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Foreign Remittances, Foreign Direct Investment, Foreign Imports and Economic Growth in Pakistan: A Time Series Analysis

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ABSTRACT

This empirical research paper focuses on establishing a relationship between external determinants and economic growth of Pakistan economy. Empirical analyses are carried out with time series econometric techniques using data over the period of 1977-2013. The main finding is that external determinants such as foreign remittances, foreign direct investment, and foreign imports matter from a growth perspective. Foreign remittances and foreign direct investment have a significant positive role in the growth process of Pakistan economy. Furthermore, it is found that foreign imports have adversely influenced the economic growth of Pakistan. The study recommends that policy makers shall take appropriate steps to increase the inflow of both foreign remittances and foreign direct investment in order to achieve the long run economic growth.

1. Introduction

Introducing Pakistan, like all developing countries, is striving hard to achieve and sustain the long run economic growth. In a globalized world, it becomes even more complicated to answer the question: 'what actually determines economic growth'. Economic growth can be influenced by various factors because of its complex nature. Domestic factors such as savings and human capital are considered important for achieving high economic growth (Solow, 1956; Romer 1988). However, external factors such as foreign remittances, foreign direct investment, and imports from foreign countries are also equally important for improving economic growth especially for developing countries (Erik and Ruiz-Arranz, 2006; Barajas et al., 2009; Azman-Saini et al., 2009; Almfrsji and Almsafir, 2014). Economic growth is important because a growing economy is in a much better position to improve the standard of living of its people, which is possible through better educational and health facilities. Contemporary research shows that economic growth promotes human development (Nourzad & Powel, 2003). Human development is indeed the goal of all economic activities around the globe.

The present study examines the impact of external determinants on economic growth. It will also provide an empirical investigation to an important research question: 'Do external factors like foreign remittances, foreign direct investment and foreign imports, affect the economic growth process of Pakistan?' In doing so, the paper used observations on foreign remittances (remittances hereafter), foreign direct investment (FDI hereafter), and foreign imports (imports hereafter) on Pakistan economy during the period 1977-2013. The economy of Pakistan is receiving a handsome amount of

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remittances from its overseas residents. In 2014, it received around $16 billion; such inflows have financed 38 percent of the country's import bill, 95 percent of the overall trade deficit, and contributed over 6 percent in Pakistan's national income (State Bank of Pakistan, Annul Report 2014). The economy of Pakistan has attracted a sizable amount of net foreign inflows in recent years, however, due to the fragile recovery of the world economy and domestic security concerns, the flows of foreign investment reduced to its regular patterns. Besides, imports also play a significant role in the growth process. Therefore, establishing a relationship between remittances, FDI, imports, and economic growth may be useful for policy makers. Policy makers could initiate appropriate policy actions towards external determinants considering their importance for economic growth.

This paper is organized in the following manner. Section two of the paper discusses relevant literature. Modeling and empirical strategy are explained in section three. Models are estimated and results are presented in section four. In the penultimate section, the long - run and short - run co-integrating relationship is discussed. Section six concludes the paper along with policy recommendations.

2. Literature Review

The relationship between external determinants and economic growth has been examined in the literature by various researchers. For example, remittances-growth nexus has been tested extensively in the literature and the results of the studies reveal significantly positive relation between flows of remittances and economic growth, but in some cases it is null like Barajas et al., (2009) who found that workers' remittances have no impact on economic growth. However, studies that support positive relationship between remittances and economic growth are many like (Erik and Ruiz-Arranz, 2006; Ahmed et al., 2011; Khathlan 2012; Shafiq et al., 2012; Driffield and Jones, 2013; Nwaogu and Ryan 2015).A relatively important study on the determinants of remittances is carried out by Kock and Sun (2011) in the context of Pakistan. In this study, they find-out the reasons that despite global economic slowdown and specially the economic downturn in the Gulf Cooperation Council (GCC) and other important host countries for Pakistani workers, the flows of remittances towards Pakistan are persistent and even growing. Their main findings were (i) increase in the labour migration that boasted the growth in the inflow of workers' remittances to Pakistan; (ii) skilled immigrants, investment returns in the host country, stable exchange rates and improvement in Pakistan's economic conditions play a strong role in explaining more resilient flows of remittances; (iii) other determinants of strong remittances flows to Pakistan are agriculture output and the relative yield on investments in the host and home countries.

As far as the impact of FDI on economic growth is concerned, Almfrsji and Almsafir (2014) have reviewed an extensive amount of literature on the relationship between FDI and economic growth for a period of 1994 to 2012. Their main findings show that the impact of FDI on economic growth is significantly positive, but in some cases it is null or even negative. However, the relationship between FDI and economic growth heavily depends on the moderating factors like the level of development of financial markets, the adequate levels of human capital, complementarities between domestic and foreign investment, open trade regimes, exchange rate policies, legal framework etc. Blonigen and Piger (2011), in the scope of a seminal article, worked-out the determinants of FDI activities. They found out about the traditional gravity variables such as cultural, distance factors, per capita GDP, relative labor endowments, and regional trade agreements. Other determinants include trade openness, host country business facilitations and ease of business, host-country infrastructure, mainly financial institutions at the level of development, and host-country institutions. Khathlan (2012) reported a positive relationship between FDI and economic growth in the short-run as well as in the long-run in the context of Pakistan economy during the period 1976-2010. Siddiqui and Iqbal (2010) used historical data from 1972 to 2008 and showed that there is a negative relationship between FDI and economic growth. FDI can influence economic growth of the host economy through multiple channels. Tahir and Imran (2014) results suggest that trade openness has contributed significantly to the growth process of the developing countries and also found that domestic investment play an important role in the process of economic growth.

The impact of imports on economic growth critically depends on the nature of imports i.e. if imports are eatable, then it is less likely that they are going to boost economic activities in the host country; however, if imports contain capital goods and new technologies, this may help to augment growth process in the importing country. Zhang and Zou (1995) investigated the relationship between technology imports and economic growth in developing countries; they found that foreign technology transfers boost income growth rates. Moreover, the nature of economic growth differs between developing and developed countries, for developing countries importing foreign plants and equipment, and borrowing foreign technology play a major role. On the other hand, the study conducted by Siddiqui and Iqbal (2005) has found that imports, exports, and economic growth are insignificantly related. However, imports are indeed important for a growing economy. Advanced technologies and equipment for the development of domestic industrial sector can only be accessed through increased imports.

These recent studies have not provided consistent evidence in favor of a robust relationship between external determinants and economic growth for Pakistan economy. The results of some of the studies show that external determinants influence economic growth positively while some others show that external determinants adversely influence economic growth. Therefore, empirical investigation of the relationship between external determinants and economic growth is indeed necessary.

3. Model and Methodology

3.1. The model

The objective of this research paper is to examine the impact of external determinants on economic growth. Based on data availability, remittances, FDI, and imports are considered in the analysis. Empirical analysis is carried out using 37 annual observations over the period 1977-2013. The following model is specified for the empirical analysis:

$$lnzgdp_t = b_0 + b_1 lnrem_t + b_2 lnfdi_t + b_3 lnimp_t + U_t \quad (1)$$

Where

$lnzgdp$ = Log of real GDP (Gross Domestic Product)
$lnrem$= Log of foreign remittances
$lnfdi$= Log of foreign direct investment
$lnimp$= Log of imports
ln= Natural Logarithm

In equation (1), real GDP is used as a dependent variable. Remittances are measured in millions of US dollars. Net foreign inflows as a percentage of GDP are used to capture FDI. Imports are also measured as a ratio of GDP. Data on real GDP, FDI and imports are obtained from World Development Indicators. On the other hand, observations on remittances are collected from the State Bank of Pakistan.

3.2. Estimating methodology

Time series data requires special care before the analysis. They are usually non-stationary in nature. Therefore, it is necessary to check the potential non-stationary problem (unit- root) in the first instance and to check the order of integration of each variable. Ignoring unit root problem would lead to spurious regression. If time series variables are non-stationary, the recommended procedure is to use co-integration techniques or differentiate the data according to the order of integration and use the differenced data in the analysis instead of the original data. Akcay and Demirhan (2005) argued that stationary variables can be modelled in levels and granger causality tests can be used, while in the case of non-stationary variables, co-integration techniques can be used for detecting the long-run relationship.

There are various econometric tools such as Engle Granger, Johansen multivariate co-integration test and the recently developed ARDL (Autoregressive Distributed Lag Models) for analyzing time series data. The ARDL approach to co-integration approach is recently developed by Peseran et al., (2001) and has been considered very effective because of its ability to handle variables of different order of co-integration and working well in small and infinite sample sizes. Therefore, this study will prefer ARDL approach to co-integration for detecting the long-run relationship, if the chosen variables are non-stationary.

3.3. Co-integration analysis (ARDL)

The bound testing approach or ARDL is recently developed. The ARDL approach to co-integration is a step by step procedure. Equation (1) can be written in the ARDL framework as below:

$$\Delta lnzgdp_t = b_0 + b_1(lnzgdp)_{t-1} + b_2(lnrem)_{t-1} + b_3(lnfdi)_{t-1} + b_4(lnimp)_{t-1} + \sum_{i=1}^{n} b_5 \Delta(lnzgdp)_{t-1} + \sum_{i=1}^{n} b_6 \Delta(lnrem)_{t-1} + \sum_{i=1}^{n} b_7 \Delta(lnfdi)_{t-1} + \sum_{i=1}^{n} b_8 \Delta(lnimp)_{t-1} + U_t + \quad (2)$$

The term with difference operators capture short-run dynamics, while the coefficients attached with first lagged terms measure long-run relationships. The null hypothesis of no long-run relationship ($b_1 = b_2 = b_3 = b_4 = 0$) shall be tested against the alternative hypothesis of the existence of long-run relationship ($b_1 \neq b_2 \neq b_3 \neq b_4 \neq 0$). The presence of long-run co-integrating relationship shall be accepted if the null hypothesis is rejected. Other coefficients such as b_5, b_6, b_7, b_8 capture short-run dynamics.

Pesaran et al., (2001) have generated two sets of values, which are known as lower bound critical values and upper bound critical values. The procedures are about to put restrictions on the long-run coefficients by running the Wald coefficient restriction test and obtain the Wald F-statistic and compare it with the lower and upper bound critical values generated by Pesaran et al., (2001). There are three possible outcomes regarding co-integrating relationship between the variables. The presence of co-integration can be accepted if the calculated Wald F-statistics exceed the upper bound critical value, and it can be rejected if the calculated Wald F-statistic falls below the lower bound critical value. On the other hand, the decision regarding co-integrating relationship would be inconclusive if the calculated Wald F-statistic lies between the upper and lower bound critical values. Narayan (2004) for example has re-generated the critical values for the ARDL approach for small samples ranging from 30 observations to 80 observations. In the present case, the Narayan (2004) critical values are appropriate because the time period of the study is limited to only 37 yearly observations. Therefore, the calculated Wald F-statistic shall be compared to the Narayan (2004) critical values to reach a decision regarding co-integrating relationship. In the second step, an ARDL model shall be estimated in order to identify the short-run and long-run relationships. Duasa (2007) has argued that different optimal lag order is possible in the ARDL approach. The long-run coefficients can be calculated from the unrestricted equation by dividing the coefficients of each independent variable on the first lag value of the dependent variable and multiplied it by a minus sign (Fahmida & Mazbahul, 2012). Therefore, the long-run coefficients for remittances, FDI, and imports can be calculated as $-(b_2/b_1)$, $-(b_3/b_1)$ and $-(b_4/b_1)$, respectively.

The next step is to develop an error correction model to examine the short-run dynamics and to check the stability of the parameters of the long-run. Based on equation (2), an error correction model is specified as:

$$\Delta lnzgdp_t = + b_0 + \sum_{i=1}^{n} b_5 \Delta(lnzgdp)_{t-1} + \sum_{i=1}^{n} b_6 \Delta(lnrem)_{t-1} + \sum_{i=1}^{n} b_7 \Delta(lnfdi)_{t-1} + \sum_{i=1}^{n} b_8 \Delta(lnimp)_{t-1} + (ECM)_{t-1} + U_t \quad (3)$$

where ECM stands for the error correction term. We expect a negative relationship between the ECM and the dependent variable. The ECM shall be calculated from the long-run normalized coefficients based on equation (2).

4. Estimation and Analysis

4.1. Unit Root Analysis

In the first instance, the potential non-stationary problem is checked through Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) test. Although ARDL procedure does not require the pre-testing of unit root problem; however, it is still important to carry out the aforementioned tests to make sure that none of them are integrated of order greater than one. The results for the ADF test and PP test are reported in Table 1.

Table 1- Unit root testing.

Panel (A)	**ADF Test**				
Variables	**Level**		**First Difference**		
	Constant	**Constant plus trend**	**Constant**	**Constant plus trend**	**Conclusion**
$lnzgdp_t$	-2.4537	-1.8659	-3.8123***	-4.5503***	I(1)
$lnrem_t$	-1.6516	-0.8306	-4.5432***	-4.8181**	I(1)
$lnfdi_t$	-2.3742	-3.4456*	-5.2035***	-5.2034***	I(1)
$lnimp_t$	-2.4802	-2.8707	-7.4101***	-7.3050***	I(1)
Panel (B)	**PP Test**				
	Level		**First Difference**		**Conclusion**
	Constant	**Constant plus trend**	**Constant**	**Constant plus trend**	
$lnzgdp_t$	-3.7334***	-1.9976	-3.7885***	-4.5679***	I(1)
$lnrem_t$	-1.2732	-1.1391	-4.4865**	-4.6699***	I(1)
$lnfdi_t$	-2.4186	-2.3290	-5.1989***	-5.2034***	I(1)
$lnimp_t$	-2.4775	-2.8958	-7.4101***	-7.3050***	I(1)

Where (***),(**) and (*) represents 1%, 5% and 10% level of significance level.

Both ADF and PP tests are applied to intercept and trend simultaneously and also to intercept alone. The results have confirmed that all of the included variables are non-stationary at all levels. However, all of them become stationary at first difference. None of them are integrated of order higher than 1, which is required for the co-integration test.

4.2. Lags selection

In order to check the long-run co-integrating relationship, we proceed to Unrestricted Error Correction Model (UECM). Before running UECM, the number of lags shall be determined by using Akaike (AIC) and Schwarz Criteria (BIC). As the data are yearly, so initially the model can be estimated with four lags, then three lags, two lags and eventually with one lag (Altintas & Taban, 2011). Then, the AIC and BIC values of the models with different number of lags shall be compared. The presence of co-integration can be checked through Wald coefficient restrictions test. It should be noted that the Wald test shall be applied to the equation, which does not have any serial correlation problem, and also the corresponding AIC and BIC values are lowest. In Table 2, the AIC and BIC values with different number of lags are reported along with LM test of serial correlation.

Table 2 - Lags selection.

No of lags	**AIC**	**BIC**	**LM (Serial correlation)**
1	-5.5708	-5.1264	6.59 (0.0369)
2	-6.1348	-5.4165	10.18(0.0061)
3	-5.9436	-5.1273	4.08 (0.1300)
4	-6.4402	-5.4363	11.76 (0.0028)

It can be seen from Table 2 that AIC and BIC values are lowest at lag 4. However, there is an evidence of serial correlation at lag 4 based on L-M test. The second lowest value can also be considered if there is no serial correlation (Altintas & Taban, 2011). The presence of serial correlation, however, can be rejected at lag 3 in the present case. We apply the co-integration test to the UECM model with three lags. The results for the co-integration test are presented in Table 3.

Table 3 - Co-integration test.

Level of Significance	Critical Values		Wald Test (F- Value)
	Lower Limit	**Upper Limit**	
1%	4.400	5.664	6.20
5%	3.152	4.156	
10%	2.622	3.506	

Source: Critical values for the bounds test: Case D: restricted intercept and no trend Narayan (2004)

The results for the Wald F-test along with critical values taken from Narayan (2004) are reported in Table 3. The calculated Wald F-test is 6.20 at lag 3, which is higher than the upper bound critical values at 1%, 5% and 10% level of significance. Therefore, we concluded that our variables are co-integrated.

4.3. ARDL estimation

In the last section, we found that the chosen variables are co-integrated. The next step is to estimate the ARDL model and identify the long-run relationship between the independent variables and dependent variable. It is possible to use different lags of the variables (Duasa, 2007). The following ARDL model is estimated:

Table 4 - ARDL model.

	Panel (A)		
Variables	**Coefficients**	**T-Scores**	**Probability**
$\boldsymbol{lnzgdp_t}$ (-1)	-0.07	-5.54	0.0000
$\boldsymbol{lnrem_t}$ (-1)	0.05	4.61	0.0002
$\boldsymbol{lnfdi_t}$ (-1)	0.03	3.92	0.0008
$\boldsymbol{lnimp_t(-1)}$	-0.25	-4.61	0.0002
$\boldsymbol{D(lnzgdp_t}$(-1))	-0.33	-2.18	0.0401
$\boldsymbol{D(lnrem_t)}$	-0.001	-0.07	0.9414
$\boldsymbol{D(lnrem_t}$(-1))	-0.02	-2.05	0.0530
$\boldsymbol{D(lnrem_t}$(-2))	-0.002	-.21	0.8281
$\boldsymbol{D(lnfdi_t)}$	0.02	2.86	0.0093
$\boldsymbol{D(lnfdi_t}$(-1))	-0.002	-0.46	-0.6496
$\boldsymbol{D(lnimp_t)}$	-0.07	-2.81	0.0104
$\boldsymbol{D(lnimp_t(-1))}$	0.05	2.13	0.0452
Constant	2.17	5.62	0.0000
	Panel (B) Diagnostic Checking		
R-Squared = 0.85**, Adjusted R-Squared =** 0.76			
LM – Test = 2.32 (0.3120), **D.W=** 2.15**, Jarque – Bera =** 1.22 (0.5428)			
White = 1.78 (0.1186)			
Ramsey = 0.79 (0.3843)			
ARCH= 0.06 (0.8064)			

The results of the ARDL model are shown in panel A of Table 4. Panel B of Table 4, provides different diagnostic tests in order to check the reliability of the model. The diagnostic tests show that the estimated ARDL model is free from any serious econometric issues. The LM test shows that the model is free from serial correlation problem. Also, there is no evidence of heteroscedasticity because the ARCH and White test are insignificant at 5 percent level. Further, the Ramsey test and Jarque – Bera tests show that the functional form is correct and the distribution is normal. Therefore, the estimated ARDL model is reliable.

In the next step, the long-run coefficients of the independent variables can be calculated from the estimated ARDL model. The procedure is to divide the coefficient value of each independent variable on the first lag value of the dependent variable and multiply it by a negative sign. The long-run coefficients are reported in Table 5.

Table 5 - Long run coefficients.

Variables	Normalized long-run coefficient
$\mathbf{lnrem_t}$	0.72***
$\mathbf{lnfdi_t}$	0.42***
$\mathbf{lnimp_t}$	-3.52***

5. Results

5.1. Discussion on long run results

The long-run results for the co-integrating relationship between the independent variables and the dependent variable are shown in Table 5. The results show that the economy of Pakistan benefited significantly from the inflow of remittances. The coefficient of remittances is 0.72 which is different from zero at 1 percent level. The results are consistent with the findings of Ahmed et al., (2011) and Khathlan (2012). Remittances have played a vital role in the growth process of Pakistan economy. Remittances can also increase foreign exchange reserves which in turn stabilizes the domestic economy. The volume of remittances in Pakistan through official channels has significantly increased during year 2011-12 to USD 13 Billion from USD 1.5 Billion reported in 1997-98 as reported by Amjad, Irfan & Arif (2015). Pakistan is quite rich in labour force because of its high population and further it has friendly relations with oil richer economies in the Middle East. Therefore, efforts are required on the part of policy makers to further make arrangements and provide facilities to nationals working abroad so that to positively influence remittances.

The results also show that there is a positive and significant relationship between FDI and economic growth in the context of Pakistan economy. The point estimate suggests that an increase of one per cent in FDI would influence the economic growth by 0.42. Our results regarding the impact of FDI on economic growth are consistent with the research of Khathlan (2012) and Almfrsji and Almsafir (2014). FDI positively influences economic growth of the host economy through multiple channels. Advanced technologies and modern methods of production could only be reached and adopted through attracting FDI. Pakistan should strive hard to attract FDI through various incentives such as tax holidays and shall also provide better infrastructure and cheap energy resources. Pakistan shall invest its resources in the energy sector in order to fill the gap between energy consumption and production. These developments will definitely put the economy of Pakistan on the required direction of economic growth.

Finally, the study found strong evidence in favour of a negative relationship between imports and economic growth. The coefficient value of -3.52 suggests that the economy of Pakistan could be adversely affected owing to the inflow of imports. Theoretically, imports are important for a growing economy. Therefore, it is hard to pin down the reasons for the negative impact of imports on economic growth. It will be useful to consider the composition of imports. The impact of imports on economic growth may be depending on the nature of imports i.e. if imports are eatable than it is less likely that they will be going to boost economic activities in the host country; however, imports contain capital goods and new technologies that may help to reinforce the growth process in the importing country. Zhang and Zou (1995) investigated the relationship between technology imports and economic growth in developing countries; they found that foreign technology transfers enhance income growth rates. Moreover, the nature of economic growth differs between developing and developed countries, for developing countries importing foreign plants and equipment, and borrowing foreign technology play an important and major role. Khan et al., (2012) also show that exports and imports are positively related to economic growth.

5.2. Error correction model (ECM)

In order to identify the short-run relationships and check the stability of the long-run parameters, an error correction model shall be estimated. The error correction term is calculated by using the normalized long-run coefficients. All the difference terms in the ARDL model are replaced with the error correction term (ECM). Results for the error correction model are reported in the following Table 6:

Table 6 - Error correction model.

	Panel (A)		
Variables	**Coefficients**	**T-Scores**	**Probability**
D(lnzgdp$_t$ (-1))	-0.33	-2.41	0.0236
D(lnrem$_t$)	-0.001	-0.08	0.9340
D(**lnrem$_t$**(-1))	-0.02	-2.75	0.0110
D(**lnrem$_t$**(-2))	-0.002	-0.29	0.7743
D(lnfdi$_t$)	0.02	3.64	0.0013
D(lnfdi$_t$(-1))	-0.003	-0.59	0.5554
D(**lnimp$_t$**)	-0.08	-3.77	0.0009
D(**lnimp$_t$** (-1))	0.06	2.59	0.0160
ECM(-1)	-0.07	-7.64	0.0000
Constant	2.17	7.73	0.0000
	Panel (B)	**Diagnostic Checking**	
	R-Squared = 0.85**, Adjusted R-Squared =** 0.79		
LM – Test = 1.75 (0.4156), **D.W=** 2.15**, Jarque – Bera =** 1.22 (0.5428)			
White= 1.74 (0.1328)			
Ramsey = 0.76 (0.3908)			
ARCH= 0.06 (0.8065)			

It shall be seen from panel A of the Table 6 that the error correction term is statistically significant at 1 per cent level and bears a negative coefficient, which is desirable. Therefore, the model is reliable. The coefficient of the error correction term which is also known as the speed of adjustment is -0.07 suggesting that the short run disequilibrium can be corrected at a speed of 0.07 which is reasonable. Also, all the diagnostic tests reported in the panel B of Table 6 confirm that the estimated error correction model does not have any notable econometric problem.

Further, the short run coefficients are calculated with the help of Wald coefficient restrictions test. It is found that in the short-run FDI influences economic growth positively while remittances impact economic growth adversely. Further, the results show that imports are insignificantly related with economic growth in the short-run. The short-run coefficients of the independent variables are reported in the following Table 7:

Table 7- Short run coefficients.

Variables	Normalized long-run coefficient
$\mathbf{lnrem_t}$	-0.03*
$\mathbf{lnfdi_t}$	0.01*
$\mathbf{lnimp_t}$	-0.04

5.3. Stability checking

The stability of the model is checked through CUSUM and the Square of CUSUM test. The following graphs are obtained.

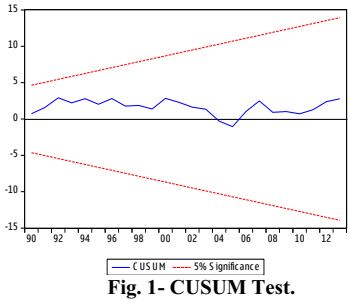

Fig. 1- CUSUM Test.

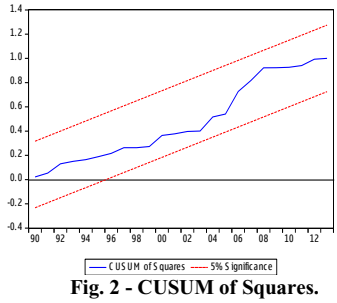

Fig. 2 - CUSUM of Squares.

Figure 1 and 2 show that the estimated line is well within the critical limits at a 5 per cent level. The estimated models are, therefore, reliable and stable.

6. Conclusion

The main purpose of this paper was to see whether or not external determinants impact economic growth. The study focuses on the economy of Pakistan and has utilized data over the period 1977-2013. The empirical analyses are carried out using the recently developed ARDL approach to co-integration.

The study found that external determinants matter for achieving the long-run economic growth. Remittances and FDI have improved the economic growth of Pakistan economy. This could be the case of other developing countries as well. However, Pakistan has a distinct position among the developing countries as our growth process is tightly linked with the foreign inflow of investment as well as remittances. Around 7 million of Pakistan's workers are working abroad mostly in Gulf countries and sending a huge amount of remittances that are accounting to 95 per cent of overall foreign trade deficit. Therefore, policy makers in Pakistan in particular and in other developing countries could take appropriate policy actions to attract FDI and increase the outflow of workers. Doing this will eventually help the developing countries as well as Pakistan to achieve the long-run economic growth. The results of the study are consistent with the prior empirical research. Besides, the study found a negative relationship between imports and economic growth in the context of Pakistan economy. The underlying reasons are difficult to pin down; however, the structural composition of imports shows that Pakistan is an oil-deficit country spending around 30 per cent of imports to oil-related products. Besides, the composition of imports, measurement issues and data related problems may be the possible reasons.

The paper recommends that the economy of Pakistan shall attract FDI through business friendly environment, resolve the issue of power shortages that damages the economic growth around 3 to 4 per cent per annum, and ensure a better law and order conditions that will boost the confidence of the foreign investors. And most importantly, Pakistan should attract the foreign Pakistani businessmen just like India and China have done; this will give a strong base to sustainable growth. Strategies should be made in such a way to sustain the already good inflow of worker's remittances that amount to 16 billion dollars in the year 2014. Pakistan stands in the top 10 countries that are receiving a huge amount of remittances. However, policy makers should be conscious of the usage of this hard earned money. Imports also play a very critical role in the economic development of any country, especially if they have new technologies, ideas, capital goods and equipment. As Zhang and Zou (1995) suggested, new technological transfers reinforce the economic growth in the developing countries. Pakistan should also pay attention to the imports of new technologies and capital goods instead of consumable items.

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