

# Fertilizer Sector

SEPTEMBER 2017

## AGRICULTURAL SECTOR

Pakistan is dependent on agriculture produce, where around 20% of the country's GDP is provided by the agricultural sector.

In light of higher dependence, usage of fertilizers becomes an important concern for timely production of agricultural crops.

Limitations in agricultural sector growth are:

- Limited arable land
- Limited irrigation water supply
- Depleting soil fertility
- Lack of technological advancement

## FERTILIZER DEMAND

- Urea constitutes around 65% of the total fertilizer demand followed by DAP with a 20% share.
- Other products include NP, NPK, and CAN.

## UREA INDUSTRY STRUCTURE

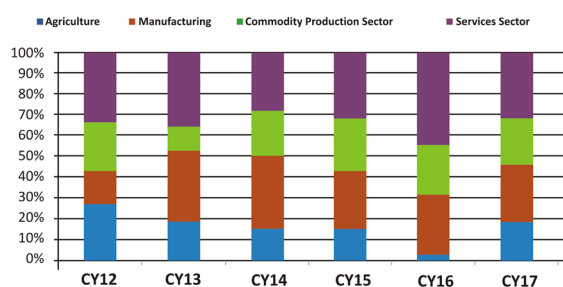
Historically, around nine-tenth of the total urea demand (5.5m MT) was met by local players while the remaining was catered to by imports.

In CY16, the aforementioned situation of excess demand has flipped to excess supply on account of better gas availability. Now the industry has an excess supply situation with inventory levels clocking in at ~1m MT at end of Dec'16 despite stable demand in the Rabi and Kharif seasons.

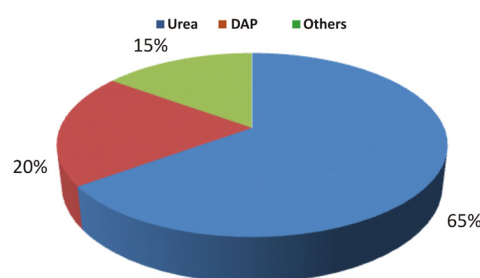
To facilitate farmers, Government of Pakistan (GoP) has declared subsidies on fertilizer. The subsidized urea price prevail at Rs. 1,400/bag which includes reduction by manufacturers, GST reduction from 17% to 5%, and cash subsidy.

In 1HCY17, industry off-takes increased by 48%YoY backed by 1) low base effect (low off-takes in 1HCY16 on account of subsidy anticipation), and 2) higher buying to pile inventory at lower prices in expectation of price hikes. JCR-VIS believes that this buying will lead to accumulation of inventory on the dealers' end. However, at Aug'17 inventory at the manufacturer's end stand at ~694k MT with around 300k MT gathered at the dealers' end.

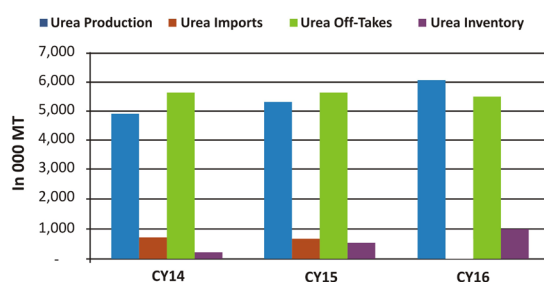
GDP Contribution



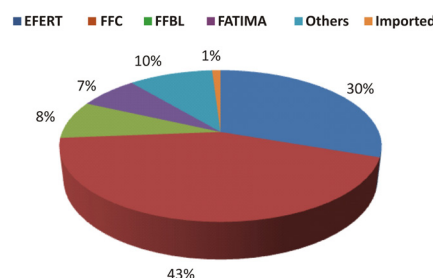
Productive-wise Demand



Urea Industry Structure



Urea Market Share (CY16)



Given the excess supply situation, GoP has allowed 0.6m MT of urea exports by Oct'17. In 1HCY17, total exports were recorded at 123,000MT at average prices of \$250-260/MT.

## UREA PRICES

As discussed before, urea prices are fixed by the Government at subsidized price of Rs. 1,400/bag (\$265/MT). In order to reduce stock level, the local players had cut urea prices by providing discounts. This situation is anticipated to change amid decline in cash subsidy on urea from Rs.156/bag to Rs.100/bag (August'2017).

Industry players plan to partially pass on the impact of this subsidy reduction by cutting off discount offering on products that are currently hovering around Rs. 60-100/bag. Domestic urea prices are currently hovering in the range of Rs. 1,310/bag to Rs. 1360/Bag.

International urea prices have increased from a low of \$190/MT in Jul, 2017 to \$290/MT at end-Sep, 2017. This increase will benefit local players (FFC and FATIMA), who have significant export quota available, in reducing inventory levels at higher prices, However, there remains limited room to increase urea prices given that they have been capped by GoP at Rs. 1,400/- bag.

International prices have increased on account of increase in urea imports by India, better demand from Brazil, lower exports by China, shut down of plants for maintenance by Middle East manufacturers and short covering by Egyptian traders. While prices are expected to sustain in the short term due to better seasonal demand from Asia, they are expected to decline subsequently and are not expected to sustain at current levels.

Historically, local urea prices traded at a 20% discount from international prices (CY11-15). From CY16 onwards, international urea prices dampened significantly on account of substantial capacity additions in 2016/2017.

## DAP INDUSTRY STRUCTURE

Demand for DAP is estimated at around 1.7m MT and has grown at a 5-yr CAGR of 14% while production and imports have increased by 4% and 17%, respectively.

Out of the total demand, 43% is met by the sole domestic producer- Fauji Fertilizer Bin Qasim Limited (FFBL) while the remaining is met through imports. Players other than FFBL sell imported DAP.

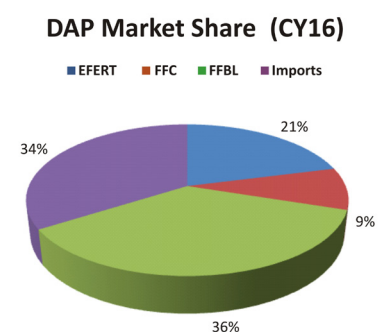
Higher price volatility prevails in this product segment as imported raw material (Phosphoric acid/rock) is used which is sensitive to foreign exchange movements.

Demand drivers for DAP fertilizer are:

- Government subsidy of Rs.300/bag leading to subsidized DAP price of Rs.2,500/bag.
- DAP is used in producing wheat crop, demand for which is more inclined towards the last quarter.

International DAP prices (\$344/MT in Aug'17 vs. historical \$450/MT) have weakened on the back of higher supply additions vis-a-vis demand growth. Upcoming capacity add-ons are:

- Morocco adding 1m MT in 1H17
- Saudi Arabia adding 3m MT of DAP.



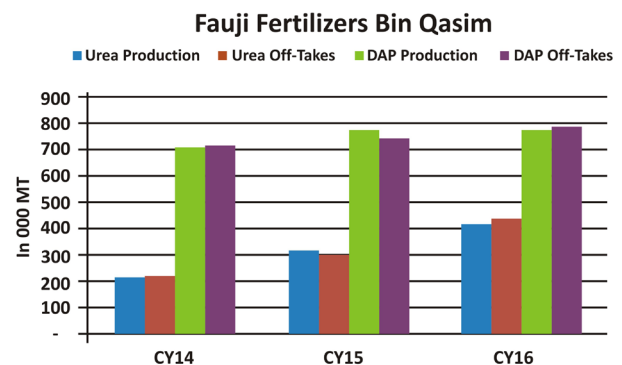
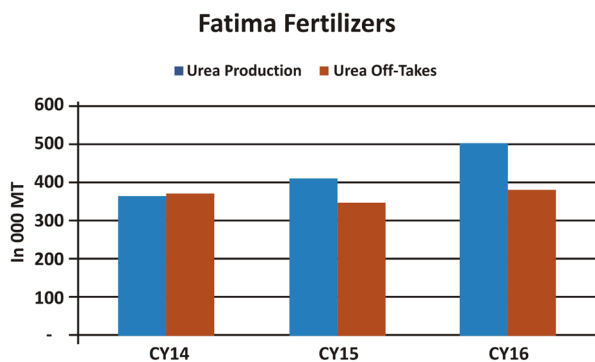
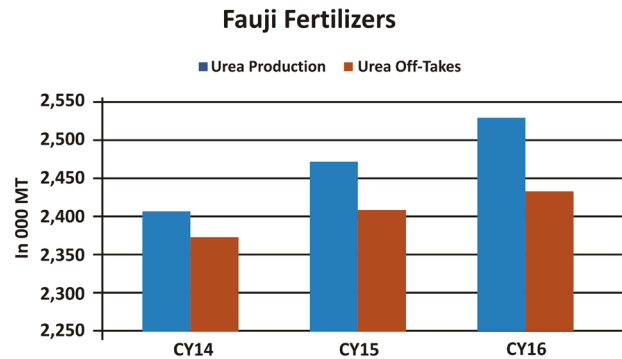
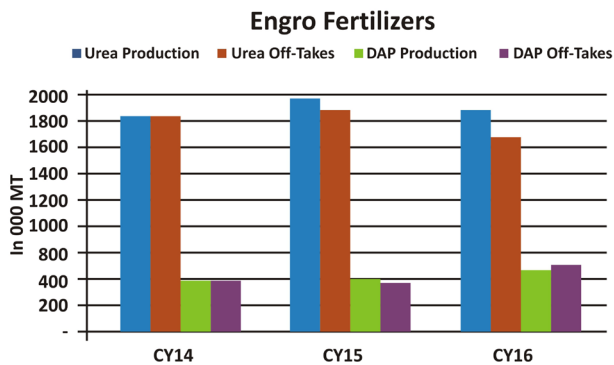
## LOCAL FERTILIZER PLAYERS

Company	Fertilizer Type	Gas Network	Production Capacity (MT)	Production (SY15)	Utilization (CY15)	Production (CY16)	Utilization (CY16)
Engro Fertilizers	Urea I and II	SNGPL & Mari	2,275,000	1,967,552	86%	1,881,016	83%
	NPK		100,000	126,074	126%	94,610	95%
Fauji Fertilizers	Urea	Mari	2,048,000	2,469,000	121%	2,523,000	123%
Fatima Fertilizers	Urea	Mari	500,000	414,212	83%	507,161	101%
	CAN		420,000	402,344	96%	471,929	112%
	NP		360,000	363,020	101%	401,189	111%
Fauji Fertilizers	Urea	SSGC	551,100	301,873	55%	433,612	79%
Bin Qamis	DAP		650,000	768,004	118%	791,256	122%
PakArab Fertilizer Limited	Urea	SNGPL	100,000	-	0%	NA	NA
	NP		304,500	265,349	87%	NA	NA
	CAN		450,000	287,954	64%	NA	NA

As shown above, the four players dominate the fertilizer space with supply of 97% of the demand requirement in CY16 with the remaining met by other players thereby completely eliminating imports from the equation.

All the domestic players are operating at close to full capacities in the backdrop of improved gas supply.

## STATISTICS OF LOCAL PLAYERS



**BUSINESS RISK****WEAK DEMAND DYNAMICS**

Demand for urea has remained stagnant over the years on account of weak farmer incomes and lower commodity prices. Moreover, area under cultivation has also witnessed a gradual decline which has impacted fertilizer off-take.

**EXCESS SUPPLY**

Local urea production has grown at a significantly higher pace vis-à-vis demand growth over the last 5 years resulting in an excess supply situation. As of July'2017, urea inventory stood at ~1.15m MT on the back of improved gas supply. Excess supply, if persists, will result in weakening of pricing power & margins for industry players and result in higher finance cost.

**DISCONTINUATION OF GOP SUPPORT**

GoP support through subsidy and reduction in tax on urea and DAP is a key element of maintaining demand and supply dynamics of the sector. Discontinuation of these incentives could impact fertilizer sector off-take.

**INTERNATIONAL FERTILIZER PRICES**

Sizeable disparity in between local and international prices is a key hindrance to exports. In case exports are undertaken to reduce excess inventory, margins of industry players will be impacted. Moreover, in case if international prices are at a significant differential to local fertilizer prices, threat of imports remain.

**GAS CURTAILMENT REMAINS A CONCERN**

The fertilizer manufacturers operate on three gas networks- SSGC, SNGPL and Mari Network. FFBL operates on SSGC and still face the issue of gas curtailment which remains a risk. Diversion of gas to household consumers during winter season for players operating on the SNGP network may lead to decline in production. Moreover, margins of players operating on RLNG will be adversely impacted.

**INCREASE IN INTEREST RATE**

Given that gearing levels are on the higher side, increase in interest rates will negatively impact profitability and cash flows particularly for leveraged players FFC and FFBL.

**WATER SHORTAGE**

Inconsistent supply of water to the agricultural lands could adversely impact fertilizer off-takes.

**LOW CROP PRICES**

Farmers' income is dependent on crop prices. If they move in the downward direction it could potentially reduce their reliance on usage of fertilizers.

**ANY INCREASE IN GAS TARIFF WILL IMPACT MARGINS**

Current Gas prices as set by OGRA at Rs. 423/mmbtu (inclusive GIDC of Rs. 300/mmbtu) for feed gas and Rs. 750/mmbtu (inclusive GIDC of Rs. 150/mmbtu) for fuel gas. Out of all the players, only two players- EFERT and

FATIMA have an edge over the others as they produce at concessionary feed gas rates of \$0.7/mmbtu without the obligation to pay GIDC of Rs. 300/mmbtu on it (EFERT enjoys a 17% weighted average advantage over other players). Gas prices have surged at a 5-yr CAGR of 31% for feed and 13% for fuel, and any further rise will hit the margins of domestic players

## FINANCIAL RISK

### PROFITABILITY

The profitability of the industry have shown a negative trend from CY15 to CY16 on account of decline in margins. The companies with higher margins enjoy advantage of concessionary and uninterrupted gas supply from SNGPL and Mari Network. Rationale for deterioration of margins over the year CY16 was due to lower urea prices and off-takes on the back of weak agricultural output.

Pressure on net margins persists due to higher finance cost and lower margins in 1HCY17.

Engro Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Sales	61,425	85,003	69,419	27,311
Gross Margin	37%	35%	25%	32%
Net Margin	13%	18%	13%	15%
ROA	70%	14%	9%	7%
ROE	24%	35%	22%	19%
Fauji Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Sales	81,240	84,831	72,877	30,161
Gross Margin	38%	34%	25%	21%
Net Margin	22%	20%	16%	13%
ROA	21%	21%	13%	7%
ROE	71%	61%	42%	29%
Fatima Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Sales	36,169	30,226	33,765	17,692
Gross Margin	59%	56%	53%	50%
Net Margin	26%	31%	29%	24%
ROA	11%	10%	9%	8%
ROE	25%	23%	21%	18%
Fauji Fertilizers Bin Qasim				
Rs. in m	CY14	CY15	CY16	1HCY17
Sales	49,445	52,182	45,011	15,554
Gross Margin	22%	14%	3%	2%
Net Margin	8%	8%	3%	-2%
ROA	9%	7%	2%	-1%
ROE	31%	28%	11%	-6%

## LIQUIDITY

High finance costs coupled with lower margins have led the FFO of the major players to decline from CY15 to CY16 (except FATIMA). Despite the drop, Funds From Operations (FFO) in relation to outstanding obligations remain healthy for Engro and Fatima Fertilizer. However, the same is on the lower side for FFC while cash flows for FFBL were negative during CY16 and 1HCY17.

Engro Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Total Debt	44,004	36,027	36,462	38,664
Total Equity	34,478	42,526	41,282	42,343
Gearing Ratio	1.28	0.85	0.88	0.91
FFO	12,401	21,783	14,614	8,023
FFO to Debt	28%	60%	40%	42%
Fauji Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Total Debt	15,883	38,424	45,264	52,648
Total Equity	25,670	27,311	28,211	26,542
Gearing Ratio	0.62	1.41	1.60	1.98
FFO	14,315	11,994	6,778	1,798
FFO to Debt	90	31	15	7
Fatima Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Total Debt	24,310	30,209	29,871	29,251
Total Equity	36,757	40,229	47,374	47,465
Gearing Ratio	0.66	0.75	0.63	0.62
FFO	14,807	11,641	12,802	5,508
FFO / Total Debt	61%	39%	43%	38%
Fauji Fertilizers Bin Qasim				
Rs. in m	CY14	CY15	CY16	1HCY17
Total Debt	13,087	27,988	35,099	33,556
Total Equity	13,071	14,281	12,757	11,906
Gearing Ratio	1.00	1.96	2.75	2.82
FFO	4,346	2,374	(759)	(1,940)
FFO / Total Debt	33%	8%	-2%	-12%

## GEARING

Gearing indicators of all players have increased due to higher borrowings in order to fund stock-in-trade. Debt composition is inclined towards short term debt. While gearing levels of Engro and Fatima Fertilizer remain within manageable level at below 1(x), gearing levels of FFC and FFBL have increased by around 3 times over the last 2.5 years.

## WORKING CAPITAL

Working capital cycle has weakened on account of piling up of inventory in 1HCY17. Financing of the same has been done through short term debt thereby pulling leverage indicators upwards.

Engro Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Stock in trade	1,101	6,942	6,820	12,999
Short term debt	7,913	10,737	7,082	16,314
Trade debts	757	2,262	7,585	8,967
Payables	24,727	16,887	14,960	18,379
Fauji Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Stock in trade	982	5,100	4,237	15,298
Short term debt	13,383	22,531	28,611	35,373
Trade debts	822	1,774	4,306	8,247
Payables	37,904	8,114	10,852	22,552
Fatima Fertilizers				
Rs. in m	CY14	CY15	CY16	1HCY17
Stock in trade	2,681	7,003	6,243	4,851
Short term debt	6,975	17,041	13,529	15,720
Trade debts	448	335	2,116	5,169
Payables	7,341	8,646	17,339	9,937
Fauji Fertilizers Bin Qasim				
Rs. in m	CY14	CY15	CY16	1HCY17
Stock in trade	1,557	4,549	2,427	7,544
Short term debt	3,087	18,613	18,557	18,431
Trade debts	1,466	1,025	3,524	1,940
Payables	13,860	12,828	13,380	16,465

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