SPCRD GLOBAL PUBLISHING Sustainable Solutions
REAL Review of Education, Administration and Law
Journal homepage: http://real.spcrd.org ISSN (Print): 2708-1788 ISSN (Online): 2708-3667

Foreign Inflows and Existence of Dutch Disease: Empirical Evidence from Pakistan

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ARTICLE DETAILS

History:
Accepted 26 February 2022
Available Online March 2022

Keywords:
Dutch Disease, Real Effective Exchange Rate, Foreign Inflows, Foreign Direct Investment, Foreign Aid, Personal Remittances

JEL Classification:
I10, G15, F31, F32, F24

DOI: 10.47067/real.v5i1.211

ABSTRACT

This paper tries to evaluate the economic importance of foreign inflows in determining the real effective exchange rate. Monetary policy plays a substantial role in determining the stability of prices, trade and foreign inflows like foreign direct investment, personal remittances, and foreign aid. In this study, the causal relationship is analyzed among policy variables and control variables. The study used secondary time series data from 1960-to 2020. Augmented Dickey Fuller (ADF) and Philips Perron (PP) unit root tests are used to check the stationary of the variables. Results showed that all variables are stationary at the level I (0) and the first difference I (1). The auto regressive distributive lag (ARDL) approach and Granger Causality approach is discussed to find cointegration and causality respectively. ARDL Bound test reveals the cointegration existence among the variables. ARDL results suggest that foreign inflows (Foreign Direct Investment, Foreign Aid, Personal Remittances), Trade and Inflation showed a significant relationship with Real Effective Exchange Rate in the long run. Granger Causality suggested the existence of Causality among Foreign Aid and Real Effective Exchange Rate, Foreign Direct Investment and Foreign Aid, Trade and Remittances. The results of the study are found in contradiction with the law of one price.

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1. Introduction

Dutch Disease is the problem faced by the developing economies. Developing economies need inflows of capital in the form of foreign direct investment, foreign aid and remittances designed for their prosperity. These inflows may be alarming for developing countries. Capital inflows lead to the rise in the demand for non-tradable goods as compared to tradable goods. Due to the rise in the demand for non-tradable goods price of non-tradable goods rises. The real exchange rate appreciates which shows deteriorating effects on the welfare of the economy. In the recent era, foreign inflows including Remittances, Foreign Direct Investment and Foreign Aid play an important role in determining the

effect on the exchange rate. Foreign inflows lead to the growth of the economy in the long run. By increasing new ideas, skills and technology factors productivity is increased in developing countries (De Mello 1997).

FDI increased the growth of developing economies by contributing 50% from $156 billion in 2002 to $233 billion in 2004 (UNCTAD 2005). This leads to the reduction of foreign direct investment to 9% globally. The growth of the economy is enhanced by taking remittances in the form of an increase in gross domestic product. The Effect of Remittances on the growth of the economy is studied by taking an example of the small, open economy of Tajikistan where due to an increase in Remittances Real Exchange rate appreciates, an increase in imports, lessening of domestic economy's determination and there is more dependence on money transferred by people living abroad (Sultonov, 2011; Ali, Yasmin & Hassan 2021).

According to the World Bank definition of foreign Aid, the recipient country is benefited from the international transfer of capital, goods, or services from one country to another. Foreign Aid leads to technical mobility of resources which promotes flexibility of wages promoting the reduction of unemployment. This leads to the depreciation of the exchange rate caused by liberalizations due to aid (Collier and Gunning 1992).

The study highlights the problems faced due to the movement of foreign reserves in Pakistan. The study contributes to exploring the association between inflows of capital in form of FDI, Foreign Aid, Remittances and REER. By developing the linkage between these variables, the study tries to dampen the effects of these variables on the performance of Pakistan.

The study objects to analyze causal linkage among real effective exchange rates and foreign resources by using the Granger Causality technique. The rest of the paper is organized as follows. The preceding section discusses the literature review of former studies. The methodological framework and the data are expressed in the next section. The upcoming section mentioned the empirical results of the study. The last section discussed policy implications for Pakistan.

2. Literature Review

A considerable extensive literature has highlighted the occurrence of Dutch disease because of increased foreign inflows from rich countries to developing countries like Pakistan. A few of these studies are presented in this section.

Coller and Gunning (1992) worked out on Aid and Exchange Rate Adjustment in African Trade Liberalization. Results showed that the effect of aid leads to Dutch disease showing the effect of spending using investment and labor to produce non-tradable. Harilal and joseph (2003) discussed the stagnation and revival of the Kerala economy by using the theoretical approach for analyzing the effect of remittance and migration on the economy of Kerala during the mid-1970s. The study suggested that government should promote only those tradable industries that are immune to the Dutch disease effect

XING (2006) explained the role of FDI and exchange rate for China from the year 1981-to 2002. Empirical research showed that the real exchange rate between Yuan and Yen is responsible for attracting FDI from Japan into China. Dennis et al. (2008) worked out on exchange rates and FDI of Japan. - Enhancing the volatility of the rate of exchange lessens foreign direct investment. Ullah et al. (2010) studied the link between the volatility of exchange rate and foreign direct investment by taking evidence from Pakistan. Results discussed that FDI showed positive outcomes with the depreciation of

the rupee and volatility of the rate of exchange declines foreign direct investment. The openness of trade enhances foreign direct investment and there is the insignificant result of inflation.

Tomlin (2008) studied the FDI of Japan in service industries of the US and established a link between FDI and the rate of exchange by considering service credibility. The research found that the dollar is linked positively with the flow of service FDI into U.S. Non-tradable services showed an effective positive correlation as compared to tradable services data.

Sultonow (2011) analyzed the impact of the remittance on the real exchange rate of the currency of Tajikistan and found that money transfers appreciate the real exchange rate, stimulate imports, decrease local economic competitiveness and dependence on transfers of money from migrants. Takagi and Shi (2011) explained movements of exchange rate and foreign direct investment (FDI) by studying the inflows of Japan to nine dynamic Asian economies. The study suggested that the depreciation of the Yen leads to the decline of FDI against the currencies of the host country. It enhanced due to the volatility of the exchange rate

Communale (2012) discussed the relationship between Dutch disease, real effective exchange rate and GDP in 27 European Union countries from 1994-to 2012 and found out that inflows in the form of bank loans are responsible for lower long run growth and instabilities of GDP are not affecting the growth of GDP while spillovers and global factors are affecting GDP in the short run and long run. Ploeg and Venables (2013) discussed the link between foreign exchange and Dutch disease dynamics by using the Cobb Douglas Production Function and CES Function for replacing tradable goods with non-tradable goods. Results suggested that domestic spending increases gradually which leads to an increase in price levels. RAJWADE (2014) analyzed the theoretical link between India's Dutch Disease and the real exchange rate from 2010-to 2014. The research showed that the real exchange rate appreciates, and the nominal exchange rate reasonably stabilizes (Ali, Sharif & Shaheen 2016).

Joof and Touray (2021) measured the remittance effect on the real exchange rate in the Gambia by using OLS fully modified and dynamic OLS technique. The results showed the presence of a positive link between remittance and real exchange rate. Inflation is positively linked to the real exchange rate. While the link between REER and foreign reserve is inconclusive. Supply of money and monetary policy show a depreciating effect on the real effective exchange rate. Zhang et al (2021) studied the implications of the policy due to remittances, trade liberalization and Dutch Disease. Findings of the study suggested the depreciating remittance effects on the exchange rate in all countries mostly in those countries showing lower middle income. High-income countries showed a distinguished negative effect on the first lag of remittance. While lower middle-income counties showed a notable positive effect of remittance on the exchange rate.

3. Data & Methodology

The research discussed the outcome of Foreign Direct Investment, Foreign Aid, Remittances, Trade and Inflation on the Real Effective Exchange Rate of Pakistan. Secondary data is used for empirical analysis from 1960-to 2020. Data is taken from World Bank Indicators (WDI). E-views 9 is used in the study to find the results. The study discussed the unit root test, Granger Causality test to explore relationships between the rate of exchange and capital inflows like Foreign Aid, Remittances, Foreign Direct Investment and other control variables like Trade and Inflation. The functional form of the model used during the study is written below

$$\mathbf{L(REER) = f(L(FDI), L(REM), L(ODA), L(TRADE), L(INF)} \qquad \mathbf{(1)}$$

The econometric model is given below

$$\mathbf{L(REER) = \alpha_0+\alpha_1 L(FDI)+\alpha_2 L(REM)+\alpha_3 L(ODA)+\alpha_4 L(TRADE)+\alpha_5 L(INF)+\varepsilon \quad (2)}$$

Where

REER = Real Effective Exchange Rate index (2010=100)
FDI = Foreign Direct Investment, net inflows (% of GDP)
REMM = Personal Remittances, received (% of GDP)
ODA = Net ODA received (% of GNI)
TRADE = Trade (% of GDP)
Inflation = GDP deflator (annual %)

The Real Exchange rate is the main factor for the measurement of foreign inflows and other variables to the home country. According to the definition of the exchange rate, it is the ratio of prices of foreign currency to the prices of domestic currency. The formula is given below:

REER = EP*/ P = Foreign goods price / Domestic goods price.

Where

REER = Real effective exchange rate
E = Nominal exchange rate
P* = Price of foreign goods
P = Price of domestic goods

When REER appreciates then foreign goods become more expensive than domestic goods. People would start buying domestic goods despite using foreign goods abroad. Then exports of the goods made by domestic residents increase and imports decrease. So, this increases trade among the countries. When the real effective exchange rate depreciates then foreign goods become cheaper than domestic goods. People living in their home country start buying foreign goods then imports increase and exports decrease. (Errol D' Souza, Macroeconomics).

Another theoretical evidence comes through the law of one price which discusses that during open and unrestricted trade similar goods are traded across domestic and foreign countries despite the fact where they are traded. If we ignore tariffs and transaction costs, then the price of the national currency is the rate of exchange times the price of foreign currency.

Pi = Epi*

One price law is meant for tradable goods and found to be limited for non-tradable goods. (De Souza, Macroeconomics)

3.1 Augmented Dickey Fuller (ADF) Unit Root Test

ADF unit root test is used to test variables' stationery. ADF unit root test is presented by Dickey and Fuller (1979). First of all, data is found to be stationary at the level and if the condition is not fulfilled then the stationary of the data is checked at first difference. The equation without trend and intercept:

$$Yt = \lambda Yt{-}1 + \mathscr{E}t \quad (3)$$

The equation with intercept

$$Yt = \alpha + \lambda Yt{-}1 + \mathscr{E}t \quad (4)$$

The equation with trend and intercept

$$Yt = \alpha + \beta t + \lambda Yt{-}1 + \mathscr{E}t \quad (5)$$

3.2 Philips-Peron (PP) Unit Root Test

PP unit root test is applied for finding stationary of the variables before finding co-integration. To check the presence of autocorrelation and heteroscedasticity PP test is used. The equation of Philips Peron is given below:

$$Xt = \delta t + \lambda oYt\text{-}1 + \lambda 1 \Delta Yt\text{-}1 + \ldots\ldots + \rho \Delta Yt\text{-}\rho + \mu t \quad (6)$$

The λ shows the trend of time X is the variable and μt is the error term.

3.3 Auto Regressive Distributed Lag Model (ARDL)

For finding a linkage between REER and monetary variables like Foreign Direct Investment, Foreign Aid, Remittances, Trade, Inflation ARDL model is used during research. In time series, the ARDL approach is commonly employed for exchange rates and various variables. This approach is given by Pesaran et al. (2001) so that to integrate variables at the level or first difference.

ARDL model is found to be advantageous in addition to Engle & Granger (1987), and Johansen and Juselius's (1990) model. ARDL approach is widely discussed when variables are found to be stationary at I (1) or I (0) or of mixed order. The second reason is that for discussing the ARDL approach requirement of the pre-conducting unit root test is not mandatory. The model is written below:

$$\Delta \text{ Log (REER)}t = \alpha + \Sigma\, \beta i\, \Delta \text{ Log (REER) } t\text{-}i + \Sigma\, \gamma j\, \Delta \text{ Log (FDI)}t\text{-}i + \Sigma\, \delta k \Delta \text{ Log (REM)}t\text{-}k + \Sigma \rho J\, \Delta \text{ Log (ODA)}t\text{-}j + \Sigma\, \sigma h\, \Delta \text{ Log (TRADE)}t\text{-}h + \Sigma \pi_x \Delta \text{ Log(INF) } t\text{-}x + \delta 1 \text{Log(FDI)}t\text{-}1 + \delta 2 \text{ Log(REMM)}t\text{-}2 + \delta 3 \text{Log(ODA)}t\text{-}3 + \delta 4 \text{Log(TRADE) } t\text{-}4 + \delta 5 \text{Log(INF)}t\text{-}5 + \gamma \text{ Log(REER)}t\text{-}1 + \varepsilon t \quad (7)$$

where Δ is showing differences and γ is partial adjustment's coefficient $0<\gamma<1$ and it means the coefficients of short-run dynamics used in ARDL models. Where βi and γj etc. all coefficients are parameters of the long-run multiplier. ARDL Bound Test used two bound values. The Upper bound is integrated at I (1) and the lower bound is integrated at I (0). Cointegration does not exist if the F-statistics value is below the lower bound. The existence of cointegration is possible if the F-statistics value is greater than the upper bound. If the F-statistics value is between the upper and lower bound, then the results are inconclusive. Akaike criteria are used for selecting the lag lengths in ARDL.

3.4 Granger Causality Test

The causality shows the movements from foreign inflows like REMITT, FDI, and ODA to REER. Whether foreign inflows cause REER to increase or decrease in exchange for changes in inflows. This cause-and-effect relationship is discussed by Granger in 1969.

Causality is measured by using the following models

$$Xt = \alpha + \Sigma ri=1\ \beta i\ X\ t\text{-}i + \Sigma qi=1\ \gamma i Yt\text{-}i + \varepsilon t \quad \textbf{(a)}$$

$$Yt = \alpha\ + \Sigma\ qi=1\ \theta i\ X\ t\text{-}i + \Sigma qi=1\ \delta i Yt\text{-}i + \varepsilon t \quad \textbf{(b)}$$

In equation (a) Yt granger causes Xt if the null hypothesis Ho: γt=o is rejected (No causality) whereas the alternate hypothesis is H1: γt ≠ o (Causal relationship) is accepted. In equation (b) Xt granger causes Yt if the null hypothesis Ho: θ = o is rejected. (No causality) while alternate hypothesis H1: θ ≠ o (Causal relationship) is recognized. In both equations (a,b) if alternate hypothesis H1:γt ≠ o and H1:θ ≠ o is recognized then this shows bidirectional causality between Xt and Yt. In both equations (a,b) if the null hypothesis is H1: γi =o and H1:θi =o is accepted then it reveals no causality between Xt and Yt.

To find the strength of the model different econometric tests are applied. Heteroskedasticity is judged by the Breusch Pagan Godfrey Heteroskedasticity test and serial correlation is measured through the Breusch Godfrey Serial Correlation LM test. To judge whether misspecification is a part of the model or not, Ramsey Reset Test is applied. The constancy of the coefficients is judged through CUSUM and CUSUMSQ.

4. Results & Estimation

In the assessment of results, descriptive statistics is described first. Values of mean show the value of average while maximum illustrates the highest value and minimum exhibits the lowest value while the value of standard deviation showed dispersion from mean. A table of descriptive statistics is shown below. Results of standard deviation showed the highest value of log FDI.

Table 1: Descriptive Statistics

	LREER	LODA	LINF	LFDI	LREM	LTRADE
Mean	2.093	0.188	0.864	-0.165	0.663	1.511
Median	2.066	0.187	0.909	-0.190	0.701	1.518
Maximum	2.376	0.696	1.586	0.564	1.011	1.585
Minimum	1.984	-0.348	-0.398	-0.989	0.118	1.403
Std. Dev.	0.114	0.223	0.313	0.321	0.225	0.048

Table 2 shows the results of the correlation matrix which indicates the value of 1 if the relation is discussed between one variable with itself. If the value of correlation is 0.90 among two independent variables, then there might be the existence of multicollinearity among them. The results of the correlation matrix showed there is no multicollinearity between two self-determining variables.

Table 2: Correlation Matrix

	LREER	**LODA**	**LINF**	**LFDI**	**LREMIT**	**LTRADE**
LREER	1.000	0.607	-0.051	-0.702	0.491	0.259
LODA	0.607	1.000	0.076	-0.429	0.273	0.307
LINF	-0.051	0.076	1.000	0.084	-0.353	0.421
LFDI	-0.702	-0.429	0.084	1.000	-0.416	0.070
LREMIT	0.491	0.273	-0.353	-0.416	1.000	-0.076
LTRADE	0.259	0.307	0.421	0.070	-0.076	1.000

These findings are not complete with the discussion of correlation among the independent variables. Because this table lacks the interpretation of causality between variables. Table 3 showed the existence of causality among two variables if the value of probability is less than 0.9 as $p< 0.9$ then we reject the null hypothesis and found unidirectional causality among LODA causes LREER, L REER causes LFDI. The results of causality among LREER and LFDI match with the findings of Ullah et al. (2012). LTRADE causes LREMIT, LFDI causes LREMIT, LINF causes LTRADE, LTRADE causes LFDI, and the results showed the existence of bidirectional causality among LODA and LFDI.

Table 3: Granger Causality Test

Null Hypothesis:	**Obs.**	**F-Stat**	**Prob.**
LODA does not Granger Cause LREER	39	5.577	0.023
LREER does not Granger Cause LODA		2.491	0.123
LREMIT does not Granger Cause LREER	40	1.005	0.322
LREER does not Granger Cause LREMITT		0.833	0.367
LTRADE does not Granger Cause LREER	40	1.680	0.203
LREER does not Granger Cause LTRADE		0.232	0.633
LINF does not Granger Cause LREER	40	0.209	0.650
LREER does not Granger Cause LINF		0.363	0.550
LFDI does not Granger Cause LREER	39	0.299	0.587
LREER does not Granger Cause LFDI		4.253	0.046
LREMIT does not Granger Cause LODA	43	0.005	0.939
LODA does not Granger Cause LREMIT		1.691	0.200
LTRADE does not Granger Cause LODA	59	1.979	0.164
LODA does not Granger Cause LTRADE		1.204	0.277
LINF does not Granger Cause LODA	56	1.879	0.176
LODA does not Granger Cause LINF		2.262	0.138
LFDI does not Granger Cause LODA	47	3.912	0.054
LODA does not Granger Cause LFDI		5.252	0.026
LTRADE does not Granger Cause LREMIT	44	6.989	0.011
LREMIT does not Granger Cause LTRADE		0.473	0.495

LINF does not Granger Cause LREMIT	44	0.453	0.504
LREMITT does not Granger Cause LINF		1.692	0.200
LFDI does not Granger Cause LREMITT	43	3.580	0.065
LREMITT does not Granger Cause LFDI		0.847	0.362
LINF does not Granger Cause LTRADE	57	3.006	0.088
LTRADE does not Granger Cause LINF		5.650	0.021
LFDI does not Granger Cause LTRADE	47	0.986	0.326
LTRADE does not Granger Cause LFDI		1.938	0.170
LFDI does not Granger Cause LINF	47	0.226	0.636
LINF does not Granger Cause LFDI		0.020	0.888

Table 4 showed the outcomes of the Augmented Dickey Fuller Unit root test. Values of the ADF unit root test were found to be significant at I (0) and I(1).

Table 4: Augmented Dickey Fuller (ADF) unit root test

	Level		**1st difference**	**Decision**
Variables	**Intercept**	**Intercept and trend**	**Intercept**	
LREER	-1.955 (0.3045)	-2.54 (0.3068)	-5.166 (0.0001)	I(1)
LFDI	-3.241 (0.0237)	-4.35 (0.0060)	-13.027 (0.0000)	I(1), I (0)
LODA	-1.94 (0.307)	-5.608 (0.0006)	-8.321 (0.0000)	I(1), I(0)
LREMITT	-1.29 (0.6220)	-1.259 (0.8849)	-5.911 (0.0000)	I(1)
LINF	-3.65 (0.0076)	-3.707 (0.0298)	-11.05 (0.0000)	I(0), I(1)
LTRADE	-2.33 (0.1654)	-2.236 (0.461)	-8.339 (0.0000)	I(1)

Table 5 showed the results of the PP unit root test stating all variables to be stationary at the level I (0) and the first difference I (1).

Table 5: Philips -Perron (PP) unit root test

	Level		**1st difference**	**Decision**
Variables	**Intercept**	**Intercept and Trend**	**Intercept**	
Log REER	-1.955 (0.30)	-1.310 (0.870)	-5.166 (0.0001)	I (1)
Log FDI	-3.093 (0.0339)	-4.512 (0.0039)	-13.02 (0.0000)	I (0), I (1)

Log ODA	-1.516 (0.5183)	-5.038 (0.0006)	-28.66 (0.0001)	I (0), I (1)
Log REMITT	-1.458 (0.545)	-1.419 (0.8412)	-5.947 (0.0000)	I (1)
Log INF	-3.482 (0.0120)	-3.790 (0.024)	-12.43 (0.0000)	I (0)
Log TRADE	-2.289 (0.1787)	-2.245 (0.4563)	-8.546 (0.0000)	I (1)

Table 6 showed the regression analysis by Ordinary Least Square. The value of R-squared is 0.69 which is less than 0.9 and this shows the absence of multicollinearity among two independent variables. The value of the Durbin-Watson stat is 0.79 and as R^2 < d-stat then this showed that regression is not spurious.

Table 6: Estimation Results

Variable	**Coeff**	**Std. Error**	**t-Stat**	**Prob.**
LODA	0.129	0.059	2.194	0.035
LREMITT	0.102	0.057	1.766	0.086
LTRADE	0.619	0.267	2.314	0.026
INF	-0.023	0.041	-0.578	0.567
LFDI	-0.186	0.040	-4.552	0.000
C	1.054	0.390	2.702	0.010

R-squared	0.690	Mean dependent var	2.093
Adjusted R-squared	0.645	S.D. dependent var	0.114
S.E. of regression	0.068	Akaike info criteria	-2.396
Sum squared residual	0.157	Schwarz criterion	-2.143
Log likelihood	53.930	Hann-Quinn crit.	-2.304
F-statistic	15.180	Durbin-Watson stat	0.798
Prob (F-statistic)	0.000		

Auto Regressive Distributed Lag (ARDL) Model

In table 7 Bound Cointegration test is applied for the model by getting the value of F-stat which is 8.55 and this value is above the upper limit I (1) at 5% and 10%. Results exhibited the presence of a long run relationship between variables. Bound Cointegration test results match with the long run cointegration result of Kuncoro (2020).

Table 7: Bound Cointegration Test

	F-stat	K	Lag length	5% I(0)	I(1)	10% I(0)	I(1)
Model	8.55	5	4,4	2.39	3.38	2.08	3

In table 8 serial correlation is not observed while working with Breusch Godfrey Serial Correlation LM test Estimation because the value of probability is greater than 5%.

Table 8: Breusch Godfrey Serial Correlation LM test Estimation

Model			
F-Statistics	1.246	**Probability**	0.3015

In table 9 results showed that there is no hetero as the value of probability is greater than 0.05

Table 9: Breusch Pagan Godfrey Heteroskedasticity Test

Model			
F Statistics	1.195	**Probability**	0.3079

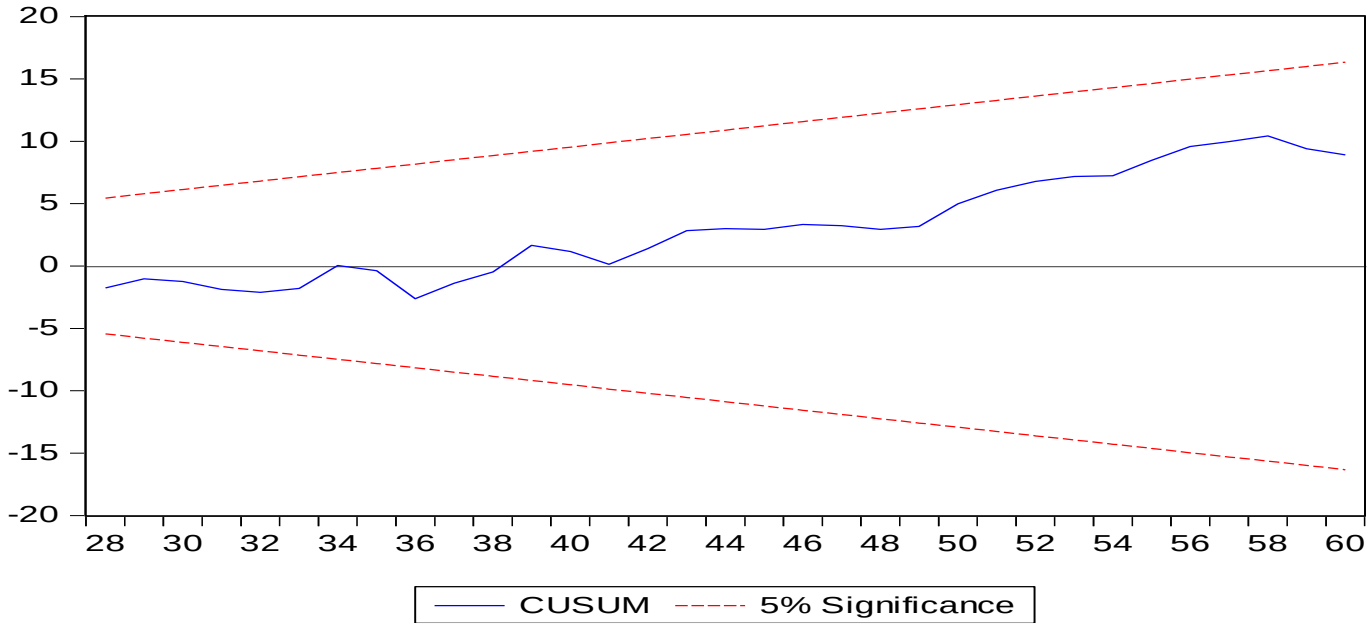
Results of the Ramsey Reset Test lead to the conclusion that there is no misspecification in the model as the value of probability is greater than the critical value at 5%.

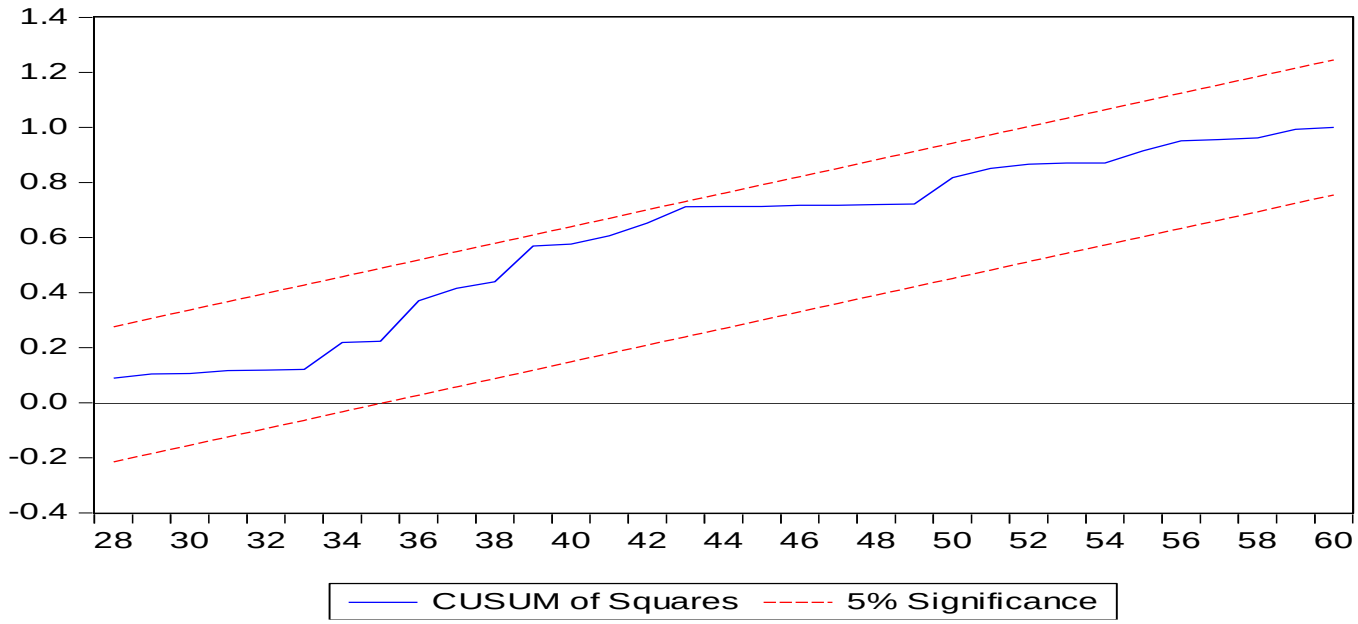
Table 10: Estimation of Ramsey Reset Test

Model			
F-Statistics	1.05	**Probability**	0.4497

5. CUSUM and CUSUMSQ

The results of the diagram below show that CUSUM and CUSUMSQ are between the limits of critical bounds. Graphs showed to be within the lower and upper limits. This leads to the efficiency of ARDL estimation. Graphs assure that model is stable.





ARDL Bound Cointegration test suggests that cointegration exists between foreign inflows and Real Effective Exchange Rate. As F-stat is 8.55 which is higher than upper bound estimates. This shows the presence of a long run relationship between Real Effective Exchange Rate and Foreign Inflows. Results of Granger Causality showed that there is unidirectional causality among Foreign Aid and real effective exchange rate, real effective exchange rate and foreign direct investment, trade and remittance, foreign direct investment and remittance, inflation and trade, trade and foreign direct investment, foreign aid, and foreign direct investment. The Law of one price shows that during open and free trade similar goods are traded from domestic to the foreign economy despite the reason where they are produced. This law finds its application with tradable goods while there is a limitation for non-tradable goods (De Souza, Macroeconomics).

6. Conclusion

Foreign Aid is supportive for developing countries like Pakistan as it leads to depreciation in the exchange rate. When residents of foreign economies see a depreciating real effective exchange rate then

they think of investing in the resident economies. As a result, foreign direct investment increases. The study has revealed that trade leads to an increase in remittances across nations. When a country starts exchanging goods and services across nations then the residents of the home economy who are working abroad and generating revenue starts remitting the earned income in the home economy which showed that the rate of exchange appreciates in the home country.

Research shows that a rise in foreign direct investment leads to a rise in remittances of people who are living abroad. When the residents of the foreign country start investing in the economy of the home country in beneficial projects then the residents of the home economy find it advantageous to increase investment in those projects. This leads to a rise in goods and services prices as well as depreciation and then appreciation of the exchange rate.

It is observed in the study that inflation promotes trade in Pakistan. Due to the rise in prices of goods producers find it beneficial to raise the supply of goods for both local use and exporting the goods produced in the country. This rise in trade provokes foreign investors to invest in the domestic economy. There is a bi-directional relationship between trade and foreign direct investment. The study gathered evidence that a rise in foreign Aid in the home country leads to an increase in foreign direct investment in Pakistan.

7. Recommendation of policy

Research showed some significant recommendations for the execution of policy:

1. Government should take measures to encourage trade by reducing export and import restrictions.
2. Government should provide incentives to foreigners to increase foreign direct investment in Pakistan.
3. Government should provide ways for domestic residents abroad to send their remittances in a convenient way that involves more liquid money instruments.
4. Government should maintain a stable price level in Pakistan so that prices of non-tradable as well as tradable goods do not fluctuate randomly.
5. Government should encourage foreigners to provide foreign aid to invest in beneficial projects so that there is an increase in employment opportunities in Pakistan.
6. Government should maintain a stable real effective exchange rate which is possible by controlling several factors like inflation etc.

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