

Fertilizer Sector



January' 2020

THE ECONOMY & AGRICULTURE



GDP* Contributors
(FY19)



Agriculture
(~19%)

Industry (20%)
Primarily includes
manufacturing sectors -
LSM

Service (61%)
Refers to wholesale,
retail, finance, insurance,
transport, etc.

*GDP – @ constant basic prices (2005-06: PKR~14trln) & @ current basic price (PKR~39trln).

Contributors are calculated on constant basic price.

Source: SBP Statistical Supplement FY19

AGRICULTURE

AGRI MIX (%)

■ Crops ■ Livestock ■ Forestry ■ Fishing



GROWTH - GDP VS AGRICULTURE (%)

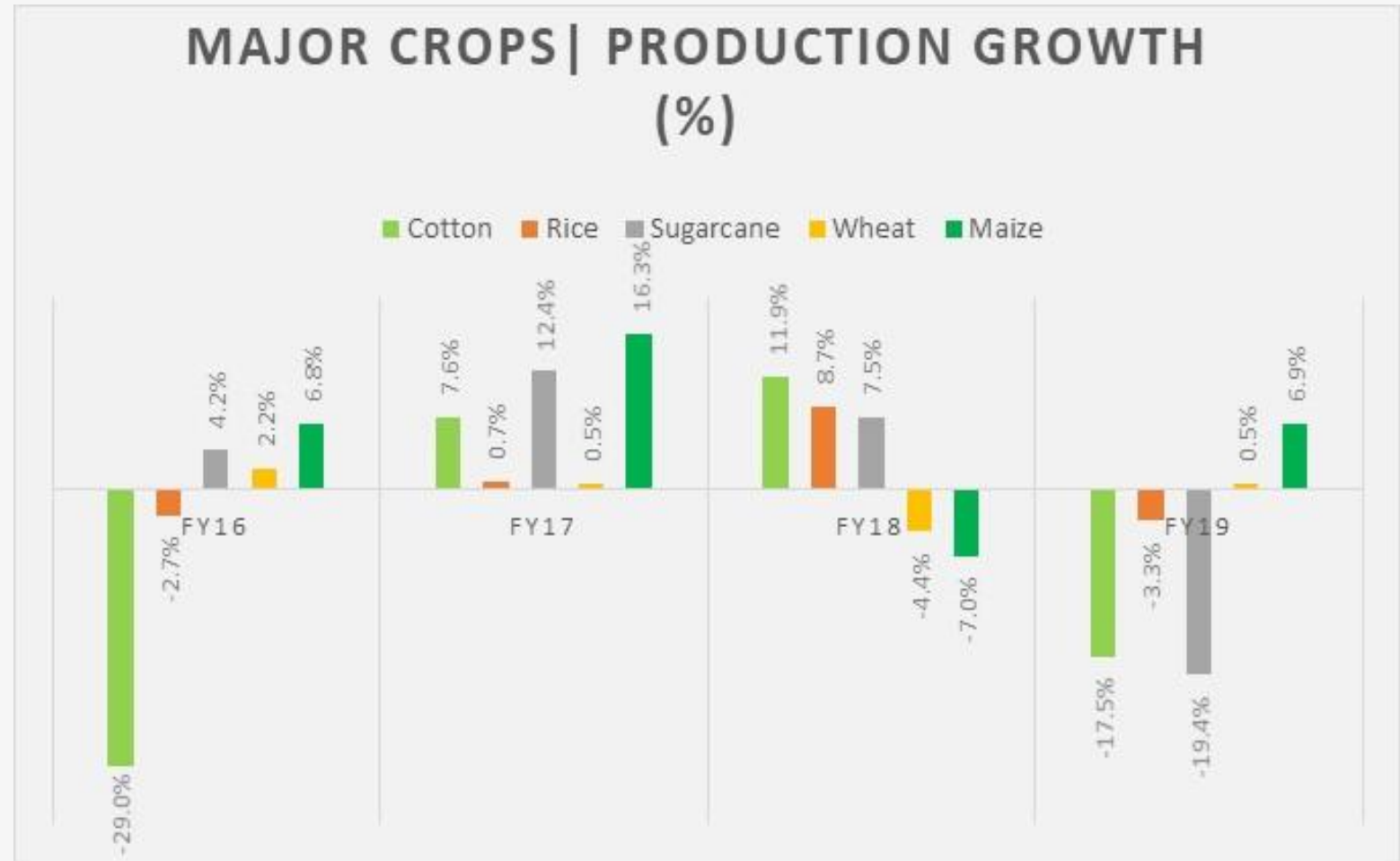
■ Real GDP Growth ■ Agriculture Growth



- Crops accounted for ~35% of the agricultural sector in FY19 (37% FY18)

- Major Crops include Cotton, Rice, Sugarcane, Wheat and Maize. These contributed ~62% to the total crop production in FY19.

- Crop sector witnessed a decline of ~4.4% in FY19 with major crops production and cotton ginning declining by ~6.5% and ~12.7% respectively and other crops witnessing a meagre growth of ~1.95%.



The background of the slide is a photograph showing a row of young rice plants in a field. The plants are vibrant green and growing in dark, rich soil. A green arrow-shaped banner is overlaid across the middle of the image, pointing to the right. The word "FERTILIZER" is written in white, bold, serif capital letters inside this banner. A thin blue vertical line is visible on the left side of the image, near the plants.

FERTILIZER

Fertilizers are nutrients that are essential for the growth of plants.

Nitrogen (N)

Nitrogen supports plants' rapid growth and encourages the healthy development of foliage and fruits.

Major Product: **Urea & CAN**

Phosphorus (P)

It helps a plant convert other nutrients into usable building blocks with which to grow.

Major Product:
Di-ammonium phosphate (DAP)

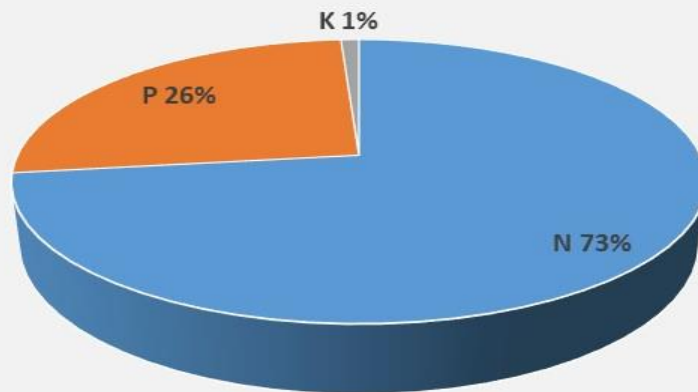
Potassium (K)

Vital for proper growth and reproduction of plants.

Major Product:
Potassium Chloride (KCL)

Another nutrient – Sulphur is also necessary for the growth and metabolism of plants. It is most widely used in combination with other nutrients such as potassium and nitrogen (Major Product – Sulfate of Potash (SOP)).

Nitrogen Fertilizers are majorly fragmented whereas phosphorus and Potassium fertilizers are majorly concentrated.



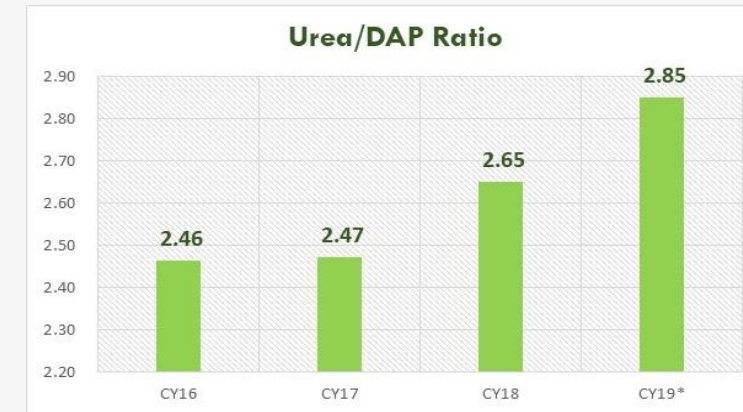
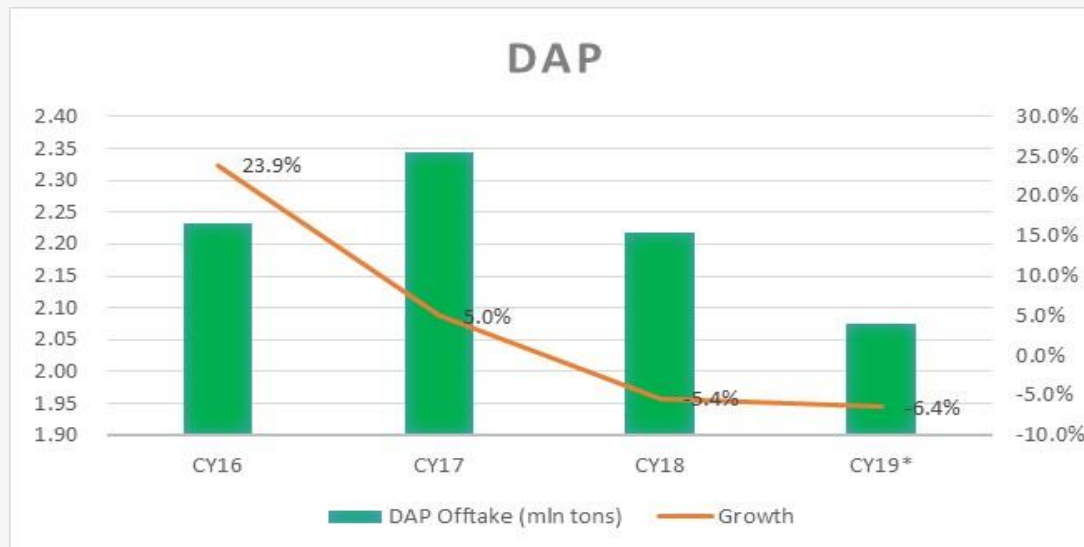
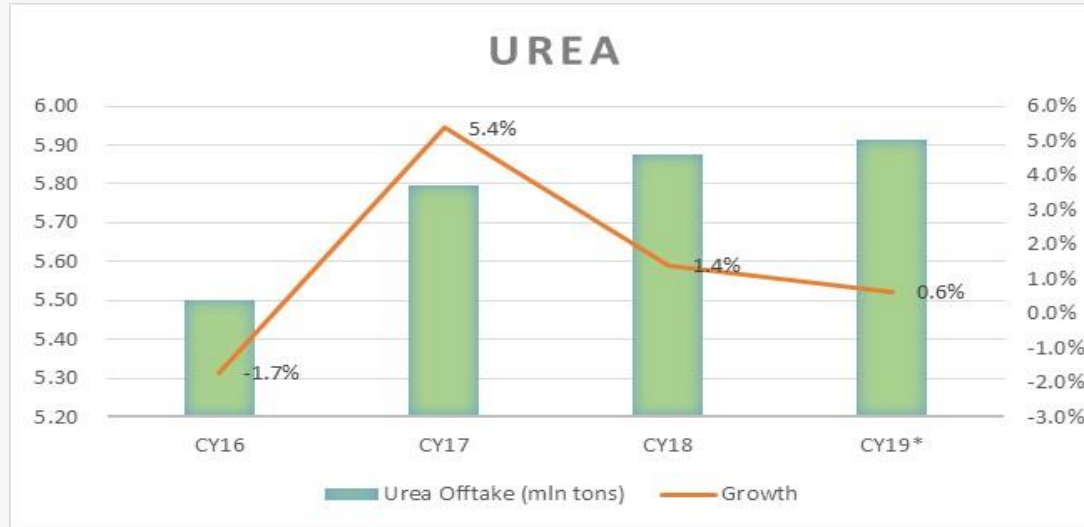
Most highly used nutrients are nitrogenous fertilizers due to their vital properties and lower prices as compared to other fertilizers.

COUNTRY OFFTAKE PATTERN:

Urea – 65%

DAP – 20%

Others – 15%



UREA



"000" tons	9MCY19	9MCY18	PoP Change	CY18	CY17	CY16	CY15
Opening Inventory	204	386	-47%	386	1,090	598	211
Production	4,585	4,096	12%	5,602	5,653	5,993	5,304
Imports	100	-		105	-	-	680
Availability	4,889	4,482	9%	6,093	6,743	6,591	6,195
Sales	4,383	4,138	6%	5,877	5,797	5,501	5,597
Exports	-	75		12	560	-	-
Closing Stock	505	269		204	386	1,090	598

- Urea accounts for ~65% of Pakistan's fertilizer Offtake.
- Key Input Raw Material for Urea is Natural Gas (feed stock), which is also used as fuel (fuel stock) in urea production.
- Country demand for Urea hovers in the range 5.6-5.8mln tons. Offtake proportion is approx. equal in the two crop seasons – Rabi (Oct- Mar) and Kharif (Apr-Sep).
- Following 2016, production capacity of the country has been sufficient to meet the demand of urea. However, owing to insufficient availability of indigenous gas, a supply shortfall is created time and again which necessitates provision of imported LNG for urea production or importing urea directly to bridge the demand supply gap.

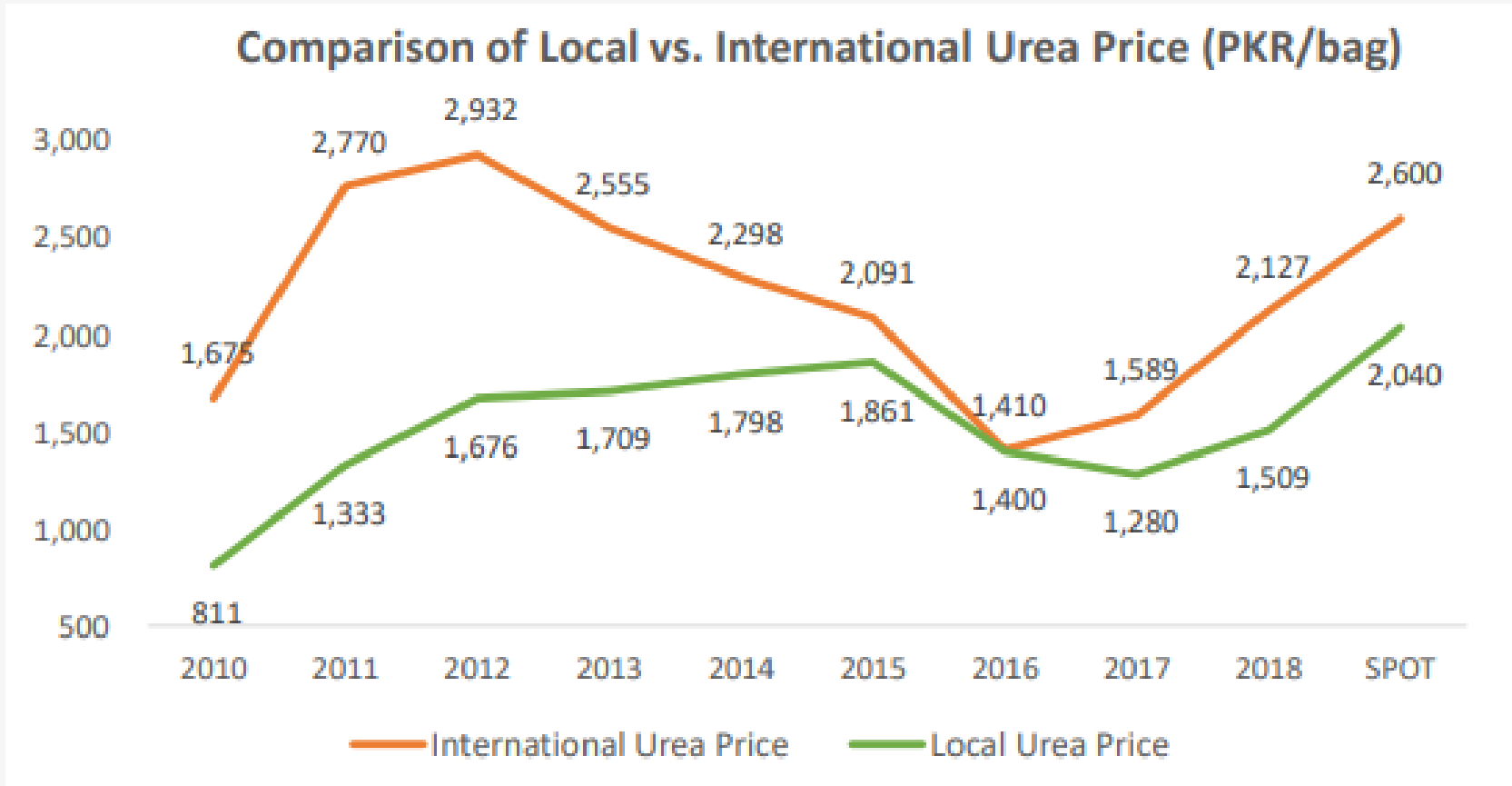
UREA PRICING - International



- International urea prices have remained volatile in 2019.

Source of graph: *indexmundi – commodity prices*
Description: *urea black sea, bulk spot (f.o.b).*

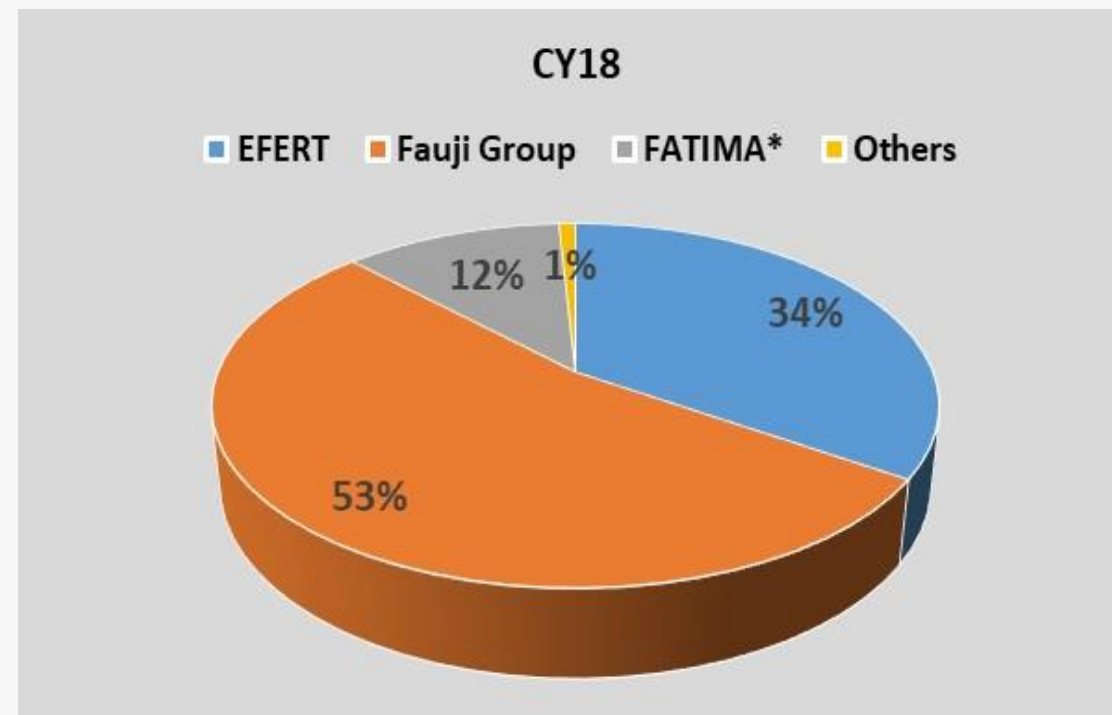
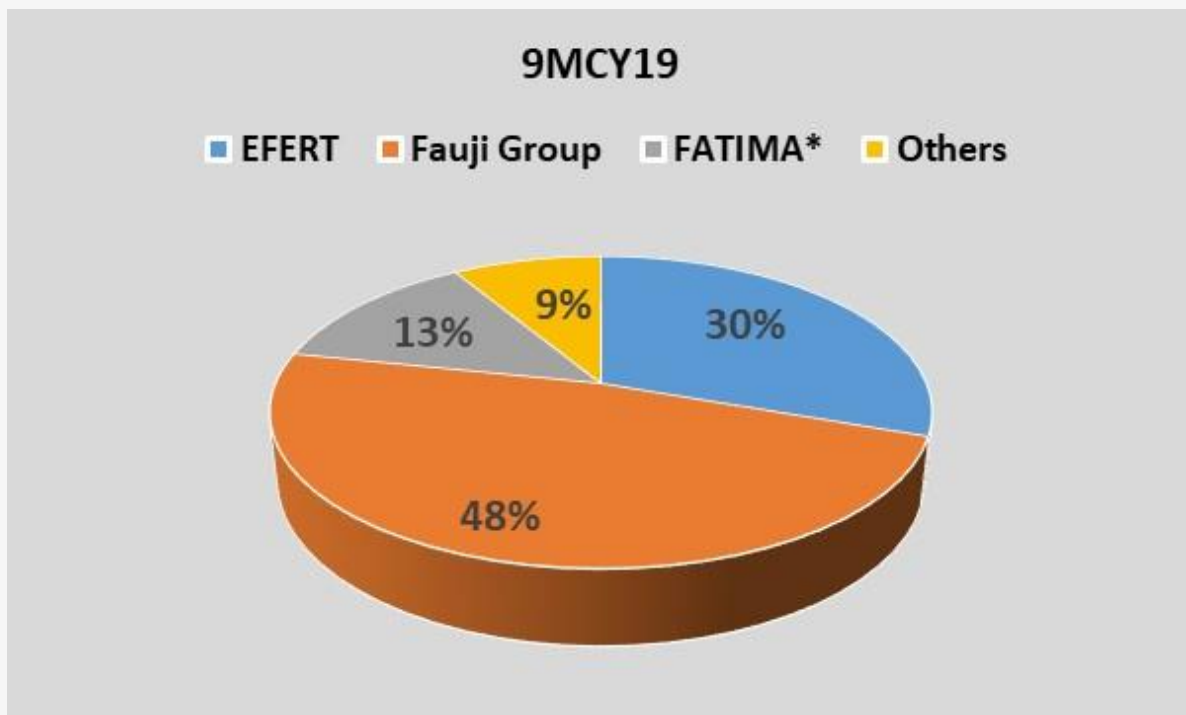
- Prices of urea declined in 9MCY19 owing to a supply surplus situation created in the International Market as demand from major consumers (China and U.S) witnessed a slower trend.



Source: Engro Fertilizer Analyst Briefing 3Q2019.

- Local Urea prices continue to remain at a fair discount with the Ex-Karachi Imported urea price. (PKR~560/bag). The delta became almost negligible in 2016 due to excess supply situation causing downside in both Int't and local prices. Int'l prices rebounded in 2017 while local prices continued to fall and softened to a historical low of PKR~1,280/bag. In consequence of this, Pakistan also exported ~560k tons of urea in the same year to offload excess inventory.
- Impact of increase in gas prices has impliedly been passed on to the consumers. In 3QCY19, however, the effect was not transferred in anticipation of GIDC settlement. Following the quarter, fertilizer players increased the urea bag prices accordingly.

UREA MARKET SHARE



- Fertilizer Industry is dominated by the three Conglomerates; Fauji, Engro and Fatima.
- Fauji Group holds the highest share in urea market (~40% FFC Standalone and ~48% combined with FFBL).
- Supply situation improved in 9MCY19 as the Government resumed availability of LNG to Fatima-Fert and Agritech plants since 4QCY18. Fatima-Fert contributed ~6% to the urea offtake in 9MCY19 (~2% in CY18).

**FATIMA includes Fatima Fertilizer and Fatima Fert only.
Source: NFDC Reports & Financial Statements*

Offtake & Availability

- As per the NFDC data released for the month of Dec'19, urea offtake increased by ~89% from the SPLY due to speculations regarding increase in gas prices in Jan'2020.
- Resultantly, Urea Inventory as at End-Dec'19 reduced to 206K tons.
- The trend of urea offtake is expected to normalize in the ongoing and future months of the Rabi Season. In case, it does not, it is expected to necessitate re-operationalizing LNG based fertilizer plants to meet the country demand.

Pricing

- Urea Price Outlook is subject to the following key driving factors:
 - **Reduction in GIDC** will ideally bring down urea prices. However, as the pattern of accruing GIDC is not consistent within the Industry players, the reduction may bring positive, neutral or negative impact to different manufacturers accordingly. The following elements are imperative:
 - ❖ Overall mechanism of the GIDC scheme, including settlement of the accrued balances.
 - ❖ Quantum impact on the price per urea bag.
 - **Hike in Gas Price:** Side by side, a speculation regarding increase in gas price is expected to partially offset the downward revision of GIDC impact.

('000 tonnes)

Description	Oct*	Nov*	Dec*	Jan**	Feb**	Mar**	TOTAL
UREA							
Opening inventory	470	887	1038	204	132	212	470
Imported supplies	0	0	0	0	0	0	0
Domestic production	535	535	511	431	418	413	2843
Total availability	1005	1422	1549	635	550	625	3313
Offtake	119	381	1345	503	338	319	3005
Write off/on	1	-3	-	-	-	-	-2
Estimated inventory	887	1038	204	132	212	306	306

* Actual **Estimated

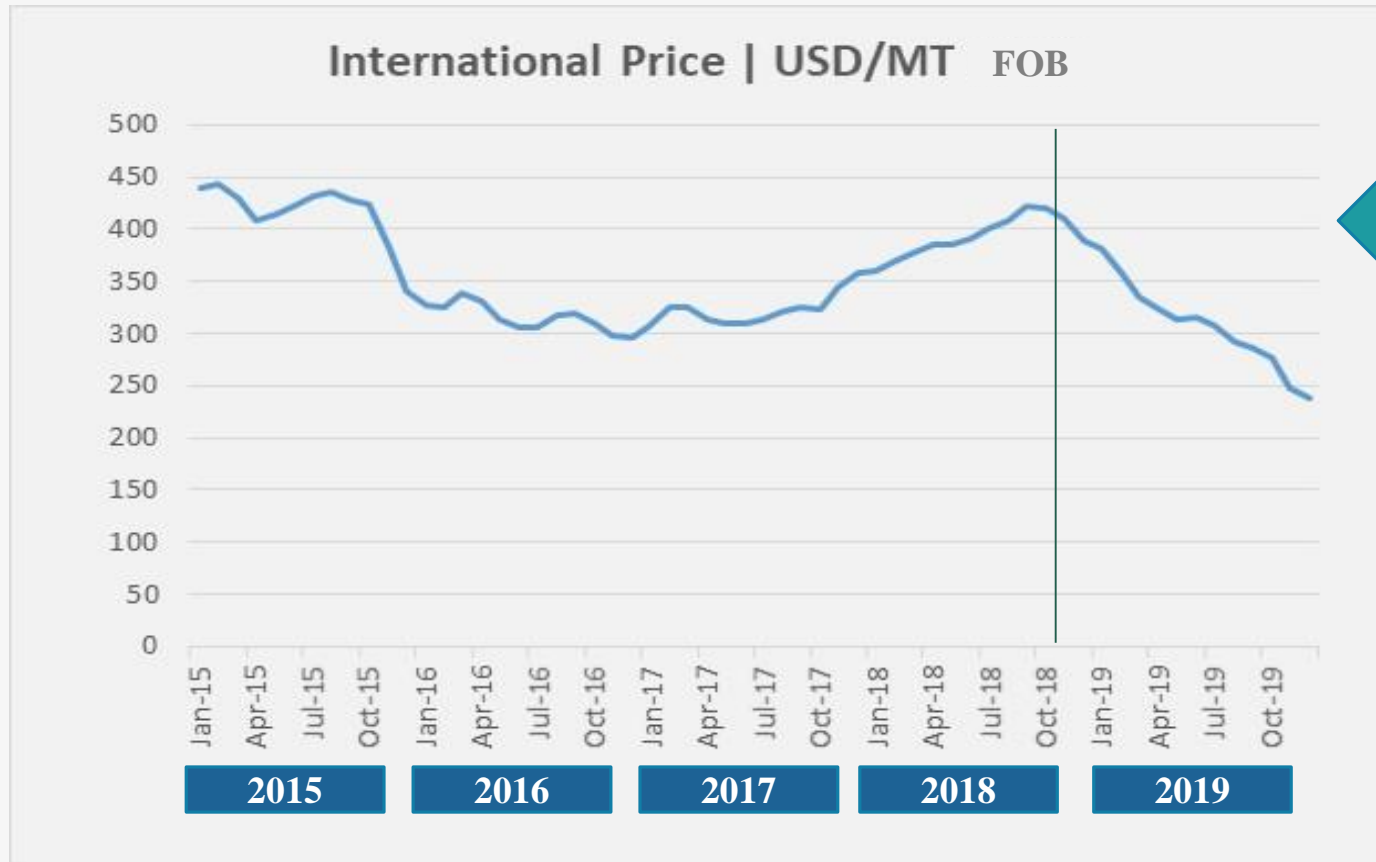
Source: NFDC Reports & PACRA In-house Research

Di-Ammonium Phosphate (DAP)

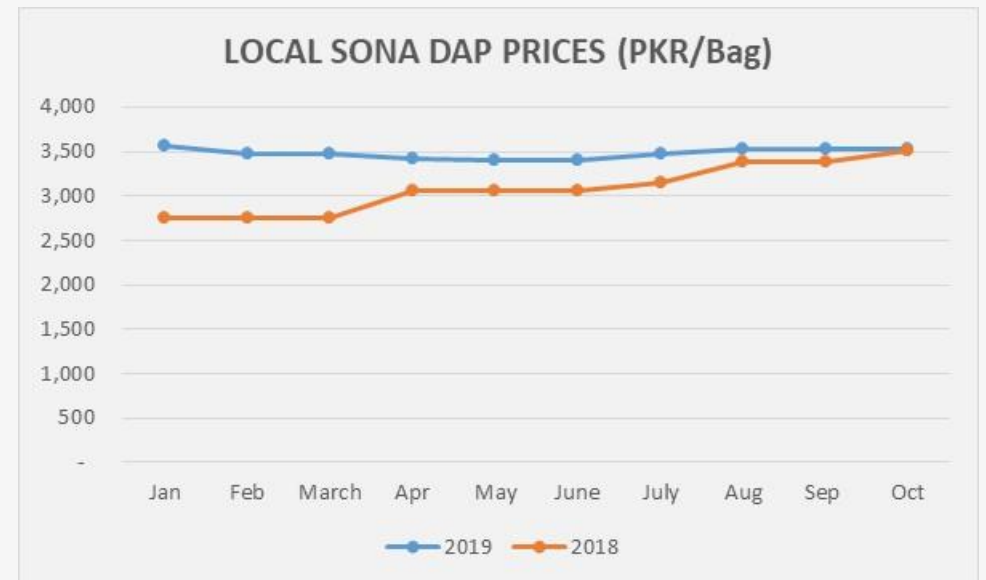


DAP '000' tons	9MCY19	9MCY18	PoP Change	CY18	CY17	CY16
Production	610	545	12%	687	809	791
Imports	440	1,290	-66%	1,549	1,691	1,283
Availability	1,050	1,835	-43%	2,236	2,500	2,074
Sales	1,163	1,266	-8%	2,218	2,345	2,232
Closing Inventory	475	825	-42%	494	171	82

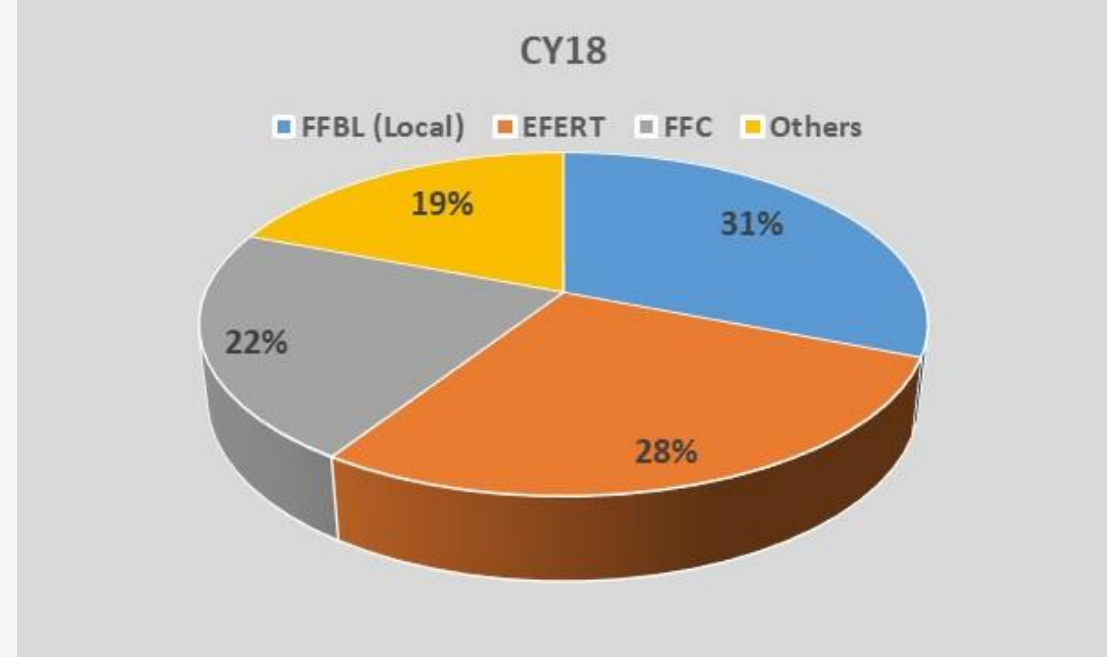
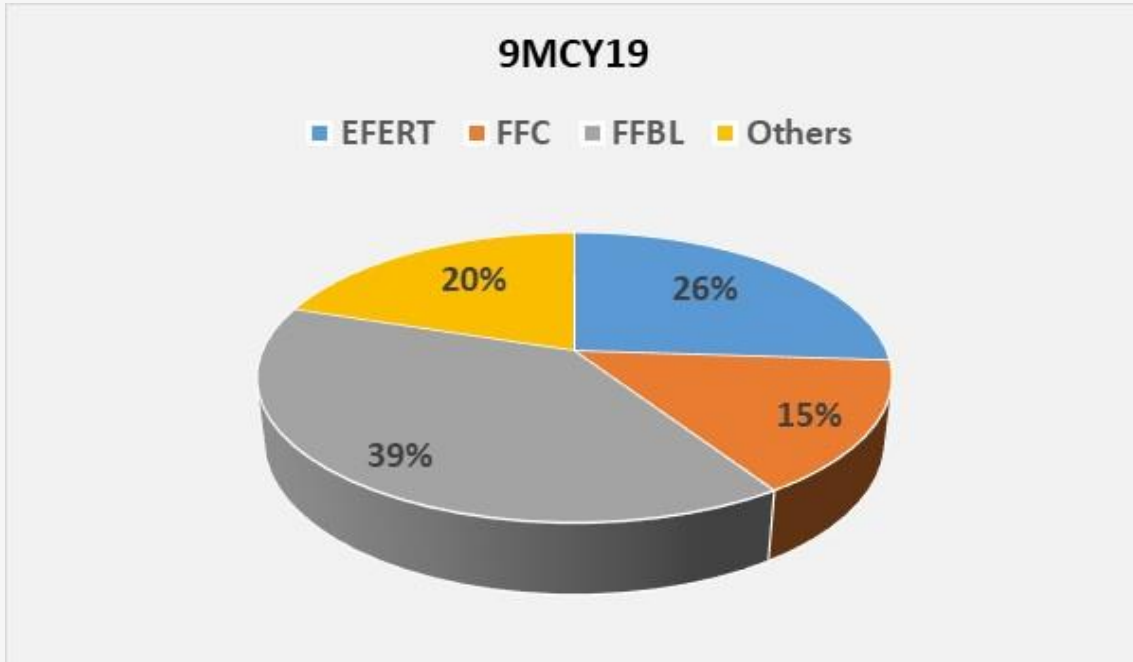
- FFBL is the only local producer of DAP in the country.
- The year 2019 opened with a high level of DAP inventory. Additionally, declining prices in the International Market created negative sentiments for forward buying. Imports during 9MCY19, therefore, dropped significantly in relevance to the SPLY.
- Lower offtake is majorly attributed to the rise in local prices, owing to currency devaluation, despite a decline in International prices.
- Unlike Urea, DAP offtake is more inclined towards the Rabi Season (Oct-Mar), (~60%) in comparison to Kharif season (Apr-Sep) (~40%).



Declining prices in the International market owing to surplus supply resulting from higher production & higher inventory levels in the importing countries. Cost of production also dropped significantly in 2HCY19 owing to a dip in price of Phosphate Rock.



-Though Int'l prices dropped by ~39% since Dec'18 to Dec'19, local SONA DAP price remained almost stable at PKR3,566/bag in Jan'19 to PKR3,525 in October'19 due to currency devaluation.



Combined Share of FFBL and FFC was recorded at 54% in 9MCY19 (CY18: 53%).

Only FFBL produces DAP in-house. The rest all players are involved in trading of DAP.

Offtake & Availability

- As per the NFDC data released for the month of Dec'19, DAP offtake increased by ~2.3% from the SPLY.
- Inventory Available to open the year 2020 stood at 493k tons as at End-Dec'19, which is considered sufficient to meet the Rabi season demand.

Pricing

- Global DAP Prices have been on a declining trend through 2019 owing to reduced demand from the major economies including India, China and the US.
- Outlook on the Global Pricing is dependent on the global demand situation, which is expected to revive following 1QCY20. Prices, though, currently at a declining trend, are therefore expected to normalize in 2020.

Description	('000 tonnes)						TOTAL
	Oct*	Nov*	Dec*	Jan**	Feb**	Mar**	
DAP							
Opening inventory	378	643	558	493	518	449	378
Imported supplies	461	247	55	110	0	0	873
Domestic production	75	73	72	31	61	75	387
Total availability	914	963	685	634	579	524	1638
Offtake	271	404	193	116	130	162	1276
Write off/on	-	-1	1	-	-	-	-
Estimated inventory	643	558	493	518	449	362	362

*Actual **Estimated

Source: NFDC Reports &

<https://www.icis.com/explore/resources/new/2020/01/06/10457280/outlook-20-phosphates-market-ready-for-a-difficult-2020-plagued-by-oversupply>

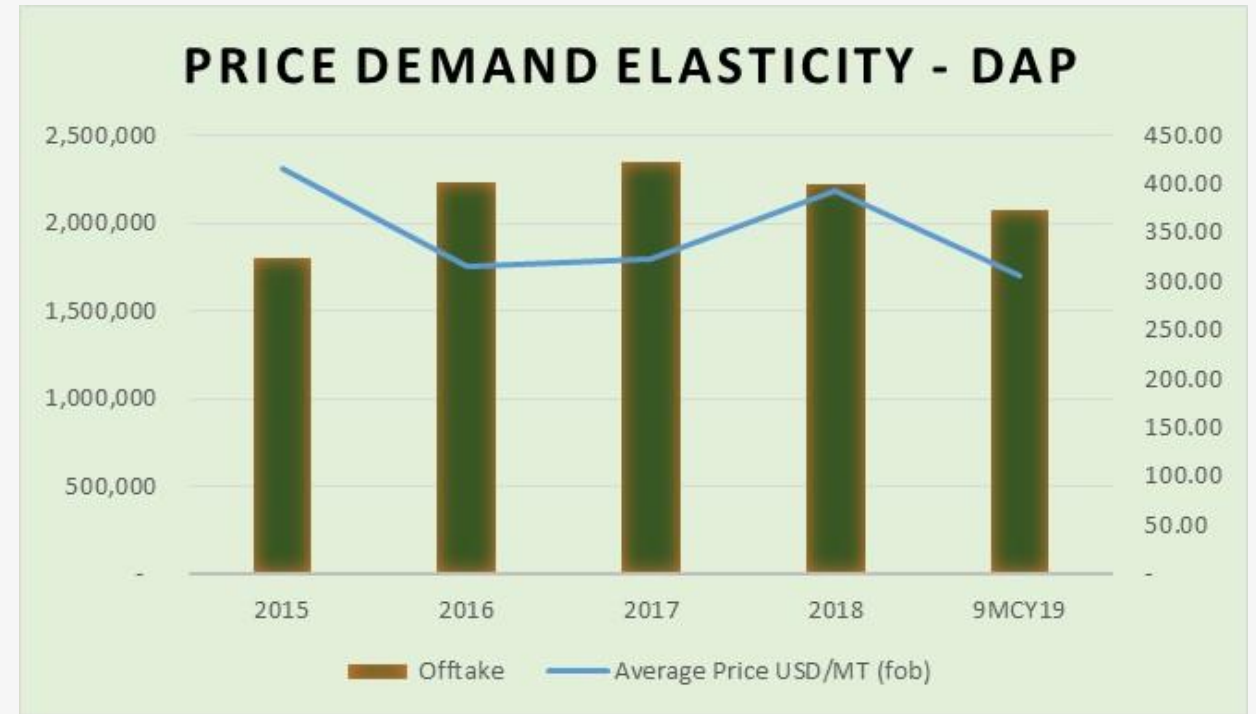
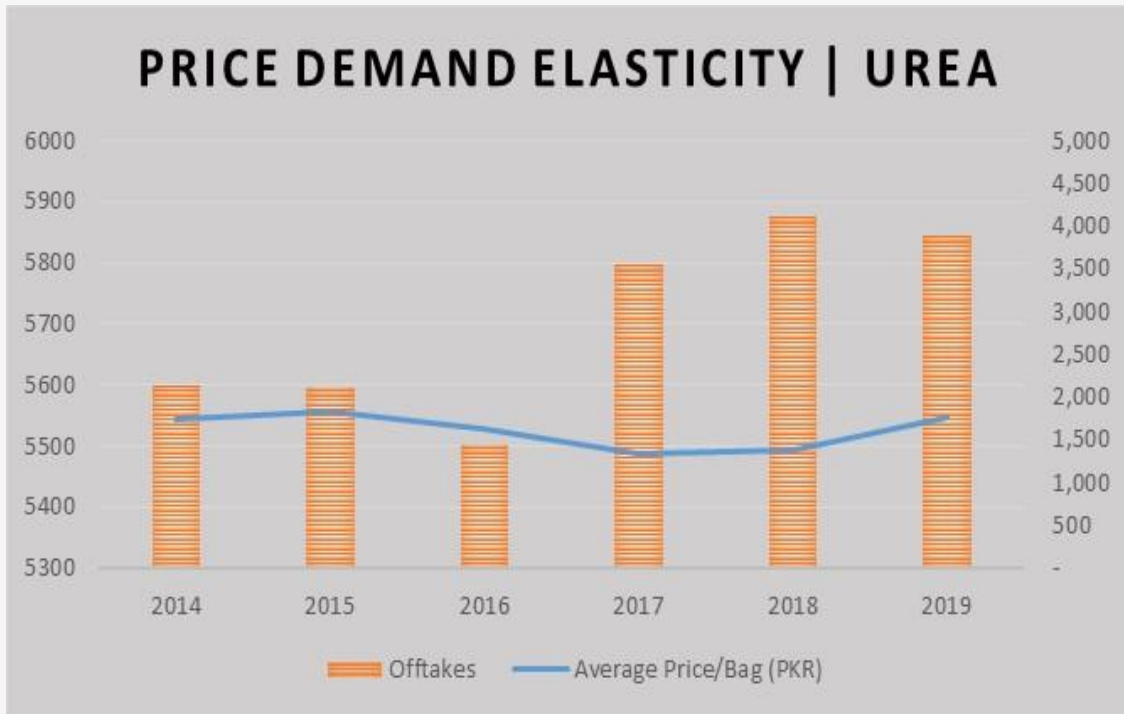
INDUSTRY | GENERAL

Price Sensitivity Analysis

Business Risks

Capacities

Financial Highlights



- Urea demand is almost inelastic. Price and related demand movement is explained in the adjacent table:
- Meanwhile, DAP offtake is more responsive to changes in the International Prices.

Urea		
Year	Price Change	Demand Change
2015	4%	0%
2016	-11%	-2%
2017	-18%	5%
2018	4%	1%
2019	27%	-1%

DAP		
Year	Average Price USD/MT (fob) - Change	Offtake Change
2016	-24%	24%
2017	2%	5%
2018	22%	-5%
2019	-22%	-6%

Demand Supply Gap

Pakistan's current Production Capacity of Urea is actually higher than its demand which hovers in the range between **5.6-5.8mln** tons per annum.

However, due to shortage of indigenous gas supply, a demand supply gap is created time and again which results in either Importing urea at high prices or producing urea on Imported Gas Supply (LNG).

Plants on Indigenous Gas Supply

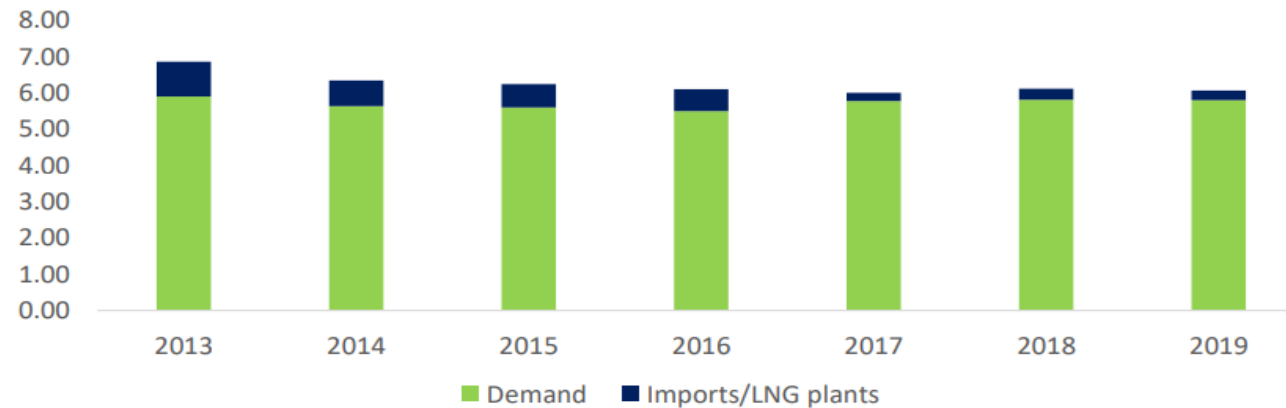
- FFC
- FFBL
- EFERT
- FATIMA
- Pak-Arab Fertilizer Limited*

Plants on LNG

- Fatima Fert
- Agritech Fertilizer Limited

Production on LNG based Plants was resumed in Dec'18 through supply of Imported LNG at discounted rates by the Government. Discount provided was around Rs~600/mmbtu. The plants contributed approx. ~650k tons to the country's urea production in CY19.

Urea Demand Supply Curve



*Pak-Arab's Plant is lately operationalized on SNGPL Gas Network under the SPA with FATIMA

Source of Graph: Efert Analyst Briefing 3Q2019

Gas Infrastructure Development Cess (GIDC)

- GIDC is a special additional tax that has been imposed by the GoP through GIDC Act, 2011 on various economic and industrial sectors, based on the amount of natural gas consumed. The fertilizer sector is subject to GIDC @ Rs.300/mmbtu for feed gas and Rs.150/mmbtu for fuel gas consumption. All industry players, including fertilizer manufacturers challenged the imposition of GIDC. However, the applicability of the same has continued despite friction from the impacted Sectors.
- Fertilizer players are accruing GIDC amount on **fuel**. On feed, FFC and FFBL are accruing GIDC on full production, while EFERT is accruing it on only base plant (35% of its total production), and FATIMA is not accruing it, due to concessionary gas benefits.
- GIDC Resolution Reports have been on cards since long. In August, 2019, a **GIDC** Amendment Ordinance was introduced by the Govt. which was later withdrawn prior to its application and the matter, since then, was resting with the Supreme Court.
- Recently, the Economic Coordination Committee (ECC) has approved reduction in GIDC in its meeting held on January 18, 2020. In this regard, the Ministry of Energy - Petroleum Division, has issued an official notification on 28th Jan, 2020, as per which GIDC rate has been reduced from PKR400/bag to PKR5/bag. The following factors shall be shared in the upcoming analysis:
 - ❖ Mechanism of GIDC Resolution (including scheme for settlement of outstanding GIDC by the manufacturers)
 - ❖ Actual impact on retail price per urea bag.

Increasing Costs, Blocked Subsidy and Sales Tax Disparity

Increase in Gas Prices

Historically, effect of increase in gas price has been passed on to consumers. In the previous upward revision, effective 1st July'19, the effect was partially absorbed by the Industry players in anticipation of a resolution to the GIDC matter. However, following cancellation of the GIDC Amendment Ordinance, fertilizer manufacturers increased the prices of urea from 4QCY19 onwards accordingly.

Rs./mmbtu	Feed Price	Fuel Price
July-18	185	780
July-19	300	1,021
Increase	115	241
Impact/bag	approx.Rs.200	
Price/Bag Increased by		

Lately, there have been speculations regarding an expected uptick in gas price w.e.f Jan'20, which has resulted in an abnormally high offtake of urea in Dec'19.

Subsidy & Sales Tax

The Industry continues to face challenge in the form of prior subsidy receivable by the Industry players. Total allocated amount for the subsidy is PKR~20bln.

Additionally, Sales Tax Disparity on Fertilizer Products (Output Tax -2% and Input Tax ranging 5% - 17%) creates a sales tax refund for the industry players, which remains due.

FERTILIZER INDUSTRY Demonstrated Capacities Major Players (MTs)					Utilized Capacity (CY18) %
Group	Company's Name	Fertilizer		Total	
		UREA & CAN	DAP, NP and NPK		
Fauji	Fauji Fertilizer Company Ltd. (FFC)	2,048,000	-	2,048,000	123%
	Fauji Fertilizer Bin Qasim Ltd. (FFC)	551,000	650,000	1,201,000	108%
	Sub-total	2,599,000	650,000	3,249,000	
ENGRO	Engro Fertilizers Limited (EFERT)	2,275,000	100,000	2,375,000	87%
	Sub-total	2,275,000	100,000	2,375,000	
FATIMA	Fatima Fertilizer Company Ltd.	920,000	360,000	1,280,000	110%
	Fatima Fert Limited	401,500	228,125	629,625	
	PakArab Fertilizers Limited	542,400	304,500	846,900	
	Sub-total	1,863,900	892,625	2,756,525	
	Agritech Limited	433,125	81,000	514,125	30%
	Sub-total	433,125	81,000	514,125	

INDUSTRY | FINANCIAL HIGHLIGHTS



Company	Fauji Fertilizers Company Ltd.			Fauji Fertilizer Bin Qasim Ltd			Engro Fertilizers Limited			Fatima Fertilizer Company Ltd.			Pak-Arab Fertilizers Ltd.			Fatimafert Limited	
Ratings by PACRA	AA+ / A1+			N/A			AA / A1+			AA- / A1+			A- / A2 Rating Watch Developing Outlook			A- / A2	
Last Updated	Jan-20			N/A			Jan-20			Jan-20			Jan-20			Jan-20	
Period	9MCY19	CY18	CY17	9MCY19	CY18	CY17	9MCY19	CY18	CY17	9MCY19	CY18	CY17	9MCY19	CY18	CY17	CY18	CY17
PKR mln																	
Performance																	
Sales	73,022	105,964	90,714	43,643	61,511	52,733	52,881	67,413	67,990	39,380	45,964	37,612	5,886	12,796	16,809	5,346	7,759
Gross Profit	21,633	27,979	18,093	3,570	8,183	6,028	21,103	29,181	25,452	22,785	26,481	20,337	(122)	(1,664)	372	(811)	(1,651)
GP Margin (%)	30%	26%	20%	8%	13%	11%	40%	43%	37%	58%	58%	54%	-2%	-13%	2%	-15%	-21%
Net Profit	12,468	14,439	10,711	(2,418)	1,437	1,004	13,225	16,669	10,137	11,329	13,272	10,576	(1,777)	(8,212)	(3,942)	(1,336)	(1,233)
NP Margin (%)	17%	14%	12%	-6%	2%	2%	25%	25%	15%	29%	29%	28%	-30%	-64%	-23%	-25%	-16%
Investment Book	76,648	81,484	58,752	26,168	35,500	37,259	33,611	20,573	9,643	5,239	4,240	5,237	591	586	556	-	-
Equity	26,740	26,061	22,961	24,565	24,565	23,065	0.1	560	560	2,240	2,240	2,238	525	525	556	-	-
Debt Instruments	49,908	55,423	35,791	1,603	10,936	14,194	33,611	20,012	9,083	2,999	1,999	2,999	67	61	-	-	-
Borrowings	23,167	44,348	33,942	45,994	35,122	28,476	29,482	31,499	32,576	16,319	17,852	18,152	14,522	17,245	18,179	6,482	7,582
Long Term	10,876	15,821	22,403	20,983	21,208	18,542	28,001	30,862	30,904	14,039	13,030	16,426	4,668	5,480	7,400	2,977	4,466
Short Term	12,291	28,526	11,539	25,010	13,913	9,934	1,481	637	1,672	2,281	4,822	1,726	9,854	11,765	10,779	3,504	3,116
Equity	34,029	33,383	29,352	10,545	13,897	13,151	45,535	42,996	41,013	69,914	62,261	53,742	7,226	5,129	19,702	9,325	10,689
PKR bln																	
GIDC Payable	56.19	42.08	23.00	N/D	16.44	10.41	N/D	12.58	6.21	N/D	3.43	2.82	N/D	1.65	1.62	1.85	1.25
Subsidy Receivable	6.96	6.96	6.70	N/D	3.16	3.14	N/D	6.37	7.32	N/D	1.63	1.52	N/D	0.25	0.25	0.21	0.23
Subsidy Income	-	2.40	6.60	-	0.31	2.89	-	-	5.00	-	0.27	2.08	-	0.03	0.12	-	0.63

All figures are based on standalone numbers

*Fatima Fertilizer makes subsidy income a part of its sales

* N/D: Not disclosed in the interim accounts

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