



ICRA RATING FEATURE

RATING METHODOLOGY FOR COAL MINING COMPANIES

Overview

Commercial coal mining, which began in India in the late 1700s, was primarily in private hands till 1971. The Government of India (GoI) nationalised the industry in 1972-73 with the objective of ensuring an orderly development of a sector that serves strategically important industries like power and steel. It was also felt that the sector needed to significantly improve on the technology for coal extraction and mining practices, and invest large sums of money in the development of new reserves—objectives that could be better served if the industry was under the direct control of the GoI. As a consequence of the nationalisation process, coal was subject to pricing and distribution controls. While prices were determined on the basis of the formulae fixed by the Bureau of Industrial Costs and Prices (BICP), Linkage Committees consisting of representatives from the ministries of coal, power, steel, railways and others decided on the allocation among different consumers.

The pricing and distribution controls began to be dismantled in the mid-1990s in keeping with the overall liberalisation of the economy. Pricing has been fully decontrolled effective January 2000, for all grades of coking and non-coking coal. While the logistics of coal distribution continue to be guided by the linkage arrangements, individual coal companies are now free to enter into bilateral contracts with consumers. Also, with the 1993 amendment of The Coal Mines (Nationalisation) Act, 1973, private sector participation has been permitted for captive use. Nevertheless, The Coal Mines (Nationalisation) Act of 1973 and the Colliery Control Order of 2000 continue to regulate and govern various aspects of coal mining in view of its politically and environmentally sensitive nature.

The coal mining industry in India is dominated by Coal India Limited (CIL) and its seven mining subsidiaries. The other major player is Singareni Coalfields Limited (SCL), a joint venture between the GoI and the Government of Andhra Pradesh. The individual companies differ widely with respect to the geographical spread of mines, quality of reserves, productivity parameters, cost structure and labour relations. However, the ownership pattern, pricing policies, linkage arrangement with customers, and to an extent the credit quality of customers are similar.

Analytical Framework

As in the case of other manufacturing companies, for coal companies too, ICRA's rating methodology involves an assessment of the business risks, financial risks and management quality. This note highlights

the factors that are specifically evaluated while assessing the credit quality of a coal company. For analytical convenience, these factors may be grouped under the following heads:

- Industry Risk
- Issuer's Competitive Position
- Operating Efficiency
- Pricing Flexibility
- Customer Diversification and Counterparty Risk
- Reserve Replacement
- Environmental Compliance
- Parent-Subsidiary Structure
- Financial Position
- Management Quality

Industry Risk

More than 70% of Indian coal is used for power generation. Indigenously produced coal remains the most preferred feedstock for power generation, especially for plants situated close to pit-heads, because of several reasons. These include competitive cost of coal-based power generation, easy availability of coal, low volatility in coal prices, weak linkage of domestic coal prices with international coal prices thereby minimizing price risks arising on account of commodity cycles or exchange rate variations. With a widening energy deficit and plans to double the country's power generation capacity by 2012, the overall demand-supply situation in coal may be considered favourable.

However, for power generating units far off from coal pit-heads, indigenous coal faces the threat of substitution by alternatives such as imported coal, natural gas and liquefied natural gas (LNG). The starting point of ICRA's industry risk analysis therefore involves an assessment of the competitiveness of Indian coal vis-à-vis alternative fuels for a range of fuel prices. With the gradual reduction of import duties on coal, domestic prices will, over a period, get aligned more closely to import parity prices, especially in the coastal areas. The pricing cycles that are typical of commodities like coal, therefore, need to be evaluated.

Economics apart, ICRA also evaluates the various qualitative factors that could impact the use of indigenous coal as against alternative fuels. Such factors range from environmental concerns over the use of high-ash coal to constraints in boiler-design that would not allow the feedstock to consist entirely of imported coal. Similarly, ICRA evaluates the entry barriers for imports arising out of inadequate port facilities, poor inland linkages, transportation costs and volatility in ocean freight and exchange rates.

The other major industry risk emanates from the weak credit profile of the coal sector's principal consumers—the power utilities. With the exception of a few Central Power Sector Utilities (CPSUs) like the National Thermal Power Corporation Limited (NTPC) and Neyveli Lignite Corporation (NLC), the credit quality of most other consumers is weak. In ICRA's view, this is a significant industry risk that will continue to act as a constraint on the credit rating of coal companies at least in the medium term.

With the gradual liberalisation of the Indian economy and increase in environmental consciousness, changes in the regulatory environment are likely, and these can significantly impact the fundamentals of the existing coal companies. Regulatory changes could take the form of lowering of import barriers, further opening up of the coal sector to private participation, and strengthening of environmental norms. ICRA evaluates the likely impact of such changes on the competitive position of the issuer.

Issuer's Competitive Position

Operating efficiency

In the coal sector, which like most other commodity sectors is faced with price volatility, the single most important factor that determines an issuer's competitive position is the cost structure. The cost structure, in turn, is dependent on several factors, the chief among which are discussed here.

Depth of coal reserves and coal quality: The depth at which the coal reserves are residing and the quality of coal have a significant impact on the cost structure of a coal company. For instance, certain regions may have coal seams closer to the surface and at a low gradient, whereas in the case of others, the coal seams may be residing at greater depths, with a steep gradient and also interspersed with geological faults. The extraction costs would be lower in case of the former. However, the cost disadvantage associated with extracting coal from seams located at greater depths may be offset by the

superior quality of coal which would fetch better realisations. ICRA therefore analyses the relative costs and benefits associated with extraction.

Productivity parameters: While the depth of coal reserves and the ratio of Open Cast to Underground Mines are given for a company, at least in the medium term, the productivity of operations is dependent on several factors, including: extent of mechanisation; nature of mining technology used; extent of use of contract labour (a judicious use minimises overheads); and machinery utilisation pattern (optimum use of machinery, especially heavy earth moving equipment). ICRA, therefore, evaluates trends in key productivity parameters like output per manshift (OMS), value of output per unit of labour employed, and system utilisation. Since spares are a major cost item, a coal company's ability to optimise on its inventory of spare parts and procurement costs is also important.

Mining practices (as discussed) can have a significant impact on the operating profitability of a coal company, the quality of reserves notwithstanding. A case in point is Mahanadi Coalfields Limited (MCL), whose low-grade reserves possibly fetch one of the lowest realisations among CIL's subsidiaries. However, MCL's favourable overburden ratio and high mining efficiency (it uses contract labour extensively) make it one of the more profitable companies in the CIL fold.

Labour costs and labour productivity: Labour costs comprise the most important cost component for coal mining companies. This is so because, typically, the companies have a huge workforce, the average age of workers is high, wages have to be raised periodically (or at least have been in the past), there is resistance to retraining and redeployment to new mines, and the mandatory social overheads are high. ICRA therefore evaluates the trends in labour costs, periodicity of wage increases, and the ability of a coal company to pass on wage increases to consumers through increases in product prices. These apart, ICRA evaluates the company's history of labour relations and the number of person-days lost because of labour unrest, strikes and such other disruptions.

Quality: Consistent quality in terms of coal grades, specification and weights, enables a company achieve higher average realisations, thereby improving its operating profitability. ICRA analyses the initiatives taken by a coal company to ensure supply of consistent quality and minimise disputes, through joint sampling/third-party sampling at loading and customers ends, electronic weighment, etc.

Pricing flexibility

In a decontrolled regime, coal companies, theoretically, have the flexibility to raise prices so as to offset the impact of any major cost increases. In reality, however, such flexibility may be limited in view of the strategic importance of the key consuming sectors like power, the politically sensitive nature of the coal industry, and the need to maintain price competitiveness vis-à-vis alternative fuels. ICRA therefore analyses the degree of pricing flexibility that a coal company has and the extent to which it can absorb cost increases without suffering a major deterioration in its debt-servicing ability.

Customer diversification and counterparty risk

ICRA evaluates the diversity in a coal company's customer profile, the off-take pattern and the credit quality of the company's key consumers. Given the high fixed cost nature of coal mining operations, a coal company is highly sensitive to volume sales. Thus, long-term contracts, which mitigate off-take risks and assure stability in off-take, are viewed favourably. ICRA also evaluates the credit quality of a coal company's key consumers across sectors. Given the weak credit quality of most entities in the power sector (the major consumer of coal), this is a critical part of the analysis.

Reserve replacement

A coal company's reserve replacement strategy is an important factor influencing its long-term viability, and therefore, credit quality. To increase production levels, a company needs to explore new reserves besides replacing its current production levels. Thus, ICRA evaluates the company's record of exploration success and its ability to successfully commission new mines without any major time or cost overrun. The latter is all the more critical given the time consuming and laborious processes involved in securing the required clearances, especially those related to environment and rehabilitation/resettlement.

Environmental compliance

ICRA reviews a coal company's record of compliance with environmental norms. Besides, it also checks for the company's track record in terms of compliance with safety standards.

Parent-Subsidiary Structure

ICRA, on the basis of the extent of ownership of an operating (mining) company by its holding company, consolidates the financial profile of the operating company with that of the holding company. ICRA believes that an entity's credit worthiness is determined not only by its own business and financial risk profile but also by that of its family of operating companies since the extent of ownership largely determines the extent to which funds (cash/capital) can flow within the group. Apart from ownership, ICRA also attempts to identify whether any member of the group can be insulated from the rest of the family due to legal, regulatory or geographic factors, the extent of strategic importance and therefore inter-dependence between members and the limits, if any, to this extent of dependence, viz. the extent of 'arms length'.

Financial Position

While evaluating the financial position of a coal company, ICRA particularly emphasises the following factors:

- Proportion of labour costs in the overall cost structure
- Periodicity and quantum of wage increases in the past and expectations on the same
- Sensitivity of operating profitability to volume sales
- Break-even volumes
- Trends in receivables and cash flow from operations
- Quantum and nature of capital expenditure and means of funding the same

Given that coal prices are likely to be more volatile in future, ICRA draws up cash flow projections for a range of product prices in order to assess a company's debt servicing capacity even under periods of stress. Besides, ICRA evaluates the company's sources of financial flexibility by way of access to

institutional funding, flexibility in repayment (to the Government) terms, or availability of liquid investments. In case a company has large capital expenditure plans, the sources of funding the same and the expected benefits are also factored in.

Management Quality

ICRA assesses a coal company's management in terms of its depth, level of experience and record of proven success, growth philosophies, track record in managing under-performing assets, financial policies and the degree to which the stated policies are consistent with the business strategies. ICRA's rating will favourably factor in a coal producing entity's ability to limit wage increases, close down uneconomic mines and reduce or redeploy workforce. A specific aspect of management strategy that is evaluated is the company's plan towards adopting clean coal technology and ensuring environment-friendliness and social sustainability of mining operations.

Summary Rating Outlook

In ICRA's view, the shifts in the regulatory environment governing the coal sector signal a gradual move in the direction of market competition. The ability of a coal company to capitalise on the emerging market opportunities would however depend on its bargaining power with its dominant customers, particularly those in the power sector, since price increases are no longer a pass-through of input and other cost increases. During the past four years, the extent of coal price increases has been short of the cost increases. But at the same time, coal companies have witnessed cost-push pressures largely on account of a huge wage revision (following the recommendations of the Fifth Pay Commission). While ICRA views positively the initiatives being taken by coal companies to reduce workforce, shut down old uneconomic mines and set limits on future wage increases, their ability to pass on cost increases through appropriate price hikes will be a critical rating factor.

The threat from imports for non-coking coal in the coastal areas continues to pose a risk to domestic coal producing companies. However, ICRA believes that at least in the medium term, this would not impair the position of domestic players because of two protective factors. One, the existing design of power plant boilers would not allow feedstock that consists only of imported coal, and two, the transportation costs and logistics involved in moving imported coal inland would act as deterrants. However, in a scenario of declining international coal prices, domestic players may have to consider their price competitiveness against imported coal, especially while serving coastal areas. The threat from alternative fuels like LNG

appear low on account of the price volatility associated with them and the higher cost of power generation in case LNG is used as the feedstock.

The share of coal in the global consumption of primary energy is likely to witness a decline in the long term, especially in developed countries. In developing countries, however, coal usage is expected to increase, with India and China accounting for nearly the entire incremental demand. Coal is a dominant source of primary energy in India with a share of over 60% and this is unlikely to see any significant change in the medium to long term. This, along with the projected favourable demand-supply situation in coal in the country, is likely to keep business risks for a coal company low. While ICRA's rating outlook factors in the stability of offtake from the power sector, credit quality issues remain a key concern.

The recent initiatives by domestic coal companies to enter into long-term bilateral agreements with clients is viewed favourably by ICRA since this is expected to act as a strong entry barrier and protect the commercial interests of coal companies. However, the success of the coal companies in entering into such agreements especially with the weak State Electricity Boards would be critical.

The favourable demand-supply situation in coal as discussed so far is, of course, contingent on the timely commissioning of various power projects, the timely development of captive coal mines by coal companies, augmentation of the existing evacuation network (railways primarily) to transport the additional volumes as well as development and adequate availability of 'washing' facilities particularly for high ash coal. To the extent that the development of the new mines (or expansion of the old ones) is being funded by international lenders like the World Bank, ICRA expects timely commissioning with minimum cost overruns. But here again, the coal industry's ability to contain the extent of environment/rehabilitation related problems (which have affected project progress in the past) would remain a key rating concern.

ICRA expects the projected shifts in production from higher-cost underground mines to the more mechanised open-cast mines, employment of contract labour, rationalisation of uneconomic mines, reduction in manpower, and increase in quality focus of coal companies to prepare the ground for the industry to improve its profitability levels. Significantly, a coal mining company's ability to control the extent of wage increase in future will largely determine its profitability level.



ICRA Rating Services

A Division of ICRA Limited

CORPORATE & REGISTERED OFFICE

NEW DELHI

Kailash Building, 4th Floor 26, Kasturba Gandhi Marg, New Delhi 110001

Tel. : +(91 11) 335 7940-50 Fax : +(91 11) 335 7014, 3355293

Email : icrainfo@icraindia.com

Website : www.icraindia.com

Branches: **Mumbai:** Tel.: + (91 22) 4331046/53/62/74/86/87, Fax: + (91 22) 433 1390 □ **Chennai:** Tel + (91 44) 434 0043/9659/8080, 433 0724/ 3293/3294, Fax + (91 44) 434 3663 □ **Kolkata:** Tel + (91 33) 287 0450, 240 6617/8839, 280 0008, Fax + (91 33) 247 0728 □ **Bangalore:** Tel + (91 80) 559 7401/4049 Fax + (91 80) 559 4065 □ **Ahmedabad:** Tel + (91 79) 658 4924/5049/2008, Fax + (91 79) 658 4924 □ **Hyderabad:** Tel +(91 40) 373 5061/7251, Fax + (91 40) 373 5152 □ **Chandigarh:** Tel + (91 172) 743 776 882, Fax + (91 172) 746 068 □ **Pune:** Tel + (91 20) 552 0194/95/96, Fax + (91 20) 553 9231 Email: icrainfo@icraindia.com Website: www.icraindia.com

Copyright, ICRA Limited, 26 Kasturba Gandhi Marg, New Delhi - 110001 None of the Information contained in the publication may be copied or otherwise reproduced, repackaged, further transmitted, disseminated, redistributed, or resold, or stored for subsequent use for any such purpose, in whole or in part, in any form or manner or by means whatsoever, by any person without ICRA's prior written permission.