

## Rating Methodology - Fertilizer Companies

[In supersession of “Rating Methodology – Fertilizer Companies” issued in July 2018]

### Industry Overview

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

Urea is the main nitrogenous fertilizer produced in India, while Di-ammonium Phosphate (DAP) and Single Super Phosphate (SSP) are the important phosphatic fertilizers produced in the country. While Urea and DAP are produced by large players, SSP in view of the relatively simple technology involved, is produced by small and medium sized players. In addition to these fertilizers, several fertilizers like ammonium sulphate, ammonium chloride and other NPK complexes are also produced in the country. Potassic fertilizers are not produced in India and the entire requirement of the same is imported.

Fertilizer production is an energy and capital intensive process and the domestic industry is highly regulated with a view to ensure availability of fertilizers to all the regions at affordable prices.

### Urea

Urea is a controlled fertilizer and is sold at a statutorily notified uniform sale price. This price is lower than the cost of production and the difference is reimbursed as 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 higher portion of the sales price for urea. The notified uniform farm gate price for urea has not changed over the past few years; however, with the increase in feedstock price, the subsidy portion in the aggregate retention price would further increase and thus adversely impact the working capital intensity and profitability of urea manufacturers of their high value addition. The support to the urea units which was provided under the erstwhile unit wise Retention Pricing Scheme (RPS), achieved the objective of augmenting capacities but

was criticized as not being able to provide incentive to efficient units. With rising subsidy burden, various committees were constituted by the government to suggest measures to reduce the subsidy bill. In 2003, the government introduced the New Pricing Scheme (NPS) for urea wherein subsidy payment is based on a group retention price. The NPS was introduced in three stages and the Stage III of the policy was implemented with effect from October 2006. In May 2015, the government notified the New Urea Policy (NUP) with principal objectives of maximizing domestic urea production and promoting energy efficiency in urea units to rationalize subsidy burden for which it divided the urea units in 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 its respective group under NUP 2015 would have lower profitability on account of lower subsidy entitlement.

The NUP 2015 also states that production beyond reassessed capacity (RAC) is eligible for subsidy equivalent to the variable cost plus minimum fixed cost of all indigenous urea units (~Rs.2,300/ MT) which is however capped by the import parity price (IPP) plus other incidental charges in imported urea (~25 USD/ MT). This aims at increasing domestic production beyond RAC since the same would increase profitability of units producing beyond RAC.

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 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 increase in interest cost owing to delay in receipt of subsidy receivable.

### **Phosphates**

The Government decontrolled phosphates in 1992 but comparatively higher returns 'guaranteed' under Retention Price Scheme RPS led to disproportionate rise in urea production and consumption which resulted in skewing of the NPK ratio. Hence from 1993 onwards, the government started paying an 'ad-hoc' concession to the manufacturers of phosphatic fertilizers under the concession scheme. The subsidy mechanism has evolved over the years and from April 1, 2010 the Government has introduced the Nutrient Based Subsidy (NBS) scheme, wherein the Government has fixed the subsidy payable on various phosphatic and potassic fertilizers upfront at the beginning of the year (based on the nutrient content in each of these fertilizers) as opposed to the earlier system of ad-hoc concession. Under the NBS, players in the industry are free to fix the prices of their products as opposed to the earlier system of an indicative maximum retail price (MRP).

### **Demand-supply dynamics of Fertilizer industry**

Demand for fertilizers stems directly from agriculture. The type of crops grown, the extent of irrigation, use of 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 RPS also ensured sufficient capacity of Urea in the eighties. The government has also approved revival of old units in order to increase urea production.

In terms of phosphatic 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.

### **Rating Methodology**

CARE Ratings has a well laid out methodology for rating of companies belonging to the manufacturing sector. As per this methodology, CARE's 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 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. 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.

The main factors analyzed under the business and operations risk of fertilizer industry are described below:-

### **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's framework for 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 has rolled out direct benefit transfer for subsidy payment from February 2018 where in the subsidy would be transferred to the manufacturers after the fertilizer is sold to the farmer which is expected to increase the working capital intensity of the companies. Subsidy schemes, 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 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.

### **Cost Competitiveness**

#### **Energy efficiency**

Energy efficiency of fertilizer production is indicated by kilo calories of feedstock used to manufacture one unit of final product. Energy efficiency in turn depends on the type of feedstock used and the vintage of the plants. Under the existing system of subsidy computation, the actual energy consumption level for urea units has 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 energy consumption norms for urea units, the profit on energy savings would be driven by their ability to reduce energy consumption level. Many units would still earn reasonable profit on energy saving even with tightening of norms. With common group energy consumptions level amongst the urea units, from April 1, 2018, the energy efficient units would benefit to a greater extent and will lead to improvement in overall energy efficiency of all units. In respect of phosphates too energy-efficient manufacturers are also bound to gain as the subsidy payable on the products is fixed.

The subsidy on imported fertilizers is similar to subsidy on domestically produced fertilizers. Thus, the phosphatic fertilizer manufacturers have to efficiently control their cost of production since the imported fertilizers can be cheaper than the domestically manufactured fertilizers with easy access to lower cost raw materials and higher plant efficiencies. Some de-controlled fertilizers also have the risk of becoming unviable if their IPP is cheaper than the price of domestically manufactured fertilizer.

CARE believes that energy efficient units would be able to compete against imports. The better output would result in improved cash flows.

### **Plant capacity utilisation**

The level of production compared to the rated capacity of the plant is monitored to ascertain the level of absorption of the fixed overheads and the level of salability of its products.

### **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 for manufacture of 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. Use of less-efficient feedstock would not only mean uneconomical cost of production, but also invite penalties in the subsidy pay outs in future. Fertilizer units in the country today are faced with gas shortages and under such circumstances, CARE reviews the ability of the company to have long-term tie-ups for its gas requirements at competitive rates.

In the case of the phosphatic fertilizers, the main raw material used is phosphoric acid. The country depends to a large extent on imports for phosphoric acid. Backward integration into production of phosphoric acid and firming up sourcing arrangements (in case of imports) for phosphoric acid would be important considerations. Further, in case of imports, forex policy would also be crucial.

CARE believes that the type of feedstock/raw material used and sourcing arrangement for the same and 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.

### **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 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 being absorbed in the sales price in a timely manner.

### **Product Profile**

Fertilizer companies in India range from single-product, single-location companies to large multi-product fertilizer complexes and with plants located in 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 own units but may additionally market or trade other fertilizers or even pesticides. This is mainly to cash in on the brand image the company's fertilizer products may have earned over a period. The NBS also encourages the use of other secondary nutrients and micro nutrients thus providing scope for introduction of newer products catering to localized requirements.

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

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

### **Modernization plans**

India majorly has urea manufacturing units based on natural gas as feedstock. However, with increased focus on efficiency, these plants will have to undergo modernization in terms of de-bottlenecking, revamp etc.

CARE Ratings believes that for majority of the urea units, energy saving projects need to be undertaken to achieve the target group benchmark energy consumption level. Hence, CARE reviews the proposed modernization plans, funding pattern of these plans and the benefits that are likely to accrue.

### **Market position**

In the totally 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 cost would be of key importance. Fertilizer companies with large and well-established distribution network 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.*

### **Agro climatic risk**

The fertilizer sales in India depend on 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 period. 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 increase in discounts and larger credit period to increase sales. Presence in geographically diverse areas may mitigate the agro climatic risk to some extent.

### **Working capital intensity**

Delays have been observed in subsidy payment to fertilizer companies on account of inadequate subsidy budget. The shortfall in subsidy budget usually affects the cash flow position of companies in second half of the financial year when the subsidy budget gets exhausted and thus companies have to resort to short term borrowing to fund extended subsidy receivables. In order to fund the increased subsidy receivables, fertilizer companies have to resort to additional working capital borrowings or short term loans which leads to increase in its working capital intensity.

### **Event risk**

In some fertilizer units, the Government of India (GoI) through Department of Fertilizers (DoF) has issued office memorandum for recovery of 'undue benefits' accrued with use of domestic gas for production of P&K fertilizers and chemicals. Any significant recovery by DoF from mopping of gains could affect the credit metrics of the company.

### **Financial Ratios:**

The following sector specific ratios are looked into apart from the detailed financial ratios analysis mentioned under the rating methodology for manufacturing sector companies.

### **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 larger collection period since the portion of subsidy in its retention price is higher as compared to other decontrolled fertilizers.

### **Cash flow from operations**

The cash flow from operations is monitored to examine the change in the levels of working capital intensity of the operations over the past one year. This would include changes in the inventory levels mainly due to changes in the channel inventory at distributor level and would also include the level of changes in subsidy receivables.

### **Working capital intensity level**

It represents the utilization of working capital limits against sanction limits. Fertilizer companies have high subsidy receivables and inventory; hence its working capital intensity level is examined to understand the company's efficiency in managing its working capital requirements.

### Conclusion

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality, by taking into account 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.

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