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Research Article **Open Access**

THE IMPACT OF CURRENCY DEVALUATION ON OIL SECTOR PERFORMANCE IN PAKISTAN

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Abstract

In this study we have investigated the impact of devaluation on the oil sector performance in Pakistan. We used time series data of 37 years from 1985 to 2018. The sample of study is oil sector of Pakistan. The dependent variable is oil sector performance while independent variables include Gross Domestic Product (GDP), Foreign Direct Investment (FDI), inflation, exchange rate, oil price, tax revenue, oil imports and trade. Different statistical techniques such as ADF Test and ARDL approach were used to analyze data. The findings of this study show that the oil prices have statistically significant positive relationship with exchange rate. We also found that there is strong relationship between oil prices, exchanges rate, FDI and inflation rate. The devaluation worsens balance of payment, inflation and public duebt.

Keywords: Devaluation; Exchange rate; oil price; FDI; Inflation; Taxation.

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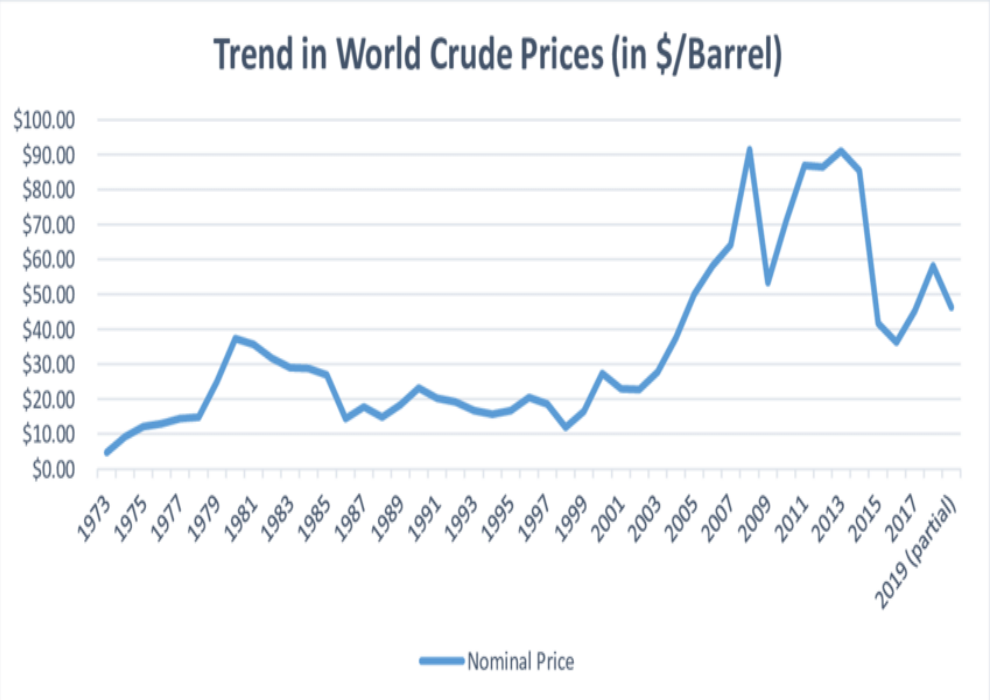
1. Introduction

1.1 Background of study

The currency devaluation is basically the decrease in the value of the country's currency value. The monetary policy and financial authorities fix the value of currency of the country in relation to foreign currencies. Sometimes currency value is determined through market demand and supply of different currencies. The oil and other energy resources are the most important for the countries which exports the oil as it provide sources of the income and factors of the input for importing countries. The increase in oil prices rise inflation rate as there is the positive association between inflation and oil prices. The oil prices can affect directly or indirectly cost of the goods in the form of transportation and manufacturing (Thomas and Drysdale (1964) and Sundrum (1973). The devaluation caused the inflation in which the prices of the commodities are increased and purchasing power of the people is decreased. The official currency of the Pakistan is the rupees since 1948. In 1957 the rate of the inflation in Pakistan was average of 7.99 and in 1973 it shoots up to 37.81%. During the period of the Ayub Khan (1958 to 1969) the economy of the Pakistan was growing faster and the GDP growth of the Pakistan on average was around 5.82. In the start of the 1970 the growth of the economy was slow due to the mismanagement of the fiscal policy which caused larger increased in the public debt and decreased economic growth. The two wars between Pakistan and India and separation of East Pakistan (Now Bangladesh) had substantial effected on fragile economy of Pakistan. At that time Pakistan faced severe economic crisis. The first global oil crisis was occurred in the 1973 in which oil prices jumped to 300% as the oil prices was increased from three US to 12 US dollar and the whole world economy was slowed down.

During the government of General Zia Haq in 1982 Pak rupee was pegged to British pound. During the 1982 to 1983 the rupees was devalued by 38.5%. From 1987 to 1998 the importing cost of the raw material was increased sharply, causing severe difficulties for Pakistani industry. The repeated oil shocks have badly affected all oil importing countries including Pakistan. As most of industries in the developed countries are energy intensive and increased in oil prices triggered domestic prices and high rate of inflation. Pakistan even today is heavily dependent on importing oil and fluctuations in its prices causes heavy damage to its economy. The lowest oil prices were 5US dollar in 1973 and higher prices were $92 per barrel in 2009, as depicted in Figure 1.

Fig 1: Behavior of oil prices during 1973-2019



1.2. Main Research Problem

The main research problem of this study is to find out the impact of currency devaluation and high oil prices of oil on the oil industry of Pakistan. When oil prices are increased the domestic prices of goods and services become uncompetitive and volume of exports declines. In order to restore competitiveness in international market and enhance exports the oil importing countries like Pakistan will have to devalue its currency causing depreciation of exchange rage. This upset trade balance and rise import bill. This is a serious economic issue for Pakistani financial managers and they are unable to manage country's finance. We have intended to investigate the causes of this problem and suggest possible solution to reduce economic fluctuations which have been hurting Pakistan economy since long.

1.3 Objectives of Study

The objectives of the study are stated as under: -

- To study the cause of repeated currency devaluation in Pakistan.
- To study the impact of currency devaluation on the economy of Pakistan.
- To study the impact of currency devaluation and fluctuations in oil prices on oil sector of Pakistan
- To examine the oil price shock on inflation rate in Pakistan.
- To examine the impact of high oil price on Pakistan's GDP growth.
- To analyze the impact of oil prices on exchange rate.
- To study the relationship between exports and devaluation of the currency.

2. Literature Review

Alhaji (2004) examined the depression of dollar on the world manufacturing sector. He used correlation analysis, ARDL (auto regressive

distribution lag) and multi-collinearity test. These techniques were used to find out the correlation between the variables and level of significant between the coefficients. This study found that there is high correlation between devaluation and oil prices. In Europe the devaluation and oil prices are positively correlated. The variables included in the study were inflation, exchange rate, exports and oil prices. The study concluded that dollar devaluation has high impact on the supply and demand of oil. In European countries the devaluation has little impact because of petroleum products have high tax rate. This research paper also explained the fact that the devaluation caused inflation and reduced purchasing power of the people. Saba and Ahmad (2015) investigated the crude oil prices and inflation in Pakistan. They stated that high inflation rate is one of the most dangerous issues that have bad effect on the economy of the Pakistan. There were many factors that can affect the inflation rate but this research study focused between oil prices and inflation. This study further stated that in developing countries like Pakistan where the oil was one of the major sources of the energy and about 61% of oil is imported to meet the requirements of the country. The oil prices shocks have bad impact on the importing of oil with the inflation. The study used variables like inflation, oil prices, exchange rate, real GDP, money supply and weighted average interest rate and also used time series date ranging from 1980 to 1012. The study applied log-log model to examine the prices elasticity of real GDP, interest rate and money supply. Saeed et al (2015) examined the impact of the currency devaluation on the Pakistan Economy. They argued that currency devaluation has negative impact on the economy. In Pakistan the devaluation always caused the cost push inflation and price spiral. To avoid this condition, Pakistan has to prepare the long term plan. They concluded that the recent

economic crisis was due the high price of the imported oil which was recorded the 127 dollars on 2013. The statistical techniques which were used in this study were the ordinary least square, descriptive statistics and graphical explanation of the variables. These techniques were used to explain the nature of the variables. The variables of the study were foreign direct investment, oil price, exchange rate, inflation, imports and exports and output. Beffes, et al. (2015) examined the steep fall in oil prices: causes, penalty and procedure reaction. The oil prices have negative impact on the output and the inflation; high oil prices also caused indirect impact on the exports and imports and indirect impact on the investment, trade policies and the monetary policies. In the oil exporting countries, the adjustment in the real income has tend to be higher rates of the saving then oil importing countries. Increase in the oil prices caused to reduce the investment and the consumption of the durable goods. The reduced in the oil prices caused to reduce the cost of the energy as the price of products of the energy and the oil based electric power were cheaper to produce. The data used in this study was ranged between January 2014 and 2015 and the prices were declined sharply during that period. Gregorio and Borensztein (1999) investigated the devaluation and inflation after the currency crisis. This study used time series data for the period from the 1970 to 1996. The variables in the research were the inflation rate, exchange rate, current account balance, terms of trade and GDP. The statistical methods used in this paper were as the OLS, Unit root, Bound test and ADF. The result showed that there were only two significant variables in the sample. The main conclusion of the study was that currency crisis was the key driver of inflation in predicting future performance. There was positive and significant relationship between inflation and output as the output was below the trends

then the inflation after the crisis trend to be smaller. The inflationary pressure after the devaluation was tend to reduce by the overvaluation. The Asian countries predicted the high inflation rate after the devaluation of the currency crisis with output above the trends.

3. Research Methodology

3.1 Type of data

The nature of the study is quantitative. We used time series secondary data spreading over a period of 37 years from 1985 to 2018 to find the impact of devaluation on performance sector in Pakistan.

3.2 Sample of study

All oil marketing companies, Oil exploration companies and oil refineries were included into the sample of study. The oil marketing companies include Pakistan State Oil Ltd, Shell Pak Ltd, Hascol Petroleum Ltd, Cnergyco. Pak Ltd while refineries included Pakistan Refinery, Pak-Arab Refinery, Attock Refinery and National Refinery. Oil exploration companies included into this study are: Oil and Gas Development Corporation Ltd, Pakistan Petroleum Ltd, Pakistan Oil Field Ltd.

3.3. Selected Variables

The following variables were selected for this study: -

- Exchange rate
- Trade
- Oil import
- INF
- TAX
- GDP growth.

- Performance of oil sector

The depended variable is the performance of oil sector while independent variables are Inflation, FDI, GDP growth rate, Exchange rate, Oil import, Tax Revenue, Oil Prices.

3.4 Econometric Model

The econometric model of the study is shown in the following equation

$$POS = \alpha_0 + \beta_1 (EXR) + \beta_2 (GDP) + \beta_3 (OIMP) + \beta_4 (INF)$$
$$+ \beta_5 (GDPG) + \beta_6 (TAX) + \beta_7 (OP) + \beta_8 \text{ Trade} + \epsilon$$

Where:

POS = Performance of Oil sector

EXR = Exchange Rate

GDPG =Gross Domestic Product growth

OIMP = Oil import

INF = Inflation

Tax = Tax Revenue

OP = Oil Prices

Trade = International trade.

3.5 Hypothesis of the study

The hypotheses of the study are given as under: -

H_0 = There is no long run association between exchange rate and oil sector performance.

H_1 =There is long run association between exchange rate and oil sector performance.

Ho: There is no significant relationship between currency devaluation and inflation rate.

H_1: There is significant relationship between currency devaluation and inflation rate.

Ho: There is no significant relationship between currency devaluation and oil sector Performance in Pakistan.

H_1: There is significant relationship between currency devaluation and oil sector performance in Pakistan.

Ho: There is no significant association between oil import and GDP growth rate.

H_1: There is significant association between oil import and GDP growth rate.

3.6 Analytical techniques

We have used the following statistical techniques in this study: -

1. Descriptive Statistics
2. Correlation Analysis
3. ADF's Unit Root Test.
4. Auto regressive distributed leg (ARDL) Model
5. Bound Test.
6. Error Correction Model (ECM).

These techniques were used to check nature of relationship between dependent and independent variables in the short and long run.

4. Empirical analysis

4.1. Descriptive Statistics

The descriptive analysis is used to check the nature of the normality of the data. In this study we used this technique to calculate mean, median, maximum value, minimum value, JB value and the probability of the variables. The results of this analysis is shown in Table 1.

Table 1: Results of Descriptive statistics

Variables	MEAN	Median	Mini	Maxi	SD	skewness	kurtosis	JB	P value
OP	0.457400	0.371000	0.0100	1.20000	0.307	0.730100	2.1412	3.612	0.06
ER	59.2578	58.2578	15.928	150.036	34.82	0.5857	2.57018	2.27068	0.032
GDPG	4.48249	4.731147	0.98882	7.70589	1.8897	-0.1162	2.27538	0.84459	0.655
FDI	0.99603	0.77221	0.33145	3.6683	0.8017	2.19216	7.05355	5.199	0.000
Trade	32.3755	32.8971	25.306	38.4993	3.6257	-0.36668	2.3598	1.38196	0.50
TAXRE	11.0263	11.2324	8.5684	13.9833	1.43611	-0.012221	2.1316	1.10058	0.576
INF	64.9833	42.3069	10.6198	180.012	52.1696	0.777578	2.15601	4.5658	0.1019
OIMP	22.8565	23.3558	17.7726	27.696	2.76765	-0.2326	1.9835	1.82230	0.4020

The dependent variable is oil prices OSP. the mean of the OSP is 0.457400, median is 0.371000, maxi 1.20000, mini 0.01000 and SD is 0.307100. The skewness value of the OSP is 0.730 that indicates the OSP is positively skewed and the kurtosis value of the OP is 2.14. The kurtosis value of the OSP explains that it is LAPTOKURTOSIS. The JB value of the OSP explains that it is normally distributed with the p value is 0.06 that shows the

significance of the OSP. The mean value of GDPG is 4.4824, median is 4.73114, maxi is 7.7058, mini is 0.98889 and the SD is 1.8897. The GDPG is negatively skewed and the kurtosis value of the GDPG shows that it is leptokurtosis. The JB value of GDPG indicates normal distribution with the p value is 0.65 that is insignificant. The mean of the ER is 59.93, median is 58.257, maxi is 150.03, mini is 15.92 and the SD is 34.8. The kurtosis value of the ER explains that it is leptokurtosis. The skewness value indicates that ER is positively skewed. The ER is normally distributed with the p value is 0.03 that shows the significance of the ER. Mean of the inflation is 64.98, median is42.306, maxi is 180.01, mini is 10.610 and the SD is 52.169. The inflation is positively skewed and the kurtosis value of the inflation explains that it is plat kurtosis.

4.2. Correlation Analysis

The correlation is used to check the strength of the association between two variables. The range of correlation is between -1 and 1. There is assume to be error in the measurement when the calculated value of correlation is greater than 1. There are the two type of the correlation: positive and negative correlation between variables which is indicated by sign. The results of correlation analysis are shown in Table 2.

Table 2: Results of Correlation Analysis

Variables	OP	ER	GDPG	INF	TRADE	TAX	OIMP	FDI
OP	1							
ER	0.84757	1						
GDPG	-0.29484	-0.31436	1					

INF	0.7751	0.7737	-0.24577	1				
TRADE	-0.27599	-0.53624	-0.13058	-0.4751	1			
TAX	0.19655	0.225212	-0.00861	0.35541	0.084101	1		
OIMP	0.3886	0.55008	-0.55752	0.46972	-0.27917	0.058260	11	
FDI	0.1196	0.07713	-0.11497	0.02237	0.232135	-0.45129	0.207551	1

The value of the correlation between the OP and GDP growth is negative. The value of the correlation between OP and GDPG is -0.294841. There is positive correlation between the inflation and oil prices. This value of the correlation is 0.77512. The value of the correlation between the OP and TRADE is -0.27599. Similarly, there is positive correlation between the OP and TAX with the value of correlation is 0.19655. There is also positive correlation between OIMP and OP with the value of the correlation is 0.38867. The value of correlation between FDI and OP is 0.1196, showing positive correlation between two variables. There is also positive correlation between the FDI and ER with the value of correlation is 0.077135.

4.3 Augmented Dickey Fuller (ADF) Test

The ADF is used to check the stationarity between selected variables. If the coefficient of the variable has the "spurious regression" problem than the assumptions of the BLUE are not satisfied. To remove this problem of the

spurious regression this test is used. The calculated results of ADF test are given in Table 3.

Table 3: Result of ADF Unite Root Test

Variable	Level			1st difference			Conclusion
	Intercept	T&I	NONE	Intercept	T&I	NONE	
OP	_	_	_	-16.7934 P(0.0001)	-16.5243** P(0.0000)	-16.12734 P(0.000)	L(1)
ER	_	_	_	-5.194047 P(0.001)	*-5.61968** P(0.002)*	-5.257883 P(0.000)	L(1)
GDPG				-6.7243* P(0.000)	-6.45164 P(0.000)	-6.801532 P(0.000)	L(1)
INF	-4.9027 P(0.001)	-3.0353 P(0.00)	-5.6123 P(0.000)				L(0)
Trade	2.7801* (0.07)	-2.6670 (0.02)	-0.877 (0.03)				L(0)
TAXRE				-5.60342* P(0.000)	- 6.11648 P(0.0001)	-5.62514 P(0000)	L(1)
OIMP				-5.115364 P(0.002)	-5.09342* P(0.0012)	-5.103095 P(0.000)	L(1)

Table 3 shows the stationary of the variables and (*, **, ***) means the level of stationary at 1%, 5% and 10%. The results show the mixture of the level and first difference. The variables such as inflation and trade are stationary at level while OIMP, OP, FDI, ER and GDPG are stationary at first difference. The value of the absolute t statistics is greater than the critical

values and the p values are less than the 0.09%. So we can use ARDL model for data analysis.

4.4 Auto Regressive Distribution Lag (ARDL) Model

The ARDL means the auto regressive distribution leg model. The ARDL model was firstly used by the Saran (1964) to estimate the structural form of the equation and later Hendry used this model in the series of the econometrics. This model is used to check the presence of the long run association between variables.

4.4.1 Steps of the ARDL Model

There are three steps in the ARDL model which are as follows: -

- Bound test
- Long run association
- Vector error correction model

4.4.2 Bound Test

The bounding test is used to check the long run association between variables using the f statistics and t statistics to test the level of significance of the lagged variables. The bound test was first introduced by the Pearson (2001) to check the long run behavior of variables. The bound test was more accurate test and has many benefits over the co integrated test. The bound test is used to examine the co integration between the series less then integrated of difference (2). The calculated results of Bound test is shown in Table 4.

Table 4: Bound test

F STATS	2.3784	
CRITICAL VALUE	LCB	UCB
10%	2.03	3.13
5%	2.31	3.5

Table 4 highlights long term association between variables. We set the criteria of ACI and then apply the bound test. From the table we see the f statistics value is greater than 5% and 10% which confirmed the existence of long run relationship between variables included in the model.

4.4.3 Long Run Association

When the long run association is confirmed with the bound test then we can see the long run association. When two variables are moving together for the longer time and are stable with each other then we can say that the variables have the long run relationship. The calculated results of long run relationship between variables are shown in Table 5.

Table 5: Long run relationship

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ER	0.010069	0.004700	2.142145	0.0490
GDPG	0.113726	0.034122	3.332888	0.0045
INF	0.014088	0.003018	4.668304	0.0003
TRADE	0.010415	0.010172	1.023888	0.3221
TAX	-0.124991	0.034576	-3.614945	0.0025
OIMP	-0.049416	0.015948	-3.098618	0.0073

FDI	0.069936	0.046286	1.510948	0.1516
C	2.932590	0.818549	3.582668	0.0027

The p value is 0.04 and the t statistics is greater than 2 which is 2.14 indicate the EXR is positive and significantly related with the oil prices. Our finding is confirmed with the work of the Eric broni-bediako (2018), M. Ahmad (2012), Iqbal (2018), Ali (2012), Norden (1998) and Huang and Guo (2007). These studies also provide the same results as our findings. The EXR is positively related with oil sector performance. One unit changes in the exchange rate will likely to increase the performance of oil sector by 10 percent in the long run. Similarly, one unit increases in GDP will likely to increase the performance of oil sector by 11.37 percent. There is also positive association between inflation and oil sector performance because one unit increases in inflation rate will likely to cause 14 percent increase in the performance of oil sector.These two variables have strong association. Likewise, trade also has positive relationship with the performance of oil sector. If one unit increases in international trade it is likely to increase the performance of oil sector by 10.4 percent. However, tax revenue has negative impact on the performance of oil sector as one-unit increase in tax rate will likely to decrease the performance of oil sector by 12.4 percent. The imports also have negative association with the performance of oil sector and if one unit increases in the volume of imports it will likely to decrease oil sector performance by 4.9 percent. Foreign Direct investment has positive impact on oil sector performance as one unit increases in FDI will likely to increase oil sector performance by 6.9 percent. In short, exports, GDP, inflation, trade and FDI have positive and significant relationship with oil sector performance whereas tax and imports have negative relationship with oil sector performance in the long run.

4.5 Error Correction Model

The short run co integration among variables can be explained with the Error Correction Model ECM). The Sagan was the first person who used this model in 1964. The ECM is used to check the equilibrium and disequilibrium in the economy from one period to another. The significance level of the ECM is at the 1% with the negative sign. The range of the ECM is from the 0 to 1. When the value of the ECM is greater than 1 it means the economy moves in the disequilibrium condition in the next year. The general form of the ECM is given below

$$\Delta Y_t = a_0 + b_1 \Delta Z_t - \pi \mu_{t-1} + Y_t$$

b_1=short run impact multiplier

π= adjustment effect

The calculated results of ECM are shown in Table 6.

Table 6 Results of ECM (Short run Results)

Co-integrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(OP(-1))	-0.300306	0.132633	-2.264194	0.0388
D(ER)	0.014154	0.005211	2.716156	0.0159
D(GDPG)	-0.046485	0.017034	-2.728971	0.0155
D(GDPG(-1))	0.042709	0.016848	2.534960	0.0229
D(INF)	0.005352	0.005637	0.949412	0.3575
D(INF)	-0.019823	0.006733	-2.944363	0.0100
D(TRADE)	0.011914	0.011461	1.039465	0.3151
D(TAX)	-0.142976	0.028941	-4.940331	0.0002
D(OIMP)	0.026598	0.018169	1.463884	0.1639

D(FDI)	-0.041580	0.074062	-0.561420	0.5828
D(FDI(-1))	0.155471	0.070790	2.196223	0.0442
CointEq(-1)	0.443890	0.224786	-5.088792	0.0001

Cointeq = OP - (-0.0101*ER -0.1137*GDPG + 0.0141*INF +
0.0104*TRADE
-0.1250*TAX -0.0494*OIMP -0.0699*FDI + 2.9326)

The results in Table 6 show that oil prices, GDP, Tax and FDI have negative relationship with oil sector performance while Exports, Imports have positive relationship in the short run.

5. Findings of study

In this study we have examined the impact of the devaluation on the oil sector performance in Pakistan. The main purpose of this study was to analyze the causes of the devaluation and its impact on performance of the oil sector and the economy. The devaluation is the major issue in Pakistan that can affect the trend of the growth in the Pakistan. For this purpose, we have used the secondary data for the period from 1985 to 2018. The variables in the study were oil price, oil imports, GDP, FDI, tax revenue, trade and exchange rate. The dependent variable was the performance of oil sector. In this study we used descriptive statistics, ADF Test, Correlation analysis ARDL Model, Bound Test and Error Correction Model to analyze the data.

According to the ADF test all the variables are stationary at different level so we could use ARDL approach. The variables such as inflation and trade are stationary at level while OIMP, OP, FDI, ER and GDPG are stationary at first difference. The value of the correlation between the OP and TRADE is -0.27599. There is the positive correlation between OIMP and OP with the value of the correlation is 0.38867. The value of the correlation between FDI

and OP is 0.1196. The long run results drawn through ARDL model and confirmed by Bound Test show that exports, GDP, inflation, trade and FDI have positive and significant relationship with oil sector performance whereas tax and imports have negative relationship with oil sector performance in the long run whereas Taxation, FDI and GDP have negative association with oil sector performance in the short run. The devaluation and exchange rate have positive association with the performance of oil sector both in short run or long run. The reason is that devaluation increases the price of imported oil and also enhance the profitability of oil sector. For example, the devaluation in Pak Rupee during 2020 and 2021 increases profitability of oil marketing companies. However, it had negative effect on Oil Refineries in the short run due to lack of sale during Covid-19 lockdown.

6. Conclusions

The exchange rate fluctuation is the main problem of developing countries including Pakistan. As we noted in our empirical study that devaluation causes increases in oil prices and as such profitability of the oil sector companies. However, it triggers inflation rate as domestic prices of goods and services are increased and purchasing power of consumer will decrease. The inflation also affects fixed income group of the society and in this way it has spoil the well-being of the society. that can have the significant impact on the society. The consecutive devaluation also harmful for oil refineries which make 40 days' advance purchase contracts and in case of depreciation of local currency vis-à-vis dollar they will have to pay more in dollars because their all contracts are in foreign currency. On the other hand, oil marketing companies get inventory gain in case of depreciation of currency because they sell oil at market price which are definitely higher due to high inflation. Similarly,

devaluation and consequent high inflation rate have positive impact on oil exploration companies because they sell their product on international oil prices and in this way they always get benefit from devaluation and higher inflation as well as higher international oil prices. Thus, we can have concluded that devaluation of currency has affected oil sector differently. It has positive effect on oil marketing and oil exploration companies while it has negative effect oil refineries. Moreover, the economic theory that currency depreciation improve competitiveness of country cannot be applied on Pakistan because it is a developing country and has so far not developed its industrial base on modern scale to produce high tech products. It has been producing primary products and or substitution projects and has so far not been able to produce the products which can give it to competitive edge vis-à-vis its competitors in international market.

7. Policy implications

In the light of above findings and conclusions we would like to make policy recommendations to minimize the effects of devaluation of currency and high oil prices on Pakistan's economy.

- The Government must avoid unnecessary devaluation of currency as it has negative effects on different sectors of the economy.
- Pakistan should build strategic reserves and storage capacity of oil like the United States, China, India and Japan in order to store maximum oil for future use by purchasing it when its prices are reduced as was occurred during Covid-19 lockdown.
- Government should prepare a strategic plan in consultation with oil refineries to save them from unexpected heavy losses in case of devaluation and provide them an opportunity to minimize losses by

reducing their inventory level. This can be done by obtaining inventory reports before devaluation.

- The government should encourage local exploration of oil and use of alternate energy resources in order to reduce dependence on the import of fossil fuel as the excessive use of fossil fuel are also polluting environmental pollution and creating health problems for the people.
- There is a tremendous gap between the exports and imports of Pakistan and it must be narrowed through enhancing exports and reducing volume of imports. In this way Pakistan can save valuable foreign currency and keep its currency stable.
- The strategy of enhancing exports through currency depreciation has miserably failed because it causes price spiral in domestic market and trigger inflation. In such a condition, Pakistan gives more goods and services to foreign buyers and get low prices in return. In this way, Pakistan loses more than it gains. So this strategy should be abandoned.
- The better strategy is to improve the quality of products and services to fetch premium prices from international market and it could be done by opting latest technology and skill of labor force.
- The empirical results of this study suggest that Pakistan must focus on developing industry on modern line by opting latest technology so that it may be able to produce premium quality products to earn high prices in international market. Similarly, it must focus on the develop net of human resources by enhancing their working capacity and skill.

8 Limitation of study

In this study we used the time series data of 37 years ranging from 1985 to 2018 to determine the impact of devaluation on the performance of oil sector

of Pakistan economy. Only oil sector has been included in this analysis to ascertain effects of high oil prices and devaluation on this sector. In future the analysis may be expanded to other sector to measure the impact of devaluation on different sectors or on the whole economy. The panel data can be used to check the effect of devaluation on multiple sectors.

9. Contribution of study

Although this analysis is restricted to determine the effects of devaluation and oil prices on the performance of oil sector of Pakistan. In this way it is apparently specific study, its results can be generalized and be applied to all oil importing countries which are spending more than 60 percent of their tax revenue on the import of oil and they have to seek loans from foreign donors to finance their development projects.

This study has contributed by way of highlighting the fact that economic theory of devaluation which postulates that the countries facing trade deficit should depreciate their currency to improve their competitiveness in international market. This prescription is an integral part of International Monetary Fund for all countries facing trade deficit. But this prescription has miserably failed in the developing countries which are producing primary goods due to lack of technology and unskilled labor. The underlying insight of this empirical study is that the developing countries like Pakistan should focus on the quality of their products and stability of their exchange rate in order to save the economy from unhealthy fluctuations.

The stabilization policy based on depreciation of currency most of the time have proved counterproductive and the siting government would have to resign due to unpopularity or failure to manage financial crises produced as a result of abrupt devaluation on the advice of foreign donors. Another

contribution of this study is that the countries having weak economies must think before act and take policy actions in the light of ground realities and domestic economic condition and per capita income of the people because most of the times the suffering of low or medium income segments of the society is increased, making their survival difficult. The developing countries must apprise the foreign donors of their domestic economic conditions and possible effects of harsh conditional ties attached with foreign findings.

Moreover, the oil importing countries must reduce their heavy dependence on imported fossil fuel to reduce their trade deficit as well as to control environmental pollution and rising level of emission. This can be done by using pollution-free energy resources, like wind energy, tidal energy, nuclear energy, solar energy and biodiversity. People must be encouraged to use clean energy resources to keep the environment clean through media campaign. Similarly, the people must be informed of the chronical effects of pollution on human health and diseases developed as a result of emission, which involves heavy cost of treatment.

The insight of this study for policy makers of all developing countries particularly those which are dependent on importing oil and facing trade deficit should revise their economic strategies by abandoning traditional economic theories which were developed in developed countries keeping in view their indigenous economic condition. The economies of developing counties are impact and mostly monopolized which mostly give benefit to vested interest and sometime public policies create distortion and rent-seeking. So the economic planning and strategies must be rationalized in the light of available financial resources in order to reduce dependence on foreign loans.

It will definitely create stability in the economy and improve the well-being of the people.

Data availability statement

Data that supports the findings of this study will be made available on request by authors.

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Note on contribution of Authors

Both authors jointly carried out this research study and collaborated each other. The author 1 collected data, conducted its statistical analysis. He e prepared initial draft of manuscript. The Author 2 helped Author 1 in selected of title of research, guided in statistical analysis and formatted final draft of manuscript. Both authors carefully read final draft of manuscript and find it fit for publishing. Both authors fully followed ethical values during the course of this research work.

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