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EXPLORING THE LINKAGES BETWEEN INVESTMENT AND ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM PAKISTAN

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ABSTRACT

This research purpose is to analyze the impacts of foreign direct investment (FDI) in Pakistan for time period of 1980-2017 the time series data is chosen by the world development bank. So by considering on past results I have check the present results in this paper by using ARDL model and my variables are GDP, FDI, Exports and Remittances and conclude that FDI is insignificant in short and long run and export are significant and both short and long-run cases so the government of Pakistan or policymakers just need to focus on export promotion because Pakistan as a developing country must need to improve its exports and results also conclude that exports are more significant. Some of the export promotion recommendations are to provide subsidies to exporters and need to provide quotas to improve the exports and there is also a need to focus on some policies to improve domestic industries.

Keywords: FDI, Economic Growth, ARDL Bound Testing method, Pakistan
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I. INTRODUCTION

Exploring the linkages between investments like Foreign Direct Investment (FDI) on the economic growth of Pakistan is the main aim of the paper. FDI is very famous factor for any country and it has a lot of shares for the welfare of the economy. In the economy like Pakistan there are so many factors available whose purpose is to motivate FDI contributing positively, like a researcher analyzed the difference between growth and FDI for 1960-1995 and found that the relationship depends on trade, education, financial and economic development of the home country Carkovic et al. (2002). Same as a very famous observer observes that foreign investment has no significant impact on economic growth in China for 1994-2003 (Ek, 2007). In the previous research it concludes that FDI harms Pakistan's economy for 1981 2010 Saqib, et al. (2013). In the research he discovered that FDI increases the economic growth of the developing and developed countries by technology and capital inflow 1980-2002 Johnson (2006). Zhang (2001) examines that FDI is suitable for those countries whose domestic industries are more stable and their trade policies are liberal. [Bornschier and Chase-Dunn (1985) and Adams (2009)] concludes that dependency theories tells that if we depend on foreign investment then it creates a poor impact on growth and income distribution because it makes single ownerships which harm domestic resources. Ojewumi & Akinlo (2017) cites that FDI can improve the economy of any country and brings happiness and reduce inflation in the organizer country. So, the foreign investment will either affect negatively or sometimes positively it depends upon the economic situation of the economy. Developing country such as Pakistan may also depend on FDI and it has a very good impact on the economic growth and stability of the country. In the discovery it concludes that FDI can improve the economic growth of Sub Saharan Africa from 1980 to 2009 Juma (2012). FDI and economic stability can both interlink with each other in Indonesia from 1997 to 2006 Khaliq (2007). Pakistan is the underdeveloped country and main focus of the economist is to control BOP and improve the economy of Pakistan and brings prosperity and reduce inflation before the incidence of 9/11 Pakistan's political condition was stable and economy of Pakistan is improving but after that incident, Pakistan faces a lot of terrorism and political instability due to which foreign investors can get out their investment and they left the country due to which economists main focus is on FDI because FDI plays a vital role in the economy. This paper in which we are working at can check the role of Investment and its advantages and disadvantages on the economic stability of Pakistan by using ARDL estimation method to check the long run and short impact on dependent and independent variables and then we conclude results and recommendations by following the results and we can also compare ours results with different articles by comparing results. In this topic, a lot of researches is done by different researchers but at present, there is no new research that has been done so our main aim is to check and recommend the present requirement for the Pakistan economy to be done for the welfare of an economy. The paper is specifically categorized into different parts in which we can discuss literature review, Data sources, and methodology, empirical results, conclusions, and policy advancements.

II. LITERATURE REVIEWS

There is a plethora of literature available from the perspective of investment and economic growth. We include some of them. Foreign investment and economic growth are the main determinants and for developing countries, both determinants are the main objective which they must be achieved at any cost. The economy of Pakistan is struggling to get the foreign investment back because some economists and policymakers believe that foreign investment has a direct affected on the overall economy and economic stability of the economy so the main aim is to maximize FDI and this FDI will boost the overall performance of the economy (Ojewumi & Akinlo, 2017). Since due to some reasons Pakistan will not be able to fulfill its task to achieve the maximum level of FDI but the struggle is still being done by policymakers and economists to make such policies which attract foreign investment to come in Pakistan one of the best measure to attract foreign firms is CPEC. FDI reduces the stress on the overall resources of the country and helps to improve the economic growths and to reduce an inflation it also helps to improve infrastructure and to improve the economically stability of the country and in Pakistan, F.D.I is most effective. Some sites belong to F.D.I and economics-growth is as follows "venture made to achieve ensuring enthusiasm for undertaking working outside of the economy of the financial specialist"(Epstein & Buhovac, 2014; Jilenga, Xu, & Gondje-Dacka, 2016). Moosa, 2016; Shen, 2015; Subedi, 2016) also define FDI as an investment which is made by any person in the company or country belongs to another economy in another part of the world on ownership investment and interest basis.

Pakistan has an ideal geographical location due to which it attracts the foreign firms to come and invest in Pakistan and now day by day Pakistan is moving towards the stability because the national security forces are very active to bring peace in Pakistan and peace situation is improving day by day so this is the positive point for Pakistan to

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attracts the foreign companies so if the foreign investors start investing in Pakistan then Pakistan FDI will increase and the economy of Pakistan will boost so this is also the key linkage of investment on the economic growth of Pakistan.

Falki, (2009) says that in a present situation, some research shows that FDI has not performed any role to enhance the economic condition of Pakistan. Some other researchers had other opinions on FDI impact in the case of Pakistan which shows that in 1981-2008. Foreign investment is the boosting factor of GDP in the long run (Khan and Khan 2011). And there is bidirectional bounding between FDI and economic growth Iqbal et al. (2010). Ojewumi & Akinlo (2017) in his topic says that the linkage of FDI during the era of 1960-1980 has a cyclic position on economic improvements but in the period of 2000-2006 FDI effects on economic growth has healthy and positive effects because a lot of foreign investors focus on Pakistan for investment and they invest in different sectors of Pakistan and their main focus is on the labor and trade and HRD points. Zekarias (2015) examined that impacts of FDI on economic growth within the region of eastern Africa for the period 1980-2013 using different variable like FDI, growth rate per capita GDP, domestic private investment, human capital, and labor force. He concludes that FDI is the main factor or determinant of economic growth so there must be any policy to attract foreign investment.

The research examined that Foreign investment will greatly affect the economic growth in different regimes like export advancement rather than imports substitution for Pakistan from 1970 to 2001 Atique et al. (2004). Juma (2012) has examined that FDI has a good impact in the case of sub-Saharan Africa from 1980 to 2009. Khaliq (2007) has also stated that the inflow of investment (foreign) in the case of Indonesia is positively correlated with economic growth from 1997- 2006. Melnyk et al., (2014), Juma, (2012), Khaliq (2007) by studying different literature we conclude that FDI impacts on different economies are different. Saqib et al., (2013) FDI has positive impacts on developed countries and in underdeveloped countries, the results are different like FDI has a negative relation in underdeveloped countries (Falki, 2009; Saqib et al., 2013; Khan and Khan, 2011 Ali, 2015; Ali and Rehman, 2015).In my case, our main objective is to focus the impacts of F.D.I on economics-growth in the case of Pakistan because in different studies the results of impacts are different in the case of Pakistan. Then in our study, we are going to find out the recent results on the impacts of investment on economic growth because the previous results are different and no recent study has been on it so we can check the impacts based on recent results.

III. DATA SOURCES

Variable Name	**Data Source**
Gross Domestic Product	World Development bank, 2018
FDI	World Development bank, 2018
Exports	World Development bank, 2018
Remittances	World Development bank, 2018

The data of Pakistan is taken from a deemed reliable source which is the world developments bank. The time series data are taken from1980-2017. Where GDP are dependent variable FDI, Exports, and Remittances are independent variable, where subscript t' represents the respective variables at time.

IV. METHODOLOGY

Following the previous methodologies, Ali (2011), Ali (2015), Ali (2018), Ali and Bibi (2017), Ali and Ahmad (2014), Ali and Audi (2016), Ali and Audi (2018), Ali and Rehman (2015), Ali and Naeem (2017), Ali and Zulfiqar (2018), Ali et al., (2016), Arshad and Ali (2016), Ashraf and Ali (2018) Haider and Ali (2015), Sajid and Ali (2018), Ali and Senturk (2019), Kassem et al, (2019) and Ali and Bibi (2020).

the model of this study becomes as;

$GDP = f(FDI_t, X_t, REM_t)$ (1)

The econometric model of Equation (1):

$GDPt = \alpha 0 + \alpha 1XFDI_t + \alpha 2X_t + \alpha 3REM_t + \varepsilon_t$ (2)

By taking Log of the GDP of the Econometric model.

$\ln GDP_t = \alpha 0 + \alpha 1\ln FDI_t + \alpha 2\ln X_t + \alpha 3REM_t + \varepsilon_{t\_}$ (3)

The ARDL regression model:

$$\ln\Delta GDPt = \alpha 0 + \alpha 1\ln XFDI_t + \alpha 2\ln X_t + \alpha 3\ln REM_t + \sum_{t=1}^{t=n}\beta 0\ln\Delta GDP_{t-1} + \sum_{t=1}^{t=n}\alpha 1\ln\Delta XFDI_{t-1} + \sum_{t=1}^{t=n}\alpha 2\ln\Delta X_{t-1} + \sum_{t=1}^{t=n}\alpha 3\ln\Delta REM_{t-1} + \varepsilon_t \quad (4)$$

ARDL estimation technique is applied because it is a more suitable technique to check long and short-term relationships between both variables.

V. EMPIRICAL RESULTS

this part of paper is comprised of empirical results and discussion.

Table 2. Augmented Dickey-Fuller

The Level	P-Values	First Difference	P-Value	Decisions
Log (Gross Domestic Product)	0.8001	Log (Gross Domestic Product)	0.0000	I (1)
Log (FDI)	0.0693	Log (FDI)	0.0033	I (1)
Log (Export)	0.2315	Log (Export)	0.0000	I (1)
Log (Remittance)	0.9849	Log (Remittance)	0.0005	I (1)

The results of ADF unit root test has been given in the table2. The results showo that GDP, FDI, exports and remittances are not stationary at level. But the results of unit root rest reveal that all the selected variables are stationary first difference. On the basis of estimated results, we can apply ARDL approach.

Table 3. ARDL Test

Null Hypothesis: Ho= No Long-Run Relationship Exist		
Test Statistic	Value	K
F-Test	**9.694391**	
K	3	
Critical Values		
Significance	I0 Bounds	I1 Bounds
10%	2.37	3.2
5%	**2.79**	**3.67**
2.5%	3.15	4.08
1%	3.65	4.66

The results of ARDL bound have been given in the table 3. From the bound test result, we can conclude that there exists a long-run relationship as F-test value is greater than critical value.

Table4. Long-Run Coefficient of ARDL Model
Dependent Variables ln (GDP)

Variable	Coefficients	Standard Errors	T-Statistic	P-Values
Constant	**-4.377652**	**5.581369**	**-0.784333**	**0.4420**
Ln(FDI)	0.597350	0.292547	2.041892	0.0546
Ln(Exports)	1.772077	0.527584	3.358854	0.0031
Ln (Remittances)	0.066328	0.246248	0.269352	0.7904

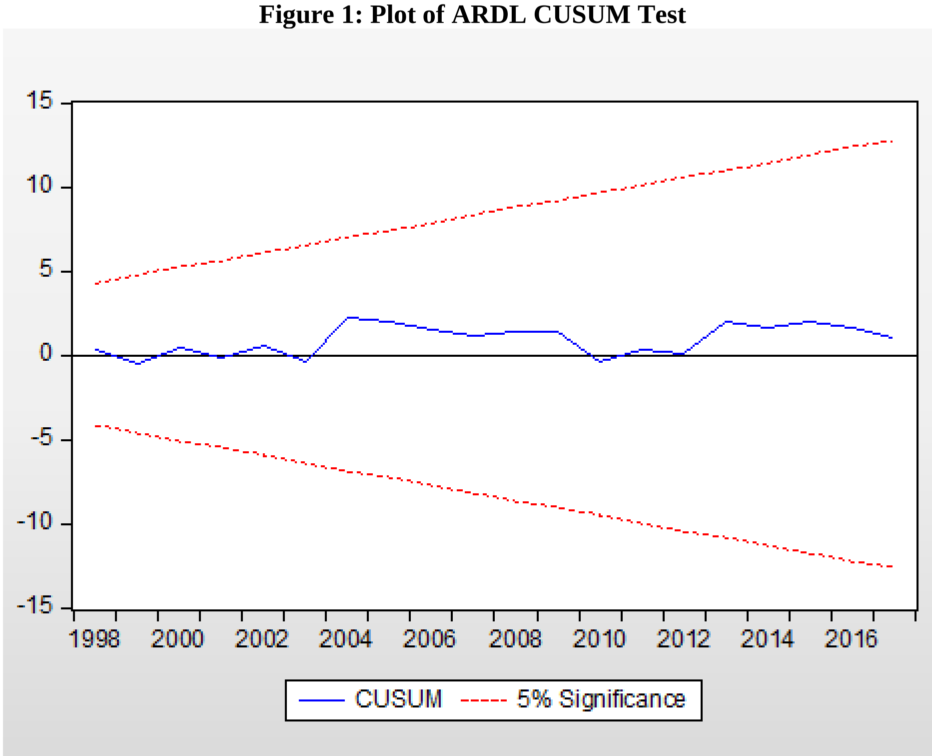
The long run results of the model have been given in the table 4. The result show that FDI and exports have positive and significant impact on GDP in the case of Pakistan. whereas remittances have positive but insignificant impact on GDP in Pakistan. The results show that 1 percent increase in FDI and exports 0.59350 percent and 1.772077 percent increased has been occurred in GDP in the case of Pakistan.

Table 5. Errors Corrections Representation of the Selected ARDL Model
Dependent Variables ln (GDP)

Variable	Coefficient	Standard Error	T-Statistic	P-Value
$\Delta \mathrm{lnGDP}_{t-2}$	-0.491.82	0.152449	-3.223267	0.0043
$\Delta \mathrm{lnREM}_{t-1}$	-0.77353	0.29419	-2.629347	0.0161
$\Delta \mathrm{lnFDI}_{t-2}$	-0.021449	0.006664	-3.218626	0.0043
$\mathrm{CointEq}_t(-1)$	-0.051432	0.006744	-7626686	0.0000

Vector Error-Correction Model has been used for examining the short run relationship among the variables of the model, the outcomes of short run dynamic are shown in table 5. All the variable and their lags are significant except Remittances at the current time and second lag and FDI at the current time and first lag at a 5% level of significance. All these results show the short run time. The lag of GDP at first and second lag is significant but has a negative response. The remittances of the first lag are a significant but negative impact on the GDP. FDI at second and third lags are significant and harm the GDP in the short run. The ECM values are significant, and its coefficient is negative which shows that there are long-run relationship exists.

Figure 1: Plot of ARDL CUSUM Test



The stability of the model can be verified by using different tests. The present study has used Cumulative Sum (CUSUM) test for this purpose, which is shown in figure 1. The figure provides no evidence of structural break in the model. Hence this model gives reliable estimates to the crime rate over time. Jarque-Bera test is applied to check the normality in residuals distribution and its results ensures the normality.

VI. CONCLUSION AND POLICY RECOMMENDATIONS

The objective of this term paper was to see the linkage of FDI on the GDP of Pakistan. But the results conclude that FDI is insignificant in the short- runs as well as long- runs. The variable which is significant both in the short and long run is exported. From there it is clear we should focus on exports rather than FDI. The government should formulate such recommendations that promote exports by giving subsidies to the export sectors and by removing all barriers like quota restriction. Pakistan is a developing country so policies that promote FDI are not worthful because the economy like Pakistan is not stable. Pakistan should encourage the export policies to safe its domestic industries because if Pakistan relay only on imports then its domestic industry will vanish and problems like Balance of Payment will occur so Pakistan needs to improve its export promotion policies so if Pakistan export policies will improve then there is a chance of foreign firms to come and invest in Pakistan's market. Some export promotion policies are subsidies, tax exception, MAP, and EEP these are Export Enhancement Program and Market Access Program. EEP provides cash bonuses to exporters and MAP gives partial payment for market building so policies like these should be adopted by Pakistan also. Some steps taken to promote export by Pakistan government is the establishment of the (TDAP) which is the trade development authority of Pakistan whose purpose is to improve exports and introduce new markets and policies to boost exports.

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