CAUSES OF TRADE DEFICIT AND ITS IMPACT ON PAKISTAN'S ECONOMIC GROWTH

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ABSTRACT-_The main objective of conducting this research is to assess the causes and impact of trade deficit on the Pakistan's economic growth. When the trade deficit increases it will have negative effects on the stability of trade of a nation. For this study, we collected time series data for the period from 1980 to 2017 from World Bank, IMF, State Bank of Pakistan and Economy survey Pakistan. We have taken Trade Deficit (TD) as dependent variable and Foreign Direct Investment (FDI), Gross Domestic Product (GDP) and trade Volume (TV) as independent variables. ARDL and Error Correction model (ECM) was applied to see the short term and long term effects of trade on economic growth. Our results reveal that foreign direct investment has a positive impact on trade deficit in long run but in short run it is insignificant. Similarly, trade volume and GNI has both negative and positive relationship with trade equilibrium in short run as well as in long run._

**Keywords:** Trade Deficit, Foreign Direct Investment, Gross Domestic Product,

Trade Volume, Pakistan.

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1.INTRODUCTION:

1.1 Background of study:

Trade, includes transfer of services or products from one individual or entity or a nation to another, often in exchange for money. Trade deficit is described as difference between imports and exports of a nation. A nation is said to be in state of trade deficit when the income of a nation's exports is less than the cost of nation's imports. The association between growth and trade deficit has been a hot topic of among researchers. In today's world, no one can refuse the importance of Globalization. World trade has increased capital and goods mobility. International trade has turned out to be very important for every country around the world - be it large or tiny, developing state or developed nation. Trade stability is a main determinant of expansion in any state, as excess increases GDP and shortage cuts it. Unluckily in Pakistan, Trade stability has never observed a surplus over the years. Initially, a trade deficit is not an awful thing. It increases nation's living standard. Its citizens have right to use a broader range of goods or services for paying even higher prices. A trade debt shows that the people are feeling positive and rich enough to purchase extra goods and services than the nation produce. Trade deficit have the adverse effects on the economy. Trade deficit occurred when imports are more as compared to exports. The Government and State Bank of Pakistan have actually failed to decrease import volume of the country. Foreign reserves of Pakistan quickly depleting. Government is in difficulty to make payment of excessive imports, that's why foreign currency against the domestic currency is strengthen which results in imports of products or services becoming more expensive in Pakistan as compared to exports, causing devaluation of Pak Rupee vis-a-vis US dollar. Pakistan suffered by a big trade deficit for many decades as the imports have been rising much faster than the exports. The increase in domestic demand because of strong economic growth improved the level of investment which finally enhanced the nation's imports

demand. With the structural change in Pakistan's financial system, there had been increase in the demand of capital goods and industrial raw material as well as consumer goods. On the other hand, the efficiency of any country's global trade plan mostly relies upon scale of income and price elasticities of its exports and imports as well as exchange rate and instability of exchange rate which involves the trade liberalization, removal of trade restriction, and rationalization of tariff and protectionist trade policies by advanced countries.

1.2: Problem statement:

A trade deficit occurs when a country does not produce all goods and services it needs. Most nations must borrow from foreign states to pay for the imports. Therefore, a country with a trade deficit will also have a current account deficit. Pakistan has been facing current account deficit and it has been struggling to reduce it through different policy initiatives. We have intended to investigate the causes of this problem and to suggest its solution.

1.3 Objectives of the study:

- ❖ To examine the causes of trade deficit in Pakistan.
- ❖ To measure the impact of trade deficit on Pakistan's economy.
- ❖ To examine the relationship between Trade deficit and Economic Growth.
- ❖ To make recommendations how to reduce trade deficit.

1.4 Significance of the study:

This research is significant in terms of its theoretical and practical contribution to the existing body of knowledge. A lot of work has already been done on this topic but there is sufficient space to conduct further research on it. We do hope that this research study will be helpful for policy makers to manage trade deficit and increase exports. This study will also useful for researchers

2. LITERATURE REVIEW:

A lot of work has already been done o examines the causes of trade deficit and its effects on economic growth. We explored previous studies relating to our topic and they are briefly stated as under: -

Shawa & Shen (2013) examined the causes of trade balance and found the core reason of the trade deficit of Tanzania. They used the augmented Dickey-Fuller (ADF) and Phillip-Peron (PP) unit root tests to assess the nature relationship between variables. Actual GDP, relative GNI, real exchange rate and import weighted index and open that import weighted index used as variables. The overall test explains that all variables contain a unit root at levels while those were found to be static at the first difference.

Zada et,al (2010) studied the causes of exports of Pakistan. The aim of the study was to find out the relationship between trade and economic growth, using a time series data over the period 1975-2008. OLS method was applied for result. The findings suggest that exports of Pakistan are much sensitive to changes in world demand and world prices. The study established the importance of demand side factors like world GDP, Real exchange rate, and world prices to determine the exports of Pakistan.

Mohammad (2010) analyzed the long run and short determinants of trade deficit in Pakistan. Annual data for the period of 1975 to 2008 was used. For long run Johansen co integration technique was applied, while Vector Error Correction model was used for short run analysis. Foreign income, domestic consumption, real effective exchange rate and foreign direct investment are the variables tested. Results showed that all the variables have a significant effect on the trade deficit in Pakistan.

Perera (2009) examined the role of FDI, trade and employment in the financial growth of Sri Lanka. For estimation time series data was used for the period of 1965-2007. Ordinary least square (OLS) model was used to estimate the variables. Foreign debt (FD) used as a dependent variable while labor force (LF) and trade openness (TO) were used as independent. The results show that in the long-run, labor force-

trade openness and foreign debt have a positive impact on economic growth of Sri Lanka.

Bader (2006) studied the impact of trade deficit (exports and imports) on the growth of a country. The aim of this study was to estimate the relationship between export and trade deficit. The results found the share of consumer goods in total imports contract from 30 percent in 1960-61 to 16 percent in 1969-70.

Duasa (2007) examined the short- and long-run relationships between trade balance, RERs, income, and money supply in the case of Malaysia. Using the ARDL co-integration approach, he found a positive but statistically insignificant relationship between the trade balance and exchange rate. The money supply and domestic income had a strong negative and positive impact on the trade balance.

Aqeel & Nishat (2005) analyzed causes of increase in foreign direct investment. The aim of the study was to check the link between economic growth of a country and foreign aid by using time series data of 1960-2003. They applied co-integration and error-connection techniques for analysis. Trade, fiscal, economic liberalization and FDI in Pakistan were the variables used in this study. The relationship among these variables shows significant.

Awan and Aslam (2013) examined the effect of trade deficit on economic growth of Pakistan. The purpose of this study was to identify the factors that affect the economy of Pakistan. Secondary data was used in this study with sampling period of 24 years that is 1988-2011. Ordinary least square technique was applied in this study to draw the results. This study suggests the Pakistan's exports consisted of cotton, leather, gem stone etc. in their raw form. Instead of this we should establish industries and export finished goods after value-addition.

Jayachandran (2013) measured the impact of exchange rates on trade and GDP. The core function of the research was to investigate the effects of exchange rate on business in India. He uses time series data for the year 1970 to year 2011. Exports, imports, exchange rate and foreign investment are the variables used in this research.

The study results verified actual export and import that are co-integrated with exchange rates instability, real exchange rates, gross domestic products and foreign economic actions. His results revealed that the exchange rates have significant negative impacts on real exports and imports, mean that higher exchange rates rise and fall have a tendency to cut real exports in India. He recommended exchange rate stay stable yearly so the overseas investment will rise. GDP can effect when exports of a country increases over imports, so a country should always try to produce their own goods for use rather than importing them.

Adam and Bevan (2003) examine the Fiscal Deficits and Growth in Developing Countries. The study is to observe the relation between fiscal shortage and expansion. Panel data from 1970-1999 was used in this study. ARDL method was in the study. Where dependent variable was Per capita GDP growth per year along with Non-tax revenue, development Expenditure, and Expenditure Interest on debt and Net Lending as independent variable were used in this study.

Awan (2015) analyzed the Impact of Financial Development on Trade Balance. The objective of the study was to examine the relationship between financial development, trade balance, exchange rate and inflation. Time series data for period of 1972-2014 was used. ARDL (autoregressive distributed lag) approach applied on the variables for co-integration. He found that financial development and inflation have positive significant impact on trade balance and exchange rate has negative significant impact on trade balance.

Hossain and Alauddin (2005) reviewed the process of Bangladesh''s trade liberalization and its impact on the growth and structure of exports, imports, GDP and other macroeconomic variables with particular emphasis on export. By using econometric investigation based on the ARDL and the ARDL co-integration techniques they empirically found trade liberalization has had a positive impact on the growth, that is, both anti-export bias reduction and import-GDP ratio have significantly impacted on exports in the long run.

3 THEORETICAL FRAMEWORK:

According to Hussain & Ahmad (2008), Pakistan is facing a huge trade deficit during last decades due to fast growth of imports as compared to modest exports. Strong economic growth causes ascending domestic demand that increased investment level that leads to increase the nation's imports requirements. Structural transform in Pakistan's financial system give rise to considerable increase in imported capital supplies and industrial unrefined resources at the cost of imported consumer products. Though, efficiency of any nation's global trade policy frequently relies upon the extent of earnings and cost elasticity of its imports and exports as well as it depends on exchange rate and instability of exchange rate which deals with trade openness, elimination of restrictions, and validation of tariff arrangement and protectionist trade policies. As the conventional import demand hypothesis has a microeconomic basis, it is lying on the consumer theory of demand, and this theory states that the aim of the consumer is to maximize satisfaction. Extent of individual demand for imports establishes the total imports demand for the economy.

Falk (2008) defines the factors of the trade balance. A substantial decline of the real exchange rate index effect as an improvement of the trade balance. He explains impacts of effective exchange rate index, real foreign and GDP per capita and the government finances stability on the trade balance. It is necessary to find out the key factors which influence the trade balance and to identify if there is variation in the trade balance across countries according to time. The determinants of the trade balance have examined empirically. Some studies focus on bilateral trade balance while some studies tell about total trade stabilities. But this study will explore the causes and impact of trade deficit on economic growth with special reference to Pakistan.

4. RESEARCH METHODOLOGY

4.1. Data source and time period:

In this study, time series data is used covering the period from 1990-2017. The secondary data for the variables Gross domestic product, Gross national income, Foreign direct investment, Trade volume and trade deficit are extracted from State Bank of Pakistan, Federal Bureau of Statistics and Economic survey of Pakistan, IMF and World Bank database.

4.2 Model Specification:

In this model, we used Trade deficit as dependent variables and Gross domestic product, Gross national income, Foreign direct investment, Trade volume as independent variables. So our equation of the model is engraved as:

$$TD = f (GDP, FDI, TV)$$

Where

TD = Trade Deficit

GDP= Gross Domestic Product

FDI = Foreign Direct Investment

TV = Trade Volume

Our econometric model is as

$$Log (TD) = = \beta o + \beta_1 GDP + \beta_2 FDI_+ \beta_3 TV + \mu$$

4.3. Estimation Techniques:

This study was carried out to explore the causes of the trade deficit and its impact on Pakistan's economy during 1980-2017. Trade deficit was taken as dependent variables while explanatory variables include: GDP, FDI and TV. Following techniques are used to analyze the data.

1. Unit Root test
2. The Auto-Regressive Distributive Lag Approach

5. Descriptive Analysis

The descriptive statistics is shown in table 1. This table shows the value of mean, median, maximum standard deviation, kurtosis and J.Bera.

Table 1: Descriptive Statistics

	TD	FDI	GDP	TV
Mean	73.8707	5.9910	4.2461	54.3356
Median	77.0502	4.0300	3.8500	54.5715
Maximum	89.9947	7.8800	7.7000	62.3961
Minimum	50.1909	2.9910	1.0000	45.5805
Std. Dev.	13.7217	1.889	1.8208	4.75928
Skewness	-0.4317	0.566	0.4133	-0.1126
Kurtosis	1.8595	2.920	2.4908	2.0894
Jarque-Bera	2.9942	2.994	1.0213	1.4665
Probability	0.1388	0.1930	0.6000	0.4803

Mostly central tendency is described by mean value. Mean is calculated by taking sum of all values and dividing the sum on number of observations. In this table the mean value of TD is 73.8707 which show that the TD has a serious impact on the economy of Pakistan. For the purpose of assessment, we used the standard deviation estimation.

The skewness is positive if its value is larger than zero and negative then it is asymmetric if its value is less than zero and when equivalent to 0 then it is termed symmetric skewed. Our data confirm that TE and T are inversely skewed at the same time as EM, GDP, IT and INV are positively skewed. Karl Pearson set up the kurtosis for calculate the characteristic of peakedness or levelness of bend. At the point when the pinnacle of bend is high B2 >3 when it is Leptokurtic. At the point when level topped bend B2 < 3 then it is Platykurtic. For typically topped circulation B2 = 3 (Mesokurtic). The estimation of Kurtosis proposes that INV is Leptokurtic. TE, EM, GDP and IT are platykurtic. Only T is mesokurtic. M.Jarque and Anil K.Bera gives the JarqueBera explore J.B try that review the typicality of the dissemination identify that every factor in general is isolated as shown by their P values.

4.2 ADF test for Unit Root

Table 2 describe results about the ADF test. In this test we analyze about stationary of the data.

Table 2: Unit Root test

Variables	t-statistics	Probability	Decision
FDI	-6.355442	0.0000*	Stationary
LEG	-1.793132	0.0696**	Stationary
GDP	-9.857932	0.0000*	Stationary
TD	-7.470530	0.980**	Stationary

Significance at 1% and 5% is shown by *and ** respectively.

This table 2 shows when all the variables are stationary on level then we applied OLS model for estimation. When the variables are stationary at 1st difference then we will apply Johnson approach. In given data, several variables are stationary at 1st difference and a few are stationary on level. Our data fits in ARDL. So, we applied ARDL, so that accurate results can be obtained.

Table 3 Results of ARDL Model

R-Squared	0.731374	Mean dependent Var	1.499403
Adjusted R-Squared	0.526707	S.D. dependent var	0.587232
S.E. of Regression	0.397027	Akaike info criterion	1.294667
Sum Squared resid	3.318584	Schwarz criterion	2.027177
Log likelihood	-7.596751	Hannan-Quinn criterion	1.555221
F-Statistic	3.573374	Durbin-Watson stat	2.069960
Prob(F-Statistic)	0.003599		

Source: Calculated by E-views 9.5

The range of R square value is 0-1. When the value of R square is between 0-1 or nearer to 1 then this shows that model is the goodness of fit. When the value is more close to the one then the model is considered as more accurate. When the

value of R square is below then 0 or above to the 1 then it shows that our model is not correct. In this model, R square has value 0.731374 which is considered as near about 1. This value tells that our model is good. The value of Durbin Watson is 2 that show there is no auto correlation among variables.

4.3 Bound Test

First of all, we want to know t whether there is long run correlation exist among variables or not. We applied bond test for this verification weather the variables having long run relationship or not.

Table 4: Results of Bound Test

F-statistic		5.932505
Critical value bound	LB	UB
Significance10%	2.45	3.52
Significance5%	2.86	4.1
Significance2.5%	3.25	4.49
Significance1%	3.74	5.06

Source: Calculated by E-views 9.5

The value of F-statistics is bigger than upper or lower boundaries, its shows that the long run correlation exists in our model in co integration.

5.4 Estimates of long Run Coefficients of the Model

Table 5: Coefficient of Long Run Relationship

Variable	Coefficients	Std. Error	t-Statistic	Probability
C	-4.007759	5.452515	-0.735029	0.0470
LFDI	0.625407	0.410911	-1.836772	0.0804
LEG	0.625407	0.410911	1.522000	0.1429
LGDP	0.304408	1.072721	0.283772	0.0470

Source: Calculated by E-views 9.5

Table 5 indicates the long run relationship of ARDL model. Our long run relationship shows that GDP value is 0.304408 which is negatively significant. If we decrease trade deficit, then GNI would increase, which affects GDP. FDI positively significant and related to GDP due to this effect GDP increased for short run then it becomes burden for economy. If we increased 1 unit in our trade volume, then our trade deficit would decrease and it would affect GDP positively.

Table 6: Coefficient of short run relationship

ARDL(2, 3, 2, 2, 3)				
Dependent Variable =	TD			
Variable	Coefficient	Std. Error	t-statistic	Probability
D(FDI)	0.362021	0.171097	2.115887	0.0565
D(EG)	-0.073317	0.777494	-2.66666	0.0144
D(GDP)	-4.176744	1.332969	-1.333414	0.0050
ECM(-1)	-1.237759	0.231159	-5.354572	0.0000

Source: Calculated by E-views 9.5

Table 6 shows the long run relationship among variables. FDI has positively significant effect on GDP, its means that if one unit increases in FDI, there would be 0.25% increase in GDP. Error correction model tells us about the speed of adjustment. GNI is another factor that is significantly related to trade deficit, but is negatively significant effect on trade deficit. The coefficients of error correction value

is-0.063 significant at 1% level. Highly significant negative sign of the error correction model reinforces the existence of long term relationship among the variables. However, the speed of adjustment from previous year's disequilibrium in manufacturing value added to current year's equilibrium is only 6.3%. The error correction value always lies between 0 to -2.

Figure: 1   Histogram Normality Test

Series: Residuals	
Sample 1978 2015	
Observations 38	
Mean	1.83e-15
Median	0.019083
Maximum	0.646240
Minimum	-0.908691
Std. Dev.	0.299485
Skewness	-0.527820
Kurtosis	4.072203
Jarque-Bera	3.584660
Probability	0.166572
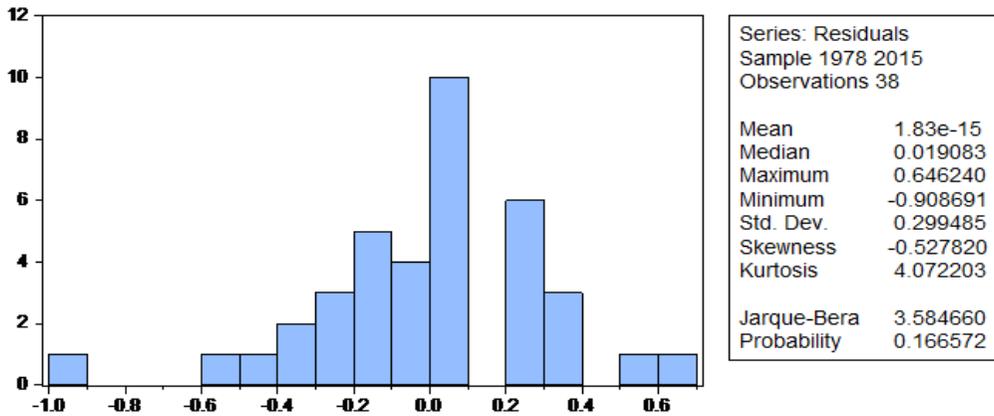
5.5 Stability Test

The data shows that coefficients in our anticipated models are stable as the diagram of CUSUM and CUSUMS statistics lies in the critical bounds. The non-existence of discrepancy in CUSUM and CUSUMS diagram validate that in our ARDL Models, long term and short term results are constant.

Figure 2: CUSUM Test
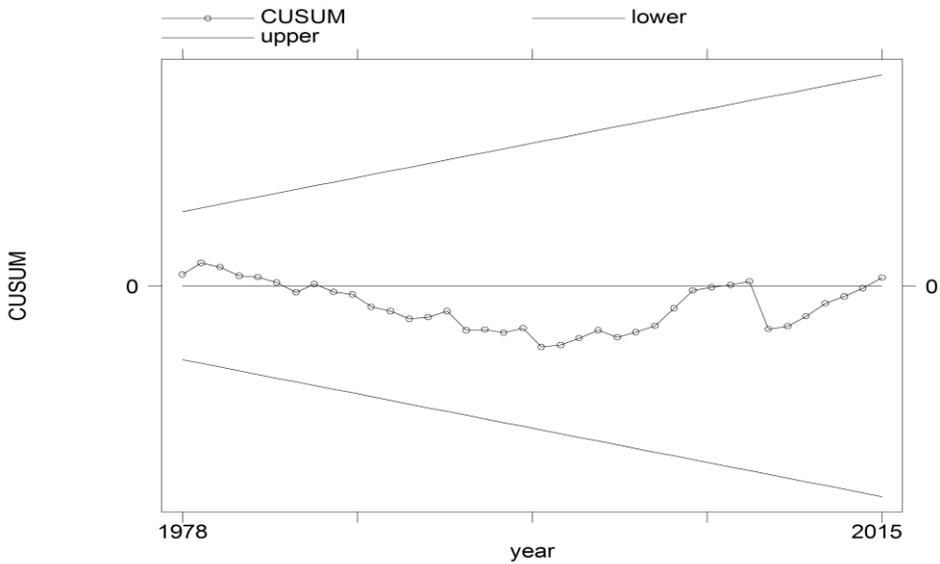
CUSUM 5% Significance level

The cumsum test and cumsum square test are carried out for stability of variables. These tests plot indicate parameters stability in the model over the sample period. In the figure, the straight line shows the critical bounds at 5% significant level.

Figure 3: CUSUM Squared Test
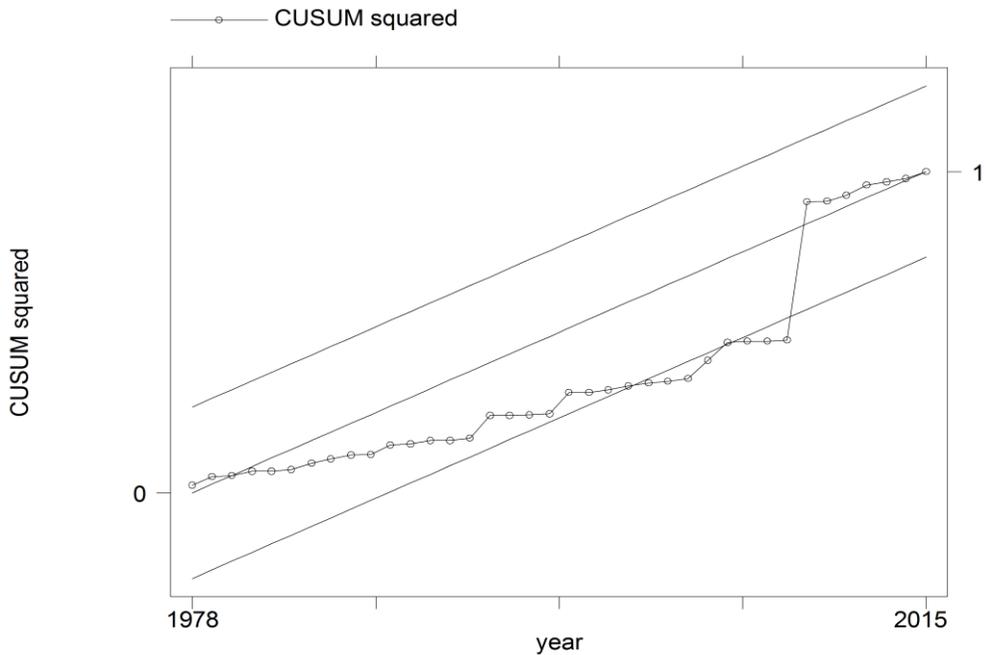
CUSUM of Squares 5% Significance

The constancy in long and short run reflection is test by the CUSUM of squares. The figure of CUSUM square deceits by red lines that severe margins lines at 5% level, hence, it illustrates the level of significant. It shows that our model is exact and perfect proved.

6. FINDINGS AND DISCUSSIONS

We briefly discuss the findings of our study in the following:

The coefficient of foreign direct investment has positive effect on dependent variable that is trade deficit in both long and short run. It means when the foreign direct investment increases in a country the deficit in trade tends to be reduced. The coefficient of trade volume shows the negative effect on dependent variable in short run while it has positive effect in long run.

The coefficient of gross domestic product (GDP) indicates negative effect on dependent variable in short run and has positive effect in long run as when GDP growth rate is higher it will reduce trade deficit. The value of R square is 0.731374

which indicates that model is good. The value of Durbin Watson is 2 which show there is no auto correlation among variables. The value of F-statistics is 3.573374, indicating that explanatory variables in the model collectively have significant influence on the trade deficit of Pakistan.

6. CONCLUSION

This research was conducted to measure the effects of trade deficit on the Pakistan's economy. Trade deficit was dependent variable whereas gross domestic product, foreign direct investment, exchange rate were independent variables. To examine the long run association between the variables the ARDL bound test was applied.

Our results show that co-integration exists among variables for long run. Foreign direct investment has positive and substantial impact on trade deficit in long run but in short run, it is insignificant. Similarly, trade volume and GNI has both negative and positive relationship with trade equilibrium in short run as well as in long run, respectively. The value of lagged ECM has indicated negative and significant impact, which shows the velocity of adjustment from instability to stability. Pakistan's Gross domestic product (GDP) is incredibly low as government does not employ the natural resources. When Government of Pakistan has intended to exploit the natural resources it will increase GDP as well as exports. Pakistan's exports are stagnant due to in competiveness and lack of value addition and innovations in services and goods. Similarly, the volume of foreign direct investment is very low and the government should take policy initiatives to enhance it. Continuous devaluation of Pak Rupee and wild fluctuation in exchange rate is one of the major cause of instability in the economy.

7. POLICY IMPLICATIONS

The policy implications of this study are stated in the followings; -

❖ Pakistan's exports are consisted of raw materials instead of this we should setup high tech industries sector and exports finished goods.

❖ Pakistan's imports are consisted of huge quantity of petroleum products and edible oil. We should reduce the imports of these items by opting alternate cheap sources in order to reduce trade deficit.

❖ European Union imposed anti dumping duties on import which adversely affected Pakistan's exports. It is suggested that diplomatic channels should be used to take more concession in this regards.

❖ The Government should impose more taxes on imports of foreign goods in this way the demand for expensive imports decreased and it will lead to reduce burden of payments.

❖ SME (small and medium enterprises) are also playing a significant role in Pakistan's export along with facing problem and challenges of different kinds, so it is suggested that the government should focus on the measures to sort out the problems and challenges.

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CONTRIBUTION OF AUTHORS AND CONFLICT OF INTEREST

This research work was carried out in collaboration between two authors.

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Both authors read the manuscript carefully and declared no conflict of interest with any person or institution.