# Pakistan Fertilizer Sector Review

## Initiating Coverage

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# CONTENTS

| Section | Page |
|---|---|
| Introduction | 3 |
| Valuation Model | 4 |
| Agriculture: Economic Backbone | 5 |
| World Fertilizer Situation | 8 |
| Market Dynamics | 12 |
| Relative Valuation | 17 |
| Costs | 18 |
| Profitability | 20 |
| Stock Summaries | 22 |
| Fauji Fertilizer Company Limited | 23 |
| Engro Chemical Pakistan Limited | 32 |
| Fauji Fertilizer Bin Qasim Limited | 43 |

All prices are as of October 26, 2007

# Introduction

### An Economy Deriving 20% of Its Output from Agriculture
Pakistan has moved from an economy heavily dependent on agriculture to a relatively balanced economy based on services, industry and agriculture. As of FY07, agriculture contributed 20% to the overall GDP. The government's policies are directed towards improvement of agricultural output through increased credit disbursements to the agricultural sector and improvement in irrigation.

### Low Penetration of Fertilizers Expected to Improve
Fertilizer usage in Pakistan is low and the current fertilizer consumption stands at 162.5kg per hectare. This is in large part responsible for the low yield per hectare of cultivated land which stands at 1.44tn per hectare. Fertilizer consumption closely follows economic growth of the country as exhibited by the strong positive correlation ($R^2$=0.9841) between fertilizer consumption per hectare and nominal GDP. As the economy is expected to perform well in the future with an estimated nominal GDP growth of 14%, we expect fertilizer penetration to increase to 187kg per hectare. This greater demand is expected to continue in the future as economic growth continues.

### Excess Demand Situation-Seller is the King
The industry capacity currently stands at 5.8mntpa whereas local demand is 6.8mntpa. This excessive demand ensures sales of total production. However, this situation is expected to reverse in the year 2010 after which manufacturers will be forced to fight for market share.

### Low Resource Costs Result in High Profitability
Pakistan's fertilizer manufacturers have low resource costs due to feedstock gas subsidy advanced by the government. Through this subsidy manufacturers are able to get feed stock gas at significantly lower rates than the market which improves their profitability. This subsidy is expected to remain in place at least for the next three to four years i.e. until the industry faces an excess supply situation. Later on the subsidy may be withdrawn from that portion of production which is exported. Production directed towards local sales is expected to continue receiving the subsidy.

### Expansions May Open Up Attractive Export Avenues
The current excess demand situation has prompted capacity expansions which are likely to open up profitable export avenues post 2010. Industry supply is expected to reach 7.5mntpa by 2010 which will be higher than local demand. This surplus is likely to be exported to the neighboring countries.

### Attractive investment Portfolios-Trading at a Discount
The Companies in our coverage are dominant players who hold attractive investment portfolios. This includes FFC's investments in FFBL and ENGRO's investments in various subsidiaries. According to our valuations the current market price of the selected companies does not completely reflect the true value of these profitable investments.

### Regional Comparison-Valuations are Low
On a regional basis, Pakistan fertilizer manufacturers are trading at lower multiples. In a fast-paced economy deriving a large part from agricultural output, growth prospects are indeed high which belie these low multiples. Therefore, these stocks present an attractive opportunity to take exposure in high growth stocks at low costs.

## Valuation Model

Our valuation model is the Discounted Cash Flow model using Free Cash Flow to Firm (FCFF). The Discounted Dividend model is not appropriate for this sector because the dividend history for some of the selected companies is volatile.

Extensive detail in disclosure of income and expense accruals required for Residual Income models was not available, which render these models inappropriate too.

Although we do state and compare enterprise value of our selected companies, we do not use its multiple (EV/EBITDA) as a preferred method of valuation because our focus is on equity value rather than total firm value. Moreover, FCFF is more strongly linked with valuation theory than EBITDA.

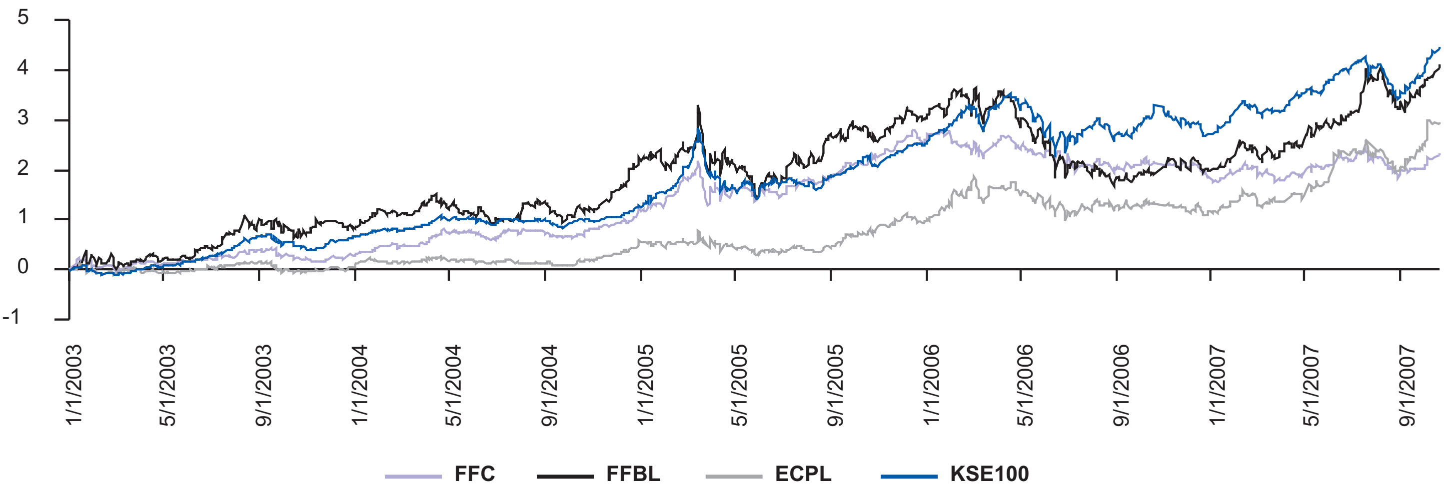
We believe that the Free Cash Flow method is the most appropriate for this sector because the sector's free cash flows corresponds with earnings.

**Table 1: Valuation Summary**

| Company | Recommendation | Current Price (PRs) | Fair Value (PRs) | Upside (%) | EPS (PRs) FY07E | EPS (PRs) FY08E | P/E (x) FY07E | P/E (x) FY08E | ROE (%) FY07E | ROE (%) FY08E | DPS (PRs) FY07E | DPS (PRs) FY08E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FFC | BUY | 125.3 | 157.3 | 26% | 12.07 | 14.42 | 10.38 | 8.69 | 43.61% | 46.37% | 10.65 | 11.00 |
| Engro | BUY | 271.9 | 319.9 | 18% | 15.86 | 15.37 | 17.14 | 17.69 | 28.64% | 27.84% | 15.74 | 15.25 |
| FFBL | BUY | 46.5 | 56.0 | 20% | 2.68 | 4.83 | 17.35 | 9.62 | 29.55% | 45.37% | 2.75 | 3.25 |

*Source : Company Reports & IGI Research*

**Chart 1: Relative Performance**



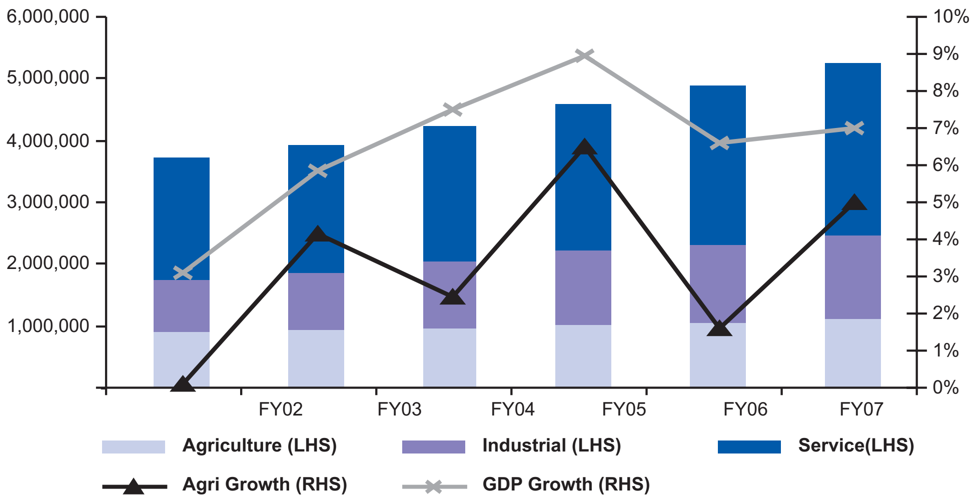

*Source : Bloomberg*

## Agriculture: Economic Backbone

*Agriculture is large part of Pakistan economy*

In the past decades, Pakistan has progressed from a purely agriculture based economy to a relatively balanced economy dependent on services and other commodity producing sectors as well. Although, agriculture continues to perform an important role in the overall GDP, however, in recent times it has been outpaced by rapid growth in non-agricultural sectors. Share of agriculture output to overall GDP stood at 20% of total GDP in FY07 whereas industrial sector contributed about 26%. As per our estimates the share of agriculture cannot go down further, as many industrial sectors such as textile, sugar and fertilizer are also dependent upon agriculture. These industries provide input, as well as derive input from agriculture. We feel that the past years' low growth in agriculture as compared to the overall GDP is due to crop spoilage, adverse weather conditions and also due to the relatively higher growth in share of industrial sector. However, in the future, the share of agriculture in overall GDP is estimated to start rising henceforth as the population demand for food rises.

**Chart 2: Agricultural and Economic Growth**




*Source : State Bank of Pakistan, Federal Bureau of Statistics & IGI Research*

### Economic Environment

*Pakistan's economy is expected to grow*

Fertilizer consumption worldwide is highly correlated with macroeconomic growth of the country. Likewise, Pakistan has witnessed robust economic growth in the last few years. The country's GDP has grown at a CAGR of 7.55% over the past 3 years and future prospects are positive with GDP growth of 7.0% expected in FY07, which augurs well for fertilizer consumption.

The strong economic performance has been accompanied by an increase in agriculture growth, per acre yield and resultantly fertilizer demand. Total agriculture GDP stood at PRs1,095bn in FY07.

**Table 2: Economic data**

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|
| GDP growth (%) | 3.1 | 4.8 | 7.5 | 8.6 | 6.6 | 7.0 |
| Consumer prices (%) | 3.5 | 3.1 | 4.6 | 9.3 | 7.9 | 6.5 |
| Private consumption (%) | 1.6 | 0.5 | 11.5 | 13.1 | 8.1 | 4.1 |
| Growth in Construction Activity (%) | 1.6 | 4 | -10.7 | 18.6 | 9.2 | 17.2 |
| Trade balance (PRs bn) | (73.7) | (62.1) | (188.8) | (369.6) | (515.4) | |
| 3 month T-bill rates (%) | 5.68 | 1.87 | 2.37 | 6.88 | 8.51 | 9.09 |

*Source : State Bank of Pakistan, Federal Bureau of Statistics & IGI Research*

**Table 3: Real GDP Growth (%)**

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|
| World | 3.1 | 4.1 | 5.3 | 4.9 | 5.1 | 5.4 |
| United States | 1.6 | 2.5 | 3.9 | 3.2 | 3.4 | 3.3 |
| Euro Area | 0.9 | 0.8 | 2.1 | 1.3 | 2.4 | 2.6 |
| Japan | 0.1 | 1.8 | 2.3 | 2.6 | 2.7 | 2.2 |
| China | 9.1 | 10.0 | 10.1 | 10.2 | 10.0 | 10.7 |
| India | 4.3 | 7.2 | 8.0 | 8.5 | 8.3 | 9.2 |
| Indonesia | 4.5 | 4.8 | 5.1 | 5.6 | 5.2 | 5.5 |
| Thailand | 5.3 | 7.0 | 6.2 | 4.5 | 4.5 | 5.0 |
| Pakistan | 3.1 | 4.8 | 7.5 | 8.6 | 6.6 | 7.0 |

*Source : State Bank of Pakistan*

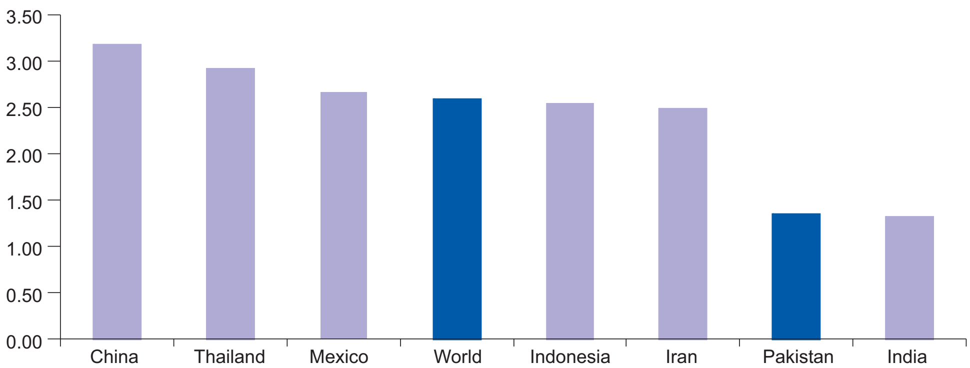
*Agriculture is expected to grow (because of govt. policies, better irrigation)*

Pakistan's agricultural output has suffered in the recent past due to adverse weather conditions and crop spoilage. The government is committed to improve agriculture performance through the following measures:

1) Irrigation system improvement
2) Subsidy to farmers.
3) Encouraging use of fertilizer.
4) Above average credit disbursements.

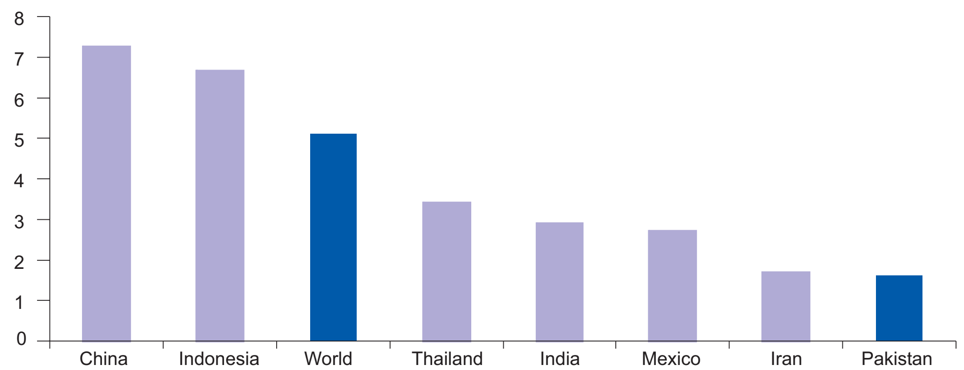
As a result of these policies, yield per hectare of Pakistan is showing gradual improvement although it is still low as compared to other countries. Currently it stands at 1.44tn per hectare.

**Chart 3: Yield per Hectare (Selected Countries)**




*Source : IFA*

**Chart 4: Consumption kg/Hectare**



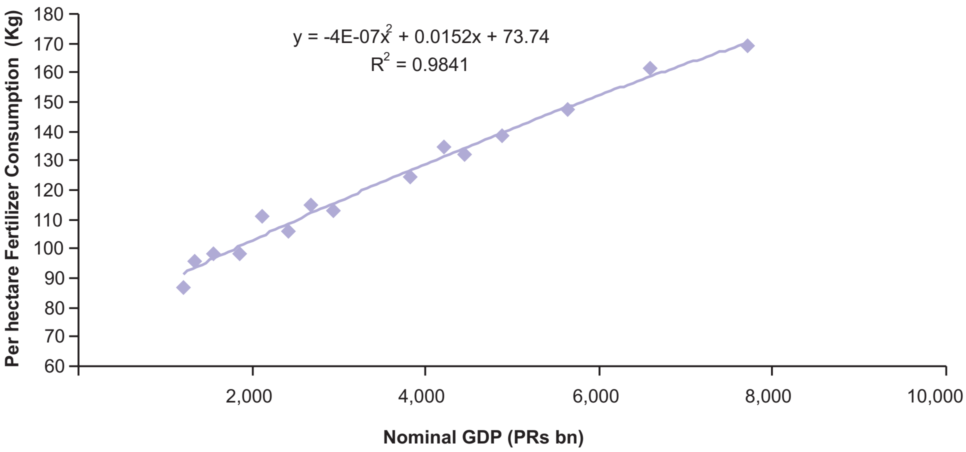

*Source : IFA*

The low yield can be explained in a large part by the low fertilizer use in Pakistan. Fertilizer consumption in Pakistan stands at 162.5kg/hectare. The fertilizer policy is aimed at providing low cost fertilizers to farmers so as to enable them to improve yields. It encourages manufacturers to invest in the country and subsidizes their most important feed stock gas rates. In the future these measures are expected to result in greater use of fertilizers and thereby create higher demand for it.

*Fertilizer penetration is likely to increase (regression of kg per hectare vs. nominal GDP)*

We have regressed per hectare fertilizer consumption against nominal GDP of the country for the period FY92 to FY06. We find a strong positive correlation ($R^2$=0.9841) between the two. The regression is an upward sloping second-degree polynomial that suggests that going forward as nominal GDP grows; per hectare fertilizer consumption would grow at an increasing rate. Undoubtedly, above average growth is expected since fertilizer consumption per hectare is one of the lowest in the world.

**Chart 5: Per Hectare Fertilzer Consumption vs. Nominal GDP**



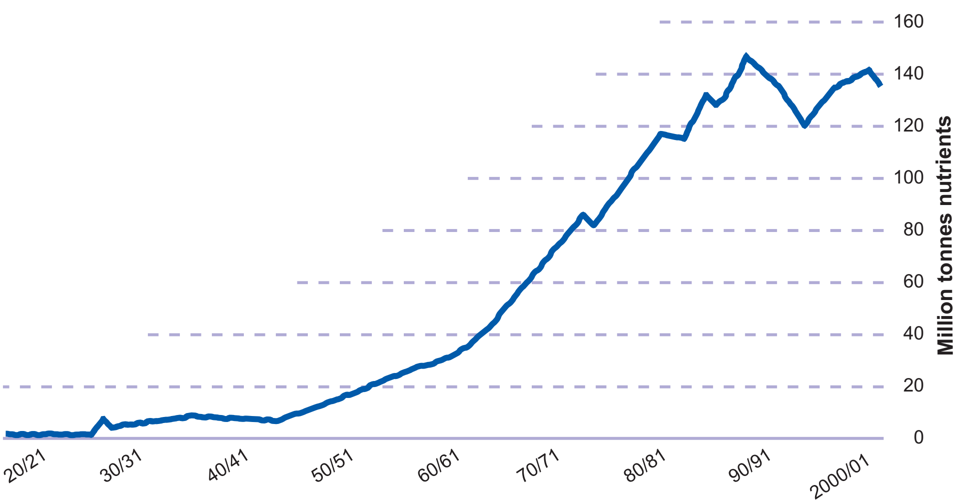

*Source : State Bank of Pakistan, Federal Bureau of Statistics & IGI Research*

Generally, fertilizer consumption closely follows production in a country subject to the availability of raw materials and also because of the relation between fertilizer consumption and economic growth.

## World Fertilizer Situation

### Consumption and Production

**Chart 6: World Fertilizer Consumption 1920/21 to 2000/01**

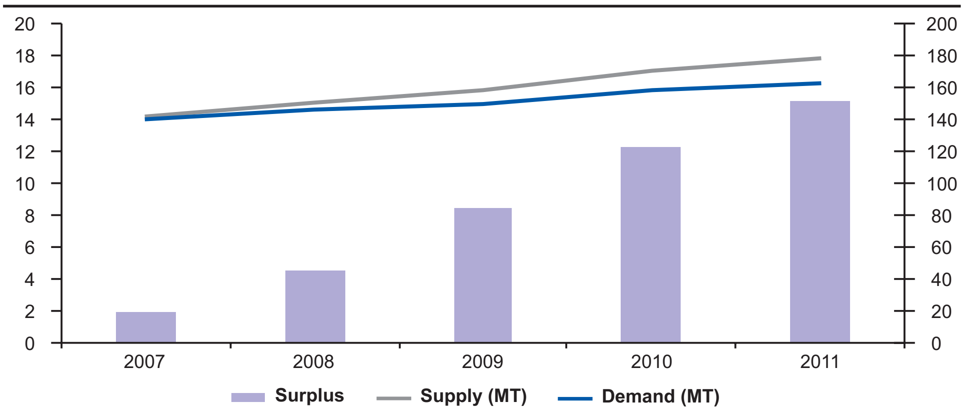



*Source : IFA & FAO*

World fertilizer consumption increased exponentially in the period 1950-1990. This growth was spurred by the rise in food demand by the burgeoning world population. Attaining higher production given the same amount of land can be done through three ways:

- Turning more land into arable land through better irrigation
- Using High Yielding Seeds (HYS)
- Using fertilizers to improve soil content

**Chart 7: World Fertilizer Surplus**

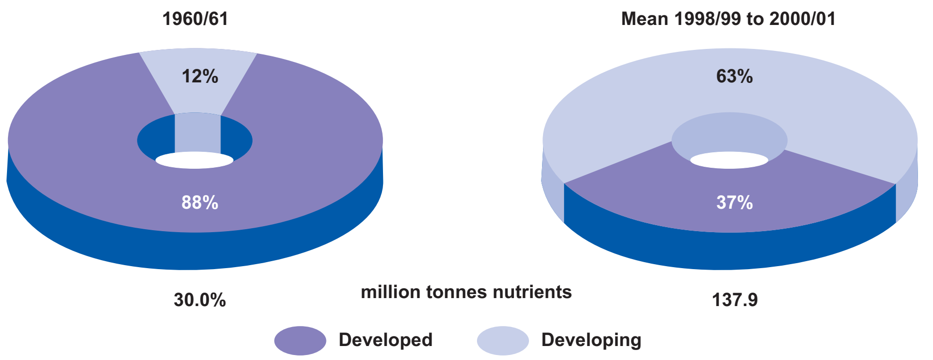



*Source : IFA & FAO*

Improvement in soil content is the most convenient and frequently followed method. Moreover, it has gained widespread use as food demand rises.

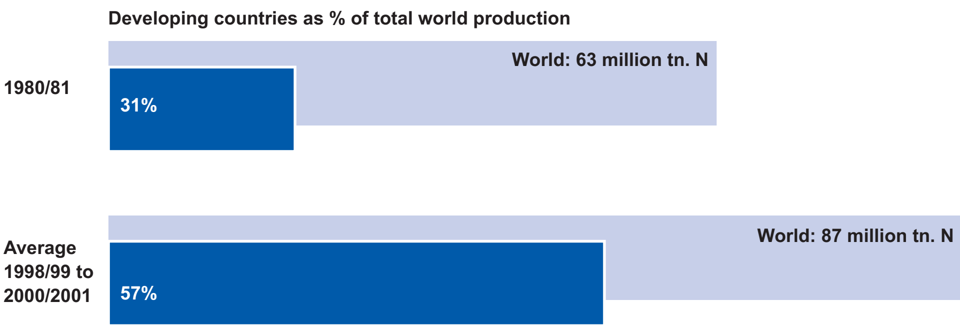
The exponential growth in world fertilizer consumption experienced a brief downturn in the early 1990's due to the collapse of fertilizer consumption in the countries of Central Europe and the Former Soviet Union, following structural changes and economic problems. However, post that brief downturn, growth in fertilizer consumption is again on the rise and rapid growth is expected to continue in the future. According to IFA estimates, world fertilizer consumption is expected to reach 163.7mntpa in 2011 from 143.3 mntpa in 2007.

**Chart 8: World Fertilizer Consumption: Regional Shares**




*Source : IFA*

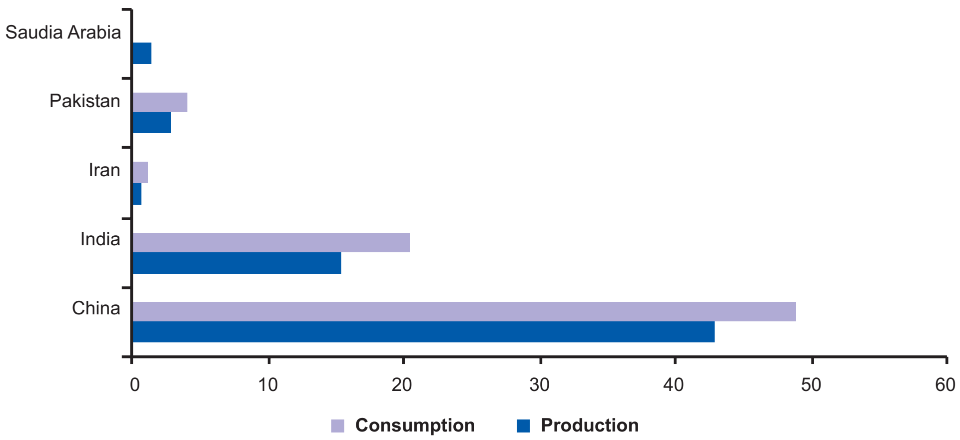
**Chart 9: Nitrogen Fertilizer Production**




*Source : IFA*

A sharp shift in actual consumers of fertilizer has also occurred over the period in view. From a 12:88 ratio of developing : developed nations' consumption in early 1960's the mix has now become 65:35. Almost a parallel shift has also occurred in fertilizer production in which close to 70% of the world's fertilizer is produced in developing countries as against about 40% in the early 1960s. Interestingly, over a third of the world's total production is in just two countries namely China and India. Hence, production of fertilizers has become concentrated in countries, who are also the users.

**Chart 10: World Fertilzer Statistics 2005 (mntpa)**



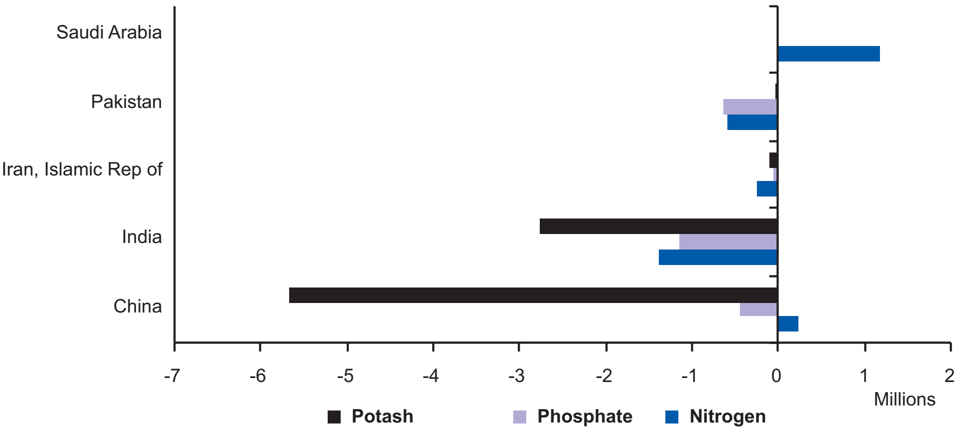

*Source : IFA*

Another factor that determines location of production is resource availability. The most common feedstock used across the world is natural gas and availability of natural gas reserves, therefore, facilitates production.

## Trade

Because of the relative location of producing and consuming countries, large quantities of fertilizer materials are shipped internationally. As a proportion of world's dry bulk trade, only coal, iron ore and grain exceed trade of fertilizers and their raw materials.

**Chart 11: Net Trade Comparison 2005 (mntpa)**



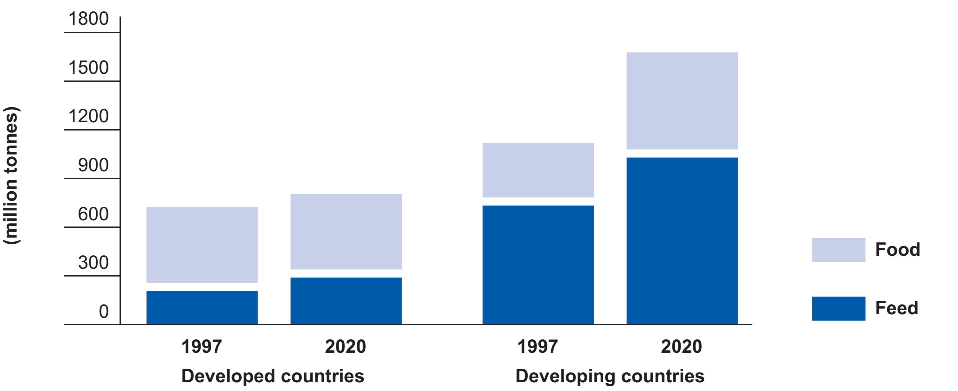

*Source : IFA*

## Outlook

The International Fertilizer Association (IFA) produces forecasts of world fertilizer usage and production. Following estimates are taken from IFA:

Till the year 2030, the increasing world population and higher standards of living in developing countries will demand a substantial increase in global cereal production. Problems in supply-demand are likely to occur because agricultural production in developing countries is not keeping pace with this increase in demand.

**Chart 12: Demand for Cereals for Human Food and Animal Feed, 1997-2020**




*Source : IFPRI August 2001*

The increase in demand can be met through increase in cultivated area, however, this appears only as a possibility in Africa and Latin America. In most other parts of the world the increase in demand must be met through greater yields, which will most certainly require increased use of fertilizers.

Assuming a slow-down in the growth of world population and crop production and an improvement in fertilizer use efficiency, it is forecasted that total fertilizer use, will have to increase from the present level of 143.3mntpa ($N+P_2O_5+K_2O$) to 163.7mntpa by 2011, resulting in growth rates of CAGR of 3.4%. Most of the forecasted increase in consumption will occur in South and East Asia and in North and South America.

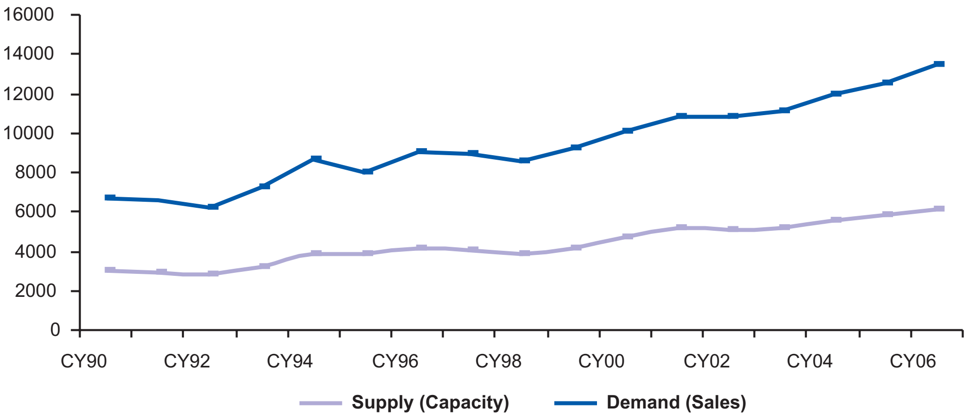
Growth in production is expected to outpace fertilizer consumption. According to IFA estimates world urea supply is expected to reach 178.8mntpa in 2011 from 145.2mntpa in 2007. Most of the forecasted increase in fertilizer capacity is expected to arise from China and Saudi Arabia.

## Market dynamics

### Demand-supply situation

The fertilizer industry in Pakistan has an oligopolistic structure. The product is differentiated and there are 9 firms in the industry. The entry or exit of a single player can affect pricing. There is no single dominant industry leader. The four largest firms are deemed to be price setters. However, government regulations and subsidies to farmers prevent these firms from exploiting their market power to arrange price setting agreements.

**Chart 13: Demand-Supply Gap** (000tn)




*Source : NFDC & SBP*

The current situation in the industry is one of excess demand. Currently, domestic supply capacity is 5.8mntpa (million tones per annum) and demand is 6.8mntpa. Overall industry capacity has shown a CAGR of 5.5% from CY90 to CY06 whereas sales have shown a CAGR of 5.3% from CY90 to CY06 i.e. supply has grown faster than demand. Given the same pace, the situation is expected to reverse in the year 2010. The current excess demand is met by the Trade Corporation of Pakistan (TCP), which imports foreign fertilizer that it sells on to domestic producers and distributors at a subsidized rate. TCP only imports urea and local manufacturers sell it at low margins (between 2% and 3%) whereas DAP is imported by local manufacturers themselves and they earn good margins on it especially when international phosphate prices rise and local importers have significant amount of DAP inventory on hand.

### Industry outlook

Presently, industry capacity stands at 5.8mntpa. Domestic demand is 6.8mntpa. Fertilizer demand is expected to grow at a CAGR of 5.25% from 2007 to 2012.

As for capacity, the three major players have planned following capacity expansion plans. These, as well as others, will take overall industry capacity to 7.5mntpa in the year 2010, at which time Pakistan's fertilizer industry will face excess supply situation. Exports may become possible if such a situation arises, which will have special implications for the fertilizer policy as we shall discuss later.

**Table 4: Capacity Expansions** (000tn)

| Urea | Existing Capacity | Increase | Final Capacity | Due Date | Type |
|---|---|---|---|---|---|
| FFC | 1,890 | 158 | 2,048 | May-08 | BMRE |
| ENGRO | 1,135 | 1,300 | 2,435 | Jul-10 | Expansion |
| FFBL | 551 | - | 551 | | |
| **DAP** | | | | | |
| FFBL | 446 | 223 | 668 | Mar-08 | BMRE |

*Source : Company Reports & NFDC*

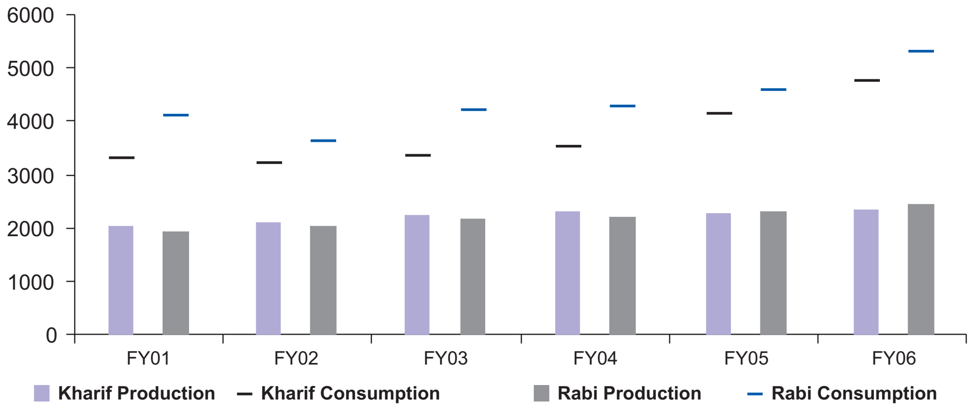
## Seasonal variation

**Rabi:** Consumption & production (across years)
**Kharif:** Consumption & production

There are two seasons of crops in Pakistan Rabi and Kharif. Rabi refers to the crops for which seeds are sown in September-October and harvested in March-April, whereas, kharif seeds are sown in March-April and harvested in September-October. Urea is needed in the middle of these crops, therefore, in the months that fall between sowing and harvesting urea off take increases. DAP fertilizer is mainly used at the time of sowing the seeds.

As far as the production of fertilizer in Kharif and Rabi is concerned it is more or less independent. However, in terms of consumption Rabi needs a lot of fertilizer as major crops of Pakistan (Rice, Wheat and Sugarcane) grow in Rabi season and the weather conditions are more suitable to use fertilizer due to minimum rainfall. In the Kharif season only cotton is grown and that does not require much fertilizer as compared to other crops.

**Chart 14: Seasonal Variation in Fertilizer**




*Source : NFDC, Company Reports & SBP*

## Market players

The tables below show industry concentration measures. The 4-firm concentration ratio, which is the sum of the market shares of the four largest producers, is 94.5%. The market is dominated by the four largest firms. Entry by a new firm is unlikely to significantly decrease concentration. The Herfindahl Index (HI) is 3,247. The HI is the sum of squared market shares in the industry. Values of HI between 1,000 and 1,800 are considered to be moderately concentrated. An HI of 3,247 indicates that the market is very highly concentrated. Hence, both measures indicate a high level of concentration in the industry, with the majority of the market belonging to the four largest firms. Also mergers and acquisitions are unlikely in the industry, therefore, it is expected that manufacturers will grow through expansions.

**Table 5: 4-Firm Concentration (CY06)** — **Urea and Ammonia Production**

| | Production (ttpa) | Market Share |
|---|---|---|
| Fauji Fertiliser Bin Qasim | 601 | 13.3% |
| Fauji Fertiliser Company Ltd | 2,269 | 50.0% |
| Dawood Hercules Chemical Ltd. | 446 | 9.8% |
| Engro Chemical Pakistan Ltd. | 969 | 21.4% |
| Others | 249 | 5.5% |
| Total | 4534 | 100% |

*Source : Company Reports & NFDC*

**Table 6: Herfindahl Index**

| Firm | Sales (000tn) | Sales Share | Sq.of Mkt Share |
|---|---|---|---|
| Fauji Fertiliser Bin Qasim | 601 | 0.13 | 0.01757 |
| Fauji Fertiliser Company Ltd | 2269 | 0.50 | 0.25044 |
| Dawood Hercules Chemical Ltd. | 446 | 0.10 | 0.00968 |
| Engro Chemical Pakistan Ltd. | 969 | 0.21 | 0.04568 |
| Pakarab Fertilizer Limited | - | - | |
| Pakamerican Fertilizer Ltd | 164 | 0.04 | 0.00131 |
| Lyallpur Chemicals & Fertilizers Limited | 39 | 0.01 | 0.00007 |
| Hazara Phosphate and Fertilizer Ltd | 46 | 0.01 | 0.00010 |
| Pak-China Fertilizer | | | |
| Total | 4534 | 1.00 | 0.32475 |

*Source : Company Reports & NFDC*

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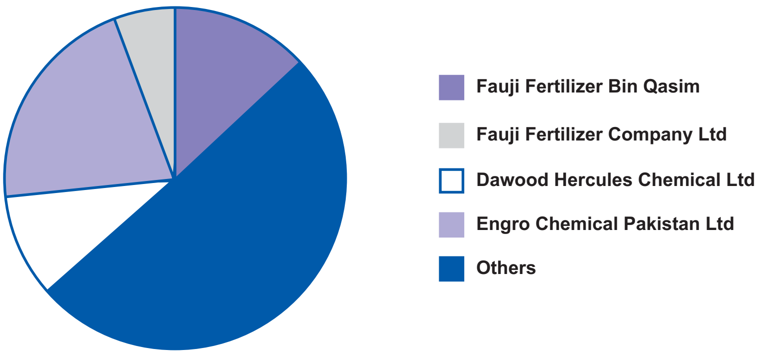
**Chart 15: Fertilizer Market Share**




*Source : Company Reports & NFDC*

Fauji Fertilizer Company (FFC) is currently undergoing an expansion to improve capacity at its urea Plant II by 330 ttpa or 16% by the end of 2007. Fauji Fertilizer Bin Qasim's (FFBL) 2007 expansion increased capacity at its ammonia plant by 99 ttpa by 24th June 2007. This entailed a 60 day shutdown of the Urea plant in 2Q07 and a planned 60 day shutdown of the DAP plant in 4Q07 and 1Q08. Engro Chemicals Limited (ENGRO) intends to install a 1.3mntpa urea plant by CY09. Fatima Group is also in the process of entering the industry, by building a plant with a capacity of 1.4 mtpa by CY09.

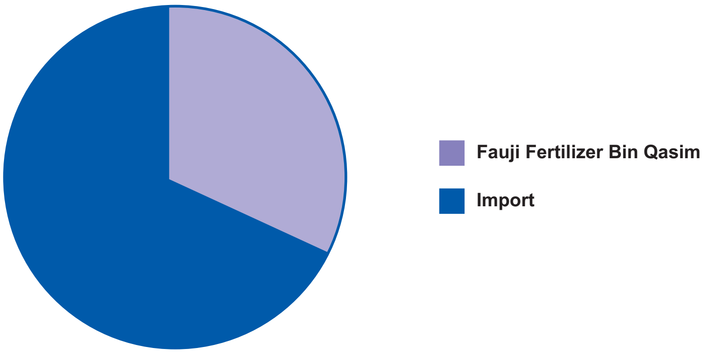
FFBL is the only domestic producer of DAP, a fertilizer which is required in the planting of new crop. This is a significant advantage for FFBL. Currently FFBL's share of the DAP market is 30%, with 70% of the market being supplied with imports.

**Table 7: DAP Production**

| | Production (ttpa) | Market Share |
|---|---|---|
| Fauji Fertiliser Bin Qasim | 451 | 29.7% |
| Import | 1066 | 70.3% |
| Total | 1517 | |

*Source : Company Reports & NFDC*

**Chart 16: DAP Market Share**




*Source : Company Reports & NFDC*

Fertilizer industry is expected to face an over capacity situation in the next few years after new plants of Fatima and Engro will come online, therefore, other companies are diversifying in order to grow. Fauji Fertilizer Company Limited (FCC) has recently approved a 50MW wind power project and is evaluating the feasibility of a US$500mn LNG project. Recently, FFBL has invested PRs1.5bn in a 175MW thermal energy firm. Engro is in the process of setting up a 220MW power plant which is expected to come online in 2010.

## Fertilizer Policy

**Purpose:**
Pakistan's yield per hectare is very low as compared to other countries. This is a concern for policy makers as Pakistan's GDP is heavily dependent upon agricultural output. Furthermore, a large part of industrial production is also dependent upon agriculture (such as cotton ginning, weaving, sugar, fertilizers etc.). Therefore, in order to continue with the economic expansion; the government is committed to a long term policy of supporting farmers in improving agriculture output. Several measures have been taken to increase the country's agriculture productivity. Such as:

- Construction of dams
- Irrigation plans
- Gas subsidy on fertilizer

The fertilizer policy is a step towards the last measure. It is directed towards reducing feed stock (natural gas) costs incurred by fertilizer manufactures; so that the end users (i-e. farmers) can avail a low cost product. The purpose is to encourage end use of fertilizers so as to improve yield. The subsidized rates are available to manufacturers who sign the General Sales Agreement (GSA).

**Policy: Terms and structure**
The latest Fertilizer Policy was announced in 2001. This policy laid down the subsidized feedstock rates till 2006. Since then, the new policy has not been announced. The terms state that when a company signs the GSA for the first time, the feedstock gas price applicable to it will be US$0.77/mmbtu or the Middle eastern Price prevailing at the time (which ever is higher), less 10% discount. This rate will remain constant for 10 years. After 10 years; the price will start increasing at incremental rates. As per Fertilizer Policy 2001, the rates will increase as follows If investors bring in a new plant, price will be set at US$1.1/mmbtu or prevailing Middle Eastern price.

| Year | Rates |
|---|---|
| 2001 | Nil |
| 2002 | 5.0% |
| 2003 | 7.5% |
| 2004 | 10.0% |
| 2005 | 12.5% |
| 2006 | 15.0% |

**Future:**

The government is likely to extend its subsidy on feedstock gas in its next policy. However, the crucial question is what will happen when the industry experiences excess supply situation. In such a situation manufacturers will no doubt seek to export the surplus fertilizer production. In such a case, the government is likely to enforce a condition which will not allow manufacturers to gain undue competitive advantage internationally because of their low feedstock costs. This is because the spirit of the Fertilizer Policy is the welfare of farmers and not fertilizer producers. It is possible that the government may impose duties which will in effect nullify the effect of feedstock subsidy only on fertilizer which is exported.

**Table 8: Feedstock Gas Rates** (PRs/MMBTU)

| | 2006 | 2007E | 2008E | 2009E | 2010E | 2011E | 2012E |
|---|---|---|---|---|---|---|---|
| **FFC** | | | | | | | |
| Plant I & II | 88.22 | 94.37 | 102.63 | 121.98 | 148.04 | 183.40 | 231.80 |
| Plant III | 36.42 | 36.42 | 36.42 | 36.42 | 36.42 | 36.42 | 36.42 |
| **Engro** | | | | | | | |
| Existing Plants | 88.22 | 94.37 | 102.63 | 121.98 | 148.04 | 183.40 | 231.80 |
| Expansion | - | - | - | - | 36.77 | 36.77 | 36.77 |
| **FFBL** | | | | | | | |
| Existing Plants | 36.77 | 36.77 | 36.77 | 36.77 | 36.77 | 36.77 | 37.69 |
| Expansion | 36.77 | 36.77 | 36.77 | 36.77 | 36.77 | 36.77 | 37.69 |

*Source : NFDC & Fertilizer Policy*

## Relative Valuations

On a regional basis, Pakistan fertilizer manufacturers are trading at lower multiples. In a fast-paced economy deriving a large part from agricultural output, growth prospects are indeed high which belie these low multiples. Therefore, these stocks present an attractive opportunity to take exposure in high growth stocks at low costs. Moreover, these stocks provide the highest ROE and dividend yield on a regional basis.

**Table 9: Relative Valuations**

| | Price Earnings Ratio (P/E) | Price to Book Ratio (P/B) | Operating Margin | Return on Common Equity | Dividend Yield | 1 Year Toatal Return - Last Close |
|---|---|---|---|---|---|---|
| **WORLD** | 35.31 | 9.87 | -0.05 | 11.15 | 2.31 | 83.5 |
| **Pakistan** | | | | | | |
| Averages | 17.13 | 4.88 | 21.74 | 32.20 | 6.37 | 38.96 |
| FFC | 10.90 | 4.93 | 20.64 | 41.79 | 9.47 | 14.46 |
| FFBL | 24.84 | 5.62 | 21.37 | 32.93 | 6.55 | 81.78 |
| ENGRO | 20.47 | 6.23 | 16.08 | 32.04 | 6.69 | 62.75 |
| DAWH | 12.30 | 2.73 | 28.85 | 22.05 | 2.75 | (3.14) |
| **China** | | | | | | |
| Averages | 63.70 | 7.65 | 11.39 | 18.65 | 1.29 | 166.65 |
| REY | 10.38 | 8.63 | 30.82 | 124.52 | N.A | 166.65 |
| CXLX | 38.61 | 74.78 | 19.09 | 102.87 | N.A | N.A |
| QINGHAI SALT | 57.70 | 25.37 | 57.16 | 43.57 | N.A | N.A |
| ZHEJIANG XINAN | 34.08 | 11.81 | 19.77 | 33.99 | N.A | 241.86 |
| CAGC | 13.61 | 2.89 | 35.11 | 28.98 | - | 309.23 |
| **Hong Kong** | | | | | | |
| Average | 21.41 | 3.05 | (124.37) | 12.89 | 0.85 | 29.45 |
| CENTURY SUNSHINE | 6.08 | 1.81 | 37.12 | 34.06 | N.A | (58.78) |
| SINOFERT HOLDING | 46.08 | 9.50 | 4.74 | 22.91 | 0.72 | 157.85 |
| SUNGREEN INTL | 22.40 | 1.69 | 12.67 | 7.82 | - | 15.00 |
| **INDIA** | | | | | | |
| Average | 17.40 | 2.34 | 10.46 | 10.98 | 2.34 | 30.61 |
| GDVF | 9.53 | 3.50 | 10.79 | 41.97 | 3.42 | 82.22 |
| GNFC | 6.49 | 1.87 | 19.56 | 31.94 | 3.69 | 52.59 |
| CHMB | 16.55 | 2.18 | 14.62 | 23.27 | 4.60 | 25.79 |
| MCHM | 16.29 | 3.06 | 17.78 | 20.10 | 1.63 | (21.38) |
| RCF | 19.73 | 2.02 | 14.23 | 10.56 | 2.85 | 30.22 |
| NFCL | 36.06 | 1.31 | 11.52 | 3.60 | - | 267.25 |
| **RUSSIA** | | | | | | |
| Average | 22.95 | 5.52 | 20.56 | 29.09 | 0.91 | 83.03 |
| AZOP | 6.31 | 2.90 | 23.59 | 31.55 | N.A | N.A |
| SILV | 24.27 | 7.17 | 34.43 | 30.28 | 0.91 | 139.21 |
| URKA | 73.91 | 14.75 | 29.39 | 22.69 | N.A | 221.68 |
| AMMO | 7.69 | 1.72 | 9.21 | 12.36 | N.A | N.A |
| **TURKEY** | | | | | | |
| Average | 21.18 | 1.86 | 6.00 | 9.29 | 3.80 | 102.01 |
| GUBRF | 22.08 | 3.01 | 4.62 | 14.72 | 5.47 | 172.63 |
| BAGFS | 18.85 | 1.82 | 7.49 | 9.76 | 3.83 | 87.26 |
| EGGUB | 22.62 | 0.76 | 5.88 | 3.38 | 2.09 | 46.15 |

*Source : Bloomberg*

## Costs

Cost of sales can be broadly divided into three categories:

- Manufacturing Cost
- Administration Cost
- Selling and Distribution Cost

**Table 10: COGS/tn**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| FFC | 6,214.28 | 7,264.09 | 7,856.59 | 8,358.41 | 9,064.03 | 10,143.48 | 11,433.05 | 12,916.87 |
| ENGRO | 10,716.05 | 9,137.20 | 9,553.03 | 10,193.67 | 10,769.61 | 9,911.73 | 9,430.35 | 10,229.13 |
| FFBL | 9,812.74 | 9,648.91 | 10,200.24 | 9,783.18 | 9,718.85 | 9,821.92 | 9,958.34 | 10,097.42 |

*Source : Company Reports & IGI Research*

The cost of goods sold per ton for most manufacturers is similar. Only FFC has clearly exhibit lower than average COGS per ton. This has more to do with older plants with lower depreciation rather than manufacturing efficiency.

The most important and largest component cost is the manufacturing cost. Raw materials costs in turn form the largest component of manufacturing costs.

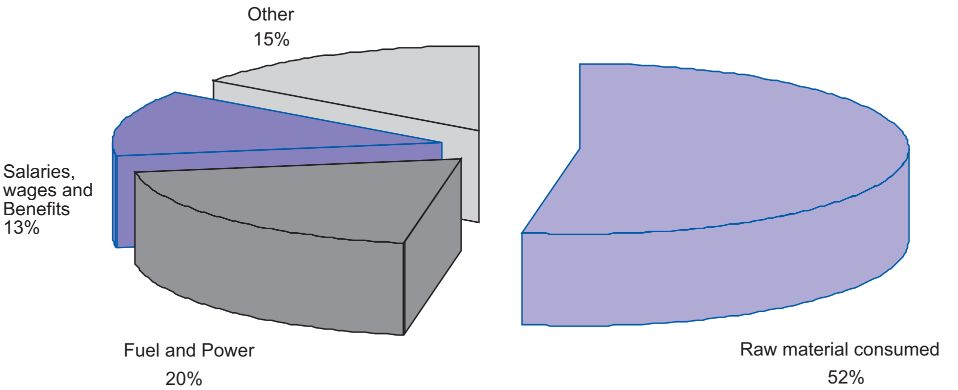
FFBL, manufacturing cost is very high as compared to the others FFC and Engro. This is due to the fact that FFBL is the only company to manufacture both Urea and DAP fertilizer and DAP's manufacturing process is costlier.

**Table 11: COGM/tn**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| FFC | 4,275.40 | 4,680.75 | 4,736.25 | 4,778.41 | 4,936.78 | 5,663.08 | 5,933.91 | 6,230.33 |
| ENGRO | 4,550.06 | 4,135.77 | 4,408.32 | 4,529.59 | 4,920.90 | 5,507.66 | 5,907.58 | 6,429.90 |
| FFBL | 9,673.67 | 8,843.33 | 9,236.80 | 9,147.28 | 9,125.59 | 9,821.92 | 9,958.34 | 10,097.42 |

*Source : Company Reports & IGI Research*

**Table 17: Manufacturing Cost Breakup**




*Source : Company Reports & IGI Research*

The main component of manufacturing cost is raw material which is natural gas. 80% of the gas used is feed stock gas where 20% used as fuel stock gas. Fuel and power forms the other major portion.

The other important cost of sales component is selling and distribution cost. This cost can vary depending on the plant location. We find that due to FFC's presence in both Punjab and Sindh regions, its S&D cost per bag is the lowest. FFBL's cost is the highest as its plant is located near Karachi and it is costlier to take it to the farmers in the Northern areas.

**Table 12: S&D per beg**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| FFC | 17.28916 | 18.9826 | 21.26132 | 22.97566 | 24.49678 | 26.3436 | 27.78181 | 29.54746 |
| ENGRO | 20.2985 | 21.21303 | 23.79076 | 26.03789 | 28.09036 | 27.25112 | 27.14145 | 28.79225 |
| FFBL | 23.24765 | 24.89748 | 26.48393 | 29.94687 | 32.5078 | 34.63092 | 36.2232 | 38.14002 |

*Source : Company Reports & IGI Research*

## Profitability

**Table 13: Operating Profit Growth**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| FFC | 12% | -1% | 42% | 17% | 7% | -15% | -17% | -22% |
| ENGRO | 18% | 4% | 61% | -5% | -10% | 87% | 72% | 6% |
| FFBL | 42% | -1% | 1% | 92% | 36% | 9% | 9% | 10% |

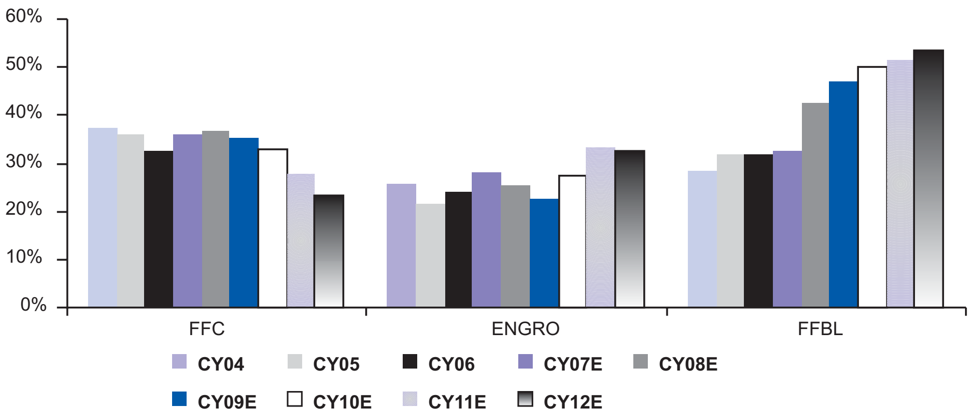
*Source : Company Reports & IGI Research*

Fertilizer manufacturers saw a rise in operating profits in CY06 with a steep and unprecedented rise in urea and DAP sales price per bag. Plant shutdown as a result of functional problems and BMRE/De-Bottlenecking in later CY07 might show dismal results for several fertilizer manufactures. However, in the upcoming years we expect operating profits to rise.

From 2010 ENGRO will take the lead based on expansion of it urea plant and other subsidiaries and its operating profit will soar. FFC's operations are not expected to grow much in future after industry faces excess supply as its market share is expected decline. It will derive more profits from non-core earnings.

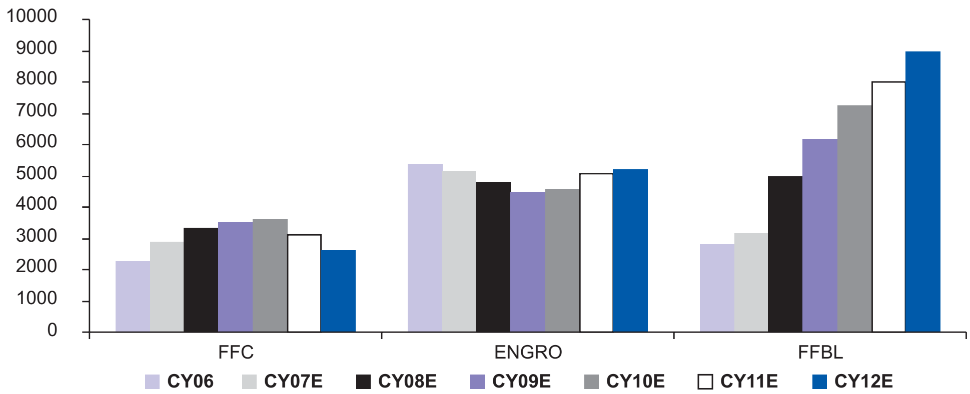
We expect gross profit margins to remain stable in the near future. However, FFBL's gross margin is expected to rise sharply on the back of internationally rising DAP prices.

**Chart 18: Gross Profit Margin**




*Source : Company Reports & IGI Research*

**Chart 19: EBITDA per tn** **(PRs)**




*Source : Company Reports & IGI Research*

Profitability measures such as Return on Equity (ROE) and Return on Assets (ROA) are not expected to peak in CY07 except for FFC which has no major expansion plan, therefore, its ROE and ROA will be the highest in the sector untill others, comes up with their additional capacities.

**Table 14: ROE**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| FFC | 39% | 36% | 44% | 46% | 46% | 40% | 36% | 35% |
| ENGRO | 31.44% | 27.13% | 28.64% | 27.84% | 24.98% | 41.40% | 59.15% | 47.03% |
| FFBL | 31.69% | 28.64% | 29.55% | 45.37% | 51.04% | 48.46% | 46.69% | 45.34% |

*Source : Company Reports & IGI Research*

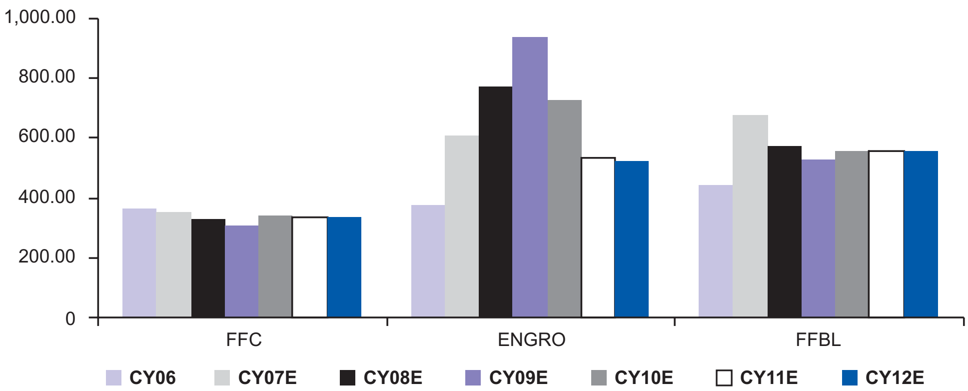
**Table 15: ROA**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| FFC | 17% | 17% | 23% | 27% | 28% | 25% | 22% | 20% |
| ENGRO | 16.43% | 15.91% | 9.93% | 4.71% | 4.03% | 7.22% | 11.14% | 8.15% |
| FFBL | 9.96% | 8.83% | 10.75% | 18.49% | 23.43% | 24.98% | 26.37% | 27.61% |

*Source : Company Reports & IGI Research*

Using Enterprise Value per ton of sales we find that overall our selected scrip are attractively priced. The lowest and the most attractive is FFC.

**Chart 20: EV per tn of Sales (US$)**




*Source : Company Reports & IGI Research*

# Stock Summaries

# Fauji Fertilizer Company Limited

## Initiating Coverage

**Recommendation: BUY**

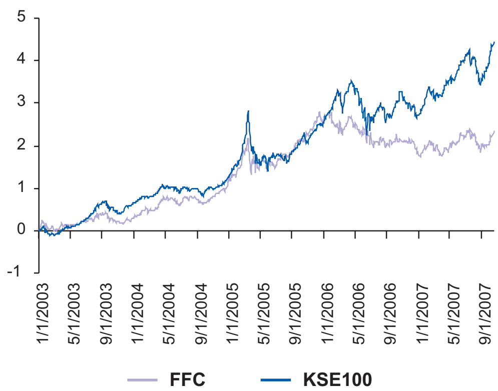
**Fair Value: PRs157**

### Investment Consideration

- FFC is the market leader in urea sales, and is expected to maintain its dominant position till 2010. It has a market share of 50%
- FFC's prudent decision of not undertaking capacity expansion is based on the premise that the industry is likely to face excess supply by the time these expansions come online.
- In view of the excess capacity situation, the company does not plan to incur any major capital expenditures planned in the future. The only capacity enhancement is planned through BMRE of existing plant by adding 0.158mntpa to existing capacity of 1.890mntpa. This is expected to come online in May 2008.
- In our opinion, May 2008 is actually an ideal time for a small capacity expansion. It will be two years prior to other major expansions in the industry to come online, and the industry will still be in excess demand situation. Hence, this will enable FFC to recover the cost of investment before the industry runs into excess supply, and there is strong competition over market share.
- Low capital expenditure has provided the company with the leverage to diversify and invest excess cash in other ventures. Moreover, in the past the company has exhibited an ability to make profitable investments consistently. Therefore, we are optimistic about the prospects of 50MW wind mill power project in Thar.
- The company's investment in subsidiary FFBL gives it exposure in the high growth segment of DAP fertilizer. The investment has a current market value of PRs22.09bn which translates into per share value PRs45 out of FFC's target price of PRs157 per share.
- Historically, FFC's share price has been highly correlated with price hikes in FFBL. However, the recent upsurge in FFBL share price driven by global rise in DAP prices has not been followed by a subsequent upsurge in FFC's share price. We expect this to happen eventually; therefore, it is an attractive investment opportunity at the moment.
- At current levels, FFC is arguabily one of the cheapest blue chip stock trading at a multiple of 8.69x on FY08E earnings, with strong dividend history, healthly earnings potential and a significant discount of 26% to its fair value it is our top pick of the sector.

| | |
|---|---|
| Bloomberg Code | FFC PA |
| Current Price (PRs per share) | 125.30 |
| Average Daily Volume (shares) ('000) | 1,208,857 |
| Market Capitalization (PRs mn) | 61,808 |
| Paid-up Capital (PRs bn) | 4,934.70 |
| Shares Outstanding (mn) | 493.50 |
| Weightage in KSE-100 (%) | 1.63 |
| Average Price (PRs per share) | 116.2 |

**Chart 21: Relative Performance**




*Source : Bloomberg*

**Table 16: Estimates**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| Net Income (PRs '000) | 4,897,336 | 4,636,144 | 5,955,579 | 7,115,586 | 7,855,903 | 7,191,126 | 6,394,368 | 5,578,894 |
| Dividend per Share (PRs) | 9.63 | 8.35 | 10.65 | 11.00 | 12.60 | 12.90 | 13.30 | 14.45 |
| Earning per Share (PRs) | 9.92 | 9.39 | 12.07 | 14.42 | 15.92 | 14.57 | 12.96 | 11.31 |
| Book Value per Share (PRs) | 25.21 | 26.26 | 27.67 | 31.09 | 34.41 | 36.09 | 35.74 | 32.60 |
| Price/Book (x) | 4.28 | 4.72 | 4.53 | 4.03 | 3.64 | 3.47 | 3.51 | 3.84 |
| Price/Earning (x) | 10.88 | 13.19 | 10.38 | 8.69 | 7.87 | 8.60 | 9.67 | 11.08 |
| Dividend Yield (%) | 8.92% | 6.74% | 8.50% | 8.78% | 10.06% | 10.30% | 10.61% | 11.53% |

*Source : Company Reports & IGI Research*

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IGI Securities

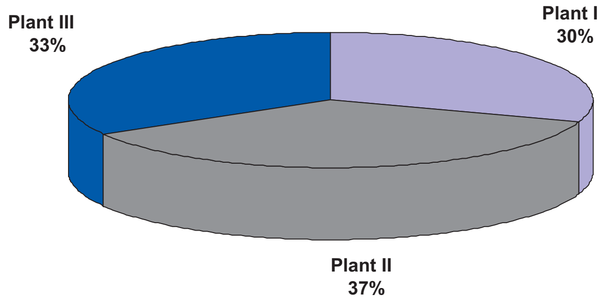
## Introduction

Fauji Fertilizer Company was incorporated as a private limited company in 1978 by the joint venture of Fauji Foundation and Harldor Topsoe A/S of Denmark. Its share capital is PRs3bn along with a PRs1bn stake (50.88%) in the Fauji Fertilizer Bin Qasim Limited (FFBL).

### Plant and Production

The total production capacity of FFC (plant I, II and III) is 1.89mntpa which may be broken down as follows:

**Chart 22: Capacity** **(PRsmn)**




*Source : Company Reports & IGI Research*

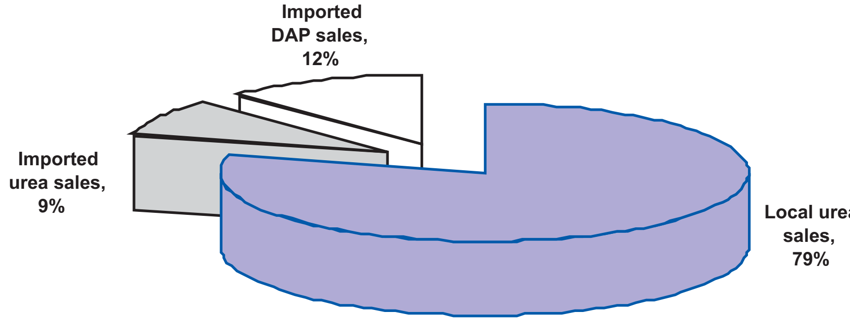
FFC only produce and market urea, and during 2006 produced 2.296mntn of urea under its popular brand name of Sona Urea. Two FFC plants are located in Goth Machhi (Plant I & II) and one in Mirpur Mathelo (Plant III). Plants I and II produce above their production capacity at 115%. FFC has over 65% market share of the domestic urea market.

The total production capacity of fertilizer in Pakistan is 5.655mntpa; out of which FFC's production capacity is 1.89mntn (33.5%), and the total demand for fertilizer in Pakistan is 6.511mntpa.

### Sales

FFC is the market leader in sales of local and imported urea. Its total sales in 2006 were recorded at PRs29.95bn, which was the highest level ever and 18% higher than in 2005. FFC sales of imported urea were recorded at 73,000tn in 2006.

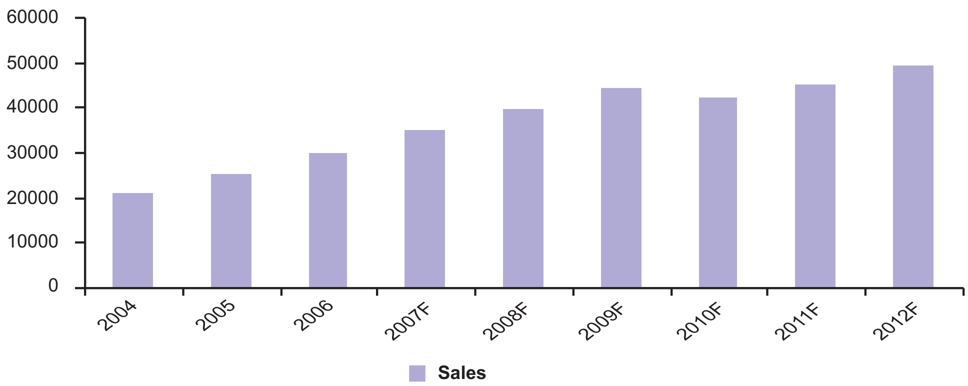
**Chart 23: Sales Breakup**




*Source : Company Reports & IGI Research*

FFC will conduct De-Bottlenecking in April 2008 that will increase its urea capacity. In view of the current excess demand situation, this will allow the company sales to boost up in near future. Current sales price of urea is PRs540 per bag of 50kg.

**Chart 24: Sales** **(PRsmn)**



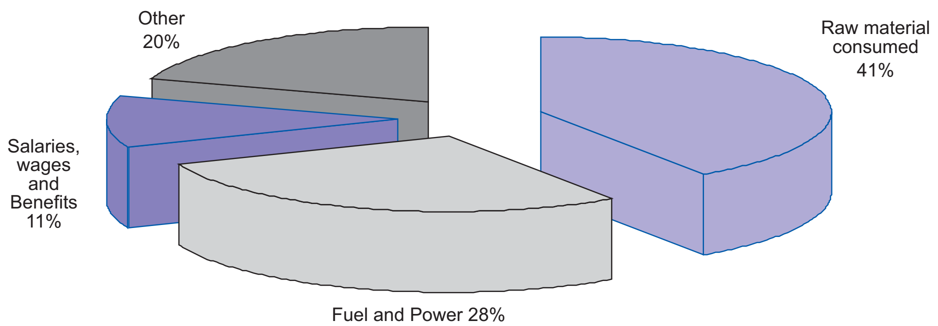

*Source : Company Reports & IGI Research*

## Cost Reduction

Both of FFC's plants at Goth Machhi are fully depreciated, thus implying a very low depreciation charge. It will conduct De-Bottlenecking at Plant III in April 2008 and the process will take one month. Through De-Bottlenecking the company will reduce wastage and cut cost of production. Plant I and II are also producing more than their designed capacity.

FFC acquired Pak Saudi in 2002. Before acquisition the plant used straight line depreciation at 10% rate for 10 years. FFC revalued the plant after acquisition, and revised depreciation charge at 5% for 20 years using straight line depreciation. At Plant II and Plant III FFC is using digital control system to control the over all process of urea production which reduces the production cost and wastages. At Plant I analog control system is being used, and conversion to digital control system is in process.

**Chart 25: Cost Breakup 2006**




*Source : Company Reports & IGI Research*

## Expansions

FFC started production at Goth Machhi in 1982 with only one plant of designed capacity of 0.57mntpa. In 1993, FFC established a new plant at Goth Machhi with modern technology and designed capacity of 0.635mntpa. Moreover, it performed De-Bottlenecking at both plants which increased the production capacity of the company.

In 2000, FFC purchased 50.88% shares of FFBL for PRs1bn and also acquired Pak-Saudi Mirpur-Mathelo. Currently, FFC has three plants and is planning to conduct De-Bottlenecking at plant III which will be completed in April 2008. Currently, they do not have any major expansion plans because Fatima Fertilizer and Engro will be setting up their new plants in the near future.

## Market share

FFC is the largest market shareholder with a share of 50% in urea sales. Moreover, the combined market share of FFC and FFBL is 63% in urea. FFC does not produce any other type of fertilizer. However, it has major shareholding in FFBL, which is the only, DAP producing company in Pakistan.

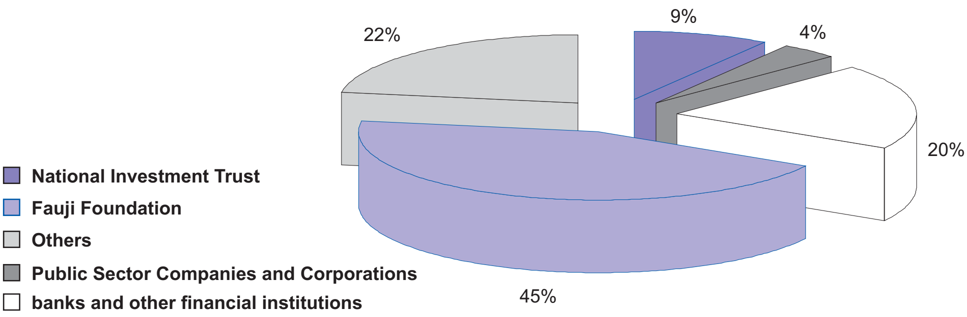
### Terminal Growth

In coming years we do not expect any major growth in FFC's core earnings, as it has not planned to come up with any major expansions. Even if it comes up with any major expansions plans, it will require at least four years coming online. Although it has planned to conduct BMRE and De-Bottlenecking on Plant III located in Mirpur Mathhelo, this will not increase its overall capacity significantly and will not have a significant impact on their earnings. FFC dividend income from FFBL is expected to grow as FFBL is the only DAP manufacturer in the country and international DAP prices are expected to rise significantly in the future, which will positively affect FFBL's earnings.

### FFC Shareholdings

The major shareholder of FFC is Fauji Foundation (FF) the parent company with 218.84mn (44%) shares out of 493.47mn shares outstanding. Free float of the company is 22%.

**Chart 26: Shareholdings**

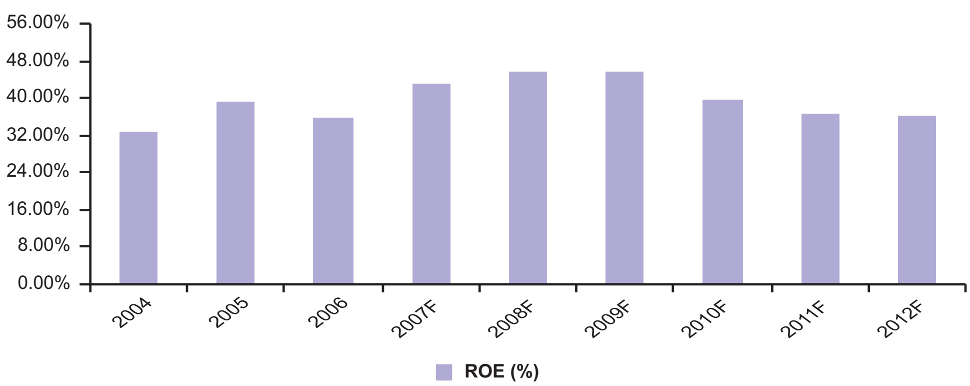



*Source : Company Reports & IGI Research*

### Profitability

The company has consistently posted healthy return on equity (ROE) in the past years. ROE is expected to peak in 2009 just prior to the period when industry goes into excess supply. After that ROE is expected to decline as the company's core earnings decline.

**Chart 27: ROE** **(%)**

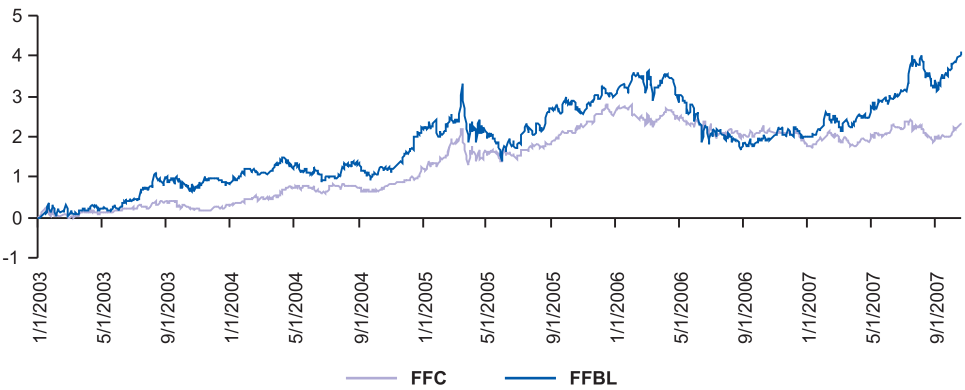



*Source : Company Reports & IGI Research*

### Correlation between FFC and FFBL

As per our valuation, 33% of FFC's target price represents the value of its investment in FFBL. Hence, FFBL's performance impacts one third of FFC's performance. Therefore, over a period of time we have witnessed that the two companies share price is highly correlated. A recent anomaly, however, is that the price increase in FFBL has not been accompanied by increase in FFC share price. We perceive this as a very attractive opportunity to buy FFC.

**Chart 28: Relative Performance**



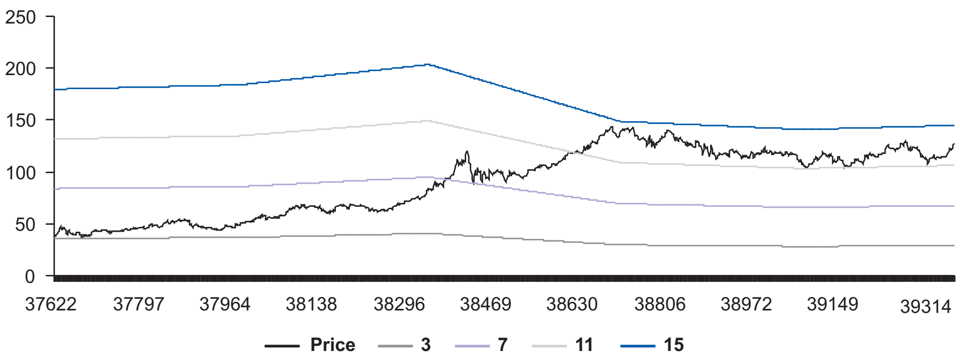

*Source : Bloomberg*

## PE Band

A very low beta of 0.68 implies that FFC is less volatile than the market. Normally, FFC has not out performed the index. FFC is currently trading in the band of 11x and 15x on the basis of HCY07 earnings.

In the current year's index downturn, FFC did not fall below 11x band and was able to find good support at these levels. However, it is expected that it can trade above 15x band like other fertilizer companies in Pakistan and Asian region. In the last 20 months, FFC has never fallen bellow 11x band, therefore, we expect that it will trade above 15x band based on its CY06 and CY07 earnings.

**Chart 29: PE Band Analysis**




*Source : KSE & IGI Research*

## Recent Results

### Fauji Fertilizer Company Limited – 9MCY07 Result Review

FFC announced its result for 3QCY07. Profit After Tax (PAT) for 9MCY07 was recorded at PRs3,850.15mn which translated into Earnings Per Share (EPS) of PRs7.80.

- Net Sales for 9MCY07 was recorded at PRs18,233.17mn as against PRs18,786.51mn in the corresponding period last year. This represents a decline of 2.95% Year-on-Year (YOY) primarily due to the drop in demand by 22% that was encountered by the urea industry in this year. Sales revenue recorded was also lower because of the decline in imported urea and phosphatic fertilizers' outtake.

- Gross Profit was recorded at PRs7,180.38mn for 9MCY07 as against PRs6,539.36mn for the corresponding period last year, signifying an increase of 9.80% (YOY). FFC was able to improve gross margins in 2007 due to considerably lower imported fertilizers' sales in 2007, where the margins are negligible.

- Profit Before Tax (PBT) reached PRs5,594.15mn for 9MCY07 as against PRs4,525.70mn in the corresponding period last year, registering a growth of 23.61%.

- PAT PRs3,850.15mn of (EPS: PRs7.80) is 27.04% higher than PAT of PRs3,030.70mn (EPS: PRs6.14) in the corresponding period last year. This increase can be partially attributed to the increase in dividend income from the company's venture in FFBL.

Board of Directors has recommended a third interim cash dividend of 27.5% (i.e. PRs2.75) in third quarter. This is in addition to the first interim dividend already paid at 25% (i.e. PRs2.50) and a second interim cash dividend paid at 22.5% (i.e. PRs2.25). Till 9MCY07, the total disbursements for FFC amount to 75%. Currently the stock is trading at a PE multiple of 12.1x on 9MCY07 earnings.

Additionally, de bottlenecking activities of Plant III also commenced during the year, and are expected to be completed by next year.

**Table 17: Condensed Interim Profit And Loss Account For Nine Months ended September 30, 2007 (PRsmn)**

| | Quarter Ended September 30 | | | Nine months Ended September 30 | | |
|---|---|---|---|---|---|---|
| | 3QCY07 | 3QCY06 | % change | 2007 | 2006 | % change |
| Sales | 8,142.68 | 6,148.65 | 32.43% | 18,233.17 | 18,786.51 | -2.95% |
| Cost of sales | 5,329.08 | 4,274.03 | 24.68% | 11,052.79 | 12,247.16 | -9.75% |
| GROSS PROFIT | 2,813.60 | 1,874.61 | 50.09% | 7,180.38 | 6,539.36 | 9.80% |
| Distribution cost | 571.74 | 687.79 | -16.87% | 1,658.94 | 1,996.86 | -16.92% |
| | 2,241.86 | 1,186.82 | 88.90% | 5,521.44 | 4,542.49 | 21.55% |
| Finance cost | 138.65 | 129.07 | 7.42% | 454.94 | 315.24 | 44.32% |
| Other expenses | 191.13 | 170.67 | 11.98% | 542.29 | 515.43 | 5.21% |
| | 1,912.09 | 887.08 | 115.55% | 4,524.21 | 3,711.83 | 21.89% |
| Other income | 286.52 | 316.74 | -9.54% | 1,069.95 | 813.87 | 31.46% |
| NET PROFIT BEFORE TAXATION | 2,198.61 | 1,203.82 | 82.64% | 5,594.15 | 4,525.70 | 23.61% |
| Provision for taxation | 733.00 | 363.00 | 101.93% | 1,744.00 | 1,495.00 | 16.66% |
| NET PROFIT AFTER TAXATION | 1,465.61 | 840.82 | 74.31% | 3,850.15 | 3,030.70 | 27.04% |
| EPS (PRs) | 2.97 | 1.70 | 74.71% | 7.80 | 6.14 | 27.04% |

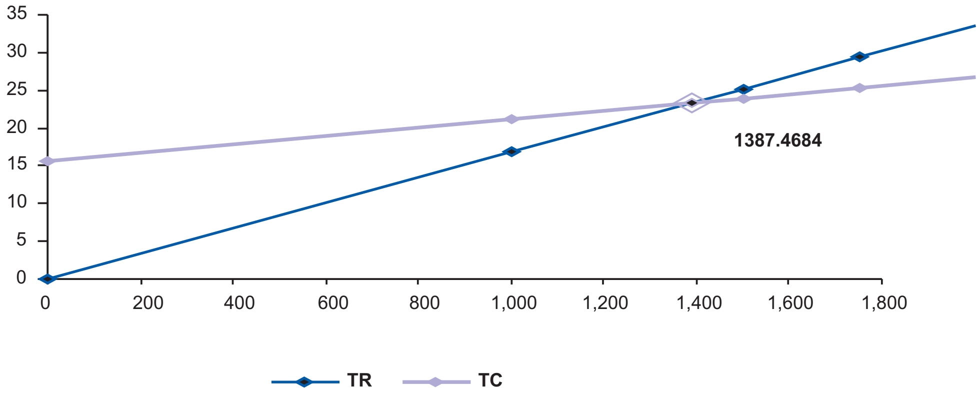
*Source : KSE Notice*

## Break-Even Analysis

Break-even level of output for FFC stands at 1,387,468tn if the price per 50kg bag of urea remains constant at PRs540. Our estimation is based on the simplifying assumption that fixed cots remain constant and sales equal production. Nevertheless break-even analysis is a reasonable supply side measure that depicts level of output that must achieved in order to attain no-profit-no-loss situation.

FFC break-even point is the highest among our selected companies because of its higher production capacity. This also indicates relatively inefficient manufacturing capabilities.

**Chart 30: Break-Even Analysis** **(Millions)**




*Source : Company Reports & IGI Research*

## Valuation and Recommendation

FFC is the largest urea manufacturer of the country and it has more than 50% stake in FFBL. Currently FFC is trading at a PE multiple of 10.38x on CY07E earnings. Our fair value for FFC based on DCF valuation is PRs157.3. Currently the scrip is trading at 26% discount to our fair value. We suggest a 'BUY' recommendation on FFC.

**Table 18: FCFF Valuation**

| | 2007 | 2008E | 2009E | 2010E | 2011E | 2012E | Terminal |
|---|---|---|---|---|---|---|---|
| **Free Cash Flow** | | | | | | | |
| EBITDA | 8,541,276 | 10,304,317 | 11,432,315 | 10,392,926 | 9,167,437 | 7,979,669 | |
| Less: Cash Tax Payable on EBIT | 3,042,992 | 3,617,586 | 3,988,206 | 3,662,470 | 3,275,525 | 2,903,045 | |
| Less: Change in Working Capital | 189,464 | 80,290 | 169,202 | 42,305 | 145,794 | 184,538 | |
| Less: Capital Expenditure | (100,662) | 123,223 | 35,456 | (222,939) | (389,729) | (210,082) | |
| **Free Cash Flow** | 5,409,482 | 6,483,218 | 7,239,452 | 6,911,090 | 6,135,847 | 5,102,168 | |
| | | | | | | | |
| **WACC** | 13.13% | 13.13% | 13.13% | 13.13% | 13.13% | 13.13% | |
| | | | | | | | |
| **PV of Free Cash Flow** | 5,296,337 | 5,609,193 | 5,536,714 | 4,672,288 | 3,666,860 | 2,694,415 | 5,306,255 |
| | | | | | | | |
| **Terminal Value** | | | | | | | |
| Terminal Growth Rate | 4.00% | | | | | | |
| Terminal WACC | 13.13% | | | | | | |
| Estimated Terminal Free Cash Flow | 5,306,255 | | | | | | |
| Terminal Value | 58,142,840 | | | | | | |
| PV of Terminal Value today | 30,704,772 | | | | | | |
| | | | | | | | |
| **DCF Valuation** | | | | | | | |
| Sum of PV of forecasted FCFF | 27,475,807 | | | | | | |
| PV of Terminal Value | 30,704,772 | | | | | | |
| Enterprise Value | 58,180,579 | | | | | | |
| Less: Net Debt | 2,670,127 | | | | | | |
| Equity Value | 55,510,452 | | | | | | |
| | | | | | | | |
| No. Shares in '000 | 493,474 | | | | | | |
| Per Share Equity Value | **112.49** | | | | | | |
| FFBL market value per share | 46.50 | | | | | | |
| Number of shares held by FFC | 475,233 | | | | | | |
| Total Investment in FFBL | 22,098,334 | | | | | | |
| | | | | | | | |
| Per Share Value of FFBL in FFC | 44.78 | | | | | | |
| | | | | | | | |
| Total Value FFC | **157.27** | | | | | | |

**Table 19: Sensitivity Table**

| Discount Rate | NPV of FCF | Term Val. at 2010 | PV of Term Val. | Enterprise Value | Equity Value | Equity Value Per Share (PRs) | Per Share Investment value in FFBL | Target Price |
|---|---|---|---|---|---|---|---|---|
| 8.1% | 25,249,837 | 128,597,830 | 85,817,693 | 111,067,531 | 108,397,404 | 219.66 | 44.78 | 264.44 |
| 9.1% | 24,584,487 | 103,511,640 | 65,861,983 | 90,446,470 | 87,776,343 | 177.87 | 44.78 | 222.66 |
| 10.1% | 23,946,142 | 86,615,201 | 52,569,149 | 76,515,292 | 73,845,165 | 149.64 | 44.78 | 194.42 |
| 11.1% | 23,333,392 | 74,460,797 | 43,126,193 | 66,459,585 | 63,789,458 | 129.27 | 44.78 | 174.05 |
| 12.1% | 22,744,915 | 65,297,790 | 36,105,270 | 58,850,185 | 56,180,058 | 113.85 | 44.78 | 158.63 |
| **13.1%** | **27,475,807** | **58,142,840** | **30,704,772** | **58,180,579** | **55,510,452** | **112.49** | **44.78** | **157.27** |
| 14.1% | 21,635,894 | 52,401,040 | 26,440,079 | 48,075,972 | 45,405,845 | 92.01 | 44.78 | 136.79 |
| 15.1% | 21,113,092 | 47,691,359 | 23,001,087 | 44,114,179 | 41,444,052 | 83.98 | 44.78 | 128.77 |
| 16.1% | 20,610,037 | 43,758,454 | 20,180,229 | 40,790,266 | 38,120,139 | 77.25 | 44.78 | 122.03 |
| 17.1% | 20,125,761 | 40,424,791 | 17,833,398 | 37,959,159 | 35,289,032 | 71.51 | 44.78 | 116.29 |
| 18.1% | 19,659,356 | 37,563,110 | 15,857,471 | 35,516,828 | 32,846,701 | 66.56 | 44.78 | 111.34 |

**Table 20: Sensitivity Analysis**

| | | Terminal growth rate | | | | |
|---|---|---|---|---|---|---|
| | | 3.0% | 3.5% | 4.0% | 4.5% | 5.0% |
| WACC | 11.6% | 152.89 | 155.80 | 159.03 | 162.64 | 166.69 |
| | 12.1% | 152.29 | 155.20 | 158.43 | 162.04 | 166.09 |
| | 12.6% | 151.70 | 154.61 | 157.85 | 161.45 | 165.50 |
| | **13.1%** | 151.13 | 154.04 | **157.27** | 160.88 | 164.93 |
| | 13.6% | 150.56 | 153.47 | 156.71 | 160.31 | 164.36 |
| | 14.1% | 150.01 | 152.92 | 156.15 | 159.76 | 163.81 |
| | 14.6% | 149.47 | 152.38 | 155.61 | 159.22 | 163.27 |

**Table 21: Valuation Summary**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | | | **PRs'000** |
| Net Sales | 25,481,121 | 29,950,873 | 34,965,790 | 39,515,782 | 44,239,017 | 42,298,937 | 45,352,787 | 49,510,998 |
| Cost of Goods Sold | 16,293,642 | 20,242,194 | 22,430,218 | 25,029,588 | 28,585,294 | 28,424,335 | 32,692,368 | 38,039,261 |
| Operating Profit | 5,774,381 | 5,709,204 | 8,124,603 | 9,542,905 | 10,196,289 | 8,676,096 | 7,228,868 | 5,631,903 |
| EBITDA | 6,666,253 | 6,599,961 | 8,541,276 | 10,304,317 | 11,432,315 | 10,392,926 | 9,167,437 | 7,979,669 |
| Net Income | 4,897,336 | 4,636,144 | 5,955,579 | 7,115,586 | 7,855,903 | 7,191,126 | 6,394,368 | 5,578,894 |
| **Balance Sheet** | | | | | | | | **PRs'000** |
| Current Assets | 11,464,577 | 9,764,587 | 8,529,568 | 8,958,546 | 10,925,666 | 11,985,427 | 12,756,208 | 12,114,157 |
| Operating Assets | 9,184,727 | 9,607,957 | 9,507,295 | 9,630,517 | 9,665,973 | 9,443,034 | 9,053,306 | 8,843,224 |
| Long Term Loans | - | - | - | - | - | - | - | - |
| Total Equity | 12,440,908 | 12,956,543 | 13,656,623 | 15,343,993 | 16,982,122 | 17,807,431 | 17,638,592 | 16,086,784 |
| **Per Share** | | | | | | | | |
| No. Of Share | 493,474 | 493,474 | 493,474 | 493,474 | 493,474 | 493,474 | 493,474 | 493,474 |
| Book Value | 25.21 | 26.26 | 27.67 | 31.09 | 34.41 | 36.09 | 35.74 | 32.60 |
| Earning Per Share (EPS) | 9.92 | 9.39 | 12.07 | 14.42 | 15.92 | 14.57 | 12.96 | 11.31 |
| DPS | 9.63 | 8.35 | 10.65 | 11.00 | 12.60 | 12.90 | 13.30 | 14.45 |
| Sales Per Share | 51.64 | 60.69 | 70.86 | 80.08 | 89.65 | 85.72 | 91.91 | 100.33 |
| Price per Sales per Share (PSR) | 2.09 | 2.04 | 1.77 | 1.56 | 1.40 | 1.46 | 1.36 | 1.25 |
| Price Earning Ratio (PER) | 10.88 | 13.19 | 10.38 | 8.69 | 7.87 | 8.60 | 9.67 | 11.08 |
| Price Per Cash Flow (PCF) | 10.48 | (116.00) | 11.43 | 9.54 | 8.54 | 8.95 | 10.08 | 12.12 |
| Price to Book Value (PBR) | 4.28 | 4.72 | 4.53 | 4.03 | 3.64 | 3.47 | 3.51 | 3.84 |
| **Profitability** | | | | | | | | |
| Gross Profit Margin | 36.06% | 32.42% | 35.85% | 36.66% | 35.38% | 32.80% | 27.92% | 23.17% |
| Operating Profit Margins | 26.75% | 23.24% | 26.81% | 27.62% | 26.35% | 23.77% | 18.88% | 14.14% |
| EBITDA Margins | 26.16% | 22.04% | 24.43% | 26.08% | 25.84% | 24.57% | 20.21% | 16.12% |
| EBIT Margins | 29.59% | 25.05% | 27.20% | 28.61% | 28.17% | 27.06% | 22.57% | 18.32% |
| Pre- Tax Margins | 28.31% | 23.32% | 26.20% | 27.70% | 27.32% | 26.15% | 21.69% | 17.34% |
| Net Profit Margins | 19.22% | 15.48% | 17.03% | 18.01% | 17.76% | 17.00% | 14.10% | 11.27% |
| Return On Equity (ROE) | 39.36% | 35.78% | 43.61% | 46.37% | 46.26% | 40.38% | 36.25% | 34.68% |
| Return On Assets (ROA) | 17.21% | 16.90% | 22.91% | 26.91% | 27.72% | 24.74% | 21.79% | 19.65% |
| Return On Common Stockholders Equity (ROCE) | 39.36% | 35.78% | 43.61% | 46.37% | 46.26% | 40.38% | 36.25% | 34.68% |
| Dividend Payout | 97.02% | 88.88% | 88.24% | 76.29% | 79.15% | 88.52% | 102.64% | 127.82% |
| Retention Rate | 2.98% | 11.12% | 11.76% | 23.71% | 20.85% | 11.48% | -2.64% | -27.82% |
| Asset Turnover | 89.57% | 109.19% | 134.54% | 149.47% | 156.13% | 145.52% | 154.55% | 174.41% |
| **Liquidity** | | | | | | | | |
| Current Ratio | 0.91 | 0.90 | 0.95 | 1.03 | 1.19 | 1.29 | 1.29 | 1.15 |
| Acid Test Ratio | 0.15 | 0.24 | 0.32 | 0.42 | 0.60 | 0.69 | 0.70 | 0.55 |
| Quick Ratio | 0.86 | 0.81 | 0.85 | 0.92 | 1.08 | 1.17 | 1.18 | 1.03 |
| Days' R/B | 8.31 | 17.69 | 8.27 | 7.70 | 7.48 | 7.99 | 7.95 | 7.87 |
| Days' Inventories | 12.56 | 17.18 | 15.04 | 14.19 | 13.51 | 13.86 | 12.87 | 11.96 |
| Days' Payables | 96.51 | 49.06 | 41.19 | 38.52 | 37.42 | 39.93 | 39.77 | 39.37 |
| Operating Cycle | -75.65 | -14.19 | -17.87 | -16.63 | -16.42 | -18.08 | -18.94 | -19.54 |
| **Solvency** | | | | | | | | |
| Debt to Total Assets | 56.27% | 52.77% | 47.45% | 41.96% | 40.07% | 38.74% | 39.89% | 43.33% |
| Total Debt to Equity | 128.67% | 111.71% | 90.31% | 72.30% | 66.86% | 63.23% | 66.36% | 76.46% |
| Long Term Debt to Equity | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Net Debt to Equity | -15.37% | 20.61% | 15.21% | 3.94% | -4.85% | -10.27% | -10.82% | -2.44% |
| Interest Coverage Ratio | 2312.99% | 1450.15% | 2741.08% | 3158.68% | 3304.66% | 2996.53% | 2568.47% | 1854.83% |
| Asset to Equity | 228.67% | 211.71% | 190.31% | 172.30% | 166.86% | 163.23% | 166.36% | 176.46% |
| **Others** | | | | | | | | |
| Net Debt | (1,912,355) | 2,670,127 | 2,076,534 | 604,246 | (823,464) | (1,829,166) | (1,909,263) | (392,981) |
| Market Value of Equity | 53,295,211 | 61,161,189 | 61,832,314 | 61,832,314 | 61,832,314 | 61,832,314 | 61,832,314 | 61,832,314 |
| Enterprise Value (EV) | 51,382,856 | 63,831,316 | 63,908,848 | 62,436,560 | 61,008,850 | 60,003,149 | 59,923,051 | 61,439,334 |
| EV/ EBITDA | 7.71 | 9.67 | 7.48 | 6.06 | 5.34 | 5.77 | 6.54 | 7.70 |
| EV/ Ton of Sales | 18,732 | 22,056 | 21,494 | 20,087 | 18,698 | 20,678 | 20,316 | 20,298 |
| EV/Ton in $ | 307.09 | 361.58 | 352.37 | 329.29 | 306.53 | 338.99 | 333.05 | 332.75 |
| EV/ Share | 104.12 | 129.35 | 129.51 | 126.52 | 123.63 | 121.59 | 121.43 | 124.50 |
| EV/ Ton of Capacity | 27,186.70 | 33,773.18 | 33,814.21 | 30,494.05 | 29,796.75 | 29,305.57 | 29,266.45 | 30,007.00 |
| EV/Ton in $ | 445.68 | 553.66 | 554.33 | 499.90 | 488.47 | 480.42 | 479.78 | 491.92 |
| Gross Price per Ton (Ex-Fact) | 9,705.31 | 10,746.46 | 11,760.01 | 12,712.80 | 13,558.65 | 14,577.04 | 15,376.00 | 16,357.01 |
| Gross Price per Bag (Ex-Fact) | 485.27 | 537.32 | 588.00 | 635.64 | 677.93 | 728.85 | 768.80 | 817.85 |
| Net price per ton | 9,290 | 10,349 | 11,760 | 12,713 | 13,559 | 14,577 | 15,376 | 16,357 |
| Net price per bag | 464.48 | 517.46 | 588.00 | 635.64 | 677.93 | 728.85 | 768.80 | 817.85 |
| CGS per ton | 6,214 | 7,264 | 7,828 | 8,334 | 9,039 | 10,115 | 11,403 | 12,886 |
| CGM per ton | 4,275 | 4,681 | 4,708 | 4,754 | 4,911 | 5,634 | 5,904 | 6,200 |
| CGS per Bag | 310.71 | 363.20 | 391.39 | 416.71 | 451.93 | 505.74 | 570.16 | 644.30 |
| CGM per Bag | 213.77 | 234.04 | 235.38 | 237.71 | 245.56 | 281.72 | 295.20 | 309.98 |
| Working Capital | (2,640,591) | 1,662,582 | 1,852,046 | 1,932,336 | 2,101,537 | 2,143,843 | 2,289,636 | 2,474,174 |
| Change in Working Capital | (835,607) | 4,303,173 | 189,464 | 80,290 | 169,202 | 42,305 | 145,794 | 184,538 |
| Capital Expenditure | 884,912 | 773,478 | 1,221,160 | 762,797 | 1,019,248 | 961,669 | 724,740 | 574,234 |

# Engro Chemical Pakistan Limited

## Initiating Coverage

**Recommendation: BUY**

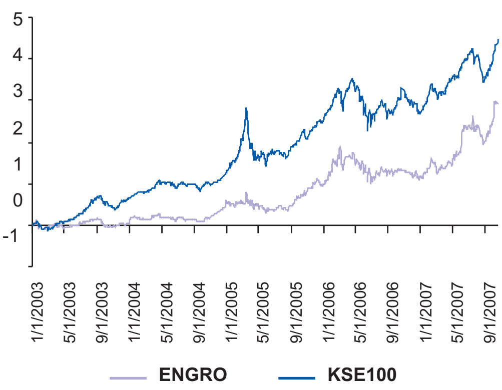
**Fair Value: PRs320**

### Investment Consideration

- Engro is the second largest producer of urea in the domestic market. It has a market share of 21%. It has launched a major capacity expansion, which will enhance its current capacity of 1.135mntpa to 2.435mntpa by July 2010. Thereafter, it will become the largest producer of urea in the domestic market.
- Sales are expected to double in 2010 once capacity expansion comes online. The company is expected to maintain an average gross margin over 30% throughout the forecast period of 2010-2020.
- Engro has production capacity of potash fertilizer NPK of 0.108mntpa. Moreover, it has also introduced High Yielding Seeds (HYS), which is although at its nascent stage but can prove to be a high growth segment after the urea industry matures. HYS is also an important ingredient of improving yield per hectare, which is the current government focus.
- Engro with its strong group backing in the form of Dawood Group has a diversified portfolio of investments in associates and subsidiaries. These subsidiaries contribute to about 20% (PRs63 per share) of the target price of PRs320 per share.
- Subsidiary businesses such as Engro Foods and Engro Asahi provide a strong growth potential, where as a regular income stream is guaranteed with Engro energy. We believe Engro's current market price is not a true reflection of the value in these attractive investments. Therefore, it is advisable to invest at present levels.

| | |
|---|---|
| Bloomberg Code | ENGRO PA |
| Current Price (PRs per share) | 271.90 |
| Average Daily Volume (shares) ('000) | 3,004,894 |
| Market Capitalization (PRs mn) | 52,604 |
| Paid-up Capital (PRs bn) | 1,934.70 |
| Shares Outstanding (mn) | 193.50 |
| Weightage in KSE-100 (%) | 1.39 |
| Average Price (PRs per share) | 198.40 |

**Chart 31: Relative Performance**




*Source : Bloomberg*

**Table 22: Estimates**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| Net Income (PRs '000) | 2,319,082 | 2,542,326 | 3,068,865 | 2,973,159 | 2,619,839 | 4,926,086 | 8,244,200 | 5,925,269 |
| Dividend per Share (PRs) | 11.00 | 9.00 | 15.74 | 15.25 | 13.44 | 25.27 | 42.30 | 30.40 |
| Earning per Share (PRs) | 15.16 | 15.11 | 15.86 | 15.37 | 13.54 | 25.46 | 42.61 | 30.63 |
| Book Value per Share (PRs) | 48.23 | 55.70 | 55.39 | 55.21 | 54.22 | 61.51 | 72.04 | 65.12 |
| Price/Book (x) | 2.44 | 3.14 | 4.91 | 4.93 | 5.01 | 4.42 | 3.77 | 4.18 |
| Price/Earning (x) | 7.75 | 11.56 | 17.14 | 17.69 | 20.08 | 10.68 | 6.38 | 8.88 |
| Dividend Yield (%) | 9.36% | 5.15% | 5.79% | 5.61% | 4.94% | 9.30% | 15.56% | 11.18% |

*Source : Company Reports & IGI Research*

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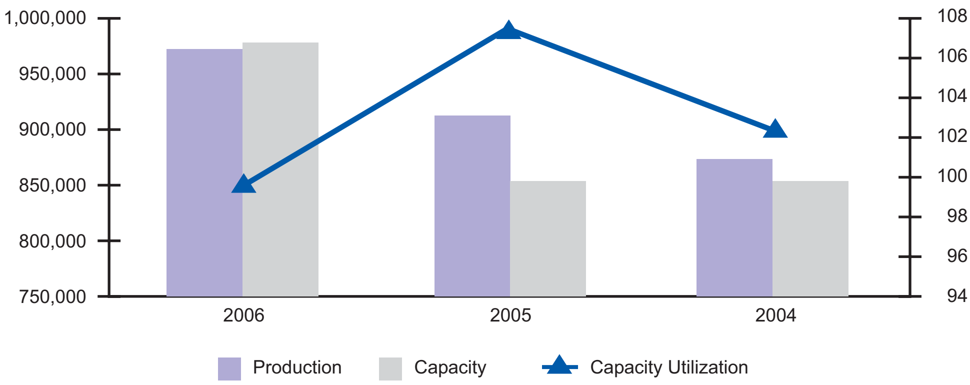
IGI Securities

## Introduction

Engro Chemical Pakistan Limited (ENGRO) urea plant is located at Daharki in the Sindh province. It produces 975,000tn of urea per annum which is marketed under brand name of Engro. The principal activity of the Company is manufacturing and marketing of fertilizers. The company was incorporated in 1965 as Exxon Chemical Pakistan Limited and formerly part of the global giant Exxon. In 1991 the Employees of Engro, in partnership with leading international and local financial institutions bought 75% of Exxon's equity in 1991 and the company was renamed as Engro Chemical Pakistan Limited. All the subsidiaries and joint ventures of ENGRO are not separately listed on the stock exchange. Major share holder of ENGRO is the Dawood Group which holds 42% shares of the company. Other share holders are local and foreign institutions and the general public. The employees, their family members and the Employees Trust of the Company collectively hold approximately 12% shares of the company. ENGRO has a market share of 19% in the local fertilizer industry.

**Chart 32: Production - Capacity of Urea**




*Source : Company Reports & IGI Research*

ENGRO's production capacity of urea was 270,000tn in 1991 which rose to 970,000tn by the end of CY06 which is its highest production ever, however, capacity utilization decreased from 107% in 2005 to 99% in 2006.

### Engro Vopak Terminal Limited

As part of Engro's growth and diversification plans, Engro established a US$60mn 50:50 Joint Venture company named "Engro Vopak Terminal Limited" (EVTL) in 1995, between Engro and Royal Vopak (formerly Royal Pakhoed), a Netherland based company and is amongst the largest terminal storage companies in the world. The total cost outlay of the company is US$60mn and it owns liquid chemical and LPG terminals at Port Qasim near Karachi with a total capacity of 69,000 cubic feet. EVTL deals in handling and storage of bulk chemicals. The company has a market share of about 75% in the imported chemicals market.

### Engro Asahi Polymer & Chemicals Ltd

A joint venture of 50:30:20 was made between Engro Chemical, Asahi Glass Company (Japan) and Mitsubishi Corporation named "Engro Asahi Polymer & Chemicals Ltd." to develop a Polyvinyl Chloride (PVC) resin project at Port Qasim, Karachi, with an initial capacity of 100,000tn per year based on imported Vinyl Chloride Monomer. The project has successfully been completed and commenced production in November 1999. However, Asahi Glass exited the company in end-2006 and ENGRO bought its 30% stake, which increased ENGRO's holding in the company to 80%. Production for the year was 97,000 tons as compared to 91,000tn last year.

Currently ENGRO owns 80% shares in Asahi Polymer while 20% stake is owned by Mitsubishi Corporation. However, ENGRO and Mitsubishi have plans to dilute their share holdings. It is expected that ENGRO will not dilute their share holdings to less than 50% in Asahi Polymer.

### Innovative Automation & Engineering (Private) Limited (IAEL)

In April 2003, ENGRO acquired 51% stake in the Automation & Control Division of Innovative (Private) Limited, a Lahore (Pakistan) based company that provides process control industrial solutions in the knowledge based services sector. The joint venture was named as "Innovative Automation & Engineering (Private) Limited (IAEL)". The acquisition was part of Engro's diversification strategy. Since 2003, EIAL has made two acquisitions, one in Dubai in 2005 and one in the US, in late 2006.

### Engro Eximp (PVT) Limited (EEPL)

EEPL is wholly owned subsidiary of Engro Chemical Pakistan Ltd. and is setup to import phosphate based fertilizers. These phosphate based fertilizers are imported through EEPL and then sold to ENGRO to earn a profit on sale.

### Engro Energy Private Limited (EEL)

EEL is another major diversification initiative by Engro in the energy sector. EEL was formed in 2006 whose first project is to setup an Independent Power Plant (IPP) of 220MW which has already been approved by Private Power and Infrastructure Board (PPIB). Total cost of US$220mn is expected for the project in which ENGRO's stake is 25% and it should receive PRs501mn per annum as dividends from the project.

EEL plant is located near Sukkur. It is believed that things will pick up more pace, once ENGRO is over with its two expansions in urea and foods. It is believed that ENGRO will not find any problems in selling the production. Its plants at Mirpur Mathelo, Pano Akil, Sukkur, Goth Machi and several other rural areas are in great need of electricity.

### Engro Foods

Engro Foods launched UHT milk processing with an initial capacity of 200,000 liters per day in March 2006 under the brand name of 'Olper's'. Later in 2006 Olper's Cream was introduced and another low fat milk HCLF was launched under the brand name of "Olwell".

**Table 23: Shareholding Structure**

| Parent Company | Symbol | Subsidiary/Associate Company | Symbol | ENGRO's Share Holdings | Company Type |
|---|---|---|---|---|---|
| Dawood Hercules Chemical Limited | DHCL | ENGRO Chemical Pakistan Limited | ENGRO | 42% | Listed Company |
| Engro Chemical Pakistan Limited | ENGRO | Engro Asahi Polymer and Chemicals Limited | EAPCL | 80% | Unlisted Associate |
| Engro Chemical Pakistan Limited | ENGRO | Engro Vopak Terminal Limited | EVTL | 50% | Unlisted Associate |
| Engro Chemical Pakistan Limited | ENGRO | Engro Eximp Pvt. ltd | EEPL | 100% | Unlisted Subsidiary |
| Engro Chemical Pakistan Limited | ENGRO | Engro Foods Limited | EFL | 100% | Unlisted Subsidiary |
| Engro Chemical Pakistan Limited | ENGRO | Engro Energy Pvt. Limited | EEL | 25% | Unlisted Subsidiary |
| Engro Chemical Pakistan Limited | ENGRO | Engro Innovative Automation Pvt. Ltd | EIAL | 51% | Unlisted Associate |

*Source : Company Reports & IGI Research*

### Engro Expansion Details

Engro won a 20 year gas bid of Qadirpur Gas field and plans an expansion of 1.3mntpa to start production in July 2010. This expansion will provide a scale advantage of gas and manpower to Engro. It is a brown field plant i.e. it would be built next to its existing plant. Workforce of only 150 more people will be required for the new plant, whereas the incremental fixed cost per ton will be marginal. Gas rate at which Engro will get Gas is US$0.77/mmbtu. The new plant will produce 2.194mtd ammonia based on Haldoer Topsoe technology and 3.835mtd urea based on Snamprogetti technology. 40acres of land for new employee colonies have also been bought. Capital expenditure is US$771mn, while US$76mn has been estimated as an amount of contingencies and the interest to be paid during the construction is US$113mn, therefore, the total capital expenditure is US$960mn for the expansion.

Engro has decided to raise US$220mn through equity with a combination of rights, additional capital and profit retention from 2007 to 2010. Senior debt for the expansion is US$650mn comprising of US$415mn local currency and US$235mn foreign currency. Subordinated debt is US$100mn comprising of TFC. Local currency debt comprises of syndicated finance from NBP amounting US$300mn at 6-months KIBOR+180bps for 9 years tenor with 3.5 years grace period. Islamic Sukuk amounting US$50mn at 6-months KIBOR +450ps for 8years with payments falling in the last 2 years, TFC amounting to US$65mn for 8 years at 6-months KIBOR+155bps with 2 semiannual payments falling in last year and subordinated TFC at 6-months KIBOR+170bps of US$100mn perpetual with call option after 10 years.

Foreign Currency debt of US$ 235mn includes US$150mn at 6-months LIBOR+257ps for 7 years with 3.5 years grace period from Middle East Islamic Bank and US$85mn at 6-months LIBOR + 260bps for 8.5 years with 3.5 years grace period from a consortium of DFIs including DEG, FMO and OFID.

With the current debt structure bulk of the payment (60% to 65%) is expected to fall during April 2008 to March 2009.

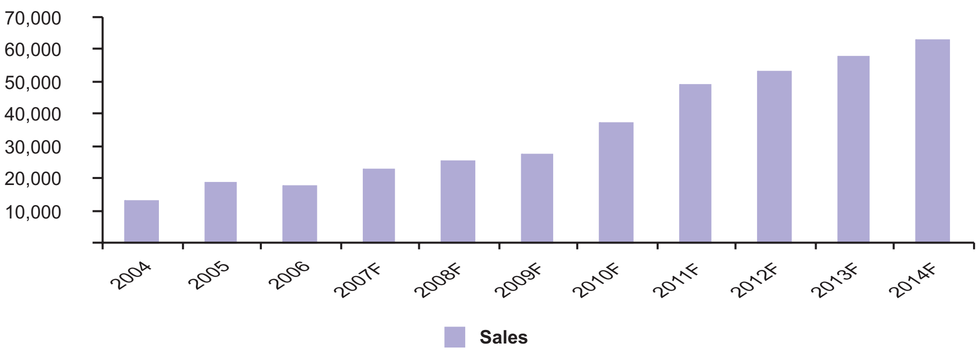
Out of the US$220mn equity, US$50mn is expected to be raised through rights while the remaining amount is yet to be decided. Only 10% of the capital expenditure is expected to fall in 2007, whereas the major chunk of 70% will fall during 2008-2009, and the remaining 20% will fall in 2010. The elimination of subsidy is expected in the next 5 years.

## Sales

### Engro Chemicals Pakistan limited

Engro sales revenue for the year 2006 declined by 3.68% to PRs17,602mn as compared to 2005 which was PRs18,276mn.

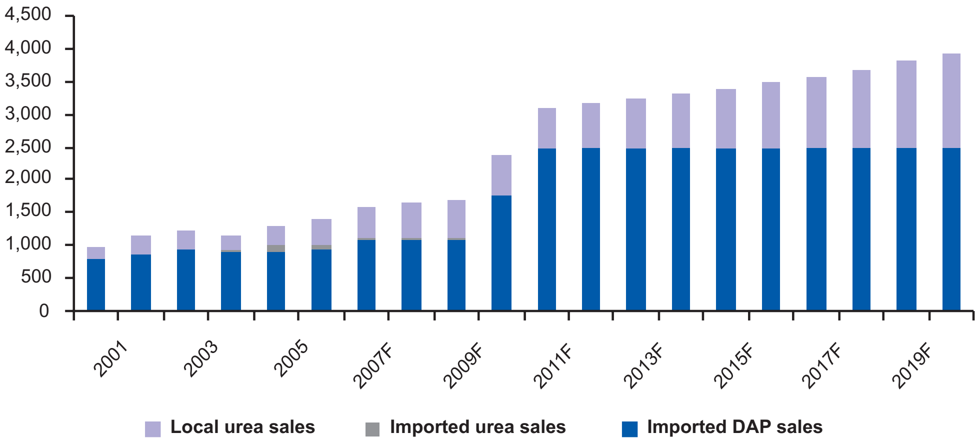
**Chart 33: Sales** **(PRsmn)**




*Source : Company Reports & IGI Research*

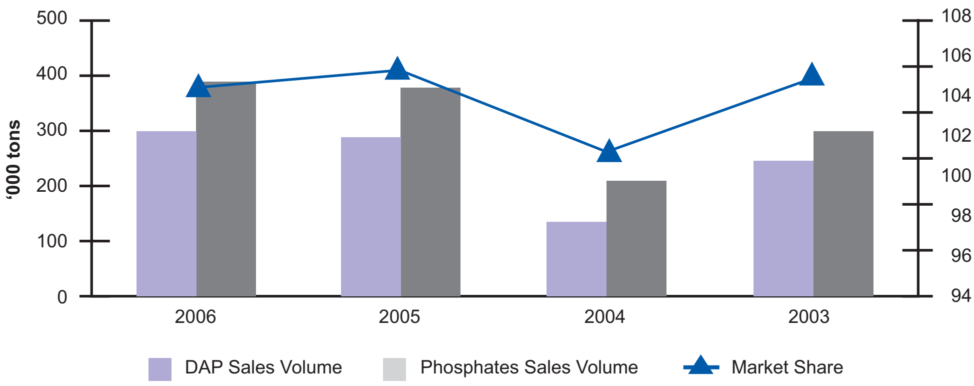
ENGRO's urea production in 2006 of 969,000tn represented an increase of 6% over 2005. Imported Urea sales decreased to 65,000tn as compared to 112,000tn in 2005. The Company sold 1,010,000tn of Urea in 2006 compared to 1,002,000tn in 2005. Current selling price of Urea is PRs540 per bag.

**Chart 34: Sales Volume** **(000tn)**




*Source : Company Reports & IGI Research*

**Chart 35: Imported Phosphates Volume and its Market Share**




*Source : Company Reports & IGI Research*

## Expansion Plans

Engro Chemicals Pakistan limited Urea Expansion Project: Urea plant is being expanded and the planned expansion is expected to be World's largest single train Urea Plant with a capacity of 1.3mntn per annum and also the largest capital investment by a private sector Pakistani Company in the corporate history of Pakistan. The new plant is expected to commence operations in first half 2010. Engro market share for Urea is expected to increase from 19% to 35% in 2011 when new plant will be operational for full year. Expansion is expected to cost around US$1bn which will be financed with a mix of debt/equity financing. In 1QCY07, 15% right shares were announced amounting to PRs31bn.

**Chart 24: Capex**

| | US$ mn | PRs mn |
|---|---|---|
| Capital Expenditure | 771 | 46,742 |
| Contigencies | 76 | 4,608 |
| | 847 | 51,349 |
| Interest cost during construction | 113 | 6,851 |
| Total capex | 960 | 58,200 |

*Source : Company Reports & IGI Research*

**Chart 25: Capital Structure**

| | US$ mn | PRs mn |
|---|---|---|
| Equity | 220 | 13,338 |
| Senior Debt | 650 | 39,406 |
| Local currency | 415 | 25,159 |
| Foreign currency | 235 | 14,247 |
| Subordinated debt (TFC) | 100 | 6,063 |
| | 970 | 58,806 |

*Source : Company Reports & IGI Research*

**Chart 26: Debt Structure**

| Debt | Amount (US$mn) | Amount (PRsmn) | Tenor (year) | Markup | Amortization |
|---|---|---|---|---|---|
| Local Currency Debt | | | | | |
| Syndicated finance | 300 | 18,188 | 9 | 6m-Kibor+180bp | 3&1/2 years grace period |
| Islamic Sukuk | 50 | 3,031 | 8 | 6m-Kibor+150bp | Amortization in last two years |
| TFC | 65 | 3,941 | 8 | 6m-Kibor+155bp | Amortization in last two years |
| Subordinated debt (TFC) | 100 | 6,063 | perpetual | 6m-Kibor+170bp | Call option after 5yrs and put option after 10yrs |
| | 515 | 31,222 | | | |
| Foreign Currency Debt | | | | | |
| Mideast Islamic | 150 | 9,094 | 7 | 6m-Libor+257bp | 3&1/2 years grace period |
| DFI Consortium | 85 | 5,153 | 8.5 | 6m-Libor+260bp | 3&1/2 years grace period |
| | 235 | 14,247 | | | |
| | 750 | 45,469 | | | |

*Source : Company Reports & IGI Research*

### Engro Asahi Polymer & Chemicals Ltd

EAPCL is going to expand its plant which involves expanding PVC (poly vinyl chloride) resin production capacity by 50,000 tons to a total of 150,000 tons and back integration by setting up an EDC/VCM plant and a Chlor alkali plant.

### Engro Vopak Terminal Limited

Engro Vopak is in the process of expansion at a cost of US$30mn which involves building Ethylene storage facility for Engro Asahi and is a part of Engro Asahi's expansion of PVC and backward integration.

### Engro Foods

Engro foods is now expanding its UHT milk processing capacity from 200k liters per day to 300k liters. Other than this, EFL is also setting up a new plant in Lahore, Punjab which is the largest milk production center in Pakistan. This plant will have a UHT milk processing capacity of 300k liters per day. EFL is also diversifying its product portfolio from 3 to 5 brands by the end of this year and is planning to increase the number of products to 9 by CY11.

### Terminal Growth Rate

Engro is expected to be one of the best growth stories in the coming times in the Pakistan market. It is not only expanding their urea manufacturing capacity from 0.9mntpa to 2.2mntpa but they are also exploiting the other unexplored markets like Vopak terminal and Asahi Polymer. On the other hand its food business is also a star business line. Therefore, our growth rate assumption for ENGRO is the highest in the sector.

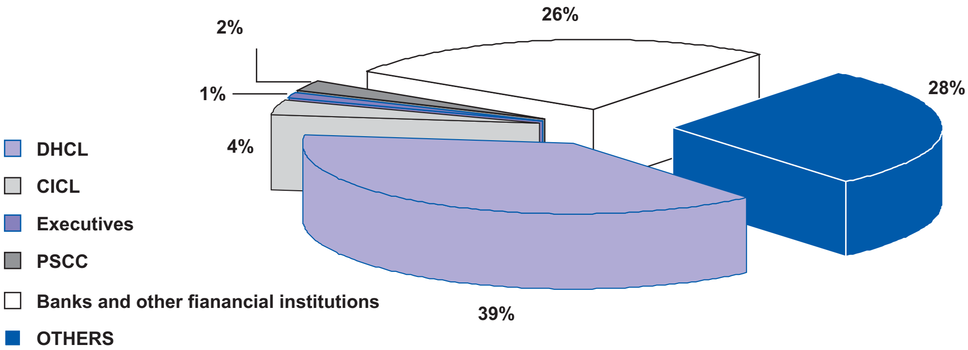
### Shareholding Structure

The total outstanding shares of ENGRO are 168,234,000. The free float of the company is 28.45%.

### Gross Share Holdings

Dawood Hercules Chemical Limited (DHCL) owns 42% share in ENGRO. DHCL is one of the four major fertilizer companies in Pakistan.

**Chart 36: Shareholdings**

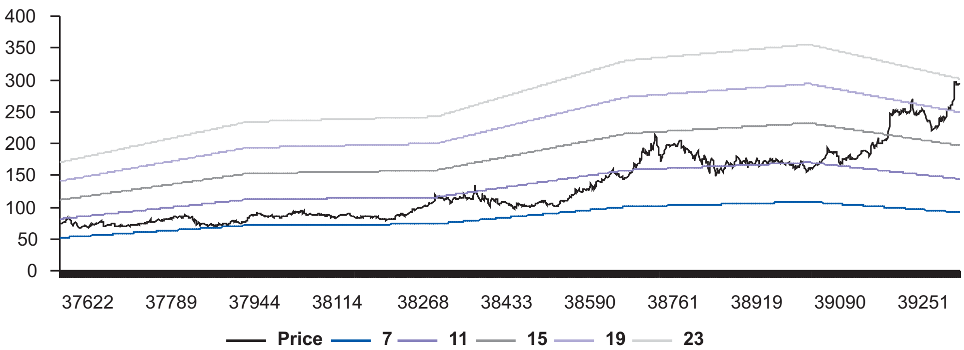



*Source : Company Reports & IGI Research*

## PE Band

ENGRO has beta of 1.036, which implies that it is slightly more volatile than market. Normally ENGRO has out performed the market except for certain periods. ENGRO is currently trading in the band of 19x and 23x on the basis of its 1HCY07 earnings. ENGRO recently entered in the band of 19x to 23x from 15x and 19x and was able to find good support. Though multiples seem to be a little higher when compared to other fertilizer companies in Pakistan, however, we believe that ENGRO has the potential to trade between the bands of 23x and 27x of CY07E earnings.

**Chart 37: PE Band Analysis**




*Source : KSE & IGI Research*

## Recent Results:

ENGRO announced its result for third quarter 2007. Profit After Tax (PAT) for 9MCY07 was recorded at PRs1,592.66mn which translated into Earnings Per Share (EPS) of PRs8.83.

- Net Sales for 9MCY07 was recorded at PRs13,083.39mn as against PRs9,812.80mn in the corresponding period last year. This represents a growth of 33.33% Year-on-Year (YOY). For 3QCY07, net sales increased by 72.40%, increasing the overall net sales for nine months, by 33.33%. Urea offtake has increased significantly over this period, the effect of which can be seen positively on the net sales of the company.

- Gross Profit was recorded at PRs3,196.83mn for 9MCY07 as against PRs2,735.35mn for the corresponding period last year, signifying an increase of 16.87% (YOY). Although the sales have increased by 72.40% in 3QCY07, they have not impacted the gross profit significantly. This is primarily because the cost of sales rises by higher margins than sales itself, along with the fact that the raw materials consumed also increase, hence offsetting the level of increase in sales. ENGRO has lately been investing in expansionary projects to augment their capacity. Therefore, we believe that these projects will create economies of scale that will lower the cost of goods sold in the future.

- Profit Before Tax (PBT) reached PRs2,312.62mn for 9MCY07 as against PRs1,960.49mn in the corresponding period last year, registering the growth of 17.96%

- PAT of PRs1,592.66mn of (EPS: PRs8.83) is 16.62% higher than PAT of PRs1,365.65mn (EPS: PRs7.85) in the corresponding period last year. This change is mainly attributable to a higher Phosphate sales volume and margin and a higher dividend from Engro Polymer, a subsidiary company.

Board of Directors recommended a second interim cash dividend of 20% (i.e. PRs2.0). Prior to this, ENGRO offered 15% right shares at the end of 1QCY07, and a 20% dividend (i.e. PRs2.0) at the end of 1HCY07. Up till 9MCY07, Engro has had total disbursements of 40% dividends and 15% rights shares. Currently the stock is trading at a PE multiple of 23.1x on 9MCY07 earnings

**Table 27: Condensed Interim Profit and Loss Account For Nine Months ended September 30, 2007** **(PRsmn)**

| | Quarter Ended September 30 | | | Nine months Ended September 30 | | |
|---|---|---|---|---|---|---|
| | **3QCY07** | **3QCY06** | **% change** | **2007** | **2006** | **% change** |
| Net Sales | 4,963.85 | 2,879.29 | 72.40% | 13,083.39 | 9,812.80 | 33.33% |
| Less: Cost of sales | 3,784.69 | 2,031.52 | 86.30% | 9,886.56 | 7,077.46 | 39.69% |
| Gross Profit | 1,179.17 | 847.78 | 39.09% | 3,196.83 | 2,735.35 | 16.87% |
| Less: Selling & Distribution expenses | 352.19 | 261.94 | 34.45% | 981.34 | 864.72 | 13.49% |
| | 826.98 | 585.84 | 41.16% | 2,215.49 | 1,870.63 | 18.44% |
| Add: Other income | 105.23 | 170.07 | -38.13% | 651.29 | 565.24 | 15.22% |
| Less: Financial & other charges including WPP and WW funds | 194.09 | 136.00 | 42.72% | 554.15 | 475.38 | 16.57% |
| Profit before taxation | 738.12 | 619.91 | 19.07% | 2,312.62 | 1,960.49 | 17.96% |
| Less: Provision for taxation | | | | | | |
| - Current | 205.34 | 125.09 | 64.15% | 669.48 | 541.62 | 23.61% |
| - Deferred | 43.14 | 73.76 | -41.51% | 50.48 | 53.21 | -5.14% |
| Profit after taxation | 489.64 | 421.06 | 16.29% | 1,592.66 | 1,365.65 | 16.62% |
| EPS - basic & diluted (PRs) | 2.68 | 2.36 | 13.56% | 8.83 | 7.85 | 12.48% |
| Unappropriated profit brought forward | 2,788.46 | 1,596.81 | 74.63% | 2,190.15 | 1,416.93 | 54.57% |
| Less: | | | | | | |
| - Final dividend 2006 | | | | 504.70 | 764.70 | -34.00% |
| - 1st Interim dividend 2007 | 336.47 | 504.70 | -33.33% | 336.47 | 504.70 | -33.33% |
| Profit available for appropriation | 2,941.64 | 1,513.17 | 94.40% | 2,941.64 | 1,513.17 | 94.40% |

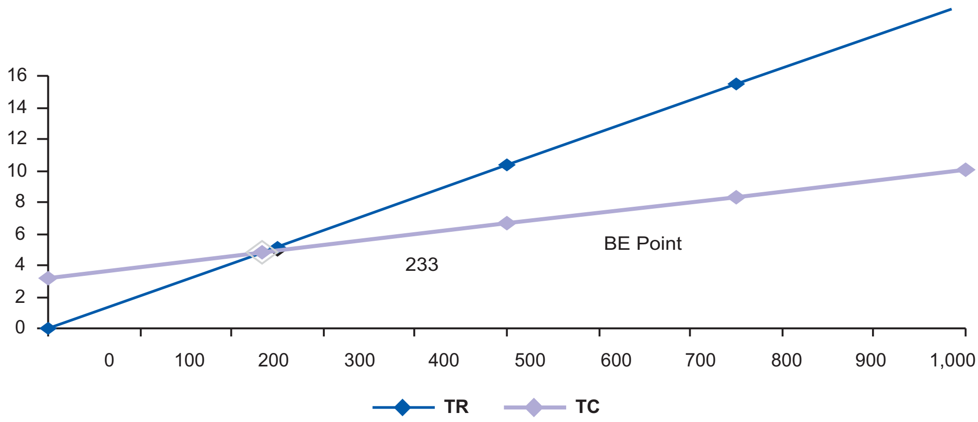
*Source : KSE Notice*

## Break-Even Analysis

Our Break even analysis suggests that with the constant price of 50kg bag of urea at PRs540. ENGRO's break-even point stand at 233,080t level of sales. Our estimation is based on the assumption that fixed costs remain constant and sales equal production.

ENGRO's level of break-even is lower as compared to other fertilizer manufacturing companies because of its lower manufacturing cost and efficient production.

**Chart 38: Break-Even Analysis** **(Millions)**




*Source : Company Reports & IGI Research*

## Valuation and Recommendation

ENGRO will become the largest urea manufacturer in the country in 2010. ENGRO and its income from its subsidiaries make it a diversifying stock for an investor. Currently ENGRO is trading at a PE multiple of 17.14x on CY07E earnings. Our fair value for ENGRO based on DCF valuation is PRs319.9 which includes PRs256.45 from its core business i.e. urea production while PRs9.93 is contributed by EEL, PRs10.34 by EFL PRs44.25 by EEPL, PRs3.41 by EIAL, PRs9.36 by EAPCL, PRs13.32 by EVTL using Dividend Discount Model. The total value of ENGRO's subsidiaries and associates is PRs91, however, we have applied 30% conglomerate discount. This is because ENGRO reinvests a certain portion of dividend amount in these subsidiaries and associates and does not payout all the dividends received from subsidiaries to its own share holders. Therefore, after conglomerate discount the value of these subsidiaries and associated stands at PRs63.43. Currently the scrip is trading at 18% discount to our fair value. We suggest a 'BUY' recommendation on ENGRO.

### Table 28: FCFF Valuation

| | 2007E | 2008 | 2009E | 2010E | 2011E | 2012E | Terminal |
|---|---|---|---|---|---|---|---|
| **Free Cash Flow** | | | | | | | |
| EBITDA | 8,222,035 | 7,968,467 | 7,592,392 | 10,803,700 | 15,644,980 | 16,363,984 | |
| Less: Cash Tax Payable on EBIT | 1,437,052 | 1,375,890 | 1,252,828 | 2,277,706 | 3,847,568 | 4,074,945 | |
| Less: Change in Working Capital | 8,973,776 | 13,926,370 | (18,130,654) | (5,918,641) | 376,792 | (5,229,010) | |
| Less: Capital Expenditure | 5,774,441 | 20,351,530 | 20,352,072 | 11,598,322 | 1,125,397 | 226,807 | |
| **Free Cash Flow** | (7,963,234) | (27,685,322) | 4,118,147 | 2,846,314 | 10,295,223 | 17,291,243 | |
| | | | | | | | |
| **WACC** | 12.83% | 12.83% | 12.83% | 12.83% | 12.83% | 12.83% | |
| | | | | | | | |
| **PV of Free Cash Flow** | (7,797,413) | (24,018,221) | 3,166,408 | 1,939,642 | 6,217,967 | 9,252,712 | 7,893,824 |
| | | | | | | | |
| **Terminal Value** | 5.00% | | | | | | |
| Terminal Growth Rate | 12.83% | | | | | | |
| Terminal WACC | 12,797,695 | | | | | | |
| Estimated Terminal Free Cash Flow | 163,435,627 | | | | | | |
| Terminal Value | 33,273,053 | | | | | | |
| PV of Terminal Value today | | | | | | | |
| | | | | | | | |
| **DCF Valuation** | | | | | | | |
| Sum of PV of forecasted FCFF | 18,740,296 | | | | | | |
| PV of Terminal Value | 33,273,053 | | | | | | |
| Enterprise Value | 52,013,349 | | | | | | |
| Less: Net Debt | 2,401,019 | | | | | | |
| Equity Value | 49,612,330 | | | | | | |
| | | | | | | | |
| No. Shares in '000 | 193,469 | | | | | | |
| Per Share Equity Value | **256.44** | | | | | | |
| Value per share of subsidiaries | 91 | | | | | | |
| Conglomerate discount | 30.00% | | | | | | |
| Net value of subsidiaries | 63 | | | | | | |
| | | | | | | | |
| Target price | **320** | | | | | | |

### Table 29: Sensitivity Table

| Discount Rate | NPV of FCF | Term Val. at 2010 | PV of Term Val. | Enterprise Value | Equity Value | Equity Value Per Share (PRs) | Per Share Value of Investments in Subsidiaries | Target Price |
|---|---|---|---|---|---|---|---|---|
| 7.8% | 36,007,106 | 452,148,363 | 167,312,893 | 203,319,999 | 200,918,980 | 1,038.51 | 63.41 | 1,101.91 |
| 8.8% | 31,915,689 | 334,106,887 | 109,463,177 | 141,378,865 | 138,977,846 | 718.35 | 63.41 | 781.75 |
| 9.8% | 28,175,700 | 264,939,625 | 76,939,127 | 105,114,828 | 102,713,809 | 530.91 | 63.41 | 594.31 |
| 10.8% | 24,752,518 | 219,498,704 | 56,562,006 | 81,314,525 | 78,913,506 | 407.89 | 63.41 | 471.29 |
| 11.8% | 21,615,389 | 187,363,239 | 42,888,019 | 64,503,409 | 62,102,390 | 320.99 | 63.41 | 384.40 |
| **12.8%** | **18,736,947** | **163,435,627** | **33,267,108** | **52,004,055** | **49,603,036** | **256.39** | **63.41** | **319.79** |
| 13.8% | 16,092,800 | 144,927,375 | 26,259,431 | 42,352,231 | 39,951,212 | 206.50 | 63.41 | 269.90 |
| 14.8% | 13,661,170 | 130,184,629 | 21,018,571 | 34,679,741 | 32,278,722 | 166.84 | 63.41 | 230.25 |
| 15.8% | 11,422,586 | 118,164,354 | 17,016,603 | 28,439,189 | 26,038,170 | 134.59 | 63.41 | 197.99 |
| 16.8% | 9,359,606 | 108,176,174 | 13,908,740 | 23,268,346 | 20,867,327 | 107.86 | 63.41 | 171.26 |
| 17.8% | 7,456,585 | 99,744,947 | 11,461,368 | 18,917,953 | 16,516,934 | 85.37 | 63.41 | 148.78 |

### Table 30: Sensitivity Analysis

| | | Terminal growth rate | | | | |
|---|---|---|---|---|---|---|
| | | **4.0%** | **4.5%** | **5.0%** | **5.5%** | **6.0%** |
| **WACC** | **11.3%** | 323.13 | 332.28 | 342.60 | 354.33 | 367.78 |
| | **11.8%** | 315.20 | 324.35 | 334.67 | 346.40 | 359.84 |
| | **12.3%** | 307.60 | 316.75 | 327.07 | 338.80 | 352.25 |
| | **12.8%** | 300.32 | 309.47 | **319.79** | 331.52 | 344.97 |
| | **13.3%** | 293.34 | 302.49 | 312.81 | 324.54 | 337.99 |
| | **13.8%** | 286.65 | 295.80 | 306.13 | 317.85 | 331.30 |
| | **14.3%** | 280.24 | 289.39 | 299.71 | 311.44 | 324.88 |

**Table 31: Valuation Summary**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | | | **PRs'000** |
| Net Sales | 18,276,277 | 17,601,783 | 22,458,861 | 25,258,429 | 27,318,787 | 37,167,365 | 49,071,931 | 53,227,499 |
| Cost of Goods Sold | 14,332,842 | 13,364,524 | 16,114,119 | 18,883,591 | 21,169,961 | 26,917,334 | 32,791,659 | 35,907,597 |
| Operating Profit | 2,641,286 | 2,755,529 | 4,449,273 | 4,207,918 | 3,771,692 | 7,034,329 | 12,076,074 | 12,770,992 |
| EBITDA | 7,213,781 | 7,525,650 | 8,222,035 | 7,968,467 | 7,592,392 | 10,803,700 | 15,644,980 | 16,363,984 |
| Net Income | 2,319,082 | 2,542,326 | 3,068,866 | 2,973,159 | 2,619,840 | 4,926,087 | 8,244,200 | 5,925,270 |
| **Balance Sheet** | | | | | | | | **PRs'000** |
| Current Assets | 5,011,555 | 5,684,446 | 15,768,713 | 29,660,662 | 14,206,283 | 9,460,389 | 17,850,420 | 20,014,127 |
| Operating Assets | 6,328,663 | 6,299,832 | 11,177,955 | 29,565,833 | 46,887,321 | 54,847,257 | 52,275,947 | 48,795,340 |
| Long Term Loans | - | - | - | - | - | - | - | - |
| Total Equity | 7,375,566 | 9,370,097 | 10,715,799 | 10,680,803 | 10,489,768 | 11,899,732 | 13,936,878 | 12,599,668 |
| **Per Share** | | | | | | | | |
| No. Of Share | 152,940 | 152,940 | 152,940 | 152,940 | 168,234 | 193,469 | 193,469 | 193,469 |
| Book Value | 48.23 | 40.53 | 43.06 | 48.23 | 55.70 | 55.39 | 55.21 | 54.22 |
| Earning Per Share (EPS) | 15.16 | 10.18 | 10.53 | 15.16 | 15.11 | 15.86 | 15.37 | 13.54 |
| DPS | 11.00 | 9.00 | 15.74 | 15.25 | 13.44 | 25.27 | 42.30 | 30.40 |
| Sales Per Share | 119.50 | 104.63 | 116.08 | 130.56 | 141.20 | 192.11 | 253.64 | 275.12 |
| Price per Sales per Share (PSR) | 0.98 | 1.67 | 2.34 | 2.08 | 1.93 | 1.42 | 1.07 | 0.99 |
| Price Earning Ratio (PER) | 7.75 | 11.56 | 17.14 | 17.69 | 20.08 | 10.68 | 6.38 | 8.88 |
| Price Per Cash Flow (PCF) | 5.52 | 8.96 | 11.66 | (11.06) | (3.18) | 21.38 | 30.94 | 8.55 |
| Price to Book Value (PBR) | 2.44 | 3.14 | 4.91 | 4.93 | 5.01 | 4.42 | 3.77 | 4.18 |
| **Profitability** | | | | | | | | |
| Gross Profit Margin | 21.58% | 24.07% | 28.25% | 25.24% | 22.51% | 27.58% | 33.18% | 32.54% |
| Operating Profit Margins | 14.45% | 15.65% | 19.81% | 16.66% | 13.81% | 18.93% | 24.61% | 23.99% |
| EBITDA Margins | 39.47% | 42.76% | 36.61% | 31.55% | 27.79% | 29.07% | 31.88% | 30.74% |
| EBIT Margins | 19.15% | 21.60% | 20.00% | 17.02% | 14.33% | 19.15% | 24.50% | 23.92% |
| Pre- Tax Margins | 17.62% | 19.54% | 18.49% | 15.93% | 12.97% | 17.93% | 22.73% | 15.06% |
| Net Profit Margins | 12.69% | 14.44% | 13.66% | 11.77% | 9.59% | 13.25% | 16.80% | 11.13% |
| Return On Equity (ROE) | 31.44% | 27.13% | 28.64% | 27.84% | 24.98% | 41.40% | 59.15% | 47.03% |
| Return On Assets (ROA) | 16.43% | 15.91% | 9.93% | 4.71% | 4.03% | 7.22% | 11.14% | 8.15% |
| Return On Common Stockholders Equity (ROCE) | 31.44% | 27.13% | 28.64% | 27.84% | 24.98% | 41.40% | 59.15% | 47.03% |
| Dividend Payout | 72.54% | 59.56% | 99.26% | 99.26% | 99.26% | 99.26% | 99.26% | 99.26% |
| Retention Rate | 27.46% | 40.44% | 0.74% | 0.74% | 0.74% | 0.74% | 0.74% | 0.74% |
| Asset Turnover | 129.51% | 110.14% | 72.65% | 39.99% | 42.02% | 54.50% | 66.31% | 73.25% |
| **Liquidity** | | | | | | | | |
| Current Ratio | 1.79 | 1.56 | 3.32 | 6.29 | 1.92 | 1.10 | 1.08 | 0.83 |
| Acid Test Ratio | 0.60 | 0.67 | 2.44 | 5.23 | 1.12 | 0.09 | 0.38 | 0.31 |
| Quick Ratio | 1.10 | 1.31 | 3.08 | 6.00 | 1.70 | 0.82 | 0.89 | 0.69 |
| Days' R/B | 11.96 | 29.35 | 28.55 | 30.33 | 33.42 | 36.01 | 36.11 | 36.38 |
| Days' Inventories | 48.97 | 25.22 | 25.96 | 26.47 | 28.14 | 32.44 | 35.26 | 35.18 |
| Days' Payables | 3387.93 | 5939.15 | 6105.01 | 5747.98 | 5215.74 | 4840.38 | 4826.62 | 4791.91 |
| Operating Cycle | -3327.00 | -5884.59 | -6050.49 | -5691.19 | -5154.18 | -4771.93 | -4755.24 | -4720.35 |
| **Solvency** | | | | | | | | |
| Debt to Total Assets | -32.42% | -35.84% | -19.29% | -9.44% | -4.76% | -4.89% | 3.57% | 15.65% |
| Total Debt to Equity | -62.04% | -61.13% | -55.65% | -55.82% | -29.51% | -28.00% | 18.97% | 90.27% |
| Long Term Debt to Equity | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Net Debt to Equity | 33.32% | 25.62% | 60.81% | 240.21% | 420.77% | 436.30% | 345.11% | 380.86% |
| Interest Coverage Ratio | 1249.55% | 1048.74% | 1325.71% | 1551.65% | 1056.54% | 1571.09% | 1382.65% | 269.93% |
| Asset to Equity | 191.33% | 170.55% | 288.48% | 591.40% | 619.73% | 573.12% | 530.97% | 576.75% |
| **Others** | | | | | | | | |
| Net Debt | 2,457,260 | 2,401,019 | 6,516,184 | 25,655,987 | 44,137,576 | 51,918,302 | 48,098,188 | 47,986,884 |
| Market Value of Equity | 17,979,636 | 29,388,813 | 52,604,275 | 52,604,275 | 52,604,275 | 52,604,275 | 52,604,275 | 52,604,275 |
| Enterprise Value (EV) | 20,436,896 | 31,789,832 | 59,120,459 | 78,260,263 | 96,741,852 | 104,555,577 | 100,702,463 | 100,291,156 |
| EV/ EBITDA | 3 | 4 | 7 | 10 | 13 | 10 | 6 | 6 |
| EV/ Ton of Sales | 15,929 | 22,756 | 37,102 | 47,019 | 57,159 | 44,288 | 32,506 | 31,835 |
| EV/Ton in $ | 261 | 373 | 608 | 771 | 937 | 726 | 533 | 522 |
| EV/ Share | 134 | 189 | 306 | 405 | 500 | 540 | 521 | 520 |
| EV/ Ton of Capacity | 24,043 | 32,605 | 60,636 | 80,267 | 99,222 | 45,944 | 44,265 | 44,216 |
| EV/Ton in $ | 394 | 535 | 994 | 1,316 | 1,627 | 753 | 726 | 725 |
| Gross Price per Ton (Ex-Fact) | 12,485 | 12,895 | 14,094 | 15,175 | 16,141 | 15,749 | 15,840 | 16,845 |
| Gross Price per Bag (Ex-Fact) | 624 | 645 | 705 | 759 | 807 | 787 | 792 | 842 |
| Net price per ton | 14,245 | 12,600 | 14,094 | 15,175 | 16,141 | 15,749 | 15,840 | 16,845 |
| Net price per bag | 712 | 630 | 705 | 759 | 807 | 787 | 792 | 842 |
| CGS per ton | 10,716 | 9,137 | 9,553 | 10,194 | 10,770 | 9,912 | 9,430 | 10,229 |
| CGM per ton | 4,550 | 4,136 | 4,408 | 4,530 | 4,921 | 5,508 | 5,908 | 6,430 |
| CGS per Bag | 536 | 457 | 478 | 510 | 538 | 496 | 472 | 511 |
| CGM per Bag | 228 | 207 | 220 | 226 | 246 | 275 | 295 | 321 |
| Working Capital | 594,006 | (169,430) | 8,973,776 | 13,926,370 | (18,130,654) | (5,918,641) | 376,792 | (5,229,010) |
| Change in Working Capital | 772,130 | (763,436) | 9,143,206 | 4,952,594 | (32,057,024) | 12,212,013 | 6,295,433 | (5,605,802) |
| Capital Expenditure | 456,082 | 594,112 | 5,804,296 | 20,378,532 | 20,377,234 | 11,620,754 | 1,142,850 | 242,835 |

# Fauji Fertilizer Bin Qasim Limited

## Initiating Coverage

**Recommendation: BUY**

**Fair Value: PRs56**

### Investment Consideration

- FFBL is the only DAP manufacturer in the country, and the only thing keeping it from becoming monopoly is the subsidy given by the government to keep retail prices low. It fulfills 30% of the local DAP demand and does so more profitably than other manufacturers that sell imported DAP.

- FFBL's cost of production and sales are lower than the cost of DAP imports and sales because of the feedstock gas subsidy extended by the government. Its existing DAP and urea plants receive gas at a fixed rate of PRs36.77/mmbtu, and the situation is likely to continue till 2011. After that the feedstock gas prices are expected to rise by 2.5% per annum.

- Another factor that makes FFBL's manufactured DAP more competitive than imported DAP is the zero duty structure on imports of raw materials (phosphoric acid) from Morocco.

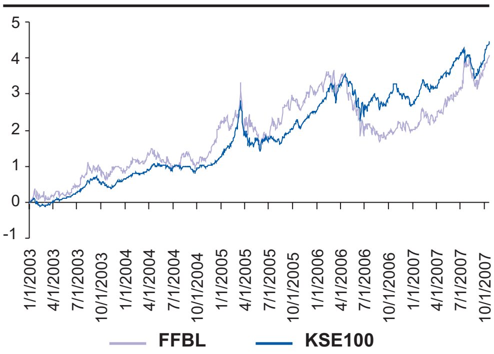
- FFBL has planned BMRE of it's DAP plant which will add 0.223mntpa to its existing capacity of 0.446mntpa. This expansion is expected to come online in March 2008, and will allow the company to capture 50% of the total DAP demand.

- FFBL has 25% shareholding in a joint venture between a Moroccan company, which supplies the raw material phosphoric acid for FFBL's DAP production. Moreover, the combined shareholding of FFC, FFBL, & Fauji Foundation in the Pakistan Marco Phosphor S.A (PMP) venture is 50%.

- In view of unfulfilled DAP demand in the local market and rising DAP prices globally we expect FFBL to maintain greater than 30% gross margins till 2010. In 2011, a major DAP expansion in Saudi Arabia is likely to globally depress DAP prices thus reducing FFBL's margins as well. Therefore, we expect that the best time to invest in FFBL is now while it can still command a premium price, and enjoy cost subsidies.

| | |
|---|---|
| Bloomberg Code | FFBL PA |
| Current Price (PRs per share) | 46.50 |
| Average Daily Volume (shares) ('000) | 9,520,995 |
| Market Capitalization (PRs mn) | 434,361 |
| Paid-up Capital (PRs bn) | 9,341.10 |
| Shares Outstanding (mn) | 934.10 |
| Weightage in KSE-100 (%) | 1.14 |
| Average Price (PRs per share) | 34.10 |

**Chart 39: Relative Performance**




*Source : Bloomberg*

**Table 32: Estimates**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| Net Income (PRs '000) | 2,449,109 | 2,444,858 | 2,503,079 | 4,515,166 | 5,993,124 | 6,603,636 | 7,272,914 | 8,077,896 |
| Dividend per Share (PRs) | 2.00 | 1.75 | 2.75 | 3.25 | 4.50 | 5.05 | 5.70 | 6.25 |
| Earning per Share (PRs) | 2.62 | 2.62 | 2.68 | 4.83 | 6.42 | 7.07 | 7.79 | 8.65 |
| Book Value per Share (PRs) | 8.27 | 9.14 | 9.07 | 10.65 | 12.57 | 14.59 | 16.67 | 19.07 |
| Price/Book (x) | 3.87 | 3.62 | 5.13 | 4.36 | 3.70 | 3.19 | 2.79 | 2.44 |
| Price/Earning (x) | 12.20 | 12.64 | 17.35 | 9.62 | 7.25 | 6.58 | 5.97 | 5.38 |
| Dividend Yield (%) | 6.25% | 5.29% | 5.91% | 6.99% | 9.68% | 10.86% | 12.26% | 13.44% |

*Source : Company Reports & IGI Research*

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## Introduction

Fauji Fertilizer Bin Qasim (FFBL) was established on November 17, 1993 and was initially named FFC–Jordan. The major shareholders were Fauji Fertilizer Company (FFC), Fauji Foundation (FF) and Jordan Phosphate Mines Co. (JPMC) with share holdings of 30%, 10% and 10% respectively. The Company was listed at the Karachi Stock Exchange in May 1996 and started its production in January 2000; however, due to some technical, financial and managerial problems, the company reported a loss of PRs6.5bn and ceased operations.

In the year 2003 JPMC sold all its equity in the company and resultantly, raw material supply agreements with Jordan also ceased. FFC – Jordan was then renamed as Fauji Fertilizer Bin Qasim (FFBL).

Presently, FFBL has total share capital of PRs9.341bn. Major shareholders of FFBL are Fauji Fertilizer Company (FFC) and Fauji Foundation (FF) with 50.88% and 17.29% of total shares respectively. FFBL announced its first dividend in the year 2004 and achieved ISO certification in March 2006.

### Capacity and Production

FFBL deals in Granular Urea and Di Ammonium Phosphate (DAP). It is the only producer of DAP in the country. For DAP, FFBL imports phosphorous from Morocco. Granular Urea is available as “Sona Urea” and DAP as “Sona DAP” in the market.

It has manufacturing facilities at the Eastern Zone of Bin Qasim, Karachi which is beneficial in terms of freight charges for raw material imported from Morocco for manufacturing DAP.

The total capacity of FFBL’s plant at Bin Qasim is 1,670tpd for Granular Urea and 1,350tpd for DAP. However, FFBL usually produces in excess of its installed capacity.

### Market Share

The total production capacity of Pakistan is 5.655mntpa. While FFBL production capacity is 0.627mntn for Urea and 0.495mntn for DAP. This translates into 13% market share of Urea and 31% market share of DAP for FFBL.

**Table 33: Sales Share**

| | Total Sales | | FFBL Sales | | Market Share | |
|---|---|---|---|---|---|---|
| Years | Urea (ttn) | DAP (ttn) | Urea (ttn) | DAP (ttn) | Urea (%) | DAP (%) |
| 2003 | 4,485 | 1,116 | 560 | 73 | 12.48 | 6.54 |
| 2004 | 4,716 | 1,199 | 574 | 381 | 12.17 | 31.77 |
| 2005 | 5,179 | 1,367 | 652 | 430 | 12.58 | 31.45 |
| 2006 | 5,236 | 1,517 | 669 | 472 | 12.77 | 31.11 |

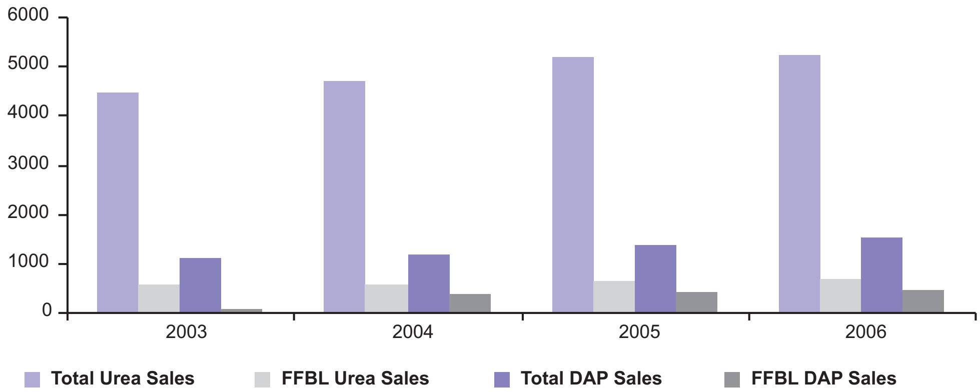
*Source : NFDC, Company Reports & IGI Research*

**Table 34: Production Share**

| | Total Production | | FFBL Production | | Market Share | |
|---|---|---|---|---|---|---|
| Years | Urea (ttn) | DAP(ttn) | Urea (ttn) | DAP (ttn) | Urea (%) | DAP (%) |
| FY03 | 4,540 | 73 | 560 | 73 | 12.33 | 100.00 |
| FY04 | 4,409 | 381 | 574 | 381 | 13.01 | 100.00 |
| FY05 | 4,693 | 455 | 588 | 455 | 12.54 | 100.00 |
| FY06 | 4,803 | 450 | 601 | 450 | 12.51 | 100.00 |

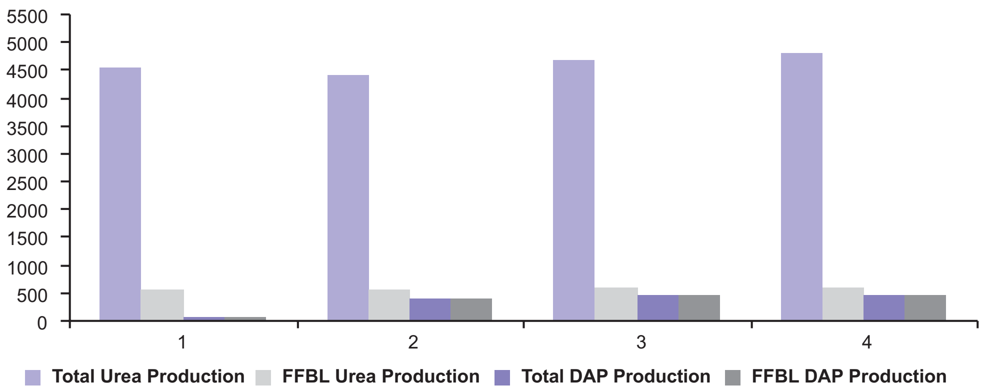
*Source : NFDC, Company Reports & IGI Research*

**Chart 40: Urea and DAP Sales** (ttn)




*Source : Company Reports & IGI Research*

**Chart 41: Urea and DAP Production** (ttn)




*Source : Company Reports & IGI Research*

### Pakistan Marco Phosphor S.A (PMP), Morocco

A group of Morocco, Office des Cherifienes Phosphates (OCP), with US$95mn entered in a joint venture agreement with Fauji Foundation (FF), Fauji Fertilizer Company Limited (FFCL) and Fauji Fertilizer Bin Qasim Limited (FFBL). The agreement was made in September 2004 to form "Pakistan Marco Phosphore S.A (PMP) in Morocco. This project will be able to produce 0.375mntn of phosphoric acid yearly. It will consume 1.3mntpa phosphate rock and 3.70mntpa Granular Sulphur.

PMP project is expected to cost around 2,030 Moroccon Dirhams (i.e.US$240mn) and is expected to come online by the end of the year 2007. Through this arrangement FFBL will be able to get phosphate, which is the main raw material for the production of phosphate.

### Foundation Power Company (Dharki) Limited (FPCDL)

FPCDL is a power plant of 175 MW. It is an associated company that has been established by Fauji Foundation. The project cost will be US$196.472mn. FFBL would invest PRs1.5bn in the project. This has been approved by National Electric Power Regulatory Authority (NEPRA). Contracts with Engineering, Procurement and Construction (EPC) and Power Purchase Agreement have been finalized. The project will be completed by the mid of 2009.

### Investment in Fauji Cement Company Limited (FCCL) Expansion Project

FFCL is an associated company of FFBL and it is in the process of expansion. FFBL has decided to invest PRs300mn in expansion project and this will allow it to become 2.8% share holder in FCCL. Fauji Cement's expansion of 2.1mntn brown field plant is expected to come online in FY10. Currently FCCL has 1.1mntn capacity and a market share of 3% in terms of capacity and 4% in terms of sales. However, its decision to expand in the over capacity situation prevailing in the cement industry is questionable. More details of the investment and its returns are expected to become public once FCCL formally announces their target capital structure and mode of funding for the expansion.

## Future Plans

FFBL has plans to conduct BMRE on their existing DAP plant to increase its capacity by 50%. Apart from that they also have plans to invest in a grain's terminal.

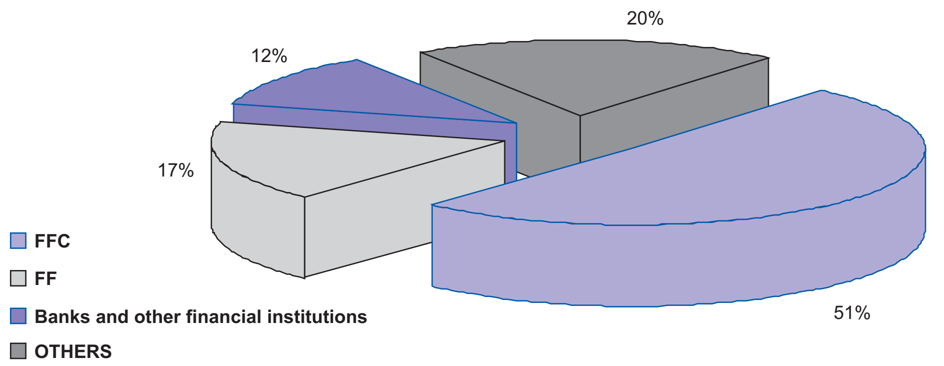
## Terminal Growth Rate

Due to the expected BMRE in the DAP plant expected in the 4QCY07 and the rising trend in the international DAP prices we expect FFBL to post a good terminal growth rate. It is also expected that if their recent investment PMP starts operations, they may announce another expansion of a new DAP plant and FF, FFC and FFBL might increase their share holding in the PMP project.

## Shareholdings

Total outstanding shares of FFBL are 934,110,000 out of them 20.27% is free float. The major shareholder of FFBL is Fauji Fertilizer Company (FFC) with 50.88% shares and Fauji Foundation (FF) has 17.29% shares.

**Chart 42: Shareholdings**




*Source : Company Reports & IGI Research*

## Recent Results

FFBL announced its result for 3QCY07. Profit After Tax (PAT) for 9MCY07 was recorded at PRs1,545mn which translated into Earnings Per Share (EPS) of PRs1.65.

- Net Sales for the 9MCY07 was recorded at PRs7,825.7mn as against PRs8,563.6mn in the corresponding period last year. This represents a decline of 8.6% Year-on-Year (YOY). The lower earnings of FFBL are mainly attributed by the shut down of Ammonia plant for expansion. The plant remained shut down for Ammonia Balancing, Modernization and Revamping Expansion (BMRE - Ammonia). The plant was shut down during the 2QCY07 for three months.

- Gross Profit was recorded at PRs2,699.7mn for 9MCY07 as against PRs2412.4mn for the corresponding period last year, signifying an increase of 11.9% (YOY). The cost of raw materials consumed also decreased because of the shutdown period, hence offsetting the decrease in sales and registering an insignificant impact on the overall gross profit.

- Profit Before Tax (PBT) reached PRs2,356.1mn for 9MCY07 as against PRs2,051.7mn in the corresponding period last year, registering a growth of 14.8%.

- PAT of PRs1545mn (EPS: PRs1.65) is 16.4% higher than PAT of PRs91,327.7mn (EPS: PRs1.42) in the corresponding period last year.

Board of Directors recommended a second interim cash dividend of 10% (i.e. PRs1.00). Prior to this, FFBL announced a cash dividend of 5% at the end of 1HCY07, making their total disbursements amount to 15% at the end of 9MCY07. Currently the stock is trading at a PE multiple of 21.14x on 9MCY07 earnings.

The BMRE was completed on May 16, 2007, however, the plant had to be shut down for another 27 days for some technical tribulations as a part of BMRE. The project was intended to augment current capacity. The production capacity of ammonia has increased from 1270MT to 1570MT per day.

Although the earnings recorded for 3QCY07 mark an increase as compared to the corresponding period last year, they have not made a significant impact on the overall earnings recorded for 9MCY07. The earnings of the 2HCY07 would continue to be on a decline because another shut down is expected. FFBL's DAP plant is scheduled for a shutdown from November 1st, 2007 to Febuary 20th, 2008 for BMRE/de bottlenecking in order to have a 50% increase in production capacity. This will halt production for the last two months of CY07, and as a result 2HCY07 will report losses. However, the earnings expectation for the coming years is very high because these expansions would increase the production capacity of the only DAP manufacturer in Pakistan.

**Table 35: Condensed Interim Profit And Loss Account For Nine Months ended September 30, 2007** **(PRsmn)**

| | Quarter Ended September 30 | | | Nine months Ended September 30 | | |
|---|---|---|---|---|---|---|
| | **3QCY07** | **3QCY06** | **% Change** | **2007** | **2006** | **% Change** |
| Sales -net | 3,885.4 | 2,703.2 | 43.7% | 7,825.7 | 8,563.6 | -8.6% |
| Cost of sales | (1,846.7) | (1,784.3) | 3.5% | (5,126.0) | (6,151.2) | -16.7% |
| Gross (loss)/profit | 2,038.7 | 919.0 | 121.8% | 2,699.7 | 2,412.4 | 11.9% |
| Distribution cost | (338.0) | (336.3) | 0.5% | (721.5) | (957.4) | -24.6% |
| Administrative expenses | (27.2) | (25.7) | 5.7% | (88.0) | (75.3) | 16.9% |
| | 1,673.49 | 556.97 | 2.00 | 1,890.16 | 1,379.75 | 0.04 |
| Finance cost | (143.4) | (95.8) | 49.7% | (453.5) | (295.5) | 53.5% |
| Other expenses | (108.8) | (52.9) | 105.6% | (142.4) | (114.8) | 24.1% |
| | 1,421.3 | 408.3 | 248.1% | 1,294.2 | 969.4 | 33.5% |
| Other income | - | - | | 600.0 | 700.0 | -14.3% |
| Compensation from GDP | 124.0 | 111.8 | 10.9% | 461.9 | 382.3 | 20.8% |
| Others | 124.0 | 111.8 | 10.9% | 1,061.9 | 1,082.3 | -1.9% |
| Profit before taxation | 1,545.2 | 520.1 | 197.1% | 2,356.1 | 2,051.7 | 14.8% |
| Taxation-Deferred | (533.8) | (184.6) | 189.2% | (811.1) | (724.0) | 12.0% |
| Profit after taxation | 1,011.4 | 335.5 | 201.5% | 1,545.0 | 1,327.7 | 16.4% |
| Basic and diluted earnings per share (Rupees) | 1.08 | 0.36 | 200.0% | 1.65 | 1.42 | 16.2% |

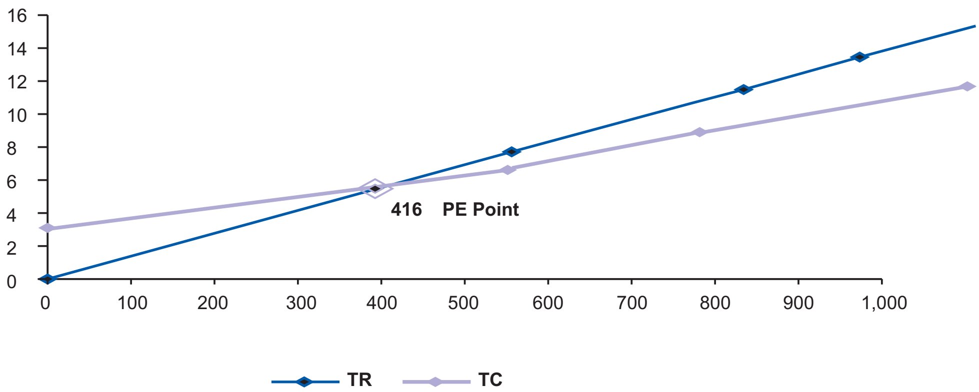
*Source : KSE Notice*

## Break-Even Analysis

Our break-even analysis suggests that FFBL achieves no-profit-no-loss situation if it sells 416,409t of fertilizer. Our estimation is based on the assumption that fixed cost remain constant and sale equal production with prices of 50kg bag of urea and DAP remain constant at RPs540 and PRs1,740 respectively.

Break-even analysis of FFBL is higher as compared to others because its lower production capacity does not give it the scale advantage that others have. Moreover, it is relatively low on the learning curve of DAP manufacturing as it is the first one in country to start DAP production. Its contribution margins also lower than the other companies.

**Chart 43: Break-Even Analysis** **(Millions)**




*Source : Company Reports & IGI Research*

## Valuation and Recommendation

FFBL is the only manufacturer in the country to produce urea as well as DAP. It caters 30% to 33% of the local DAP demand and after BMRE/De-Bottlenecking it will serve 50% of the local demand of DAP apart from its share in local urea sales. Currently, FFBL is trading at a PE multiple of 17.35x on CY07E earnings. Our fair value for FFBL based on DCF valuation is PRs56. Currently the scrip is trading at 20% discount to our fair value. We suggest a 'BUY' recommendation on FFBL.

**Table 36: FCFF Valuation**

| | 2007 | 2008 | 2009E | 2010E | 2011E | 2012E | **Terminal** |
|---|---|---|---|---|---|---|---|
| **Free Cash Flow** | | | | | | | |
| EBITDA | 3,297 | 6,167 | 8,381 | 9,256 | 10,230 | 11,438 | |
| Less: Cash Tax Payable on EBIT | 1,384 | 2,316 | 3,033 | 3,320 | 3,637 | 4,026 | |
| Less: Change in Working Capital | (1,500) | 495 | 1,120 | 1,666 | 2,109 | 2,509 | |
| Less: Capital Expenditure | 330 | (120) | (435) | (656) | (809) | (917) | |
| **Free Cash Flow** | 3,084 | 3,476 | 4,662 | 4,926 | 5,294 | 5,820 | |
| **WACC** | 13.19% | 13.19% | 13.19% | 13.19% | 13.19% | 13.19% | |
| **PV of Free Cash Flow** | 3,019 | 3,006 | 3,561 | 3,324 | 3,156 | 3,065 | 6,111 |
| **Terminal Value** | | | | | | | |
| Terminal Growth Rate | 5.00% | | | | | | |
| Terminal WACC | 13.19% | | | | | | |
| Estimated Terminal Free Cash Flow | 6,111 | | | | | | |
| Terminal Value | 74,614 | | | | | | |
| PV of Terminal Value today | 39,287 | | | | | | |
| **DCF Valuation** | | | | | | | |
| Sum of PV of forecasted FCFF | 19,130 | | | | | | |
| PV of Terminal Value | 39,287 | | | | | | |
| Enterprise Value | 58,418 | | | | | | |
| Less: Net Debt | 6,085 | | | | | | |
| Equity Value | 52,333 | | | | | | |
| No. Shares in mn | 934 | | | | | | |
| Per Share Equity Value | **56.02** | | | | | | |

**Table 37: Sensitivity Table**

| Discount Rate | NPV of FCF | Term Val. at 2010 | PV of Term Val. | Enterprise Value | Equity Value | Equity Value Per Share (PRs) |
|---|---|---|---|---|---|---|
| 8.2% | 18,618 | 191,555 | 127,439 | 146,056 | 139,971 | 149.84 |
| 9.2% | 18,072 | 145,841 | 92,513 | 110,584 | 104,499 | 111.87 |
| 10.2% | 17,549 | 117,742 | 71,245 | 88,795 | 82,709 | 88.54 |
| 11.2% | 17,049 | 98,721 | 57,006 | 74,056 | 67,971 | 72.77 |
| 12.2% | 16,570 | 84,992 | 46,855 | 63,426 | 57,340 | 61.39 |
| **13.2%** | **19,130** | **74,614** | **39,287** | **58,418** | **52,333** | **56.02** |
| 14.2% | 15,671 | 66,496 | 33,454 | 49,125 | 43,040 | 46.08 |
| 15.2% | 15,249 | 59,970 | 28,839 | 44,089 | 38,003 | 40.68 |
| 16.2% | 14,844 | 54,611 | 25,113 | 39,957 | 33,872 | 36.26 |
| 17.2% | 14,455 | 50,131 | 22,052 | 36,507 | 30,422 | 32.57 |
| 18.2% | 14,081 | 46,331 | 19,503 | 33,585 | 27,500 | 29.44 |

**Table 38: Sensitivity Analysis**

| | | | | **Terminal growth rate** | | |
|---|---|---|---|---|---|---|
| | | **4.0%** | **4.5%** | **5.0%** | **5.5%** | **6.0%** |
| **WACC** | **11.7%** | 52.20 | 54.36 | 56.78 | 59.51 | 62.63 |
| | **12.2%** | 51.94 | 54.10 | 56.52 | 59.25 | 62.37 |
| | **12.7%** | 51.69 | 53.85 | 56.27 | 59.00 | 62.12 |
| | **13.2%** | 51.45 | 53.60 | **56.02** | 58.76 | 61.87 |
| | **13.7%** | 51.21 | 53.36 | 55.78 | 58.52 | 61.63 |
| | **14.2%** | 50.97 | 53.13 | 55.55 | 58.28 | 61.40 |
| | **14.7%** | 50.74 | 52.90 | 55.32 | 58.05 | 61.17 |

**Table 39: Valuation Summary**

| | CY05 | CY06 | CY07E | CY08E | CY09E | CY10E | CY11E | CY12E |
|---|---|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | | | **PRs'000** |
| Net Sales | 14,255 | 14,707 | 14,385 | 19,188 | 22,772 | 22,871 | 23,922 | 25,188 |
| Cost of Goods Sold | 9,692 | 10,023 | 9,685 | 11,049 | 12,063 | 11,421 | 11,581 | 11,748 |
| Operating Profit | 3,190 | 3,160 | 3,203 | 6,145 | 8,345 | 9,075 | 9,858 | 10,825 |
| EBITDA | 3,235 | 3,179 | 3,297 | 6,167 | 8,381 | 9,256 | 10,230 | 11,438 |
| Net Income | 2,449 | 2,445 | 2,503 | 4,515 | 5,993 | 6,604 | 7,273 | 8,078 |
| **Balance Sheet** | | | | | | | | **PRs'000** |
| Current Assets | 9,267 | 11,323 | 6,606 | 7,853 | 9,445 | 10,959 | 12,916 | 15,504 |
| Operating Assets | 14,563 | 14,930 | 15,260 | 15,140 | 14,705 | 14,049 | 13,240 | 12,323 |
| Long Term Loans | 7,130 | 6,482 | 5,834 | 5,186 | 4,537 | 3,889 | 3,241 | 2,593 |
| Total Equity | 7,728 | 8,538 | 8,472 | 9,951 | 11,741 | 13,627 | 15,576 | 17,815 |
| **Per Share** | | | | | | | | |
| No. Of Share | 934,110 | 934,110 | 934,110 | 934,110 | 934,110 | 934,110 | 934,110 | 934,110 |
| Book Value | 8 | 9 | 9 | 11 | 13 | 15 | 17 | 19 |
| Earning Per Share (EPS) | 3 | 3 | 3 | 5 | 6 | 7 | 8 | 9 |
| DPS | 2.00 | 9.00 | 15.74 | 15.25 | 13.44 | 25.27 | 42.30 | 30.40 |
| Sales Per Share | 15.26 | 104.63 | 116.08 | 130.56 | 141.20 | 192.11 | 253.64 | 275.12 |
| Price per Sales per Share (PSR) | 2.10 | 1.67 | 2.34 | 2.08 | 1.93 | 1.42 | 1.07 | 0.99 |
| Price Earning Ratio (PER) | 12.20 | 11.56 | 17.14 | 17.69 | 20.08 | 10.68 | 6.38 | 8.88 |
| Price Per Cash Flow (PCF) | 22.37 | 8.96 | 11.66 | (11.06) | (3.18) | 21.38 | 30.94 | 8.55 |
| Price to Book Value (PBR) | 3.87 | 3.14 | 4.91 | 4.93 | 5.01 | 4.42 | 3.77 | 4.18 |
| **Profitability** | | | | | | | | |
| Gross Profit Margin | 32.01% | 31.85% | 32.67% | 42.42% | 47.03% | 50.06% | 51.59% | 53.36% |
| Operating Profit Margins | 9.63% | 10.36% | 10.41% | 10.39% | 10.39% | 10.39% | 10.38% | 10.38% |
| EBITDA Margins | 22.70% | 21.62% | 22.92% | 32.14% | 36.80% | 40.47% | 42.76% | 45.41% |
| EBIT Margins | 29.29% | 28.35% | 30.06% | 37.71% | 41.63% | 45.37% | 47.51% | 49.95% |
| Pre- Tax Margins | 27.46% | 25.54% | 26.74% | 36.16% | 40.44% | 44.37% | 46.72% | 49.28% |
| Net Profit Margins | 17.18% | 16.62% | 17.40% | 23.53% | 26.32% | 28.87% | 30.40% | 32.07% |
| Return On Equity (ROE) | 31.69% | 28.64% | 29.55% | 45.37% | 51.04% | 48.46% | 46.69% | 45.34% |
| Return On Assets (ROA) | 9.96% | 8.83% | 10.75% | 18.49% | 23.43% | 24.98% | 26.37% | 27.61% |
| Return On Common Stockholders Equity (ROCE) | 31.69% | 28.64% | 29.55% | 45.37% | 51.04% | 48.46% | 46.69% | 45.34% |
| Dividend Payout | 76.28% | 66.86% | 102.63% | 67.24% | 70.14% | 71.43% | 73.21% | 72.27% |
| Retention Rate | 23.72% | 33.14% | -2.63% | 32.76% | 29.86% | 28.57% | 26.79% | 27.73% |
| Asset Turnover | 57.99% | 53.13% | 61.75% | 78.57% | 89.03% | 86.51% | 86.72% | 86.10% |
| **Liquidity** | | | | | | | | |
| Current Ratio | 1.46 | 1.34 | 1.27 | 1.32 | 1.47 | 1.74 | 2.11 | 2.50 |
| Acid Test Ratio | 1.11 | 0.89 | 0.74 | 0.79 | 0.94 | 1.20 | 1.54 | 1.93 |
| Quick Ratio | 1.30 | 1.25 | 1.10 | 1.14 | 1.29 | 1.56 | 1.92 | 2.31 |
| Days' R/B | 0.97 | 1.52 | 1.48 | 1.31 | 1.21 | 1.22 | 1.19 | 1.14 |
| Days' Inventories | 38.52 | 29.15 | 32.69 | 33.90 | 34.07 | 36.50 | 36.50 | 36.50 |
| Days' Payables | 74.41 | 66.38 | 70.43 | 62.47 | 57.75 | 58.33 | 56.54 | 54.48 |
| Operating Cycle | -34.92 | -35.71 | -36.26 | -27.26 | -22.47 | -20.60 | -18.85 | -16.83 |
| **Solvency** | | | | | | | | |
| Debt to Total Assets | 181.88% | 169.07% | 224.38% | 184.27% | 146.50% | 116.88% | 92.98% | 73.79% |
| Total Debt to Equity | 218.10% | 224.23% | 174.96% | 145.41% | 117.86% | 94.00% | 77.10% | 64.21% |
| Long Term Debt to Equity | 24.28% | 17.09% | 12.30% | 6.28% | 1.78% | 0.00% | 0.00% | 0.00% |
| Net Debt to Equity | 73.68% | 71.27% | 64.59% | 38.71% | 13.75% | -6.82% | -23.68% | -38.44% |
| Interest Coverage Ratio | 1606.80% | 1011.05% | 906.01% | 2428.44% | 3508.32% | 4543.41% | 6033.74% | 7467.59% |
| Asset to Equity | 318.10% | 324.23% | 274.96% | 245.41% | 217.86% | 194.00% | 177.10% | 164.21% |
| **Others** | | | | | | | | |
| Net Debt | 5,694 | 6,085 | 5,472 | 3,852 | 1,615 | (929) | (3,689) | (6,848) |
| Market Value of Equity | 29,882,179 | 30,909,700 | 43,436,115 | 43,436,115 | 43,436,115 | 43,436,115 | 43,436,115 | 43,436,115 |
| Enterprise Value (EV) | 29,887,873 | 30,915,785 | 43,441,587 | 43,439,967 | 43,437,730 | 43,435,186 | 43,432,426 | 43,429,267 |
| EV/ EBITDA | 9,238 | 9,725 | 13,178 | 7,044 | 5,183 | 4,693 | 4,245 | 3,797 |
| EV/ Ton of Sales | 27,623 | 27,095 | 41,407 | 35,100 | 32,102 | 34,050 | 34,048 | 34,045 |
| EV/Ton in $ | 453 | 444 | 679 | 575 | 526 | 558 | 558 | 558 |
| EV/ Share | 31,996 | 33,097 | 46,506 | 46,504 | 46,502 | 46,499 | 46,496 | 46,493 |
| EV/ Ton of Capacity | 29.99 | 31.02 | 43.59 | 35.63 | 35.62 | 35.62 | 35.62 | 35.62 |
| EV/Ton in $ | 0.49 | 0.51 | 0.71 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 |
| Gross Price per Ton (Ex-Fact) | 14,387.64 | 14,614.28 | 14,805.16 | 16,597.97 | 17,923.81 | 19,022.98 | 19,847.33 | 20,839.70 |
| Gross Price per Bag (Ex-Fact) | 719.38 | 730.71 | 740.26 | 829.90 | 896.19 | 951.15 | 992.37 | 1,041.99 |
| Net price per ton | 13,174 | 12,890 | 13,711 | 15,504 | 16,830 | 17,929 | 18,753 | 19,746 |
| Net price per bag | 659 | 644 | 686 | 775 | 841 | 896 | 938 | 987 |
| CGS per ton | 9,813 | 9,649 | 10,200 | 9,783 | 9,719 | 9,822 | 9,958 | 10,097 |
| CGM per ton | 9,674 | 8,843 | 9,237 | 9,147 | 9,126 | 9,822 | 9,958 | 10,097 |
| CGS per Bag | 491 | 482 | 510 | 489 | 486 | 491 | 498 | 505 |
| CGM per Bag | 484 | 442 | 462 | 457 | 456 | 491 | 498 | 505 |
| Working Capital | 2,922 | 2,893 | 1,393 | 1,888 | 3,008 | 4,674 | 6,783 | 9,292 |
| Change in Working Capital | 540 | (29) | (1,500) | 495 | 1,120 | 1,666 | 2,109 | 2,509 |
| Capital Expenditure | 963 | 1,357 | 1,357 | 949 | 664 | 464 | 325 | 227 |

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We, Sobia Muhammad Din and Shayan Hasan Jafry, hereby certify that the views expressed in this research report accurately reflect our personal views about the subject, securities and issuers. We also certify that no part of our compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

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