

[Issued in January 2023]

## Background

India has 7,517-km long coastline with international trade handled through the major and minor ports in the country. The ports in India are classified as major ports<sup>1</sup> and minor ports. The primary responsibility of development and management of major ports is with the 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. Besides, Government of India is working towards corporatisation of a few ports.

About 95% of the Indian merchandise trade (in terms of volume) operates through seaports. There is significant potential to further leverage on the vast coastline by addressing the infrastructure and operational challenges being faced by the ports. In view of the same, Government of India has undertaken several port development initiatives under the Sagarmala Programme, which requires huge investments in the sector as well as active participation from the private sector.

## Rating Methodology:

CARE Ratings Limited (CARE Ratings) 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 as well as single/multi-terminal facilities. This criteria also applies to the enterprises that own port facilities in multiple locations/ projects under implementation.

### 1. Operational/ Business risk evaluation:

The parameters considered for business risk assessment are broadly categorised into operating port entities and green field/ expansion port projects.

#### A. Operational ports risk assessment:

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

**Type of port and capacity:** The location of the port plays an important role in determining the capacity utilisation and productivity. Thus, an all-weather port is viewed favourably compared to others, as monsoon and cyclone are factors which might interrupt port operations during the year.

The other operational parameters are 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. The ports need to undertake dredging in case natural draft is not available. The channels which are dredged have to carry out maintenance dredging to ensure adequate draft at all points of times.

The ports having onshore facilities, such as open, covered and liquid storage farms to handle wet, bulk and container cargoes are viewed positively.

**Cargo evacuation and multimodal connectivity:** Efficient cargo evacuation facilities with access to multimodal means of transport, i.e., air, rail and road connectivity, is essential for a port's competitive advantage. For rail, presence of dedicated lines connecting ports to inland destinations are viewed as credit positive. With rise in containerised shipping in recent decades, easy access to rail, road, and waterway

<sup>1</sup> Major Ports are defined to mean any port which the Central Government may by notification in the Official Gazette declare or may under any law for the time being in force have declared, to be a major port. Currently there are 12 major ports in India i.e. Mumbai, Kandla, Mangalore, JNPT, Mormugao, Cochin, Chennai, Tuticorin, Vishakhapatnam, Paradip, Kolkata and Kamarajar (Erstwhile Ennore).

networks drives competition for transit cargo, with local and mid-distance destinations largely served by truck and greater distances served by rail or waterway. The 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 centres with good intermodal connections is viewed as a credit positive.

The presence of cargo handling facilities, such as cranes, tractor-trailers and stacker-reclaimers and presence of large back-up storage facilities facilitate handling larger-sized vessels (Capesize/ Suezmax), as they quickly unload the cargoes thereby reducing the dwell time and improve turnaround time. High level of mechanisation in material handling is also viewed favourably

**Cargo and revenue mix:** The vessels are classified on the basis of the type of cargo carried by them, viz., bulk carriers, tankers (crude oil), container shipping and specialised vessels. Top commodities handled at Indian ports are petroleum products, coal, iron ore, engineering goods, chemicals and electronics. The flexibility and the ability to handle different kind of cargo are the key operating risk sensitivities?? to counter change in the products portfolio of the 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 the 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:** The 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 realisation of receivables.

**Productivity:** The overall operating efficiency of the port operations is measured by average turn around time (ATT) in days, average pre-berthing time, and average output per ship berth day (in tonnes). The ports offering single-window clearance systems services (from Stevedoring to Custom Clearances), which utilise the fully mechanised systems, are favourably placed in terms of competitive position due to high productivity and operating efficiency offered by it compared to its peers.

### Revenue risk

**Tariff:** The tariff rates for the terminals of major ports were earlier set by Tariff Authority for Major Ports (TAMP), till November 2021. The non-major ports in contrast had better flexibility in term of fixation of tariff structures. These ports could modify tariffs (raise or reduce) without any regulatory interference. As per the Tariff Policy for Major Port Authorities 2021, the powers of tariff fixation for the major ports has been transferred to the Board of such ports and involvement of TAMP has been removed. Such change is expected to result in better flexibility in tariff fixation by major ports.

**Long-term agreements:** The ports having long-term contracts, including minimal guarantee tonnage (MGT) or similar take or pay arrangements are able to reduce the volatility in the cash flows.

The business risk analysis also includes assessment of various parameters as enumerated in the [CARE methodology for Infrastructure ratings](#).

### **B. Green field ports/Expansion projects risk assessment:**

CARE Ratings examines the broad parameters of the project based on the detailed project report submitted by the client. The key factors analysed by CARE Ratings while arriving at the rating of greenfield port/expansion port entities are as follows:

**Status of statutory and regulatory clearances:** The port project is subject to various types of clearances and approvals like land clearance, fire clearance, environmental clearances, coastal regulation zone clearance, Directorate General of Technical Development (DGTD)/Directorate General of Foreign Trade (DGFT) confirmation related to the automatic clearance for the import of capital goods and raw materials, labour license, etc. The presence of required clearances is favourable for the project progress.

**Capital structure and funding risk:** CARE Ratings 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.). The project having financial closure in place with clear visibility of equity funds is viewed as credit positive.

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

**EPC contract:** The port projects can have varying complexity levels, depending on the availability of required land in its entirety with environment clearance, nature of the waterfront, tidal variations, design specifications, etc. Thereby, it may run in to cost and time over run. Hence, the experience of the engineering, procurement and construction (EPC) contractor in executing similar projects would be favourable for mitigation of construction risks to some extent.

The quality of the EPC contract is assessed by examining whether the contract was awarded on a competitive basis or was given to the Sponsor entity or 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.

## **2. Financial risk evaluation:**

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

**Financial ratios - Leverage and coverage:** The financial position is ascertained based on the leverage and coverage parameters. The ratios considered for the assessment include net debt/ profit before interest lease depreciation and tax (PBILD), debt service coverage ratio (DSCR), etc. CARE Ratings critically looks in to debt repaying ability by analysing the cash accrual generation from the 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 Ratings' Financial ratios – Non-Financial Sector on our website [www.careedge.in](http://www.careedge.in)).

**Foreign currency fluctuation risk:** The ports have moderate share of income in foreign currency denominations, which is exposed to the fluctuations in foreign currency. The port entities importing machinery, spare parts and having external commercial borrowings are exposed to the fluctuation in foreign currency. Thus, the entity's hedging policy needs to be assessed for cash flow impact. Any port entity having natural hedge due to higher dollar-denominated marine income in entirety is viewed as credit positive.

**Refinancing risk:** CARE Ratings views a longer debt maturity profile and ballooning repayment structure positively rather than a shorter maturity profile and a front-ended or back-ended repayment schedule. While the short tenor of a facility does expose it to refinancing risks, CARE Ratings analyses the associated risks in relation to the ability of the asset to generate cash flows for the remaining contractual tenor. Hence, the income generation ability of a port project, financial flexibility, past track record of refinancing, sponsor strength, etc is considered while assessing refinancing risk.

**Liquidity analysis:** The port entity's revenue generation is highly correlated with domestic and international economic activities, and there exists counter party risk in terms of realisation of receivables. CARE Ratings considers adequate liquidity back-up as an important rating consideration to meet any cash flow mismatch/unforeseen events. For a port entity, the liquidity back-ups are created primarily in the form of debt service reserve account (DSRA), which covers interest and principal repayment obligations for specified period (as per the financing document) in the form of fixed deposits (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.

### 3. Regulatory risk:

The port entities operate within the regulatory framework of the Government and hence assessment of the regulatory risk is important for the sector. One of the key determinants of the regulatory risk is the tariff regime within which the port entities operate.

**Change in tariff regulation for major ports:** Earlier the tariff rates for the major ports were set by TAMP, while the non-major ports were not guided by TAMP regulations. TAMP sets the ceiling within which the tariff rates are structured by the port entities. As per the policy change announcement in November 2021 (Tariff Policy for Major Port Authorities 2021), the Government of India has revised the powers of tariff fixation for major ports. The Major Port Authorities Act 2021 has conferred powers to the Board of each major port authority or committee constituted in this behalf by the board to frame scale of rates (SOR) for access to and usage of port assets.

**Tariff for future Public Private Partnership (PPP) concessionaires:** The Major Port Authorities Act 2021 provides, in case of PPP projects commence after this act, concessionaire can fix the tariff based on market conditions which is viewed favourably.

CARE Ratings 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.

#### **4. Promoter and 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. In addition, 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 analysed is also critically examined.

#### **Environmental Social and Governance (ESG) risk:**

CARE Ratings 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.

#### **Conclusion**

The rating process is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE Ratings analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality, by taking into account the industry's cyclical nature. While the methodology encompasses comprehensive technical, financial, commercial, economic and management analysis, credit rating is an overall assessment of all aspects of the issuer.

[For previous version please refer 'Rating Methodology – Port & Port Services' issued in [October 2020](#)]

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