ANALYSIS REPORT 2016-2020

ANALYSIS OF INDUSTRY AVERAGES WITH MAIN COMPANY.

APRIL 14

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TABLE OF CONTENTS

1. INTRODUCTION

a. Fertilizers Industry of Pakistan

Being primarily agrarian based country, Pakistan is heavily dependent on the fertilizer industry. The demand for Pakistani fertilizers has been high not only domestically but also internationally. Furthermore, the consumption of fertilizer has increased manifold due to heightened awareness among farmers that its usage in good quantity is fruitful for higher yields and a significant increase in their income as the commodity has provided them on subsidized rates. The fertilizers industry alone contributes to 4.4% to large scale manufacturing (LSM) and 0.9% to overall GDP. The total domestic installed capacity of all types of fertilizer in Pakistan is currently estimated at 10 million metric tons, 69 percent of which is for urea and 31 percent for DAP and potash (the fertilizer product with the active nutrient potassium). Fertilizer Industry is a backbone in functioning Agricultural sector of Pakistan.

b. History of the Companies

The Fertilizer Industry of Pakistan is mainly dominated by some of the largest firms such as Engro Fertilizers, Fauji Fertilizers, Fatima Fertilizers, and Fauji Bin Qasim Fertilizers.

1. ENGRO FERTILIZERS (EFERT): Founded in 1957, Engro has come a long way since its inception, as a fertilizer manufacturing and marketing company, to demerging into the largest diversified conglomerate in Pakistan with Engro Corporation as the holding company. In 1965, the company was founded as a fertilizer business by an American company Esso on the Mari Gas field near Daharki, Ghotki District, Sindh, with 75% of the shares owned by Esso and 25% by the public. The construction of a urea plant commenced at Daharki in 1966 and production began in 1968.

2. FAUJI FERTILIZERS (FFC): Fauji Fertilizer Company Limited (FFC) was incorporated in 1978 as a joint venture between Fauji Foundation, a charitable trust incorporated under The Charitable Endowments Act, 1890 and Haldor Topsoe A/S of Denmark. The Company began its operations with an annual production capacity of 570,000 metric tonnes and today it is the largest producer of urea in Pakistan with an aggregate production capacity of over 2 million tonnes per annum. FFC has supplied 54 million tonnes to the farming community since its inception.

3. FATIMA FERTILIZERS (FFERT): The Fatima Fertilizer Company Limited was incorporated on December 24, 2003, as a joint venture between two major business groups in Pakistan namely, Fatima Group and Arif Habib Group. The foundation stone of the company was laid on April 26, 2006, by the then Prime Minister of Pakistan. The construction of the Complex commenced in March 2007 and is housed on 950 acres of land.

4. FAUJI BIN QASIM FERTILIZERS (FFBL): Fauji Fertilizer Bin Qasim Limited (FFBL) is mainly involved in manufacturing and distribution of chemical fertilizers for the farmers and agriculture sector of Pakistan. FFBL is the only manufacturer of DAP and Granular Urea in Pakistan. Its fertilizer manufacturing complex is located at Bin Qasim Eastern Industrial Zone, Karachi, whereas its registered office (Head Office) is in DHA Phase-2 Islamabad. Company is listed on Pakistan Stock Exchange (PSX) since May 14, 1996 and the trade symbol of the company is “FFBL”.

c. About the Data

The report contains comprehensive ratio analysis of 4 major fertilizers companies. The analysis contains the comparison between Industry Averages of 3 companies (Fauji Fertilizers, Fatima Fertilizers, and Fauji Bin Qasim Fertilizers) with main company, Engro Fertilizers. The Annual Data from 2016-2020 of the above-mentioned companies has been taken from the companies’ respective websites:
https://www.engro.com/investor-relations/financial-reports/
http://fatima-group.com/FFERT/page.php/financial-results-FFERT
https://www.ffbl.com/investors/finance/
https://www.ffc.com.pk/investors-relations/annual-reports/

There are five categories of ratios on which the company’s performance is being judged and analyzed. The five categories if ratios are:

- **Liquidity Ratios**
- **Assets Management Ratios**
- **Debt Management Ratios**
- **Profitability Ratios**
- **Market Value Ratios**

Each of the category are used to judge the performance of the company from different parameters. Liquidity ratios are used to show the relationship between the current assets that can be converted into cash to pay the current liabilities. Asset management ratios shows how effectively a company is performing. Debt Management Ratios shows how effectively the firm manages its debt burden. Profitability ratios shows how combined liquidity, effectiveness and debt burden a firm manages in its profits. Market value ratios shows the comparison between market price of share and book value per share/earning per share.

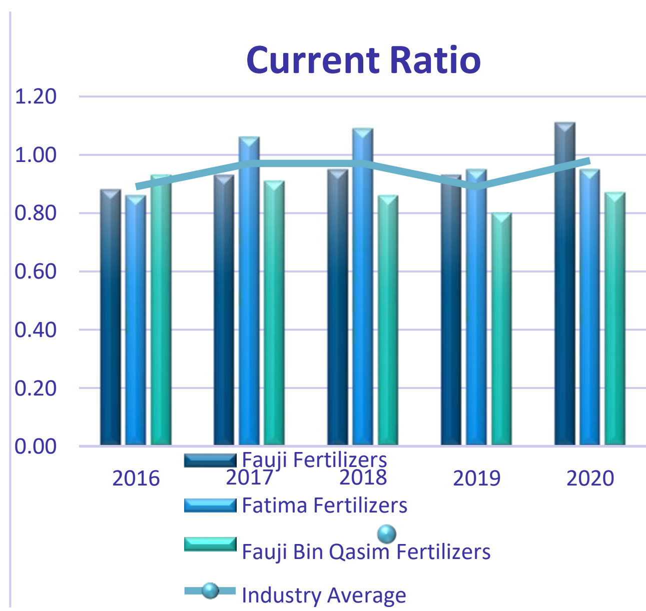
2. RATIOS

a. Liquidity Ratios

i. Current Ratio

ii. Acid Test Ratio

Current Ratio	2016	2017	2018	2019	2020
Engro Fertilizers	1.01	1.04	1.03	1.10	1.17
Fauji Fertilizers	0.88	0.93	0.95	0.93	1.11
Fatima Fertilizers	0.86	1.06	1.09	0.95	0.95
Fauji Bin Qasim Fertilizers	0.93	0.91	0.86	0.80	0.87
Industry Average	0.89	0.97	0.97	0.89	0.98

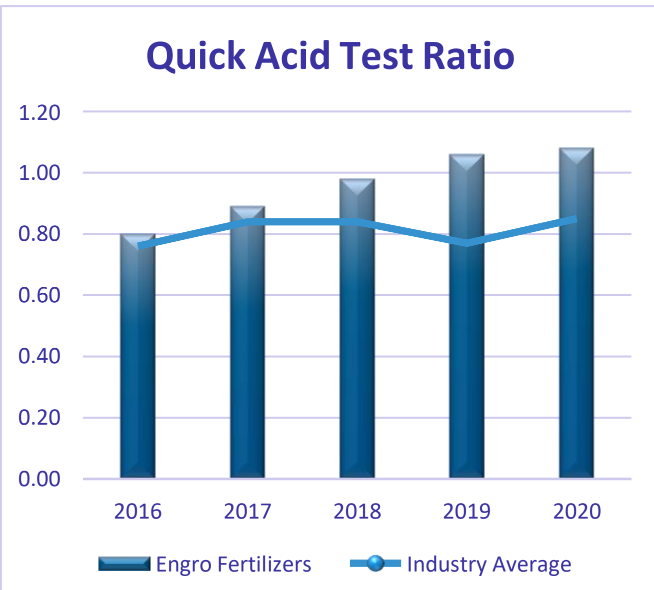


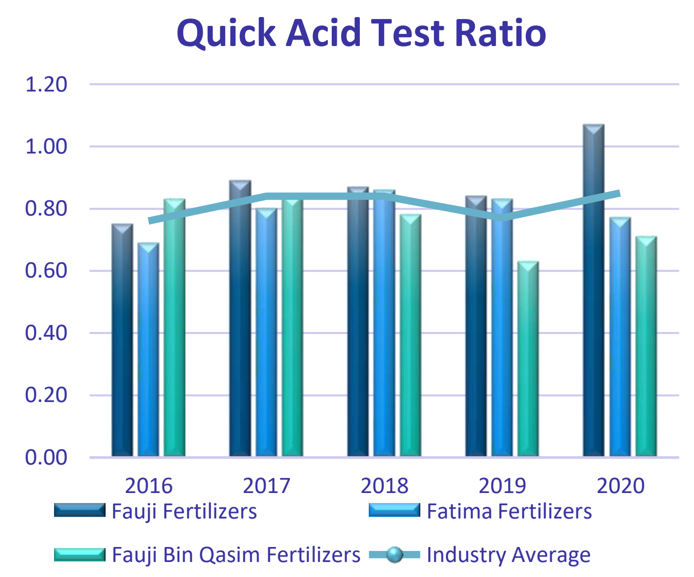
The liquidity of the company refers to how easily the company can turn its assets into cash. The liquidity can be measured by two ratios: current ratio and Acid test Ratio. Current ratio measures how easily current assets can be converted into cash to pay off the short-term debts. As per the current ratio from 2016-2020, Engro Fertilizer's Current ratio increased from 1.01 (2016) to 1.17 (2020) due to which the overall it has increasing trend whereas the industry averages also increased from 0.89 (2016) to 0.98 (2020) due to which it has an increasing trend. Comparing EFERT with industry average, from 2016 to 2018 EFERT ratio increased from 1.01 to 1.03 whereas industry average increased from 0.89 to 0.97 thus the EFERT ability to pay short term debts through its current assets was greater than the rest of the industry. Observing the elements which contributed to this are that EFERT's current assets increased from Rs. 27,127,769 to Rs. 40,777,999 because of introduction of working capital loan to subsidiary which contributed an aggregate of Rs. 13,677,700 in 2018 along with increase in cash and cash balances from Rs. 28,473 to Rs. 642,060 and increase in short term investment from Rs. 142,279 to Rs. 6,334,613 because of Corporate ATL campaign "Aam Admi Nahin". Whereas FFC and FFBL's current assets increased from Rs. 37,286,733 to Rs. 95,354,604 and Rs. 32,314,319 to Rs. 43,470,998 while FFERT's current assets decreased from Rs. 32,270,573 to Rs. 27,116,402. The increase in FFC and FFBL's current assets mainly occurred because of increase in Cash and Cash balances and short-term investments. Though, the Cash and cash balances and short-term investment increase of FFC and FFBL is greater than EFERT but due to huge decrease in cash and cash balances and small increase in short term investment along with stores and spares, FFERT contributed poorly to industry's average. In addition to this, EFERT's current liabilities increased from Rs. 24,047,022 to Rs. 38,108,601 due to increase in trade payables from Rs. 14,959,537 to Rs. 28,649,601 which shows that credit purchases

Increased along with introduction of new Tax of Rs. 3,203,439 but a decrease in short term borrowings. Whereas FFC's and FFBL's current liabilities increased from Rs. 41,032,611 to Rs. 99,944,692 and Rs. 33,010,694 to Rs. 49,434,278. Both these companies contributed negatively to industry average as there was quite large increase in current liabilities due to increase in their trade payables and short-term borrowings along with unclaimed dividends which is greater than EFERT's figures. FFERT contributed positively to industry average as its current liabilities decreased from Rs.

31,187,789 to Rs. 24,945,294 due to decrease in accrued finance cost and short-term finances. EFERT performed better than industry between 2016-2018. From 2019-2020, EFERT's current ratio increased from 1.10 to 1.17 whereas industry average also increased from 0.89 to 0.98. The increase in EFERT's ratio is a result of decrease in both current assets and Current liabilities from Rs. 57,933,875 to Rs. 57,374,390 and Rs. 51,626,303 to Rs. 47,306,887. The decrease in current assets was less than that of current liabilities. This was mainly due to decrease in cash and cash balances and a huge decrease in trade debts as people were paying off cash for credit sales, but the cash balances were being used to pay accrued interest and deferred liabilities. Moreover, the short-term borrowings decreased. Whereas FFC, FFERT, and FFBL current assets and current liabilities decreased however, there was an increase/decrease in some of the elements which caused collectively caused an increase in industry average ratio such as FFC's increase in other receivables and short-term investments, decrease in long-term borrowing and trade payables and FFBL's large increase in cash and cash balances and large decrease in trade and other payables, accrued interest, and short-term borrowing. FFERT had increase in short term investment and a small increase in cash and cash balances along with decrease in trade payables as FFERT was paying its creditors quite easily as their ratio remained stable at 0.95. all this resulted in increase in industry averages, but EFERT not only remained within the Current ratio's range but also outperformed industry.

Acid Test Ratio	2016	2017	2018	2019	2020
Engro Fertilizers	0.80	0.89	0.98	1.06	1.08
Fauji Fertilizers	0.75	0.89	0.87	0.84	1.07
Fatima Fertilizers	0.69	0.80	0.86	0.83	0.77
Fauji Bin Qasim Fertilizers	0.83	0.84	0.78	0.63	0.71
Industry Average	0.76	0.84	0.84	0.77	0.85





Another ratio is Quick acid test ratio which shows that as inventory is the least liquid item so how easily the current assets excluding inventory can be converted into cash to pay the short-term debts. As per the quick acid test ratio from 2016-2020, the EFERT increased from 0.80 to 1.08 whereas the industry average increased from 0.76 to 0.85. Comparing both ratios, the EFERT outperformed the industry in every year. From 2016-2018, EFERT’s closing inventory decreased from Rs. 6,237,891 to Rs. 1,365,887. This means that they were able to sell off most of their stock and less cash was tide up in inventory due to which when inventory was not taken into consideration, the liquidity was still within the range to payoff the debt. Whereas the industry was also performing well because FFC inaugurated certain programs and activities such as National symposium on soil plant water interaction for Orchard Management and Sibi

Agricultural Exhibition 2018 which contributed to earning higher amount short term investment in the form of cash and cash balances. Moreover, FFC's inventory turnover has increased though their closing inventory has increased but still it managed to contribute positively to industry average. Furthermore, FFERT contributed largely in industry average with an increase of 0.17 times as from 0.69 to 0.86. FFERT's inventory has reduced along with though their current assets reduced but their cash and cash balances, prepayments and deposits, trade debts increase and tremendous decrease in current liabilities mainly due to decrease in trade payables contributed positively to industry average. FFERT's both current assets and liabilities decreased by a great margin but still they manage to increase their quick acid test ratio and holds the stability of paying their short-term debts. This mainly occurred due to decrease in trade payables due to which their cash and cash balances decreased tremendously. Moreover, the debt burden also increased as FFERT installed new plant and machinery because at that time, the demand for Urea, NP, and CAN increased at the end of 2018 after the locust attack in 2017-2018. There was an increase in the trade debts mainly because of increased demand for Urea and NP. Furthermore, FFBL's acid test ratio decreased from 0.83 to 0.78 as its inventory decreased with a great margin of Rs. -------- due to a little fluctuated increase in inventory turnover. Moreover, there was an increase in current assets but some of its main liquid elements decreased such as cash and cash balances and long-term loans due to repayment of long-term loans and investment in capital expenditure. Along with this, there was a drastic increase in trade payables as the cash and cash balances were already decreasing so the company faced difficulty in paying such a hefty amount. Also due to partial increase in short-term borrowing from 2017-2018, the accrued interest increase as FFBL was planning to buy new capital expenditure. Both the industry and EFERT's ratio increased from 2016-2018. From 2019-2020, EFERT's ratio increased from 1.06 to 1.08 while industry average increased from 0.77 to 0.85. EFERT's inventory increased from Rs. 2,535,200 to Rs. 5,592,107 whereas the FFC's and FFBL's inventory decreased whereas FFERT's increased. FFC's faced an introduction of deferred government grant due to COVID-19 crisis and increase in unclaimed dividends which increased the current liabilities. The current assets also increased due to short term investments as due to COVID-19, people began to stay at homes and demand for food increased due to which the demand for fertilizers for quick yield increased, other receivables increased which

included subsidy receivables from government agencies and sales tax receivables, and stores, spares, and loose tools. FFC managed to decrease their inventory with the help of decrease in prices due to cash subsidy which resulted increase in their quick acid test ratio by 0.23. FFBL's ratio increased by little of 0.08 as they managed to decrease their inventory from Rs. 14,756,054 to Rs. 2,861,568 due to immense amount of advertisement done such as FFBL participated in various activities. Moreover, despite huge increase in cash and cash balances and a decrease in most of the current assets such as Stock in trade, Trade debts, advances, and short-term investments, the current assets decreased. Along with this, the current liabilities also decreased due to short term borrowings and trade payables. Both contributed to a little increase in ratio mainly because decrease in current assets was less than liabilities. FFC's ratio decreased by 0.06 which happened due to increase in inventory as they couldn't sell off their stock due to COVID-19 even though they initiated the program of SALAM KISSAN SARSABZ PAKISTAN to raise their fertilizers demand. There current assets decreased due to short-term loans and deposits which could be used to pay off debts along with decrease in current liabilities due to short term finances. There decrease in current liabilities was more than assets due to which ratio fell.
It can be analyzed industry is performing quite poorly as compared to EFFERT because it couldn't reach a ratio of 1 in both current ratio and acid test ratio whereas EFERT crossed the ratio of 1 in both categories. This shows that industry need to work on their liquidity or else in few years, they might face bankruptcy which is not a good indicator. However, further performance can be judged with the Asset Management ratios.

b. Asset Management Ratios

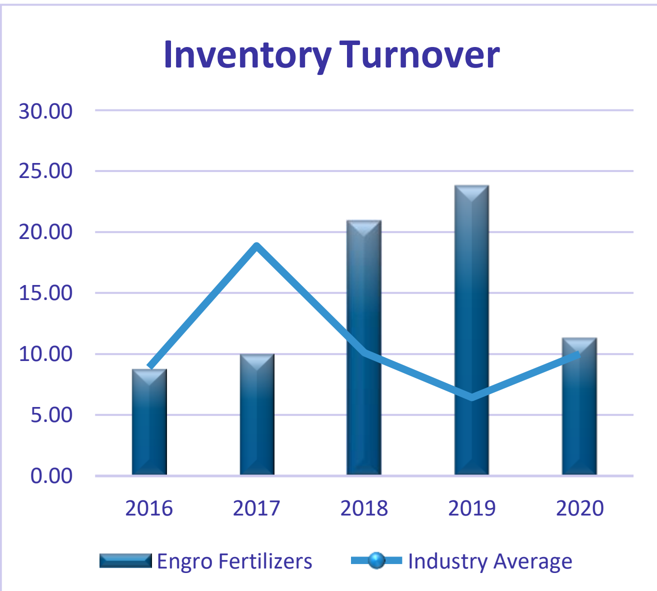
i. Inventory Turnover

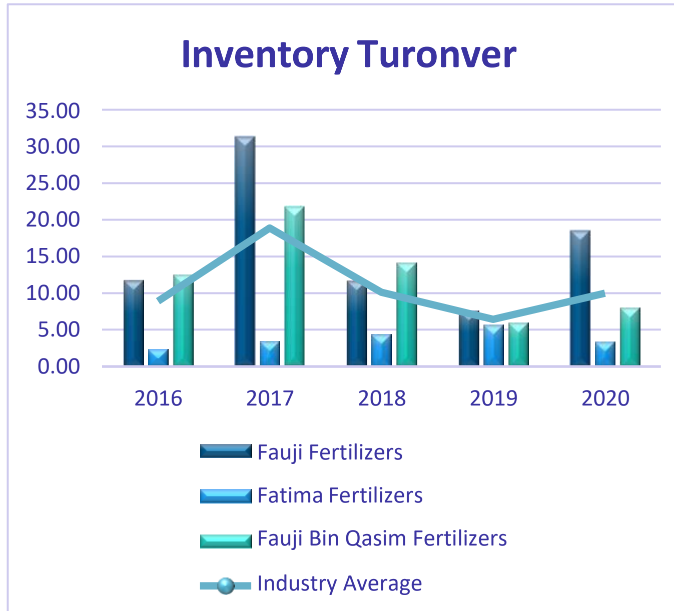
ii. Days Sales Outstanding

iii. Fixed Assets Turnover

iv. Total Assets Turnover

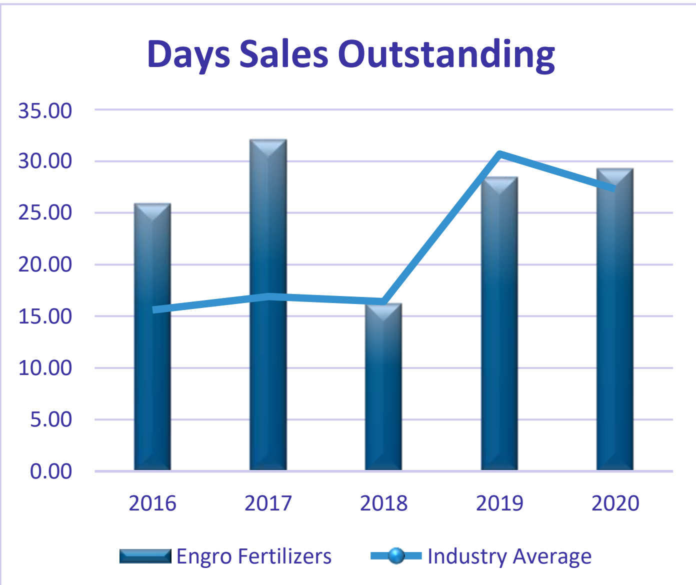
INVENTORY TURNOVER	2016	2017	2018	2019	2020
Engro Fertilizers	8.79	9.99	20.96	23.85	11.32
Fauji Fertilizers	11.74	31.35	11.70	7.61	18.57
Fatima Fertilizers	2.38	3.44	4.41	5.69	3.39
Fauji Bin Qasim Fertilizers	12.55	21.82	14.20	5.97	8.02
Industry Average	8.89	18.87	10.10	6.42	9.99

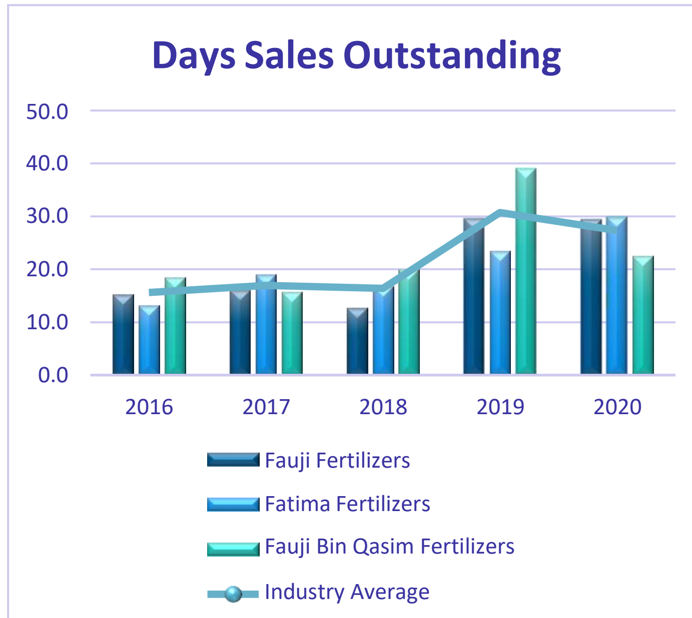




The Assets Management ratio measures how effectively and efficiently the assets produce sales. As per the inventory turnover ratio which measure in how many days is the inventory being sold and restocked. From 2016-2020, the inventory turnover of both EFERT and industry average increased from approximately 9 to 12 times and 9 to 10 times which shows an increasing trend however, both EFERT and industry's turnover fell between 2016-2020. From 2016-2018, EFERT's ratio increased tremendously from 9 to 21 times which shows that Engro was able to sell and restock their inventory many times which is a good sign. Whereas the industry's inventory turnover increased from 9 to 19 times but fell drastically to 10 times. The EFERT's increase in inventory turnover happened due to decrease in the cost of goods sold from Rs. 52,408,080 to Rs. 38,232,280 because subsidy was provided on per bag produced of Rs. 168 per bag due to which the cost of goods sold decreased. Moreover, tax relief of Rs. 300 per bag of DAP was initiated due to which the demand increased, and the inventory was quickly sold resulting a decrease in closing inventory by 59.90%. Moreover, they are managing their production levels effectively as the production is being done according to the accurate level of demand. On the other hand, the industry faced an increase from 2016-2017 because FFC and FFBL contributed greatly to this increase as their ratios increase from 12 to 31 times and 13 to 22 times and a little increase in FFERT from 3 to 4 times. FFC faced a decrease in cost of goods sold of 34.33% approx. whereas FFBL faced approx. 7.97% increase along with this FFC also managed their inventory effectively due to mass survey conducted in sustainable agricultural exhibition 2017 as there was a decrease in it which reduced the average inventory resulting an increase in inventory turnover times. Moreover, there was a little increase in FFBL's cost of goods sold because of increase in the cost of raw materials used in UREA and NP along with this, their closing inventory decreased due to decrease in the prices of UREA and DAP. Furthermore, the FFERT's ratio increased a little because their cost of goods sold increased but closing inventory decreased but the increase was greater than the decrease due to which the ratio only increased by 1 time. From 2017-2018, except for FFERT, both FFC and FFBL faced a drastic fall in their ratios from 31 to 11 times and 22 to 14 times because of increasing cost of goods sold and closing inventory as the locust attack occurred in 2017-2019 due to which the demand for fertilizers decreased for some time as instant sowing couldn't be done thus stock was piled up. However, EFERT didn't faced a decrease in closing stock because they increased the level of ammonium nitrate in their fertilizers which helped the farmers to combat the removal of locusts therefore, they didn't face a decrease in stock. From 2019-2020, EFERT faced a decrease in ratio from 24 to 11 times while the industry faced an increase from 6 to 10 times however, still EFERT's times was greater than industry. EFERT's cost of goods sold decreased by just 1.13% along with there was an increase in closing inventory too due to COVID-19 as the purchasing power of people was low due to which their demand for fertilizers decreased. The industry performed well as FFC and FFBL faced a good increase in their ratios of 8 times and 2 times whereas FFC faced a decrease of 3 times. Despite COVID-19, FFC and FFBL faced a decrease in closing inventory and FFC faced decrease in cost of goods sold while FFBL faced a little increase in cost of goods sold but still their ratios increased. FFC faced a huge increase in their closing inventory, but their cost of goods sold decreased with the usage of cheap raw materials in UREA and DAP's production.

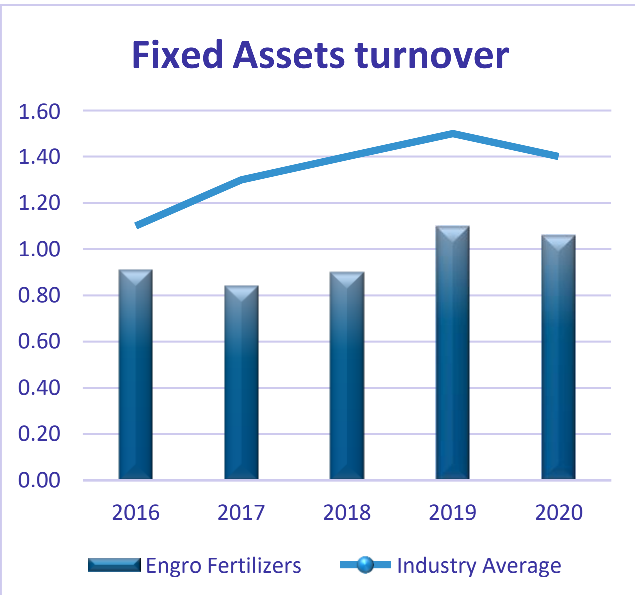
DAYS SALES OUTSTANDING	2016	2017	2018	2019	2020
Engro Fertilizers	25.93	32.10	16.20	28.50	29.30
Fauji Fertilizers	15.2	16.1	12.7	29.6	29.4
Fatima Fertilizers	13.2	19.0	16.7	23.4	29.9
Fauji Bin Qasim Fertilizers	18.4	15.7	19.9	39.1	22.5
Industry Average	15.6	16.9	16.4	30.7	27.3

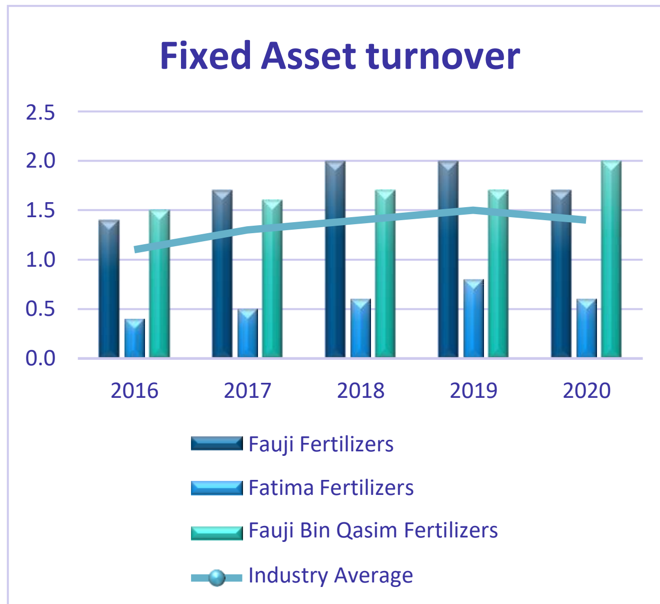




Another ratio is Days sales outstanding which measures how many days it takes for a firm to recover the credit sales. From 2016-2020, EFERT's DSO increased from 26 to 29 days which shows an increasing trend while industry average increased from 15 to 16 days. EFERT's ratio increased from 26 to 32 days from 2016-2017 which means that it was taking more time for EFERT to collect money from debtors. The trade debts decreased along with sales too due to which the ratio also declined. This happened because there was a decrease in trade debts along with a sharp decrease in sales due to which it took time for collection as they were focusing too much on selling on credit as inventory turnover was also increasing. Moreover, most of the sales were credit along with little with cash due to which it's taking time to collect. However, from 2017-2018, the ratio decreased sharply from 32 to 16 days as the trade debts further decreased but the sales increased along with the inventory turnover also increased which shows that inventory was sold, and cash was recovered quickly. This shows that between 2016-2018, EFERT improved their administration and check-in balance system as they were able to recover the cash by offering discounts on quick payments. On the other hand, industry's ratio increased from 15 to 17 days (2016-2017) and then declined a little from 17 to 16 days (2017-2018) as FFC contributed with a decrease in DSO from 15 to 12 days whereas due to increase in DSO of FFBL and FFERT, the industry ratio decreased. FFC's sales increased whereas trade debts decreased. FFBL's trade debts increased as their majority of sales were in credit terms whereas their sales increased. FFERT's trade debts and sales increased but as their and FFBL's most of the sales were in credit terms so it was difficult to collect quickly. Therefore, in this interval the industry performed better than EFERT as in almost every year, industry managed to collect their credit sales in lesser duration than EFERT. From 2019-2020, EFERT's DSO increased from 29 to 30 days whereas, the industry average decreased from 31 to 27 days. EFERT's trade debts decreased drastically while sales too decreased as the COVID-19 was on rise, so the demand decreased, and people faced difficulty in paying back cash for credit sales due to which the days increased. On the other hand, the industry average decreased from 31 to 27 days because of fall in FFC and FFBL's ratio as FFC faced a decrease in sales while a sharp decrease in trade debts along with FFBL faced an increase in sales and decrease in trade debts. However, FFERT faced a decrease in trade debts and sales due to which it became a barrier in growth of industry average. On a whole interval of 2016-2020, the industry performed quite well in collection of credit sales as compared to EFERT especially in first and last two years (2016-2017 and 2019-2020).

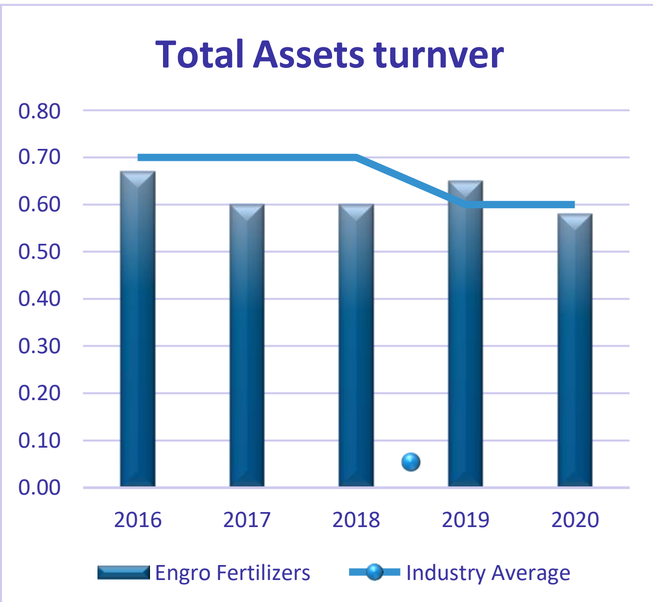
FIXED ASSETS TURNOVER	2016	2017	2018	2019	2020
Engro Fertilizers	0.91	0.84	0.90	1.10	1.06
Fauji Fertilizers	1.4	1.7	2.0	2.0	1.7
Fatima Fertilizers	0.4	0.5	0.6	0.8	0.6
Fauji Bin Qasim Fertilizers	1.5	1.6	1.7	1.7	2.0
Industry Average	1.1	1.3	1.4	1.5	1.4

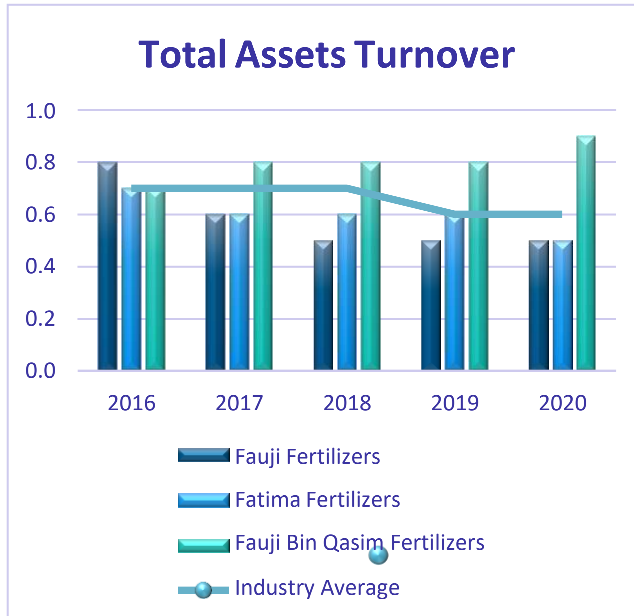




Another ratio is fixed assets turnover which measures how efficiently and effectively the fixed assets are generating sales. From 2016-2020, EFERT's ratio increased from 0.91 to 1.06 which shows an increasing trend whereas industry's ratio increased from 1.1 to 1.4 which also shows an increasing trend. The ideal ratio for company is 0.25 to 0.5 therefore, both EFERT and industry managed to surpass the ideal requirement. From 2016-2018, EFERT's ratio decreased from 0.91 to 0.84 and then increased from 0.84 to 0.90 whereas industry's ratio increased from 1.1 to 1.4. The decrease in EFERT's ratio occurred because their fixed assets decreased such as there was a decrease in goodwill along with, they disposed some of the property, plant, and equipment along with this they also faced a decrease in their sales due to low prices as GST decreased on per bag of fertilizers due to which the demand increased but revenue couldn't be increased. Due to this, the fixed assets couldn't generate much of sales as on Rs. 1 fixed asset, they were earning 0.07 paisa less sales which wasn't a good sign. However, they managed to increase the ratio due to increase in sales and a little decrease in fixed asset as mainly the old and inefficient plant and equipment were disposed, and they received some long-term loans and advances too which helped in generating an increase in ratio. On the other hand, the industry faced this continuous increase due to increase in FFC and FFBL and a little from FFERT. FFC jumped from 1.4 to 2 while FFBL from 1.5 to 1.7 and FFC from 0.4 to 0.6. Though FFC's fixed assets decreased but then it decreased because of long term loans and advanced granted to them along with they had a whooping 45.04% increase in sales due to their marketing campaigns and high UREA's demand due to which they had all time high of 2 times. FFBL had a increase in fixed assets as they were granted long term loans and advances along with this their sales increased. While FFERT's sales and fixed assets both increased but due to the proportionality by which both the elements increased was quite unstable such as their fixed assets increased by7.38% due to installation of plant and equipment and increase in goodwill due to summer agricultural exhibition of 2018 while their sales increased by 36.1% due to which ratio increased a little. However, in this interval the industry managed to be more efficient than EFERT as industry surpassed the ratio of 1 while EFERT stayed within 1. From 2019-2020, EFERT's ratio decreased from 1.10 to 1.06 whereas industry's ratio decreased from 1.5 to 1.4. EFERT's ratio decreased as their fixed assets decreased due to decrease in long term deposits and advances along with this their investment in subsidiary remained constant along with this, they faced a decrease in sales because of COVID-19 as less people were demanding and prices also fell due to which sales revenue decreased. Whereas the industry average faced this partial decrease as because of FFERT and FFC but FFBL managed to save it from deep fall as its's ratio increased to 2. FFC's sales decreased due to pandemic outbreak and decrease in the income of people but fixed assets increased as FFC was granted long term loans. FFERT's fixed assets increased due to installation of new plant along with there was an increase in long term investment while their sales decreased mainly due to COVID-19. However, FFBL's both sales and fixed assets increased in the circumstances of COVID-19. This resulted in a small decrease in industry ratio but still the industry was generating more sales from their fixed assets as compared to EFERT because EFERT although surpassed 1 but they remain near to 1 at 1.06 whereas industry was far from 1 at 1.4 which shows that industry outperformed EFERT.

TOTAL ASSETS TURNOVER	2016	2017	2018	2019	2020
Engro Fertilizers	0.67	0.60	0.60	0.65	0.58
Fauji Fertilizers	0.8	0.6	0.5	0.5	0.5
Fatima Fertilizers	0.7	0.6	0.6	0.6	0.5
Fauji Bin Qasim Fertilizers	0.7	0.8	0.8	0.8	0.9
Industry Average	0.7	0.7	0.7	0.6	0.6





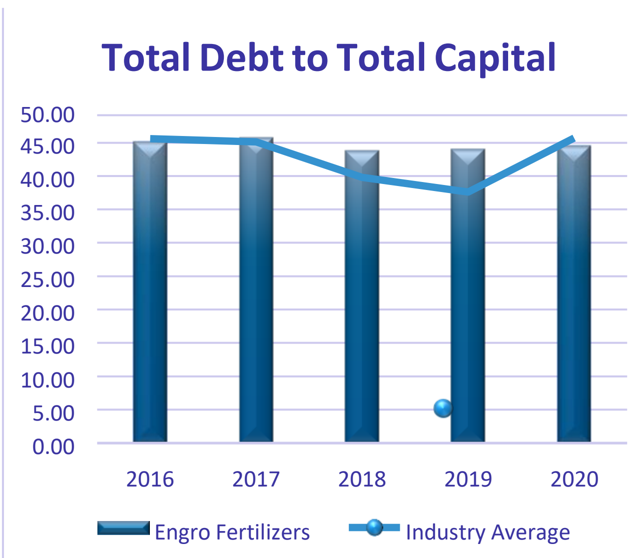
Another ratio is total assets turnover which measures the efficiency and effectiveness of a company's use of assets to generate sales. From 2016-2020, EFERT's ratio decreased from 0.67 to 0.58 which shows a decreasing trend while industry's ratio decreased from 0.7 to 0.6 which also shows a decreasing trend. Looking at the graph above, it can be observed that the industry's line remained near to the EFERT's bars. From 2016-2018, EFERT's ratio decreased a little from 0.67 to 0.60 and then remained constant at 0.60 in 2018. Though there was an increase in total assets due to increase in current assets such as cash and cash balances, other receivables, working capital loan to subsidiary, and stores, spares, and loose tools increased while the fixed assets decreased along with decrease in sales therefore, the decrease in fixed assets and sales collectively was greater than increase in current assets due to which ratio decreased. Whereas the industry ratio remained constant at 0.7 as FFC's ratio decreased from 0.8 to 0.5 as total assets increased due to increase in current and decrease in fixed assets while their sales also increased. There fixed asset turnover increased but the current assets couldn't contribute much to generate sales. FFERT's ratio decreased from 0.7 to 0.6 and was constant at 0.6 as their total assets decreased as their current assets decreased because of large decrease in cash and cash balances and stock in trade while the fixed assets also decreased. Their sales increased due to which their efficiency to generate sales remained stable and was above 0.5. FFBL's ratio increased from 0.7 to 0.8 and remained constant at 0.8 as their sales increased while total assets also increased due to increase in current assets as they were granted more short-term investments each year along with this, their fixed assets also increased thus they were able to generate more sales with each $1 asset invested. Here the industry and EFERT performed almost equally. From 2019-2020, EFERT's ratio decreased from 0.68 to 0.58 whereas industry's ratio remained constant at 0.6 as FFBL contributed the most as its ratio increased from 0.8 to 0.9 whereas FFC's ratio remained the same 0.5 and FFERT's ratio decreased from 0.6 to 0.5. EFERT's ratio decreased as their sales decreased due to COVID-19 and total assets decreased as both current assets and fixed assets decreased. Industry's ratio remained constant as FFBL's total assets decreased but their sales increased as this showed that their increased investment in fixed assets proved to generate more sales along with, with less current assets, they were able to generate more sales than other companies in industry and EFERT. FFC's ratio remained constant as their total assets increased while sales decreased which showed that despite increasing short term investments, they generated same level of sales per $1 total assets invested. FFERT's ratio decreased as they faced a decrease in sales but increase in total assets through more short-term investment and stock in trade but still due to COVID-19 crises, they faced no improvement. Therefore, the industry here performed better than EFERT as in most of the years, industry outperformed EFERT. Overall, it would be quite difficult to say that which performed better as in inventory turnover and DSO, EFERT did better while Industry performed better in fixed assets and total assets turnover. However, both EFERT and industry remained at the safe levels in turnover ratios. The further performance can be analyzed by the Debt Management Ratios.

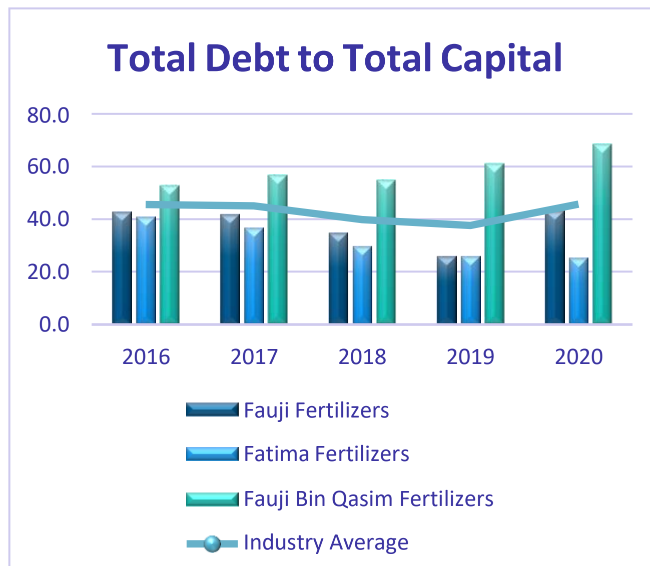
c. Debt Management Ratio

i. Total Debt to Total Equity Ratio

ii. Times Interest Earned (TIE)

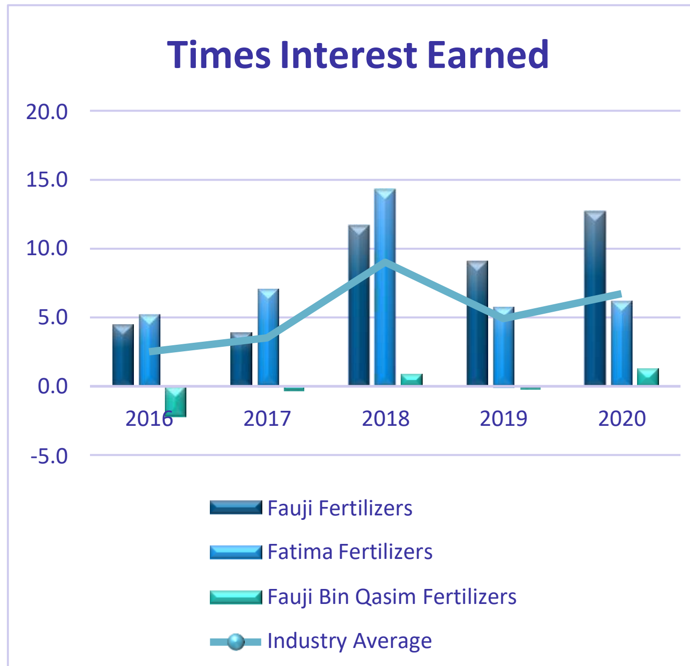
TOTAL DEBT TO TOTAL EQUITY RATIO	2016	2017	2018	2019	2020
Engro Fertilizers	45.16	45.79	43.80	44.09	44.56
Fauji Fertilizers	43.0	42.0	34.8	25.9	43.3
Fatima Fertilizers	40.9	36.7	29.8	26.0	25.3
Fauji Bin Qasim Fertilizers	52.7	56.7	54.9	61.0	68.6
Industry Average	45.6	45.1	39.8	37.6	45.7





Debt Management Ratios measures the debt performance of the company as how much the company is financed by the debt and its ability to meet its debt. As per the total debt to total capital ratio which measure the proportion equity that has been financed by debt. From 2016-2020, EFERT's Debt to equity ratio decreased from 45.16% to 44.56% and stayed in the range of 43% to 46% due to which it had a decreasing trend whereas the industry average increased from 45.6% to 45.7% and it had a linear trend which shows neither it increased so much neither decreased. From 2016-2018, EFERT's ratio decreased from 45.16% to 43.80% as there was a decrease in the equity being financed by debt as the long-term debt had decreased while common equity had increased. On the other hand, industry's ratio increased a little mainly due to FFBL's increase in ratio as the other two companies FFERT and FFC's ratios decreased. FFBL's debt financing increased from 52.7% to 54.9% as though their debt decreased but the portion of debt in equity was greater than common equity. FFC ratio decreased from 43% to 34.8% as their not only debt decreased but the portion of debt in equity was also lesser than common equity such as in 2018, common equity was Rs.33,382,945 while debt financing was Rs. 13,161,897. Moreover, FFERT's ratio decreased tremendously from 40.9% to 29.8% as not only their debt decreased by approx. Rs. 10,000,000 but also their common equity increased and was a lot greater than the debt financing. Therefore, in this interval, the industry outperformed the EFERT. From 2019-2020, EFERT's ratio increased from 44.09% to 44.56% whereas the industry had a huge jump from 37.6% to 45.7%. the increase in EFERT's ratio is regarded to increase in the debt financing due to which there was a little increase because during the COVID-19, the demand for fertilizers was too low due to which the government gave them the Gas Infrastructure and Development Cess provision thus the debt financing increased. The industry's increased ratio is a cause of mainly FFBL and FFC as their ratios increased while FFERT's ratio decreased. FFC jumped from 25.9% to 43.3% as their debt financing increased due to GIDC and the debt financing was greater than common equity in 2020 such as RS. 48,724,194 while common equity was Rs. 42,535,671. FFBL's ratio increased from 61% to 68.6% which is more than 50% of debt financing and a very dangerous sign. FFBL's debt also increased, and its increase was greater than common equity such as it was 2X (2 times) of common equity in 2020 because of increase in deferred liabilities and long-term loans. However, FFERT's ratio decreased from 26% to 25.3% as though their debt portion increased but their increase in common equity was greater. Therefore, on overall the industry performed better than EFERT but if we investigate with individual firms then EFERT performed better than FFBL but not FFC and FFERT.

TIMES INTEREST EARNED (TIE)	2016	2017	2018	2019	2020
Engro Fertilizers	2.23	1.89	1.63	1.68	0.43
Fauji Fertilizers	4.5	3.9	11.7	9.1	12.7
Fatima Fertilizers	5.2	7.0	14.3	5.7	6.2
Fauji Bin Qasim Fertilizers	(2.2)	(0.3)	0.9	(0.2)	1.3
Industry Average	2.5	3.5	9.0	4.9	6.7



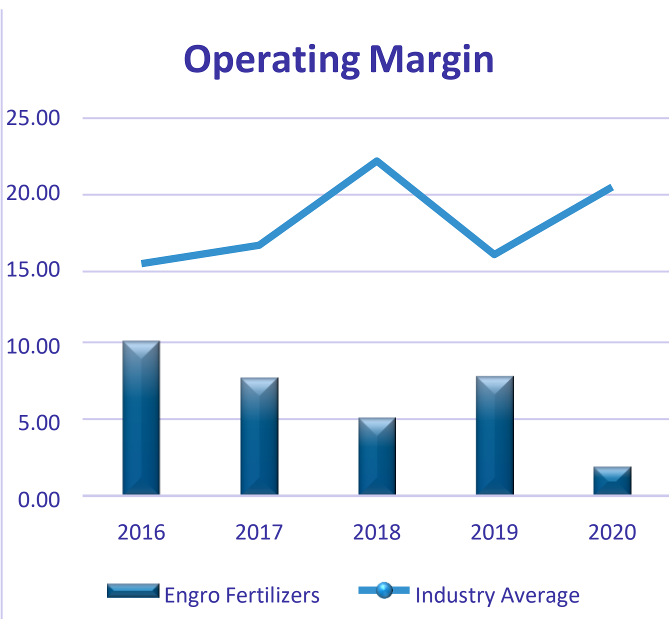
Another ratio is Times Interest Earned which measure that how many times a company can pay the interest on debt from its earnings before tax and interest. Normally a range of greater than 2.5 times is regarded as safe and acceptable as a company below 2.5 times is in danger zone and have chances of going bankrupt. From 2016-2020, EFERT's TIE decreased tremendously from 2.23 to 0.43 times while industry's TIE increased from 2.5 to 6.7 times and surpassed the range of 2.5 every year. From 2016-2018, EFERT's ratio decreased from 2.23 to 1.63 which means that EFERT's ability to pay interest cost decreased as the selling and distribution and administrative expenses increased a little, but the other incomes decreased by a great margin of approx. Rs. 2,000,000 along with this the sales decreased which resulted a decrease in EBIT. Even though their debt portion in equity was decreasing but the ability to pay the interest was barriered by the other increasing expenses. Moreover, even with a decreasing finance cost, they couldn't increase the times they could pay the interest due to decrease in EBIT by approx. Rs. 3,000,000. On the other hand, the industry's ratio increased from 2.5 to 9 times. This is mainly due to the contribution of FFC and FFERT whereas FFBL faced a negative ratio in 2016 but still they improved their performance and turned that negative ratio into positive one. FFC's ratio increased from 4.5 to 11.7 times due to decrease in the debt financing as their debt decreased so the finance cost also decreased. Moreover, their sales increased because of the marketing campaigns and awareness and sustainable agricultural exhibition 2018. Moreover, their distribution cost increased because of increase in transport charges yet they managed to increase the EBIT. Due to this they were able to increase their ability and times, they could pay the interest from EBIT. FFERT's ratio increased from 5.2 and hit all time high to 14.3 times. This mainly happened because their finance cost decreased because their debt financing decreased due to which they had to bear less finance cost. Moreover, their EBIT increased because even in the period of locust attack, they were able to increase their sales because of marketing agencies programs and conferences held on national and international grounds. FFERT also faced an increase in distribution and administrative expenses, but they still managed to increase EBIT and times, they can pay the interest. FFBL ratio increased from (2.2) to 0.9 though it was still below 2.5. this happened mainly due to negative EBIT from 2016-2017 while positive EBIT in 2018 because their sales were increasing but cost of goods sold and selling, and distribution expense increase was greater than sales' increase. Moreover, their debt financing was increasing due to which the finance cost increased. Therefore, in this interval, the industry performed better than EFERT as they managed to keep the ratio above 2.5 whereas EFERT couldn't even reach 2 which means they were in problem in this interval. From 2019-2020, EFERT's ratio decreased tremendously from 1.68 to 0.43 times whereas industry's ratio increased from 4.9 to 6.7 times. EFERT's ratio decreased as their finance cost decreased along with this, they faced a sharp decrease in EBIT. The decrease in EBIT occurred due to decrease in sales as it was the time of COVID-19 when people's purchasing power reduced to buy fertilizers. Moreover, their selling and distribution cost and administrative cost increased due to increase in transportation cost and increase in inflation. Along with this, they faced a fall in other incomes. In industry average, the increase was mainly due to FFC and FFERT and FFBL contributed a little by converting their ratio from (0.2) to 1.3. FFC had the greatest improvement as their TIE increased from 9.1 to 12.7 as they faced a decrease in finance cost despite increase in debt financing whereas increase in EBIT despite COVID-19 and high inflation. Moreover, their distribution cost decreased along with cost of good sold by little margin but still they manage to increase the times, they pay the interest from earnings. FFERT's ratio increased from 5.7 to 6.2 due to decrease in finance cost and a little increase in EBIT. There was an increase in EBIT because there was a decrease in sales but an increase in cost of goods sold due to high cost of raw materials along with increase in distribution and administrative costs but there was still an increase in EBIT. This shows that despite increase in other expenses, they were able to improve the times they could pay the interest. Furthermore, FFBL's TIE improved from (0.2) to 1.3 as their sales increased along with this, they faced an increase in cost of goods sold and selling and distribution costs, but their EBIT increased despite rising expenses. Moreover, their finance costs decreased due to which they were able to improve their ability to meet interest.

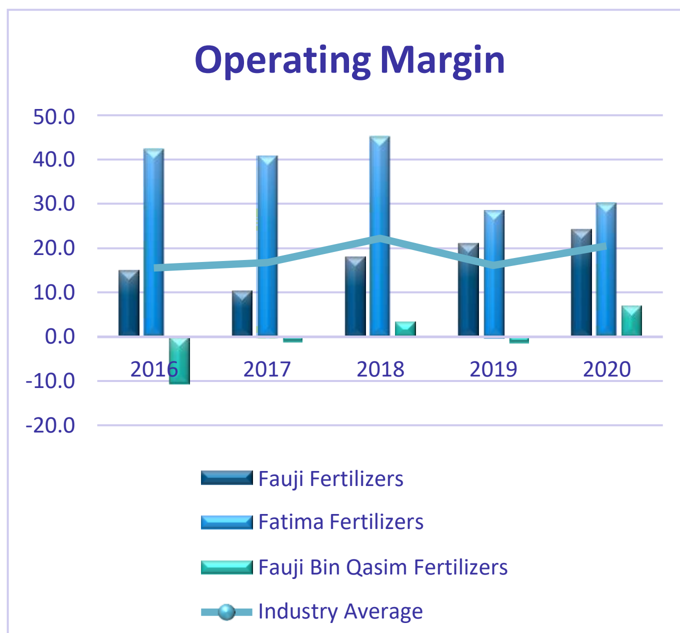
Therefore, the industry performed better than EFERT in debt management ratios as industry had not only lower portion of debt financing but even when it had higher debt portion, the industry was able to meet its interest many times. However, just meeting interest payments and debt managing won't be enough, EFERT's and industry's profitability need to be analyzed which would give a scale as how much EFERT as compared to industry performed in terms of profitability ratios.

d. Profitability Ratios

i. **Operating Margin**
ii. **Profit Margin**
iii. **Return on Assets (ROA)**
iv. **Return on Equity (ROE)**
v. **Return on Invested Capital (ROIC)**
vi. **Basic Earnings Power (BEP)**

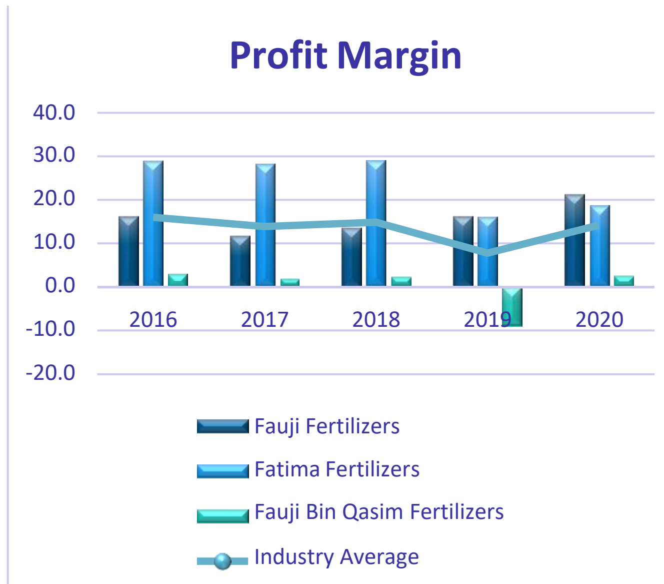
OPERATING MARGIN	2016	2017	2018	2019	2020
Engro Fertilizers	10.10	7.69	5.08	7.80	1.89
Fauji Fertilizers	15.0	10.5	18.1	21.2	24.3
Fatima Fertilizers	42.3	40.7	45.2	28.4	30.2
Fauji Bin Qasim Fertilizers	(10.6)	(1.1)	3.4	(1.3)	7.0
Industry Average	15.5	16.7	22.2	16.1	20.5





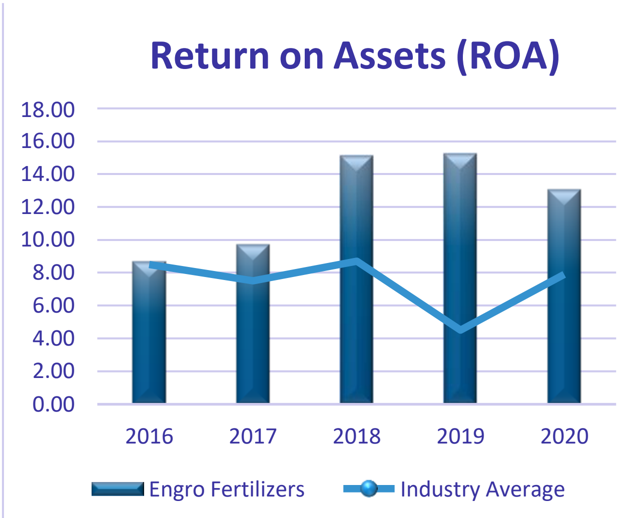
Profitability ratios measure the performance of the company in terms of its profitability. One of the profitability ratios is operating margin ratio which measures how much does a company make profit before tax and interest on each currency's sales (Rs. 1 sales). As per the operating margin ratio, from 2016-2020, EFERT's ratio decreased from 10.10% to 1.89% which shows a decreasing trend and the operating profit earned on each Rs. 1 sale was decreasing while industry's ratio increased from 15.5% to 20.5% which shows an increasing trend and the operating profit earned on each Rs. 1 sale was increasing. From 2016-2018, EFERT's ratio decreased from 10.10% to 5.08% which shows that they were earning Rs. 4.92 less on Rs. 1 sale because the sales decreased but there was a decrease in cost of goods sold along with this, they faced an increase in administrative expenses and other operating expenses due to which the EBIT decreased by Rs. 3,631,241. Moreover, their other incomes decreased due to which their profitability in terms of operating margin decreased. The industry average faced an increase from 15.5% to 22.2% which mainly happened due to FFERT and FFC while FFBL faced loss but recovered. FFC's ratio increased from 15% to 18.1% because their sales increased as they were selling at low prices when there was locust attack along with this, they faced a decrease in distribution cost due to which their EBIT increases and the increase in EBIT was though less than sales but still they managed to increase the operating profit earned on Rs. 1. FFERT's ratio increased from 42.35% to 45.2% because their sales increased along with their EBIT. However, they faced an increasing distribution and administrative cost, but the expenses increase was less than the EBIT and sales such as distribution cost increased by Rs. 1,247,190 and administrative cost by Rs. 789,667 while sales and EBIT increased by Rs. 12,172,175 and Rs. 6,459,492 due to which their ratio increased. FFBL's ratio increased from (10.6) to 3.4%. Though it was low in positive terms, but it improved from being a negative one. This mainly happened because though their sales increased but their selling and distribution expenses also increased. Moreover, due to change of packaging, their cost of sales increased. For two consecutive years, they faced a loss and then made a profit in 2018 due to which the recovery period took time thus their ratio only increased to 3.4%. for this interval, the industry performed better than EFERT because industry remained above an acceptable ratio of 15% while EFERT decreased below 15%. From 2019-2020, EFERT's ratio further decreased from 7.80% to 1.89% while industry faced an increase from 16.1% to 20.5%. EFERT's ratio decreased because they faced a decreased in sales and a huge rise in selling and administrative and administrative expenses. Not only this, but they also faced an approx. Rs. 5,000,000 decreases in other incomes and increase in other expenses mainly because of increase in salaries and wages as during the time of COVID-19, employees began to demand for higher salaries. Due to this, the EBIT decreased by approx. Rs. 5,000,000. The industry average's ratio increase is because of FFERT and FFC while FFBL again faced a loss and then recovered to profit. FFC's ratio increased from 21.2% to 24.3% because they faced a decrease in cost of sales and distribution costs along with a decrease in sales but despite this, they managed to increase their EBIT. Moreover, their decrease in sales was greater than the collective decrease in the costs due to which their ratio increased. FFERT's ratio increased from28.4% to 30.2% because of decrease in cost of sales due to usage of cheaper raw material used and an increase in distribution and administrative expenses but still their EBIT increased because the decrease in costs was greater than decrease in sales due to which they managed to increase their EBIT despite COVID-19. FFBL's ratio improved from (1.3) to 7% because previously they faced a loss due to extreme effects of COVID-19. The improvement occurred due to the increase in sales due to fertilizers sold at lower prices due to cash subsidy offered by government. Their administrative costs decreased but distribution and selling costs increased but still they manage to improve their performance and generated a profit in 2020. Therefore, on overall basis, industry performed better than EFERT as industry managed to keep profitability above 10% (except for FFBL) whereas EFERT's operating margin kept decreasing in each year.

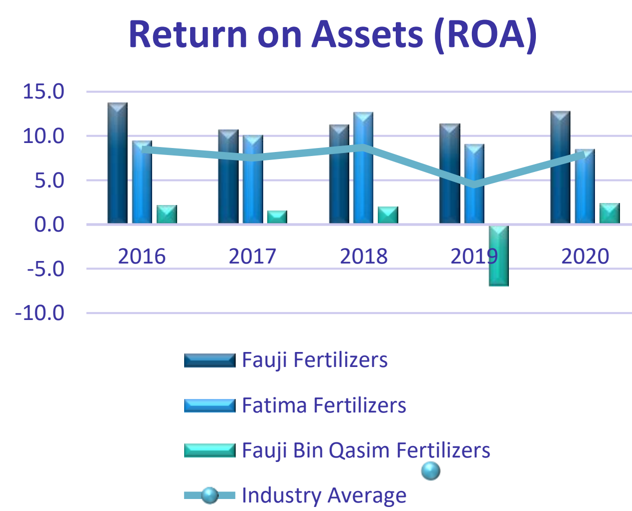
PROFIT MARGIN	2016	2017	2018	2019	2020
Engro Fertilizers	12.98	16.09	25.20	23.43	22.40
Fauji Fertilizers	16.2	11.8	13.6	16.2	21.3
Fatima Fertilizers	29.0	28.1	28.9	16.1	18.6
Fauji Bin Qasim Fertilizers	3.0	1.9	2.3	(8.9)	2.6
Industry Average	16.0	13.9	14.9	7.8	14.2



Another ratio is profit margin ratio which measures how much a company has earned a net profit on each Rs. 1 sale. From 2016-2020, EFERT's ratio increased from 12.98% to 22.40% which shows an increasing trend while industry average's ratio decreased from 16% to 14.2% which shows a decreasing trend. There is no certain range defined for profit margin as it varies from business to business. From 2016-2020, EFERT's ratio increased from 12.98% to 25.20% which means that they were earning Rs. 12.22 more net profit on each Rs. 1 sale. This mainly happened because their finance cost decreased due to decrease in debt financing, but they faced a decrease in taxation as the tax rate decreased from 33% to 22%. Moreover, there was a little decrease in the sales while a sharp decrease in cost of goods sold along with a decrease in selling and distribution expenses due to which there was a sharp increase in net profit. The industry average's ratio decreased from 16% to 14.9% because of all three firms. FFC's profit margin decreased from 16.2% to 13.6% because their other expenses increased by approx. Rs. 4,000,000 along with there was an increase in taxation cost due to increase in tax rate from 32.3% to 33.4%. There was an increase in net profit along with an increase in sales but due to rising costs, the profit margin decreased. FFERT's profit margin decreased from 29% to 28.9% which is a very small decrease because there was increase in sales and a little increase in cost of goods sold. Moreover, finance cost decreased but there was a huge increase taxation even though the tax rate reduced but as profit before taxation increased so the tax amount increased due to which the net profit increased. As the increase in net profit was less than increase in sales due to which there was a little decrease in profit margin. FFBL's profit margin decreased from 3% to 2.3% because the finance cost and selling and distribution cost increased along with the taxation amount even though the tax rate reduced but as the profit before taxation was increasing so the tax rate applied on it increased the taxation amount. Due to this, the profit margin decreased as increase in sales was greater than increase in net profit generated. In this interval, EFERT performed better than industry average as EFERT kept increasing. From 2019-2020, EFERT's profit margin decreased from 23.43% to 22.40% while industry average's increased from 7.8% to 14.2%. EFERT's decrease happened as there was drastic decrease in sales and other incomes. Moreover, though the taxation decreased due to low tax rate but there was loss allowance on subsidy receivable from GoP due to which the net profit decreased. The industry average's increase happened because FFC and FFERT and a little improvement by FFBL. FFC's profit margin increased from 16.2% to 21.3% because of increase in other incomes and decrease in distribution cost. Moreover, though there was an increase in taxation amount but there was an increase in net profit as there was a gain on extinguishment of original GIDC liability thus profit margin increased. FFERT's profit margin increased from 16.1% to 18.6% because of increase in other incomes and share of profit from associates along with it, there was a decrease in cost of goods sold and a little increase in taxation, but the net profit increased because of spike in gain on remeasurement of GIDC. FFBL's profit margin improved from (8.9) to 2.6% because of increase in sales and decrease in administrative expenses and finance cost along with a sharp increase in other incomes and remeasurement gain on GIDC due to which the net profit increased leading to improvement in profit margin. Therefore, EFERT performed better than industry as EFERT experienced a high profit margin than industry in each year.

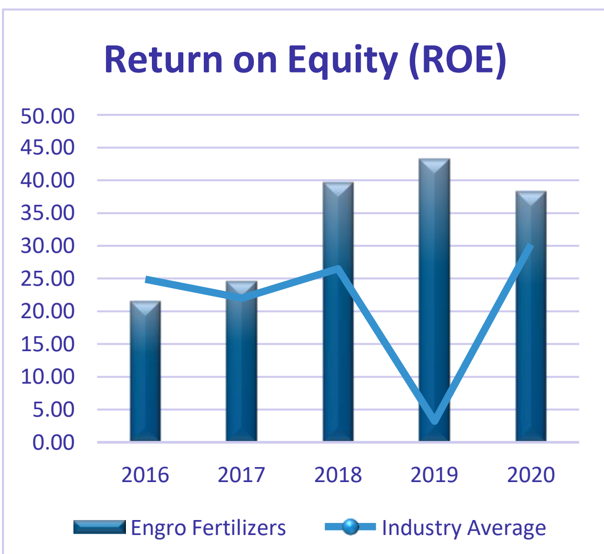
RETURN ON ASSETS (ROA)	2016	2017	2018	2019	2020
Engro Fertilizers	8.69	9.71	15.12	15.26	13.07
Fauji Fertilizers	13.8	10.7	11.3	11.4	12.8
Fatima Fertilizers	9.5	10.1	12.7	9.1	8.5
Fauji Bin Qasim Fertilizers	2.2	1.6	2.0	(6.9)	2.4
Industry Average	8.5	7.5	8.7	4.5	7.9

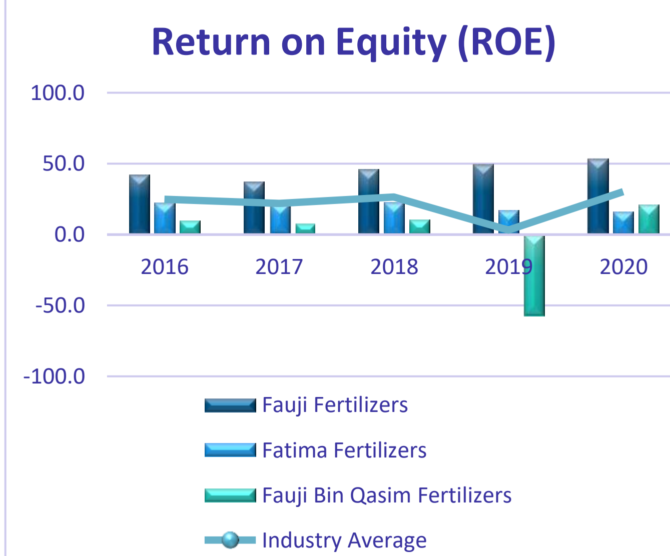




Another ratio is return on assets which measure the net income/net profit earned on each Rs. 1 total asset invested. This measures the profitability of the company from the assets. From 2016-2020, EFERT's ROA increased from 8.69% to 13.07% which shows an increasing trend while industry average's ROA decreased from 8.5% to 7.9% which shows decreasing trend. From 2016-2018, EFERT's ROA increased from 8.69% to 15.12% because of increase in total assets due to major increase in current assets while a approx. Rs. 5,000,000 decrease in fixed assets. The main contributors in increase in current assets were the increase in cash and cash balances, short term investment, trade debts, and accrued income while there was an increase in net profit too because of major decrease in cost of goods sold, finance cost and selling and distribution expense. Though, the sales decreased but the other incomes increased the net profit leading to more return on each total asset invested. The industry average's ROA decreased due to FFC and FFBL while FFERT made a positive contribution. FFC's ROA decreased from 13.8% to 11.3% because FFC immensely increased its total assets by installing new plant and equipment and long-term loans and advances in fixed assets while current assets increase came from increase in cash and cash balances, other receivable which includes prepaid payments, and short-term investments but they could only increase the net profit by approx. Rs. 3,000,000 which means that the total assets couldn't generate much of the net profit due to which the ROA fell. FFBL's ROA decreased from 2.2% to 2% because there total assets increased due to increase in fixed assets mainly due to long term investments and loans along with there was increase in current assets too due to short-term investments and other receivables including government grants for the period of locust attack, and advances but their net profit increased by very little amount of Rs. 98,224 therefore the ratio decreased. However, FFERT made a positive contribution as its ROA increased from 9.5% to 12.7% because their net profit increased due to increasing sales and other incomes and decreasing finance cost. Moreover, the total assets decreased by little amount though their fixed assets increased due to new installation of property, plant, and equipment along with intangible assets such as goodwill and investment property. There was a decrease in current asset but within it, the trade debts, short-term loans, and investment increased due to which the net profit would have increased. Therefore, the ROA increased. In this interval, EFERT performed better than industry. From 2019-2020, EFERT's ROA decreased from 15.26% to 13.07% while industry average's ROA increased from 4.5% to 7.9%. EFERT's ratio decreased because their total assets decreased due to decrease in fixed assets as EFERT disposed some of the plant and equipment along with decrease in current assets as their cash and cash balance, loans, advances, deposits and prepayments, and accrued income decreased. Moreover, their net profit decreased due to decrease in sales and other incomes and increase in loss allowance on subsidy receivable from GoP. This led to decrease in ROA as not enough net profit was generated from total assets. The industry's ratio increase is a result of FFC as FFC's ratio increased from 11.4% to 12.8% because there was an increase in total assets due to increase in both fixed assets and current assets due to installation of new equipment and plant and short-term investments and other receivables. Moreover, the net profit increased due to decrease in finance cost and gain on extinguishment of original GIDC liability. FFERT's ratio decreased from 9.1% to 8.5% because their total assets increased due to increase in fixed assets and decrease in current assets. Moreover, the net profit increased due to increase in sales but the increase in sales was lesser than increase in total assets due to which the ROA decreased. FFBL's ROA improved from (6.9) to 2.4% because their loss turned into profit as the sales increased along with there was a decrease in finance cost. Moreover, the total assets decreased but there was an increase in the fixed assets which included long term loans while in current assets, the cash and cash balance increased therefore, even with decrease in total assets, FFBL was able to improve their ROA. Therefore, on overall basis, EFERT performed better than industry average as the EFERT remained not only in positive terms but also kept increasing most of the times.

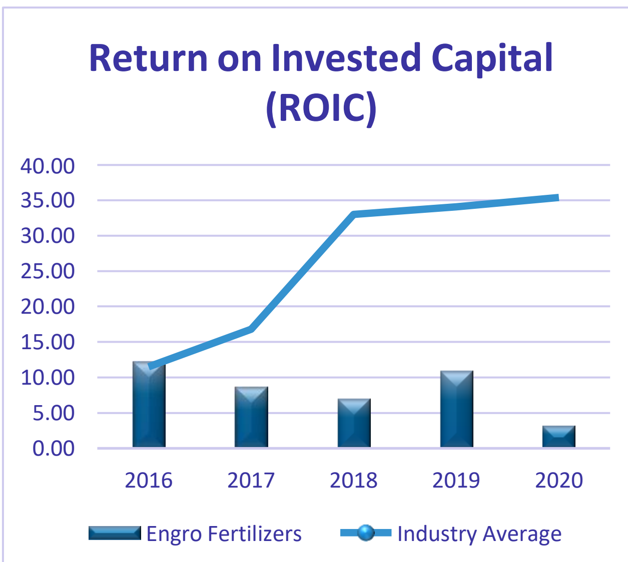
RETURN ON EQUITY (ROE)	2016	2017	2018	2019	2020
Engro Fertilizers	21.54	24.63	39.68	43.25	38.29
Fauji Fertilizers	42.4	37.2	46.0	49.6	53.3
Fatima Fertilizers	22.3	20.9	22.9	17.2	16.1
Fauji Bin Qasim Fertilizers	9.9	7.8	10.6	(57.1)	21.1
Industry Average	24.9	22.0	26.5	3.2	30.2

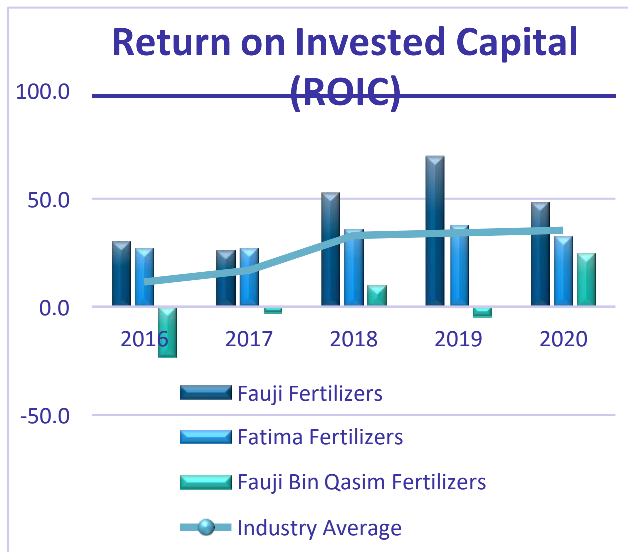




Another ratio is Return on Equity which measure the return a company gives, and investor earns on the common equity invested by shareholders. From 2016-2020, EFERT's ROE increased from 21.545 to 38.29% which shows an increasing trend whereas the industry average's ROE increased from 24.9% to 30.2% which also shows an increasing trend. From 2016-2020, EFERT's ROE increased from 21.54% to 39.68% which means that the company was giving Rs. 18.14 more on each Rs. Invested. This mainly occurred because there was an increase in common equity invested along with there was an increase in net profit because of major decrease in cost of goods sold, finance cost and selling and distribution expense. Due to this when both elements increased, EFERT was able to generate higher return on each Rs. Of common equity invested. As for industry average's ROE, it increased from 24.9% to 26.5% because of FFC, FFERT, and FFBL. FFC's ROE increased from 42.4% to 46% because its net profit increased due to increase in sales and decrease in finance cost. Moreover, the common equity increased due to increase in revenue reserves. This resulted in more net profit generated per Rs. Common equity invested. FFERT's ROE increased a little from 22.3% to 22.9% because the common equity increased due to increase in reserves and new shares subscribed. Moreover, the net profit also increased due to reduction in finance cost and increase in other incomes. Due to this, the return on equity increased. FFBL's ROE increased from 9.9% to 10.6% because their common equity increased along with it, their net profit also increased due to increasing sales and decrease in administrative expenses due to which there was a little increase in the return on equity. Therefore, EFERT performed better as compared to industry. From 2019-2020, EFERT's ROE decreased from 43.25% to 38.29% while industry average's ROE increased tremendously from 3.2% to 30.2%. EFERT's ROE decreased because common equity increased but the net profit decreased due to decreasing sales and loss allowance on subsidy receivable from GoP. This resulted in lower return on each Rs. Of common equity invested. The increase in industry average was mainly result of FFC. FFC's ROE increased from 49.6% to 53.3% because of increase in common equity and net profit due to decrease in finance costs and distribution costs due to which the return increased as net profit's increase was greater than increase in common equity. FFBL's ROE improved from (57.1) to 21.1 because they were able to convert their loss into profit in a year due to decrease in finance costs and administrative expenses. Moreover, their common equity also increased due to which they were able to give a positive return to their investors. FFERT's ROE decreased from 17.2% to 16.1% because although the net profit increased due to decreasing finance costs and increase in other income and gain on remeasurement of GIDC but the increase in common equity was greater than increase net profit due to which the return decreased. On overall basis, EFERT performed better than industry in terms of providing investors with high return.

RETURN ON INVESTED CAPITAL (ROIC)	2016	2017	2018	2019	2020
Engro Fertilizers	12.26	8.68	7.01	10.95	3.19
Fauji Fertilizers	30.3	26.1	53.0	69.5	48.5
Fatima Fertilizers	27.3	26.9	36.0	37.4	32.8
Fauji Bin Qasim Fertilizers	(23.1)	(2.7)	10.0	-4.7	24.9
Industry Average	11.5	16.8	33.0	34.1	35.4

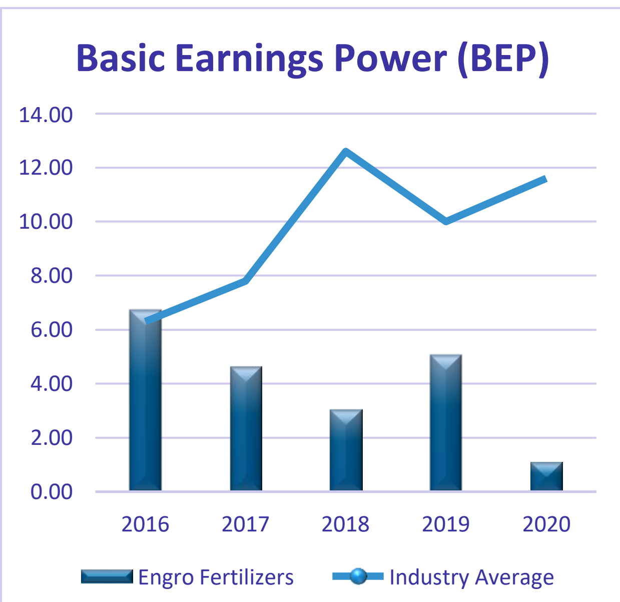


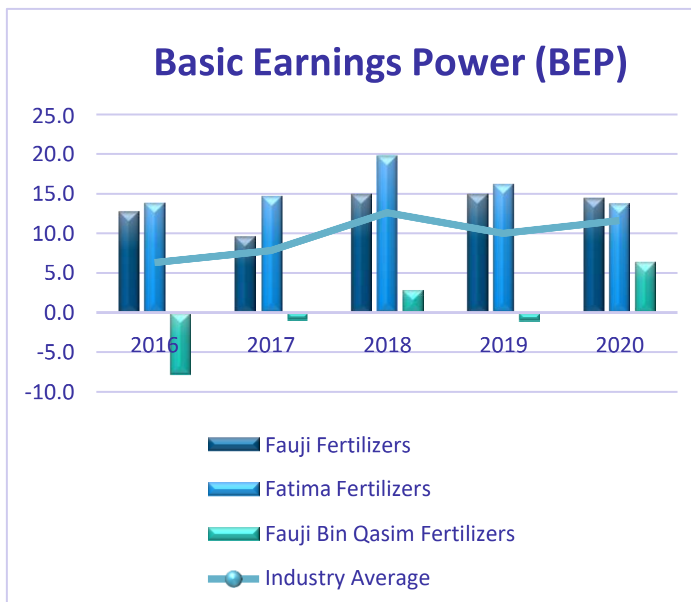


Another ratio is Return on Invested Capital measures the total return that the company has provided for its investors. It measures the return that investors can get from after tax income. From 2016-2020, EFERT's ROIC has decreased from 12.26% to 3.19% which shows a decreasing trend while industry average's ROIC increased from 11.5% to 35.4% which shows an increasing trend. From 2016-2018, EFERT's ROIC decreased from 12.26% to 7.01% which shows that after tax from EBIT, less return is being given to the investors. This mainly happened because of an increase in total invested capital as the current liabilities increased which mainly included an increase in trade payables and deferred liabilities along with it, the comm0n equity increased but non-current liabilities decreased which mainly included decrease in borrowings. Moreover, the EBIT after tax decreased along with this, other operating expenses such as salaries and wages increased, and other incomes decreased leading to low return on total capital invested. The industry average's ROIC increased from 11.5% to 33% because of FFC and

FFERT. FFC's ROIC increased from 30.3% to 53% because EBIT after tax increased due to increase in sales. Moreover, their total invested capital increased because of increase in total liabilities such as short-term borrowings along with the common equity increased due to increase in revenue reserves and capital reserves resulting in increase in ROIC. FFERT's ROIC increased from 27.3% to 36% because their after-tax EBIT increased as already the before-tax EBIT was increasing and the sales were increasing. Moreover, the total invested capital decreased as the total liabilities decreased due to decrease in long-term borrowing in non-current liabilities and trade payables, short term finances secured in current liabilities. Moreover, the common equity increased therefore the increase in after-tax EBIT was greater than decrease in total invested capital therefore return increased. FFBL's ROIC improved from (23.1) to 10% because their EBIT after tax was negative but then it became positive due to decreasing administrative expenses and increasing sales. Moreover, the total invested capital increased due to increase in current liabilities mainly because of increase in long-term borrowing and short-term borrowing along with it, the common equity increased therefore, the return improved and became a positive one. Therefore, here the industry performed better than EFERT. From 2019-2020, EFERT's ROIC decreased from 10.95% to 3.19% because the after-tax EBIT decreased as the decrease in EBIT. Moreover, the after-tax EBIT decreased because of increase selling and distribution and administrative expenses. Furthermore, the total invested capital decreased due to decrease in current liabilities such as short-term borrowings, service benefits obligations, and unclaimed dividends along with increase in common equity. The decrease in total invested capital was smaller than after-tax EBIT due to which the return decreased. Industry average's ROIC increased from 34.1% to 35.4% because of FFBL. FFBL's ROIC improved from (4.7) to 24.9% because of improvement in EBIT as the EBIT changed into profit from loss due to which the after-tax EBIT was positive due to increasing sales and decrease in administrative expenses. Moreover, total capital invested increased due to increase in debt financing and advances from customers in current liabilities along with increase in common equity. FFC's ROIC decreased from 69.5% to 48.5% because their total invested capital increased due to increase in non-current liabilities such as long-term borrowing and GIDC payable along with short-term borrowings in current liabilities but the increase in after-tax EBIT was quite small as the EBIT increased by little amount therefore, the return decreased. FFERT's ROIC decreased from 37.4% to 32.8% because their after-tax EBIT decreased despite increase in EBIT as the taxation amount increased which reduced the after-tax EBIT. Moreover, the total capital invested increased due to increase in common equity and non-current liabilities which included lease liabilities and deferred liabilities, but as after-tax EBIT decreased while total capital invested increased, so the overall return decreased. Overall, industry performed better than EFERT as they managed to remain above 30% in most of the years and mostly faced increase in ROIC while EFERT faced a decrease.

BASIC EARNINGS POWER (BEP)	2016	2017	2018	2019	2020
Engro Fertilizers	6.73	4.64	3.05	5.08	1.10
Fauji Fertilizers	12.8	9.6	15.0	15.0	14.5
Fatima Fertilizers	13.9	14.6	19.8	16.1	13.8
Fauji Bin Qasim Fertilizers	(7.8)	(0.9)	2.9	(1.0)	6.4
Industry Average	6.3	7.8	12.6	10.0	11.6

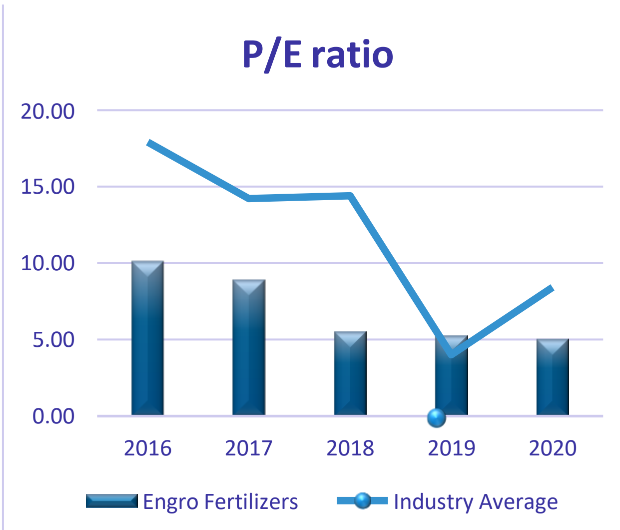


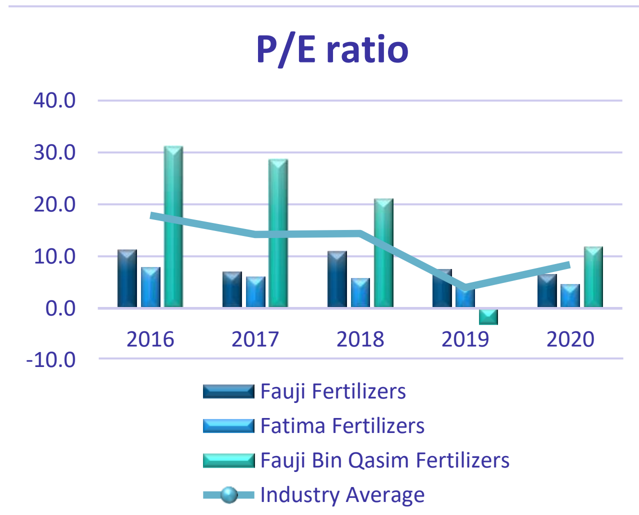


Another ratio is Basic Earning Power which measures the firm's total assets' ability to generate operating income also known as EBIT (earnings before interest and tax). From 2016-2018, EFERT's BEP decreased from 6.73% to 1.10% which shows a decreasing trend while industry average's BEP increased from 6.3% to 11.6% which shows an increasing trend. From 2016-2018, EFERT's BEP decreased from 6.73% to 3.05% which means that total assets were generating less operating income than before. This happened because the sales decreased but there was a decrease in cost of goods sold along with this, they faced an increase in administrative expenses and other operating expenses due to which the EBIT decreased by Rs. 3,631,241. Moreover, their other incomes decreased. Also, there was an increase in total assets due to major increase in current assets while a approx. Rs. 5,000,000 decrease in fixed assets. The main contributors in increase in current assets were the increase in cash and cash balances, short term investment, trade debts, and accrued income. Although total assets were increasing but EBIT was decreasing resulting in lower returns. In industry average's BEP, FFC and FFERT were the main contributors. FFC's BEP increased from 12.8% to 15% because sales increased as they were selling at low prices when there was locust attack along with this, they faced a decrease in distribution cost due to which their EBIT increased. Moreover, there was an increase in total assets by installing new plant and equipment and long-term loans and advances in fixed assets while current assets increase came from increase in cash and cash balances, other receivable which includes prepaid payments, and short-term investments. This resulted in high returns. FFERT's BEP increased from 13.9% to 19.8% because their sales increased along with their EBIT. However, they faced an increasing distribution and administrative cost, but the expenses increase was less than the EBIT. Furthermore, the total assets decreased by little amount though their fixed assets increased due to new installation of property, plant, and equipment along with intangible assets such as goodwill and investment property. There was a decrease in current asset but within it, the trade debts, short-term loans, and investment increased. Even with a little decrease in total assets, the EBIT increased. FFBL's BEP improved from (7.8) to 2.9% because for two consecutive years, they were having a loss on EBIT and then they recovered from it and earned a profit in EBIT due to increasing sales and decreasing administrative expenses. Moreover, there total assets increased due to increase in fixed assets mainly due to long term investments and loans along with there was increase in current assets too due to short-term investments and other receivables including government grants for the period of locust attack, and advances. Thus, they saw an improvement in return. In this interval, industry performed better than EFERT. From 2019-2020, EFERT's BEP decreased from 5.08% to 1.10% while industry average's BEP increased from 10% to 11.6%. EFERT's BEP increased because they faced a decreased in sales and a huge rise in selling and administrative and administrative expenses. Not only this, but they also faced an approx. Rs. 5,000,000 decreases in other incomes and increase in other expenses mainly because of increase in salaries and wages as during the time of COVID-19. Moreover, total assets decreased due to decrease in fixed assets as EFERT disposed some of the plant and equipment along with decrease in current assets as their cash and cash balance, loans, advances, deposits and prepayments, and accrued income decreased. Due to which the profit decreased on each Rs. 1 of total assets invested. The industry average's increase came from FFBL improvement as FFBL's BEP improved from (1.0) to 6.4% because previously they faced a loss due to extreme effects of COVID-19. The improvement occurred due to the increase in sales due to fertilizers sold at lower prices due to cash subsidy offered by government. Their administrative costs decreased but distribution and selling costs increased but still they manage to improve their performance and generated a profit in 2020. Moreover, total assets decreased but there was an increase in the fixed assets which included long term loans while in current assets, the cash and cash balance increased thus they were able to generate a positive return on total assets. FFC's BEP decreased a little from 15% to 14.5% because there was a little increase in EBIT due to low sales at the time of COVID-19. Moreover, their total assets increased due to increase in both fixed assets and current assets due to installation of new equipment and plant and short-term investments and other receivables. Thus, increase in total assets was greater than the increase in EBIT thus returns reduced. FFERT's BEP decreased from 16.1% to 13.8% because there was a little increase in EBIT of approx. Rs. 215,386 due to rising administrative expenses along with this their total assets increased due to increase in fixed assets and decrease in current assets but increase in EBIT was lesser than increase in total assets therefore, the returns decreased.

Based on profitability ratios, industry performed better than EFERT as in many areas, EFERT's ratios were lesser than the industry and couldn't surpass an acceptable range. Moreover, ROE represents the effect of all the profitability ratio therefore, according to that, EFERT performed better than industry. However, these were the internal ratios, the performance of the companies needs to be further analyzed when external factor ratios are being involved such as the market value ratios.

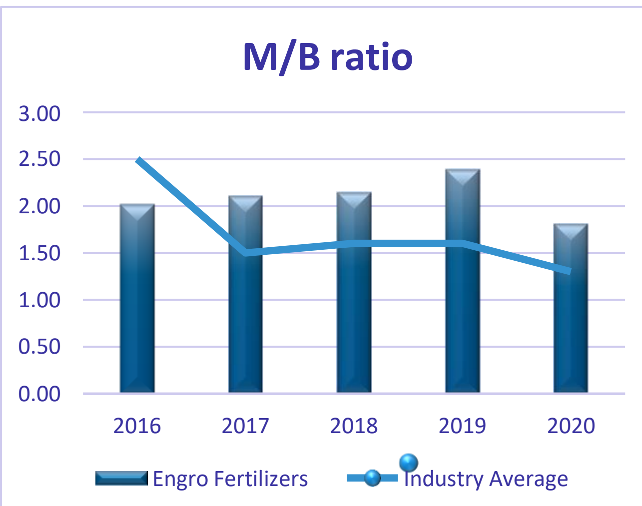
PRICE/EARNINGS RATIO	2016	2017	2018	2019	2020
Engro Fertilizers	10.12	8.91	5.53	5.28	5.02
Fauji Fertilizers	11.3	7.0	11.0	7.5	6.6
Fatima Fertilizers	7.9	6.1	5.8	4.6	4.6
Fauji Bin Qasim Fertilizers	31.2	28.6	21.1	(3.0)	11.9
Industry Average	17.9	14.2	14.4	4.0	8.4

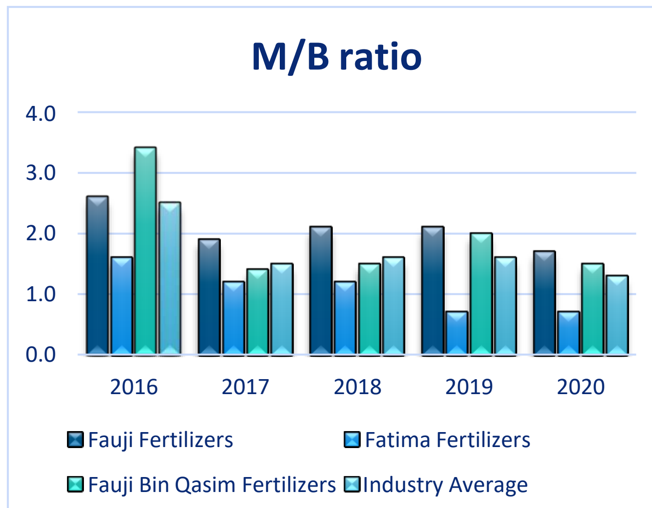




Market Value Ratios that relate the firm's stock price to its earnings and book value per share. One of the ratios is price/earnings ratio shows the dollar amount investors will pay for $1 of current earnings. High P/E ratio means that firm has strong growth prospects and little risk involved whereas low P/E ratio shows that firm has quite unstable growth programs and high risk involved. From 2016-2020, EFERT's ratio decreased from 10.12 to 5.02 times which shows a decreasing trend whereas industry average's ratio also decreased from 17.9 to 8.4 times which also shows a decreasing trend. From 2016-2018, EFERT's ratio decreased from 10.12 to 5.53 times because there was a little increase in the market price of the share of Rs. 1.07 because of Corporate ATL campaign "Aam Aadmi Nahin" exploited on TV, Cable, Print, Radio, during Kharif and Rabi Seasons and Consumer incentive scheme which was a consumer-based initiative program focusing upon rewarding farmers with valuable gifts like tractors, bikes, umrah tickets and spray bags etc. due to which there was an increase in market price. However, the EPS increased by Rs. 5.76 because profit for the year increased however, the EPS increased by greater amount than market price due to which the investors were investing less for Rs. 1 current earning which means that the EFERT was highly risky and didn't have much strong and stable at that time. the industry average's ratio decreased from 17.9 to 14.4 times mainly because of all three firms but mostly by FFBL. FFBL's ratio decreased from 31.2 to 21.1 times because the market price decreased because at that time, people lost their confidence in investing in FFBL due to its less ROE thus the demand for FFBL's shares decreased leading to lower market price. The EPS increased a little because the net profit increased a little due to reduction in expenses. Due to this the payment for each Rs. 1 current earnings decreased. FFC's ratio decreased a little from 11.3 to 11 times because its market price decreased a little while the EPS increased quite significantly. The decrease in market price came because of decrease in demand for shares and EPS decreased because though the profits were increasing but number of outstanding shares increased. FFERT's ratio decreased from 7.9 to 5.8 times due to decrease in market price as they started different programs such as seminars with collaboration of agriculture department, government of Punjab and rice research station, Kala Sha Kaki at Gujranwala and launched the booklet of "Dhaan ki Jadeed kasht" along with participated in Sarsabz testimonial farmers in FAO-Pakistan Workshop to develop soil fertility atlas for KP and Balochistan but simultaneously EFERT was working on Soil Science Congress due to which EFERT's demand for shares increased leading to a fall in demand for FFERT's shares and lower market price. The EPS increased due to increase in profits but still their ratio decreased. Overall, the industry performed better than EFERT in this interval. From 2019-2020, EFERT's ratio decreased from 5.28 to 5.02 times due to decrease in market price as during the COVID-19, the people lost their confidence to invest due to which market price decreased. Moreover, the EPS decreased due to reduction in profit as sales were decreasing while expenses were increasing such as loss allowance on subsidy receivable from GIDC. In industry average, the ratio increased from 4 to 8.4 times in which the improvement in FFBL helped to achieve this increase. FFBL's ratio improved from (3.0) to 11.9 times as the market price increased despite COVID-19 situation and high inflation rate. Moreover, they managed to turn their negative EPS to positive due to change to profit from loss. FFC's ratio decreased from 7.5 to 6.6 because there was a decrease in market price due to COVID-19 but an increase in EPS due to increasing profit. FFERT's ratio remained constant at 4.6 as due to COVID-19, they faced a decrease in market price but an increase in EPS due to high profits. The decrease and increase margins were quite same thus ratio was constant. Overall, the industry performed better than EFERT.

MARKET PRICE/BOOK VALUE PER SHARE RATIO	2016	2017	2018	2019	2020
Engro Fertilizers	2.02	2.11	2.14	2.39	1.81
Fauji Fertilizers	2.6	1.9	2.1	2.1	1.7
Fatima Fertilizers	1.6	1.2	1.2	0.7	0.7
Fauji Bin Qasim Fertilizers	3.4	1.4	1.5	2.0	1.5
Industry Average	2.5	1.5	1.6	1.6	1.3





Another ratio is market price to Book value per share which shows how investors regard the company as it tells that whether company is undervalued or overvalued. This ratio lies mostly between 1 and 3, in which greater than 1 means the company is expensive and investors are willing to pay more for stocks than the accounting book values of the stocks and vice versa. From 2016-2020, EFERT's ratio decreased from 2.02 to 1.81 times which shows a decreasing trend while industry average decreased from 2.5 to 1.3 times which shows a decreasing trend. From 2016-2018, EFERT's ratio increased from 2.09 to 2.14 times due to little increase in the market price of the share of Rs. 1.07 because of Corporate ATL campaign "Aam Aadmi Nahin" exploited on TV, Cable, Print, Radio, during Kharif and Rabi Seasons and Consumer incentive scheme which was a consumer-based initiative program focusing upon rewarding farmers with valuable gifts like tractors, bikes, umrah tickets and spray bags etc. due to which there was an increase in market price. The book value per share increased due to which the ratio increased as investors were willing to pay more than accounting books stated price of share. The industry average decrease occurred due to all three companies. FFC's ratio decreased from 2.6 to 2.1 times because of decrease in demand for shares while the book value of shares increased but as the market price was decreasing, the people lost their confidence to buy shares at higher price than book value per shares. FFBL's ratio decreased from 3.4 to 1.5 times because market price decreased because at that time, people lost their confidence in investing in FFBL due to its less ROE thus the demand for FFBL's shares decreased leading to lower market price. The book value per shares increased however, FFBL seemed to have decrease in future growth plans thus ratio decreased. FFERT's ratio decreased from 1.6 to 1.2 and stayed constant at 1.2 from 2017-2018 because of decrease in market price as they started different programs such as seminars with collaboration of agriculture department, government of Punjab and rice research station, Kala Sha Kaki at Gujranwala and launched the booklet of "Dhaan ki Jadeed kasht" along with participated in Sarsabz testimonial farmers in FAO-Pakistan Workshop to develop soil fertility atlas for KP and Balochistan but simultaneously EFERT was working on Soil Science Congress due to which EFERT's demand for shares increased leading to a fall in demand for FFERT's shares and lower market price. The book value per share increased but still ratio decreased. Therefore, here the EFERT outperformed industry average. From 2019-2020, EFERT's ratio decreased from 2.39 to 1.81 times whereas the industry average decreased from 1.6to 1.3 times. EFERT's ratio decreased because of decrease in market price as during the COVID-19, the people lost their confidence to invest due to which market price decreased while the book value per share increased but the increase was less than the decrease in market price thus ratio fell. The industry average's ratio decreased because of all three companies. FFC's ratio decreased from 2 to 1.7 times because there was a decrease in market price due to COVID-19 and increase in book value per share, but the investors were not willing to buy due to high risk involved thus ratio decreased. FFERT's ratio remained constant as they faced a decrease in market price but increase in book value per share but the decrease and increase margins were same due to which, the ratio remained constant. FFBL's ratio decreased from 2 to 1.5 times due to market price increased despite COVID-19 situation and high inflation rate along with increase in book value per share but due to crisis in PSX, every business sounded risky to invest thus ratio decreased. Based on overall basis, EFERT performed better than industry as they remained near to the range of 3.

3. Political, Economic, Environmental, Social, and Technological Analysis (PEST)

Apart from numerical analysis, the performance of the company is being judged based on how the pest factors affected the performance of the company. The PEST analysis is Political, Economic, Environmental, Social, and Technological. The performance of the companies is influenced by these factors too which affect the numerical ratios. Solely relying on the numerical figures can misleading as companies window dress their accounts which can be quite misleading and inaccurate. From 2016-2020, the performance of the four major companies ENGRO FERTILIZERS, FAUJI FERTILIZERS, FAUJI FERLIZERS BIN QASIM, and FATIMA FERTILZIERS was influenced by these factors.

Political: There were some numerous programs done and programs given by the government such as there was tax relief, cash subsidy, subsidy on feed gas for synthesis ammonia, phosphate subsidy, cash subsidy and tax relief on UREA, implementation of uniform tax rate 2% for all types of fertilizers, sustainable agricultural exhibition of 2018, conferences done on the international grounds such as SINO PAK INTERNATIONAL CONFERENCE, KISSAN CARD AND KISSAN DOST EXPO in Multan in May 2018, and Livestock Dairy Farming Agricultural aided the companies to increase their performance and due to these factors, in the locust attack of 2018, ENGRO FERTILIZERS emerged as the only company which was able to introduce a fertilizer which helped to finish locust attack on fields. Moreover, with these many other political programs, the profitability of the companies improved. In COVID-19, relief packaged were given which helped in reduction of costs.

Economic and Environmental: During 2016-2020, there were some great economic occurrences which impacted every industry. In 2018, there was a mass locust attack which destroyed fields on mass scale. Due to the destruction of fields, the fields needed time to restore themselves and for that period, the crops couldn’t be planted thus the profitability for that period decreased as both ENGRO AND INDDUSTRY faced a decrease in profit margins in 2018-2019. Moreover, their ROE’s increased at the end of 2019 as the demand for fertilizers increased as fields were good for farming. Moreover, COVID-19 came at the end of 2019 due to which the PSX was not performing at stable rate. Due to this many companies such as ENGRO AND FAUJI FERTILIZERS experienced downfall in market price. Profitability reduced to a great extent. As fertilizer is potential and important industry of Pakistan so the banks such as microfinancing banks and Islamic banks began to give loans on credit disbursement.

Social: There are certain seasons of celebrations when Kharif and Rabi seasons come. According to the cultural practices, people tend to celebrate the healthy harvesting of their fields and for this they tend to use good and high-quality fertilizers. There was increase in the demand for UREA from FAUJI FERTILIZERS BIN QASIM as they make the finest quality of UREA thus, they were able to recover from loss to profit. Moreover, the government encouraged the use of healthy and organic fertilizers due to which the companies had to use high quality of raw materials due to which some companies experienced rise in cost of sales and other expenses but rise in profitability in next years such as FAUJI FERTILIZERS.

Technological: The highly technological equipment helped to increase the production and decrease the other operating expenses as less labor force was required and the use of machinery increased. Moreover, in 2019, Bio-fertilizers process was introduced which was much cheaper and safer than the fertilizers made from fuels thus this reduced the cost of many companies.

4. Final Analysis and Recommendations

As per the financial ratios, it cannot be clearly said that whether EFERT or industry performed better. Though based on individual financial ratios, the performance can be compared such as the liquidity ratios, EFERT performed better than the industry because EFERT remained above the ratio of 1 most of the times and even if they were not above 1 in quick acid test ratio so they were near to it and within the acceptable range of more than 0.67. Moreover, in asset management ratios, industry tend to perform better than EFERT as industry managed to be near to EFERT in inventory turnover ratio along with it, in days sales turnover, the industry performed better as they were able to recover their credit sales more quickly. Moreover, industry performed better in fixed assets and total assets turnover therefore, industry was

more efficient and effective in managing their assets and generate profit out of them as industry remained mostly above 1. Moreover, EFERT was better at managing their debt ratios as even with high debt financing, they were able to payoff interest many times however, on individual basis, Fatima Fertilizers managed to hit all time high in interest payment times. Furthermore, both EFERT and industry performance in terms of profitability was good such as EFERT performed better in Operating margin than in profit margin ratio whereas industry performed better in profit margin than operating margin. EFERT performed better in Return on Assets and Equity whereas Industry performed better in return on invested capital and basic earnings power so in profitability, both EFERT and industry performed almost equally. In market value ratios, EFERT performed better than industry in P/E ratio.
Therefore, it cannot be clearly verdict that whether EFERT performed better than industry as in industry, there are many firms, each performing at different levels. Moreover, certain companies often use different methods in calculation such as depreciation and amortization methods, every company is working for a different span of time therefore, its often difficult to calculate the performance based on numerical ratios as certain other variables and factors are to be considered.

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