sub-Contractor. Assessment of the credit quality and payment track record of the respective counterparty, state's Budgetary Allocation toward infrastructure and designated funding authority enables assessment of the cash-flow adequacy of projects. Largely, the construction orders are obtained through participation in tenders floated by the various Authorities (except private orders) and composition of orders based on mode of receipt, i.e., through direct participation in bidding or sub-contracted. Order received through direct participation is usually associated with higher margins vis-à-vis sub-contracted ones. High proportion of sub-contracted orders may be due to lack of adequate technical/financial qualification to participate in the tender, track record of project execution, etc. In case of subcontracts, the credit quality of both the principal contractor and the client is assessed.

Order book to total operating income

Order book to gross sales ratio gives an indication of the future revenue potential and visibility for the medium-term. A very high order book to sales ratio may be a constraint from a credit perspective, if the company does not have adequate resources to fulfil its contractual obligations or may also be an indication of some delayed/stuck orders. On the other hand, a lower ratio indicates lesser revenue visibility. Hence, this ratio should be at an optimum level and is looked at in light of resources availability and execution capability.

Apart from the outstanding order book, CARE also ascertains the value of bids that the company has participated in, the volume of orders classified as lowest bidder (L1 status) which reflect the orders having high potential to be converted into firm orders, the order flow during the past three years which determine the volatility of order book, etc. CARE also tries to ascertain the reserve price, corresponding L2 (second-lowest bid) and L3 (third-lowest bid) value of the tender award received by the company to understand the associated margin with the order and whether the company has done aggressive bidding to enhance the order book while sacrificing on the profitability.

Resource availability and execution capacity

The execution capacity of the company is analysed considering its equipment base, past project execution track record, technical expertise demonstrated, manpower availability and extent of sub-contracting. Furthermore, most construction projects require a host of clearances and approvals at various stages which adds to the execution risk in these projects due to probable delays.

The availability and adequacy of resources w.r.t manpower, labour contractors, construction equipment play a prominent role in determining the ability to meet the project timelines and also impact the profit margins of the construction companies.

CARE undertakes assessment of the work expense and sub-contracting expense vis-à-vis cost of sales and a higher sub-contracting cost for relatively smaller firms/companies often indicates limited execution capabilities and resource availability.

Construction entities usually do not operate on fixed asset intensive model with exceptions constituting entities involved in projects of complex nature requiring specialised equipment.

However, requirement of faster work execution along with increased efficiency has triggered the development of the construction equipment industry which is gradually resulting in increased spending on the fixed assets by the construction companies. In this context, the Fixed Asset Turnover (FAT) ratio (Total Operating Income/Average Gross Block) throws light on the efficiency to utilize the available fixed assets and also dependence on own v/s leased equipment. Higher FAT ratio in construction companies may be reflection of labour-intensive work orders or high dependence on leased equipment. Lower FAT ratio may signal inefficient/sub-optimum utilization of the fixed assets. However, FAT ratio is compared with the peers operating in similar segment as standalone look at the ratio itself may not give a fair view. Besides, trend of fixed asset addition in tandem with composition of the order book is also viewed. A higher fixed asset addition, over the years, may reflect the changing composition of the order book and require understanding of the company's plan on its fixed asset investment and funding.

Profitability trend

Profitability is an important indicator of the operational efficiency of the company. Profitability levels can vary widely within the industry depending on the range of value-addition activities carried out by the company (ranging from large-scale contractors to subcontracting companies) as well as the competitive bidding process, leading to refined margins. The operating margin will be higher for entities executing complex and niche projects. Entities having largely fixed-price contracts in the order book witness volatility in margin due to adverse movement in input costs which cannot be passed on.

Furthermore, the operating margin can be impacted on account of hiring charges and higher sub-contracting charges for entities not having own resources in terms of machinery and labour. Entities having own equipment will have higher operating margin and higher depreciation cost.

Also, a company's financing capabilities can be judged on the basis of net profit margin as interest cost is typically higher for companies finding difficulties in raising finance. Net profit margin will be higher for companies able to procure interest-free mobilization advances or other cheaper financing options.

Working Capital Management

A longer collection period which is not in line with peers operating in similar segment or as per contract terms indicates delays in payments from the clients which could lead to the entity utilizing excess outside borrowings in order to service newer projects, leading to strain on the debt profile. Apart from receivables, CARE also considers retention money (including retention money not due) and unbilled revenue as part of debtors while calculating collection period so that a realistic operating cycle is arrived at. Furthermore, information with respect to receivables under arbitration/dispute and ageing of debtors is sought for, if required, to check whether such debtors are realisable.

Apart from inventory of raw materials and stores, construction companies also have work-in-progress for various contracts which have not reached billing stage. The inventory period is analysed to see whether there are any projects which are stuck for long.

A part of the funding requirement is met through creditors and often construction entities have back to back arrangement with sub-contractors and payment to them is made on receipt of dues from debtors. The creditor's period is also analysed to see whether the company is stretching payments to its suppliers or sub-contractors due to liquidity issues.

CARE also looks at the gross current asset days to analyse the working capital requirement.

C. Financial Risk

While assessing the financial risk of the entities operating in the construction industry, CARE analyses the revenue, profitability, cash flow, capital structure and turnover ratios. Further, off-balance sheet exposures are also critically examined with respect to the size of the company.

Scale of operations

The scale of operation of the entity and trend of gross billing for the last few years exhibits the stability of operations of the entity. Growing trend in gross billing indicates the ability of the company to consistently secure orders and steadily execute them.

Capital structure and coverage indicators

CARE tries to ascertain the leveraging policy adopted by the management for the project execution in terms of reliance on mobilization advances, external credit lines or own funding for

working capital requirement and dependence on subcontractors. The same in turn is correlated to the profitability.

Debt in construction entities is largely in the form of working capital borrowings to fund the operating cycle. Term loans mainly comprise loans availed for acquiring construction equipment. Construction entities also avail mobilisation advances from their clients towards the construction jobs done by them. These advances are a stable source of funding for construction contractors and may be interest free or interest bearing, depending upon the terms of the contract. However, the entity is generally required to furnish bank guarantee against all such advances. CARE considers such advances as part of debt for its analysis as these are backed by financial guarantees.

Apart from bank borrowing and advances, a part of the working capital requirement is met through creditors. Therefore, apart from debt-equity and overall gearing ratio, CARE also looks at the ratio of Total Outside Liabilities to Tangible Networth.

To assess the ability to timely service debt, CARE looks at the coverage indicators including interest coverage, term debt/Gross Cash Accruals (GCA), total debt/GCA, total debt/Cash flow from operations and debt/PBILDT, and debt service coverage ratio (DSCR).

However, in construction entities, since the operating cycle is long and significant amount of funds may be blocked in the form of inventory, debtors, unbilled revenue and retention money, CARE also looks at the Cash DSCR. Cash availability is also adjusted for investment commitments/support to be extended to special purpose vehicles (SPVs) sponsored by the entity and proposed sources for funding the same. The availability of sanctioned and unutilised bank limits is also factored in while assessing the cash flow position. CARE also looks at the trend of monthly billing and collections to analyse the cash flow position.

Companies having a positive cash flow from operations are viewed favourably, while companies having a negative cash flow from operations due to higher collection period or slow-moving projects may have to resort to external sources of funding to meet its operational needs and repayment obligations.

Off-balance sheet exposures

Construction companies often have significant off-balance sheet items in the form of contingent liabilities as well as other non-fund-based exposures which are required for the normal functioning of the business. Contingent liabilities in the form of corporate guarantees are treated as debt of the entity being rated depending upon whether the guaranteed entity is in a position to repay its debt. The EPC companies have large requirement of non-fund-based limits such as Bank Guarantees (BG) which can be broadly summarized as following -

- BG for submission as bid bond guarantee for participation in tenders/project bidding
- BG for submission as Performance guarantee - post confirmation of tender/project award
- BG for availing mobilization advance, as applicable
- BG for releasing the retention money deposit.

Hence, given the requirement of BG at various stages of operation, CARE analyses the utilization of the sanctioned BG facility/availability of the BGs with the company to understand the business growth prospect and requirement of cash margin against such BGs.

The analysis of these guarantees is also done based on the past track record of invocation of any such guarantees. Effect is considered in calculation of potential gearing.

For more details on Financial ratios, please refer to CARE's methodology on ***'Financial Ratios-Non financial sector entities'*** *which is available on our website www.carertings.com*

Liquidity Assessment and Financial Flexibility

The management's approach and track record of maintaining sufficient liquidity cushion and entity's financial flexibility to access long-term funds is assessed. Liquidity cushion available with the entity in the form of cash or cash equivalents against its upcoming obligations is analysed to monitor any cash flow mismatches. CARE also assesses un-utilised bank lines and sanctioned undrawn limits to analyse the liquidity cushion. Financial flexibility could also depend on other factors such as the entity's parentage, scale of operations and its level of leverage.

Exposure to projects under Public Private Partnership (PPP) model

Many construction entities have ventured from core construction activities to investment in projects under PPP model like Build-Operate-Transfer/Build Own Operate Transfer (BOT/BOOT), Hybrid Annuity, real estate development, etc. The change in business model from pure play EPC

contractors endeavoring to graduate to developers has resulted in these entities assuming various additional risks (funding risk, legal issues, post implementation risk, throughput risk, etc.) and increase in debt burden for these entities. The financial risk assumes higher proportions for entities with significant exposure to their associates/special purpose vehicles (SPVs)/subsidiaries engaged in asset developmental activities, as the asset developers, in general, may not have adequate cushion to absorb hike in interest rates and commodity prices, and in turn, rely on their sponsors (promoters) for any tangible and intangible support. The debt availed by the SPVs is usually guaranteed by the sponsors or supported through sponsor undertakings. Furthermore, funding support may be required till the project generates cash flows. The nature and extent of support to SPVs are factored in the rating analysis.

While analysing such entities, CARE assesses the standalone profile of the entity and makes suitable adjustments in the leverage and coverage ratios considering the execution risk associated with the projects, guarantees extended, sponsor commitment towards the project and cash inflow/outflow estimations for such investments.

D. Industry Risk

The construction industry is very closely linked with the economy, various macro-economic factors affects entities in the sector. CARE analyses demand in terms of expected infrastructure spending planned by the Government in various areas and various schemes announced to boost infrastructure spending. The demand in industrial and real estate construction space is analysed considering the economic activity in the country or area in which the company operates. CARE also analyses the lending scenario towards construction sector to assess the ease of availability of bank finance in the sector. The tight lending scenario or heightened risk perception of the sector by the lenders leads to lower availability of the fund-based and the much-needed non-fund-based limits which may potentially stifle growth.

The industry is highly dependent on the impact of changes in the government regulations, and policy thrust on infrastructure spending by the centre and the states. CARE keeps track of the overall investment scenario in sectors that affect the construction industry to assess the sector outlook.

Conclusion

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals of the rated entity. CARE's Rating Committee based on its experience and holistic judgement analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality by also taking into account the industry's outlook. While the methodology encompasses comprehensive, financial, commercial, economic, and management analysis, credit rating is an overall assessment of all aspects of the issuer.

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CARE Ratings Limited

4th Floor, Godrej Coliseum, Somaiya Hospital Road, Off Eastern Express Highway, Sion (East), Mumbai - 400 022.

Tel: +91-22-6754 3456, Fax: +91-22- 6754 3457, E-mail: care@careratings.com

Website : www.careratings.com

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