Rating Methodology: Fertilizer Companies

[Issued in May 2022]

Background:

Fertilizers supply the essential nutrients for crops and thus play an important part in ensuring the self-sufficiency of food grain production in the country. India is one of the largest producers and consumers of fertilizers; the second-largest consumer of fertilizers; and the third-largest producer of nitrogenous fertilizers. The domestic industry may be classified into three main categories based on the nutrients – nitrogenous (N), phosphatic (P) and potassic (K) fertilizers.

Urea:

Urea is the main nitrogenous fertilizer produced in India. Pricing of urea in India is governed by New Pricing Scheme (NPS) w. e. f April 01, 2003. Urea is a controlled fertilizer and is sold at a statutorily notified uniform sale price. This price is significantly lower than the cost of production and the difference is reimbursed as a subsidy to manufacturers by the government, enabling the manufacturers to earn a reasonable return. The urea manufacturing plants have higher working capital intensity than other decontrolled fertilizers since subsidy comprises a higher portion of the sales price for urea. The notified uniform farm gate price for urea has not changed over the past many years; accordingly, any increase in feedstock price results in a higher subsidy requirement.

In May 2015, the government notified the New Urea Policy (NUP) with the principal objectives of maximizing domestic urea production and promoting energy efficiency in urea units to rationalize the subsidy burden for which it divided the urea units into three different groups based on vintage and technology of the plant. The policy aims at reducing the pre-set energy consumption norms (in GCal/ MT) and it also incentivizes urea units to maximize their production at the same time. The companies whose energy efficiency is inferior to the pre-set energy norms of their respective group under NUP 2015 would have lower profitability on account of lower subsidy entitlement.

The gas is supplied to all urea manufacturers on the gas grid through a pooling mechanism, and thus, the different rates at which all urea manufacturers source domestic and imported gas (re-gasified liquefied natural gas [R-LNG]) averages out and the supply of gas to all manufacturers is at a uniform delivery price. The shortfall in domestic natural gas available for the fertilizer sector is met through R-LNG which increases the cost of production for urea manufacturers. However, since the cost is pass-through, the urea manufacturers are impacted only to the extent of an increase in interest cost owing to delay in receipt of the subsidy receivable.

Complex fertilizers:

With complex fertilizers, Phosphatic fertilizer like Di-ammonium Phosphate (DAP) is a majorly used fertilizer. Apart from DAP, Single Super Phosphate (SSP), Ammonium Sulphate (AS), Ammonium chloride, and Muriate of Potash (MOP) are other commonly used complex fertilizers. Complex fertilizers are currently governed by the Nutrient Based Subsidy (NBS) scheme which was introduced on April 01, 2010. As per the NBS scheme, Government fixes the subsidy payable on various nutrients upfront at the beginning of the year (based on the nutrient content in each of these fertilizers). Under the NBS, players in the industry are free to fix the prices of their products. As a result, control over raw material prices such as phosphoric acid, rock phosphate, ammonia, sulphur and MOP and energy efficiency in conversion to finished goods is important to drive the profitability of complex fertilizer manufacturers.

Demand-supply dynamics of fertilizer industry:

Demand for fertilizers stems directly from agriculture. The type of crops grown, the extent of irrigation, use of a high-yielding variety of seeds, etc., determine the requirements of fertilizers. The country has seen a sharp rise in fertilizer consumption since independence. While the years post-independence saw capacity creation by public sector companies, the stable policy environment and the assured returns under the Retention Pricing Scheme (RPS) also ensured sufficient capacity of Urea in the 80s', still India continues to rely heavily on Urea imports. The government has also approved the revival of old units to increase urea production on the back of rising Urea imports over the past few years. Also, around 3 new Urea plants are expected to come on stream in the short to medium term. In spite of the same, India's import dependency is likely to continue for urea.

In terms of complex fertilizers, while capacities have been added since independence, domestic capacity utilization has been dependent on the policy environment for the sector as well as the global prices. Historically, the extent of reliance on imports for phosphatic fertilizers has been higher than that of nitrogenous fertilizers whereas, for other complex fertilizers, India is highly dependent on imported raw materials.

Rating methodology:

CARE Ratings has a well laid out methodology for a rating of companies belonging to the manufacturing sector. As per this methodology, CARE Ratings' rating process begins with the evaluation of the economy/industry in which the company operates, followed by the assessment of the business risk factors specific to the company. This is followed by an assessment of the financial and project-related risk factors as well as the quality of the management. This methodology is followed while analyzing all the industries that come under the purview of the manufacturing sector. However, considering the size and diversity of the sector, CARE Ratings has developed methodologies specific to various industries within the manufacturing sector. These methodologies attempt to point out factors, over and above those mentioned in the broad methodology, which will be assessed while carrying out rating exercises of companies belonging to the particular industry.

Rating methodology specific to fertilizer industry:

The following is a list of such additional factors, along with their analytical implications, considered by CARE Ratings while arriving at the rating of the players that operate in the fertilizer industry.

1. **Regulatory framework:**

The fertilizer industry being a highly regulated industry, Government policies for the industry and their impact on the specific company is a key input in CARE Ratings' framework for a rating of fertilizer companies. Any changes or modification to the policy framework within which the industry operates has a bearing on the overall business profile and profitability of a fertilizer company. The government rolled out direct benefit transfer (DBT) for subsidy payment in February 2018 wherein the subsidy is transferred to the manufacturers after the fertilizer is sold to the farmer which has increased the working capital intensity of the companies as under the earlier regime subsidy was largely linked to the point of dispatch, and under DBT, it is linked to the point of retail sales. Subsidy schemes, a mechanism for the delivery of subsidies, budgetary allocation for payment of subsidies and their timely release are key aspects of the regulatory framework which also have a bearing on the working capital requirements of the companies.

Given the strategic importance of the industry, CARE Ratings believes that Government control is bound to exist in some form or the other and will continue to play an important role in determining the fortunes of the industry.

2. **Energy efficiency:**

The energy efficiency of fertilizer production is indicated by kilocalories of feedstock used to manufacture one unit of the final product. Energy efficiency in turn depends on the type of feedstock used, the vintage and technology of the plants and the efficiency of O&M. Under the existing system of subsidy computation, the actual energy consumption level for urea units have been taken into consideration for setting up energy norms and the units have been classified into three groups based on vintage and technology.

Within each group, the more efficient plants stand to benefit. With tightening of the energy consumption norms for urea units, the profit on energy savings would be driven by their ability to reduce energy consumption levels. With a common group energy consumption level amongst the urea units, from April 1, 2018, the energy-efficient units stand to benefit to a greater extent and it ultimately leads to an improvement in the overall energy efficiency of all units. In respect of complex fertilizers too, energy-efficient manufacturers are bound to gain as the subsidy payable on the products is fixed.

3. **Feedstock:**

Urea can be produced using natural gas, naphtha, fuel oil or coal as feedstock. Naphtha and natural gas have been the main feedstock used to manufacture urea, though a few plants based on fuel oil/LSHS and coal do exist in the country. Government policies in the recent past have encouraged the use of gas as feedstock for the manufacture of urea. The use of less-efficient feedstock would not only mean an uneconomical cost of production but also invite penalties in the subsidy payouts in future.

In the case of the complex fertilizers, the main raw materials used are phosphoric acid, rock phosphate, ammonia, sulphur, and potassium. The country depends to a large extent on imports for these raw materials. Backward integration into the production of these raw materials and firming up sourcing arrangements (in case of imports) would be important considerations. Furthermore, in the case of imports, forex policy would also be crucial.

CARE Ratings believes that the type of feedstock/raw material used and sourcing arrangement for the same and the ability to control energy costs, especially in a fixed-subsidy regime would be key to the competitiveness and long-term fundamentals of a fertilizer company.

4. Foreign exchange fluctuation risk:

The fertilizer companies import raw material (viz., R-LNG, rock phosphate, phosphoric acid, etc.) while selling the finished products in the domestic market; thus exposing the companies having un-hedged liabilities to risk related to foreign exchange fluctuation. However, for urea manufacturers, since the cost is pass-through, the risk is to the extent of an increase in interest cost owing to delay in receipt of subsidy receivable. For decontrolled fertilizers, the risk is minimized if the increased cost due to foreign exchange fluctuation risk is absorbed in the sales price in a timely manner.

5. Product profile:

Fertilizer companies in India range from single-product, single-location companies to large multi-product fertilizer complexes with plants located at multiple locations. It is a prevalent characteristic in this industry that though companies may have manufacturing capabilities to manufacture one or a few products, they have a wide 'bouquet' of products to cater to the entire requirement of the farmer. For example, companies may manufacture urea in their units but may additionally market or trade other fertilizers or even pesticides. This is mainly to cash in on the brand image that the company's fertilizer products may have earned over a period of time. The NBS also encourages the use of other secondary nutrients and micro-nutrients thus providing scope for the introduction of newer products catering to localized requirements.

Companies offering customized fertilizers based on the type of soil and crop are expected to gain a competitive advantage with an increased focus on soil health reports by the government.

Furthermore, the location of the entity has a bearing on both raw material and distribution costs. The location of the units near major consumer markets augurs well as the cost of transporting the raw material is normally lower than that of the finished goods. An exception to it is the P&K fertilizer units which are usually located in coastal regions.

CARE Ratings takes into account the company's product profile and size as compared with other companies in the industry.

6. Modernisation plans:

India majorly has urea manufacturing units based on natural gas as feedstock. However, with an increased focus on efficiency, these plants will have to undergo modernization in terms of de-bottlenecking, revamp, etc. CARE Ratings believes that for the majority of the urea units, energy-saving projects need to be undertaken to achieve the target group benchmark energy consumption level as the inability in meeting the revised parameters would result in a major adverse impact on the profitability of the units.

Though the gearing for the entities in the fertilizer industry is usually high due to large working capital borrowings for funding the subsidy receivables, CARE Ratings reviews the proposed modernization plans and funding pattern in light of the benefits that are likely to accrue.

7. Market position:

In the deregulated scenario, as is the case with phosphates and potassic fertilizers today, price-based competition cannot be ruled out. Under such circumstances, the company's distribution network and its ability to rein in freight and logistics costs would be of key importance. Fertilizer companies with large and well-established distribution networks would also be less susceptible to the regional demand-supply

fluctuations. Additionally, though the fertilizer business may be a commodity business, product differentiation, branding and provision of farm support services are expected to gain greater importance.

CARE Ratings positively views those companies which have a nationwide distribution network and are located closer to user markets, as these companies would stand to have a distinct competitive advantage.

8. **Agro-climatic risk:**
   The fertilizer sales in India depend on the monsoon since most of the regions are dependent upon rains for irrigation. This leads to higher fertilizer sales during the normal monsoon period while low sales during drought or low rainfall periods. During the period of low rainfall, the fertilizer companies may be impacted in terms of increased channel inventory which may also impact its working capital borrowings and can also lead to an increase in discounts and a larger credit period to increase the sales. Presence in geographically diverse areas may mitigate the agro-climatic risk to some extent.

9. **Working capital intensity:**
   Delays have been observed in subsidy payments to fertilizer companies on account of inadequate subsidy budgets in the past. The shortfall in the subsidy budget usually affects the cash flow position of companies in the second half of the financial year when the subsidy budget gets exhausted and thus companies have to resort to short-term borrowings to fund extended subsidy receivables which leads to an increase in their working capital intensity.

10. **Event risk:**
    In some fertilizer units, the Government of India (GoI) through the Department of Fertilizers (DoF) has issued an office memorandum for recovery of 'undue benefits' accrued with the use of domestic gas for the production of P&K fertilizers and chemicals. GoI has withheld subsidies in such disputed matters, leading to a stretching of liquidity for those entities. Any significant recovery by DoF from mopping of gains could affect the credit metrics of the company.

Sector-specific analysis

Adjusted collection period:
Many of the companies might not report subsidy receivables in trade receivables. The collection period is calculated including the subsidy receivables to evaluate the working capital intensity of operations. Urea manufacturers are expected to have a larger collection period since the portion of subsidy in its retention price is higher as compared to other decontrolled fertilizers.

Working-capital intensity level:
It represents the utilization of working capital limits against sanction limits. Fertilizer companies have high subsidy receivables and inventory; hence, their working capital intensity level is examined to understand the company's efficiency in managing its working capital requirements. For urea units in circumstances where the feedstock prices are on an increasing trend, the working capital intensity stretches due to fixed farm gate price inducing pressure on liquidity, gearing and higher interest burden. Currently, the lending institutions have been funding subsidy receivables up to 240 to 360 days due to their sovereign nature, which enables the entities to build up adequate drawing power to draw bank lines. Furthermore, the strategic importance of the sector in ensuring food security of

the nation and certainty of subsidy receipt from the GoI, mitigate the above risks to some extent and offer comfort to the investors.

Conclusion:

CARE Ratings believes that the operating efficiency of the fertilizer units is one of the most critical factors in credit risk assessment as players with a competitive cost structure and access to lower-cost feedstock and raw materials should be able to maintain their credit quality. Nevertheless, the rating outcome 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 cyclicality. 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 the previous version please refer 'Rating Methodology - Fertiliser Companies' issued in May 2020]

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