

## Rating Methodology - Port Projects

[In supersession of 'Rating Methodology - Port Projects' issued in [December 2019](#)]

### Industry Overview

India has 7,517-km long coastline with 12 major ports and 205 notified minor and intermediate ports, which handle bulk of India's international trade. Furthermore, under National Perspective Plan for Sagarmala, 6 new mega ports will be developed in the country. The primary responsibility of development and management of major ports is with Central Government. These ports are governed by the Major Port Trusts Act, 1963. The non-major ports are administratively under the state government and are governed by the Indian Ports Act, 1908. Operations of the Indian ports are characterized by full utilization of capacities at the major ports, inefficient handling, poor maintenance, labour issues and draft constraints. On the other hand, development of new minor ports has been affected by inadequate connectivity with the hinterland, absence of multi-modal connectivity to and from the ports and the differential royalties and revenue-sharing models of the ports. Permission for 100% FDI under the automatic route for port and harbour construction and maintenance projects and encouragement for PPP in non-major ports has helped in the growth of private participation in the sector. Besides, Government of India is working towards corporatization of a few ports.

With a view to streamline the operations of the ports and enable India to increase its share in global trade, the port sector requires huge investments over the next few years. Most of this investment is envisaged from the private sector depending upon the commercial viability of the project.

### Rating Methodology:

CARE has developed a rating methodology for port sector projects keeping in view the operating environment for Indian ports. This criteria is used to rate debt raised by maritime ports across India and applies both to whole port enterprises and single/multiterminal facilities with an operational history that may be under a variety of ownership models. This criteria also applies to enterprises that own port facilities in multiple locations.

#### 1. Operational/ Business Risk Evaluation:

The parameters considered for Business Risk assessment are broadly categorized into Operating Port entities and Green Field/ Expansion Port projects.

**Operational Ports Risk Assessment:**

The following parameters are analyzed in the operational ports for the business risk assessment:

**Capacity, ability to handle large-sized vessels and type of cargo:** This is a function of number of berths available and draft/ draught available at the port and the onshore facilities available for handling larger and different types (Bulk, Wet and Container) of cargoes. Ports need to undertake dredging in case if the natural draft is not available. Channels which are dredged need to carry out maintenance dredging to ensure adequate draft at all points of times. Presence of cargo handling facilities such as cranes, tractor-trailers and stacker-reclaimers and presence of large back-up storage facilities results in handling larger-sized vessels (Capesize/ Suezmax), as they quickly unload the cargoes to reduce the dwell time and improve turnaround time. High level of mechanization in material handling also enables the port to manage high discharge rates, which determines the type of logistical solutions it is able to offer to its end consumer as compared to its competing ports. Ports having onshore facilities such as open, covered and liquid storage farms to handle wet, bulk and container cargoes are viewed positively.

**Location and multimodal connectivity:** Availability of air, rail and road connectivity for evacuation of cargo is essential for port's competitive advantages. For rail, the presence of dedicated lines connecting ports to inland destinations are viewed as credit positive. With the rise of containerized shipping in recent decades, efficient access to rail, road, and waterway networks drives competition for transit cargo, with local and mid-distance destinations largely served by truck and greater distances served by rail or waterway. Shipping of cargo to more distant inland destinations or transit markets can be a key revenue driver. For ports with cruise operations, proximity to airports or complementary leisure facilities is considered. For import and export markets, proximity to major population centers with good intermodal connections is viewed as credit positive.

**Cargo and Revenue Mix:** Vessels are classified on the basis of the type of cargo carried by them, viz., Bulk carriers, Tankers (Crude Oil), Container shipping and Specialized Vessels. Top commodities handled at Indian ports are petroleum products, coal, iron ore, engineering goods, chemicals and electronics. The flexibility and the ability of handling different kinds of cargo are the key operating risk sensitivities to counter change in products portfolio of ports. Few commodities whose traffic can be affected by regulatory actions (e.g., iron ore, coal) and project delays of counter parties (e.g., power plants importing coal) can have adverse effect on revenue. Furthermore, high concentration of single commodity can impact ports when the domestic demand-supply gap reduces. Therefore, ports having diverse cargo mix are likely to have relatively better stability in cash flows.

**Customer profile and degree of diversification:** Ports having high number of credit worthy customers and diversification in revenue contribution enables the ports to generate stable cash flows. Having credit worthy customers enables the port operators in timely realization of receivables.

**Revenue Risk – Price:** Ports having flexibility to modify tariffs (raise or reduce) without having any regulatory interference, are able to improve the revenue in high demand scenario or limit the exposure to throughput decline in response to volume changes. Further, the ports having long-term contracts, including MAG or similar take or pay arrangements or short-term agreements are able to reduce the volatility in the cash flows.

**Productivity and Labour Relations:** Labour productivity is one of the competitive factors in port operations. The overall operating efficiency of port operations is measured by Average Turn Around Time (ATT) in days, dwell time in hours and average output per ship berth day (in tonnes). Ports offering single window clearance systems services (from Stevedoring to Custom Clearances), which utilizes the fully mechanized systems are favorably placed in terms of competitive position due to high productivity and operating efficiency offered by it compared to its peers.

**Adaptation of Technology and integration of Stakeholders:** Assessment of ports adapting digital and smart (IOT) technologies enables smooth integration of the stakeholders in the port ecosystems. Smart Port Technologies- Digital based, multi stakeholder systems, using the platform to reconfigure basic functions, thereby improve operations, without major investments in new infrastructure and equipment.

**Green Field Ports/ Expansion Projects Risk Assessment:**

CARE examines the broad parameters of the project based on the detailed project report submitted by the client. The following are key factors analyzed by CARE while arriving at the rating of Greenfield port/ Expansion port entities.

**Status of Statutory and Regulatory Clearances:** Port project is subject to various type of clearances and approval like land clearance, fire clearance, environmental clearances, coastal regulation zone clearance, DGTD/CCI&E confirmation related to automatic clearance for the import of capital goods and Raw materials, labour license, etc. The presence of adequate clearances is viewed positively.

**Capital Structure and Funding Risk:** CARE critically evaluates the status of infusion of promoter funds, status of debt tie-up, pre-disbursement conditions and critical covenants of tied-up debt (viz., interest rate, moratorium period, repayment period, structuring of repayments, cash flow waterfall mechanism, TRA, subordination of the promoter's contribution infused in other than equity form, etc.). Project having financial closure in place with clear visibility of equity funds are viewed as credit positive.

The capital structure is evaluated to assess whether the debt-equity ratio is in conformity with port projects of a similar size, complexity and revenue potential. The average cost of debt and the foreign exchange component in debt is also considered.

**Credit worthiness and track record of EPC Contractor:** Port projects can have varying complexity levels, depending on the availability of required land in its entirety, nature of the waterfront, tidal variations, design specifications, etc. Thereby, it may run in to cost and time over run leading to implementation risk. Hence, the experience of the EPC contractor in executing similar projects would be favourable for mitigation of construction risks to some extent.

**Quality of EPC Contract:** The quality of the EPC contract is assessed by examining whether the contract was awarded on a competitive basis or the contract was given to the Sponsor entity or one of its group companies. Furthermore, fixed-price, fixed time contracts with adequate clauses for liquidated damages are usually the mitigants against construction risk, as this risk essentially gets transferred to the EPC contractor and it is viewed as credit positive.

## 2. Regulatory Risk:

Apart from various regulatory aspects, CARE looks in to the following aspects while rating a port entity since the change in regulatory environment is constant in ports sector.

**TARIFF RATES:** CARE reviews the port's practical feasibility to revise tariffs, protecting cash flow generation and allowing the port to raise revenues or limit the exposure to throughput declines in response to volume changes. The extent of flexibility available to a port entity in revising tariff structure is examined critically.

Currently, the tariff rates for the terminals of major ports are set by Tariff Authority for Major Ports (TAMP). However, the non-major ports have better flexibility in term of fixation of tariff structures. The Major Ports Authority Bill, 2016, proposes delegation of power to fix rates for services and assets to the Board of the Port, and the regulation of tariff by TAMP is to be removed.

**Environmental Risk:** CARE examines the environment risks associated with the operating ports and the extent of the entity's compliance in relation to the legal framework in India. Environmental risk arises from port operations such as ship discharges & emissions, spills and leakages of hazardous materials, etc. Apart from this, the construction activities take place both offshore and on land, leading to disposal of dredged materials, construction of breakwaters and environmental impact due to the construction activities. Port entities having all approvals/clearances from MoEF and other statutory bodies are viewed positively.

**Force Majeure Risk:** Ports are exposed to force majeure events such as natural calamities, fire, pandemic or other disruptions in operations. The risks are mitigated through insurance to an extent and further provisions are given in the Concession Agreement to safe guard the investments of the operator. CARE also examines termination clauses, mechanism for settlements compensation at the time of termination of agreement and possible impacts on its debt protection metrics.

**Other Aspects:** CARE evaluates the various regulatory risks like government policies and procedures, environmental regulations and political risk, etc.

### 3. Financial Risk Evaluation

The foremost objective is to assess the entity's ability in debt servicing for which CARE uses the cash flow-based model. The Future Cash flows for the port projects are projected after considering the entity's existing capacity utilization, ability to command price for its services offered, trend in growth, debt repayment schedule, capex requirements and its funding options. CARE also considers commitments of the entity towards other group entities and its investments in subsidiaries/SPVs. The cash flows thus arrived are used to determine the entity's debt servicing capacity for the projected years. In case of group consisting of multiple entities with strong operational and financial linkages, the cash flows are assessed at the consolidated/ group level.

#### **Financial Indicators**

The following is a list of relevant financial indicators that are considered in CARE's analysis, on both historical and projected years.

**Debt Service Coverage Ratio:** CARE considers DSCR as one of the critical ratios to assess the relative debt servicing capability of the port entity. CARE analyses DSCR for the tenure of the debt, minimum DSCR during the tenure of the debt and DSCR during the next three to five years while analyzing the debt repaying capability of the entity.

**Leverage & Coverage Ratio:** As a general trend, port entities are financed at a debt equity ratio of 75:25 or 70:30. Furthermore, CARE looks at the total long-term debt / gross cash accruals ratio in ports to understand the number of years required to repay the balance outstanding debt at current level of operations. CARE critically looks in to debt repaying ability by analyzing the cash accrual generation from ports.

For evaluating detailed credit metrics, CARE Ratings follows its standard ratio analysis methodology in order to assess the financial risk of companies (please refer to CARE's Financial ratios – Non-Financial Sector on our website [www.careratings.com](http://www.careratings.com) ).

#### 4. Other Aspects Analyzed:

**Foreign Currency Fluctuation Risk:** Though ports have moderate share of income in foreign currency denominations, which is exposed to fluctuations in foreign currency. Port entities importing machinery, spare parts and having External Commercial Borrowings are exposed to fluctuation in foreign currency. Thus, the entity's hedging policy needs to be assessed for cash flow impact.

**Refinancing Risk:** Debt from banks/FIs for funding expansion plan for ports are available for a tenor of 3/5/7/10 years; it is exposed to the refinancing risk for varying degrees. So, while refinancing risk is in general considered as negative from a ratings perspective, the income generation ability of a port project is considered while assessing refinancing risk. As such, the impact of this risk on the credit profile of a port will differ on a case-to-case basis.

**Liquidity Analysis:** Port entity's revenue generation is highly correlated with domestic and international economic activity and there exists counter party risk in terms of realization of receivables, CARE considers that adequate liquidity back-up as an important rating consideration as debt repayments are normally evenly spread out (monthly/quarterly basis). For a port entity, liquidity back-ups are created primarily in the form of DSRA, which covers 1 to 2 quarters of interest and principal repayment obligations in the form of FDs or Bank Guarantee. Strong sponsor profile having track record for supporting entities by way of infusion of funds to address cash flow mismatch is viewed positively. CARE Ratings analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality. Peer comparisons are carried out as an integral part of the financial analysis. Mitigation of credit risk due to any credit enhancement provided is carefully evaluated before assigning the final rating.

#### 5. Promoter & Management Risk Evaluation

The evaluation of quality of management is an essential part of all rating assessments. CARE Ratings evaluates the management from different perspectives like financial capabilities, experience in the industry, track record in implementing and operating large projects and availability of technical manpower. Also, the commitment of the promoters/management to the business strengths/weaknesses of other group entities and the group's plans on new projects, acquisitions, etc, demanding funding support from the operational port project being analyzed is also critically examined.

For detailed note on evaluation of management risk: Refer to CARE's Rating Methodology- Infrastructure Sector Ratings (ISR) on our website [www.careratings.com](http://www.careratings.com)

## **Conclusion**

CARE analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality. The reduction in credit risk due to any credit enhancement provided is carefully evaluated before assigning the final rating.

While the methodology encompasses comprehensive analysis of the project implementation risks, demand analysis, regulatory framework, management evaluation and financial analysis, the credit rating is awarded on the basis of an overall assessment of all aspects.

**[Last reviewed in October 2020. Next review due in October-November 2021]**

### **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](mailto:care@careratings.com)

Website : [www.careratings.com](http://www.careratings.com)

#### ***Disclaimer***

CARE's ratings are opinions on the likelihood of timely payment of the obligations under the rated instrument and are not recommendations to sanction, renew, disburse or recall the concerned bank facilities or to buy, sell or hold any security. CARE's ratings do not convey suitability or price for the investor. CARE's ratings do not constitute an audit on the rated entity. CARE has based its ratings/outlooks on information obtained from sources believed by it to be accurate and reliable. CARE does not, however, guarantee the accuracy, adequacy or completeness of any information and is not responsible for any errors or omissions or for the results obtained from the use of such information. Most entities whose bank facilities/instruments are rated by CARE have paid a credit rating fee, based on the amount and type of bank facilities/instruments. CARE or its subsidiaries/associates may also have other commercial transactions with the entity. In case of partnership/proprietary concerns, the rating /outlook assigned by CARE is, inter-alia, based on the capital deployed by the partners/proprietor and the financial strength of the firm at present. The rating/outlook may undergo change in case of withdrawal of capital or the unsecured loans brought in by the partners/proprietor in addition to the financial performance and other relevant factors. CARE is not responsible for any errors and states that it has no financial liability whatsoever to the users of CARE's rating. Our ratings do not factor in any rating related trigger clauses as per the terms of the facility/instrument, which may involve acceleration of payments in case of rating downgrades. However, if any such clauses are introduced and if triggered, the ratings may see volatility and sharp downgrades.