

Assessment of industry risk is an essential part of credit rating process. The industry risk assessment sets the ceiling for ratings of individual entities within a given industry. It focuses on the degree of cyclicity and the strength of competitive forces along with the extent of capital intensity, vulnerability to technological change, level of regulatory interference and energy sensitivity. All these factors are assessed on a scale ranging from High to Low to assign an overall risk level to each industry. Industry risk categorization for different industries is available on our website under Sector Updates "Industry Risk Analysis" (<https://docs.vis.com.pk/docs/Industryrisk062021.pdf>).

This document explains VIS approach to assess industry risk of the 'Fertilizer' sector of Pakistan. Fertilizers are nutrients which are essential for the growth of plants and crops comprising three main types- Nitrogenous (Urea, CAN), Phosphorus (DAP) and Potassium (NPK and NP).

Fertilizer Industry in Pakistan

As per the Pakistan Bureau of Statistic (PBS) industry classification, the Fertilizer sector is categorized in the Large-Scale Manufacturing (LSM), although the sector is majorly driven by the agriculture, particularly crops, segment of the country. As most of the labor force in the country is employed in the agriculture sector, fertilizer sector is considered to be of great importance. Further, crops contribute about 35% share in the total agricultural output of Pakistan. As per the PBS, Pakistan meets a major portion (86%) of demand from domestic production while the remaining 14% demand is covered through imports.

OVERALL INDUSTRY RISK

High
High to Medium
Medium
Medium to Low
Low

Cyclicity Risk

Agriculture sector in Pakistan contributes 22.7% and provides employment to around 37.4% of the labor force. Our economy is also reliant on main tertiary sub-sector (Textile) on agriculture inputs. Hence, there is a high level of reliance of economy of the fertilizer sector, both in direct and indirect terms. Considering this, the cyclicity in terms of economic down cycles is minimal.

Consequently, as the sector is considered to be critical for the economy, the government continuous to provide relief and subsidy programs for the fertilizer producers. The government support largely comes in form of low cost gas and subsidies. With the access to subsidized rates, the local manufacturers have an advantage in terms of price as compared to the international manufacturers with global prices comparing on the higher side. The level of price inelasticity depends on the fertilizer product type i.e. Urea, CAN, DAP, NPK and NP. With a continuous support from the government, the prices of urea have largely remained inelastic even during economic downturns, historically. Due to inelastic price levels, EBIT margins also remained stable for the players dominating in urea sales. For DAP, around 60% of the demand is met through imports along with significant reliance on imports for major raw material (Phosphoric Acid). Hence, local prices of DAP remain volatile depending on international prices and exchange rate movement. With urea accounting for 70% of the country's fertilizer output, prices for the fertilizer have remained on the lower side due to the government support.

While the fertilizer sector has criticality in the local environment, the importance has significantly increased globally amid food security concerns since the Russia-Ukraine conflict in the short to medium term. Russia and Belarus are two of the major fertilizer producers in the world and this conflict has raised concerns over fertilizer availability, thus pushing the fertilizer prices internationally. Considering both local and international context, cyclical impact of economic downturns is considered to be 'Low' for the sector.

Competitive Risk

Barriers to Entry Risk

An assessment of barriers to entry, substitution risk and risk in growth trends in the industry reflects the competitiveness of the industry. With regard to the barrier to entry, the sector is dominated by six players which occupy almost ~95% of the market share depicting oligopolistic nature of the industry. Barriers to entry for the fertilizer sector are considered to be on the higher side due to high level of Government regulation, extensive capital and infrastructure requirements for a start-up, and availability of concessionary gas supply arrangements in place for the players that dominate the market. Consequently, the industry's risk against the same is assigned as 'Low'.

Risk of Substitution

Risk of substitution of fertilizers is also assigned as 'Low', given no foreseeable substitutes as such which can possibly replace fertilizers in the medium to short term. Moreover, to protect the local industry from import-substitution, the government has already passed an import-substitution industrialization policy and made strategic manufacturing investments to build a domestic fertilizer industry. The locally manufactured products are cheaper than imported ones largely due to provision of concessionary gas. Variation in domestic output has historically compelled the Government to allow imports, however the proportion of the same in relation to total demand remains on the lower side.

Growth Trends

Competitiveness of the industry is also gauged through an assessment of risk of growth trends which is assigned as 'Medium'. The empirical data suggests some correlation found between GDP growth rate and the industry's revenue growth. The data also confirms that growth in fertilizer intake reflects positively on GDP as more investment is made in agri-sector leading to improved crop yields; that remains the backbone of Pakistan's economy.

Overall competitiveness factor is assigned 'Medium to Low' for the sector.

Capitalization Levels and Technology Risk

Fertilizer sector's risk of capital intensity is considered to be 'high' given significant capital requirement to start-up the business. There is also a requirement of maintaining high fixed cost ratio in the total operating costs as reviewed on a timeline basis. The investment recovery period is also considered to be long term. Further, financing a large quantum of equity investment is hard to get and can only be provided by big conglomerates; however given the financial muscle of the existing fertilizer companies (Groups) procuring local and foreign debt is not a constraint.

Industry risk analysis also encompasses assessment of technological risk. With little level of innovation in the production of fertilizers, risk of obsolescence is minimal. Urea, CAN and ammonia will continue to be produced by natural gas, coal and oil. While phosphate and potash based fertilizers are going to be produced by usage of natural rocks available. Hence, given limited avenues for technological development in the production and selling mechanism of fertilizer products to the end consumer, risk level has been assigned as 'Low'.

Regulatory Practices

Regulatory risk of the industry measures the level of dependency on government-related factors such as regulation, licensing, approvals and tariffs. These factors can impact credit quality, since they affect business strategies and potential performance. The prices of the fertilizer products are unregulated and the players set prices based on market forces of demand and supply. Moreover, the Government issued Fertilizer Policy 2001 to provide relief/subsidies to the fertilizer manufacturers in the form of concessionary gas rates and provides support to the farmers by subsidized domestic prices. The main intent of the policy was to promote new investment in the fertilizer plants through subsidized gas prices available to make them competitive in the domestic market. Based on the current economic and social importance of the sector, the support to Fertilizer sector is expected to remain strong for the rating horizon of next 2-3 years. However, in terms of reliance on Government support to operate profitably, regulatory risk is assigned as 'High to Medium'.

Energy Consumption

Assessment of industry risk also encompasses evaluation of energy sensitivity. For fertilizer sector, energy cost is one of the most profound elements in the cost of production. The increase in energy cost directly increases the cost of final product. To support the high energy cost, the government provides subsidy through concessionary gas to fertilizer plants to keep the cost of ammonia-based fertilizers low and within the reach of farmers. Although, current margins of the fertilizer companies remain sizable, the depletion of indigenous gas and volatility of LNG prices in the international market may hamper the overall margins of the sector. Continuation of Government support for consistent and less-costly supply of gas is considered important. Building that support, the risk of energy sensitivity is allocated 'Medium'.

In view of all the risk parameters discussed above, overall industry risk for the Fertilizer sector is 'Medium to Low'

Table 1: Summary of Industry Risk Factors

FERTILIZER									
Cyclicality	Competition				Capital Intensity	Technology Risk	Regulatory Framework	Energy Sensitivity	OVERALL RISK
	Risk of Effectiveness of barrier to entry	Risk of Substitutes	Risk in Growth Trends	Overall					
Low	Low	Low	Medium	Medium to Low	High	Low	High to Medium	Medium	Medium to Low

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