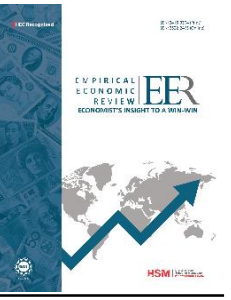
Empirical Economic Review (EER)
Volume7 Issue 1, Spring 2024
ISSN$_{(P)}$: 2415-0304, ISSN$_{(E)}$: 2522-2465
Homepage: https://ojs.umt.edu.pk/index.php/eer

Article QR



Title:	**Foreign Aid and Economic Development: The Case of Pakistan**
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DOI:	https://doi.org/10.29145/eer.71.03
History:	Received: November 10, 2023, Revised: December 28, 2023, Accepted: April 30, 2024, Published: June 30, 2024
Citation:	Padda, I. U. H., Akram, N., & Numan, T. (2024). Foreign aid and economic development: The case of Pakistan. *Empirical Economic Review*, *7*(1),70-86. https://doi.org/10.29145/eer.71.03
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Conflict of Interest:	Author(s) declared no conflict of interest

A publication of
Department of Economics and Statistics, Dr. Hasan Murad School of Management
University of Management and Technology, Lahore, Pakistan

Foreign Aid and Economic Development: The Case of Pakistan

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Abstract

Foreign aid plays an important role in the development of developing countries. However, loans and grants can have opposite impacts. This study evaluates the role of foreign aid on the development of Pakistan. The Autoregressive Distributed Lags Model (ARDL) is used for the empirical analysis. The results depicted that foreign aid has adverse effect on the development of Pakistan both in short run and long run. It is also found that in the short run the role of IMF is positive but insignificant. However, in the long run the role of IMF is positive and significant at 10% level for the economic development of the country. The research also proposes few alternative policy measures in order to minimize the dependency on the foreign economic assistance and encourages reliance on the internal resource generation.

Keywords**:** debt**,** economic development, foreign aid, grants, IMF

Introduction

The growth stimulating role of foreign aid in developing countries cannot be underestimated. However, in spite of an immense debate in the literature, it is still inconclusive whether foreign aid stimulates or retards the development process of developing countries. Its crucial roles in poverty alleviation, attainment of fiscal discipline, technology transfer, and improvement in balance of payments are highly commendable. It also serves to meet the needs of domestic resources through investment in physical and human capitals. Technology transfers and its use in human development are imperative outgrowths of foreign aid which improve productivity of capital and promote endogenous technical change and hence enhance growth. The technical assistance ensures efficiency in the use of available resources for the promotion of economic growth. It is also an important source of the foreign capital inflows along with foreign debt and

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remittances. Besides, the external assistance helps in the improvement of development process of a country by adding in domestic savings as a result of the more output. The foreign aid can be in the form of financial and technical assistance.

In developing countries where resources are scarce, foreign aid helps in structural transformation of the economy and to put the economy on sustainable economic growth path. Taiwan, Israel, and South Korea are examples of success stories which signify that foreign aid is an important and necessary ingredient in the process of economic development and development. Commonly aid is binding with conditions of donor countries/ institutions. In such cases, aid not only transfers financial resource but political and military ideas are also linked with it. Pakistan cannot be separated from those countries where the aid is binding (Hyder et al., 2015). When such binding aid is accepted, the recipient government cannot disentangle themselves from implied political and economic obligations of the donors. Main reasons behind the need of foreign aid in Pakistan are two well-known gaps, namely fiscal gap and balance of payment gap (Akram, 2011; Padda, 2014).

Foreign aid, is a part of official development assistance (ODA). It contains grants and loans from official sector. The aid is divided into tied aid, project aid, grants, and loans. Tied aid is given to solve the balance of payment problems of a country. The International Monetary Fund (IMF) is the major contributor for this sort of aid. This aid is provided with strict economic conditionalities and bindings. The project aid is always for prescribed project and cannot be used for other purposes. The grants are such aids which neither requires to repay the actual amount nor any interest on it. Whereas, loans are the borrowings of foreign exchange to finance projects or to resolve the issue of balance of payments. Normally short-term loans are costly than long-term loans.

Depending upon macroeconomic policies, the impact of foreign aid can be positive or negative on growth of a country. It can act as grease for growth with good and stable macroeconomic policies (Burnside & Dollar, 2000). Normally, foreign aid is used for consumption rather than development of the recipient countries (Boone, 1996). Moreover, absorptive capacity and the size of the aid with respect to paying back capacity of a country also matters. There are a great number of studies which argue for diminishing returns to aid (Feeny & McGillivray, 2008).

Murshed and Khanaum (2012) did a comprehensive literature review to find the link between foreign aid and development. According to their review, most of the studies did not arrive on any consensus. Several studies argue that foreign aid is positively related to development due to increase in investment, expand capacity to import goods and new technology, and increase in capital productivity and technical change. On the other hand, factors like country's dependency on aid, poor economic management of aid receiving countries, corruption and poor coordination among donor agencies lead to negative effect on the growth. The roles of good and stable macroeconomic policies are important for positive effect of foreign aid (Burnside & Dollar, 2000; Durbarry et al., 1998; Eris, 2008). Therefore, foreign aid has not only positive effect on economic activities in short run but also in the long run. The positive effect is not only direct on economic growth but, it is also indirect via domestic savings (Dowling & Hiemenz, 1982; Easterly, 2003; Jones, 2013). The effect varies depending on income level, aid allocation, and geographical location of the recipient country (Durbarry et al., 1998).

Overall, it can be concluded from above mentioned literature that there is still no consensus among the researchers about the clear relationship between foreign and economic development. Thus, this study also attempts to estimate the effect of foreign aid on economic development of Pakistan in the presence of IMF role. After this introductory section, the following section 2 elaborates scenario of economic assistance in Pakistan. Section 3 presents data, model, and estimation, while the last section concludes the study and proposes policy options.

Scenario of Foreign Economic Assistance and Growth in Pakistan

The literature couldn't bring a consciences about direct effect of foreign aid on economic development of Pakistan (Akram, 2011; Mubarak, 2008). Aid has been effective in structural transformation of the economy as it provided foundations for the infrastructure development of industrial and agricultural sectors, assisted in technology transfer and technical knowledge. It has also helped in overcoming twin deficits. However, its role in social sector cannot be neglected. Anwar and Ammar (2010) found that foreign assistance in education sector helped to increase literacy rate in Pakistan. Afzal et al. (2020) has also revealed that foreign aid has helped Pakistan in poverty alleviation. In the presence of developed local financial sector, foreign aid is good for growth (Luqman & Haq, 2013). Meanwhile, aid has substituted

for domestic savings and caused increased debt burden on the future generation via debt servicing (Mohey-ud-din, 2005; Shirazi et al., 2009). There are also studies which argued for negative effect of foreign aid on economic growth of Pakistan (Akram, 2011; Mubarak, 2008). Sultana (2019) studied the effects of aggregate and disaggregate components of foreign aid from 1972 to 2014 in Pakistan. The study found that aggregate aid has insignificant short or long run effect on growth. In disaggregate analysis, multilateral aid and aid from Japan have positive relationship with economic growth.

Being a developing country, Pakistan would continue to require external financing in order to provide public goods such as defense, education, health, clean water, and waste disposal facilities. For the social sector and basic infrastructure, private returns are comparatively low therefore, the public investment becomes necessary for these sectors. Sky-scraping level of debt has serious consequences, causing heavy debt servicing and declining of developmental expenditures. This can be seen in Pakistan's example where twice in the last few years that is in 2011-12 and 2012-13 the outflow of foreign assistance in terms of repayment and debt servicing has been more than the inflow, however, in other years it remained less as shown in Table 1.

Table 1

Debt Disbursement, Servicing and Net Flow (US $ million)

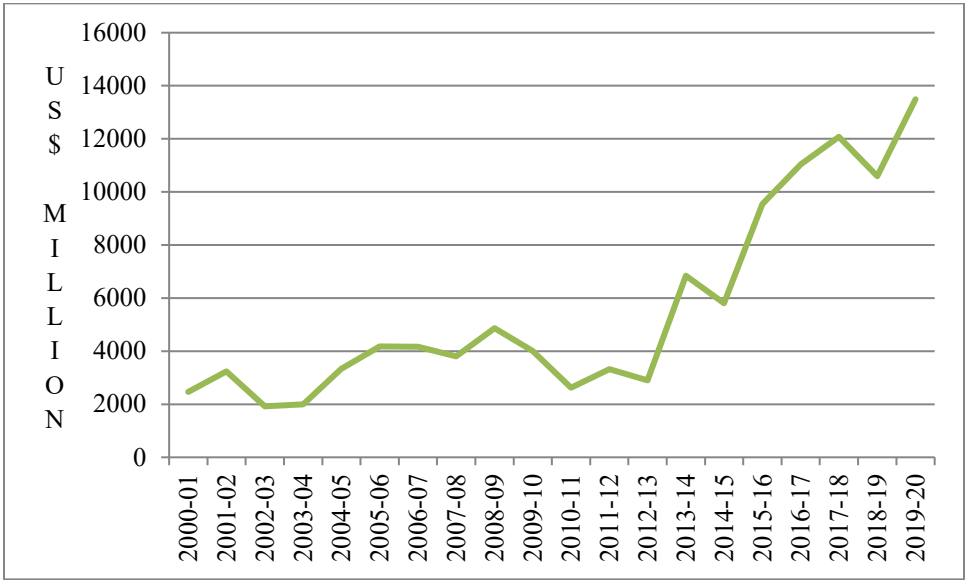
Years	Inflow	Outflow	Net Flow	External Public Debt Stock
2008-09	7825	3631	4194	47561
2009-10	7054	3329	3725	50921
2010-11	4156	3000	1156	55257
2011-12	3345	3530	(185)	53456
2012-13	2628	5575	(2947)	48129
2013-14	8558	5960	2598	51328
2014-15	8544	4443	4101	50903
2015-16	9543	4339	5204	57721
2016-17	11043	6434	4609	62488
2017-18	12073	5895	6178	71126
2018-19	10595	9466	1129	73423
2019-20	13490	11024	2466	77935

Note. Source: Economic Affairs Division (2020)

Foreign grants and loans are mainly obtained for the purpose of budgetary/balance of payments support, project financing, short-term credit, earthquake relief and rehabilitation, floods relief and rehabilitation, commodity import, temporarily dislocated persons, war on terror, and Afghan refugees relief and rehabilitation. The total inflow of foreign economic assistance from 2000-01 to 2019-20 amounted to US$ 112 billion, including loans of US$ 100 billion (90%) and grants of US$ 12 billion (10%) from 37 bilateral and 15 multilateral donors. Year wise detail of aid is summarized in Figure 1.

Figure 1

Foreign Economic Assistance in Pakistan

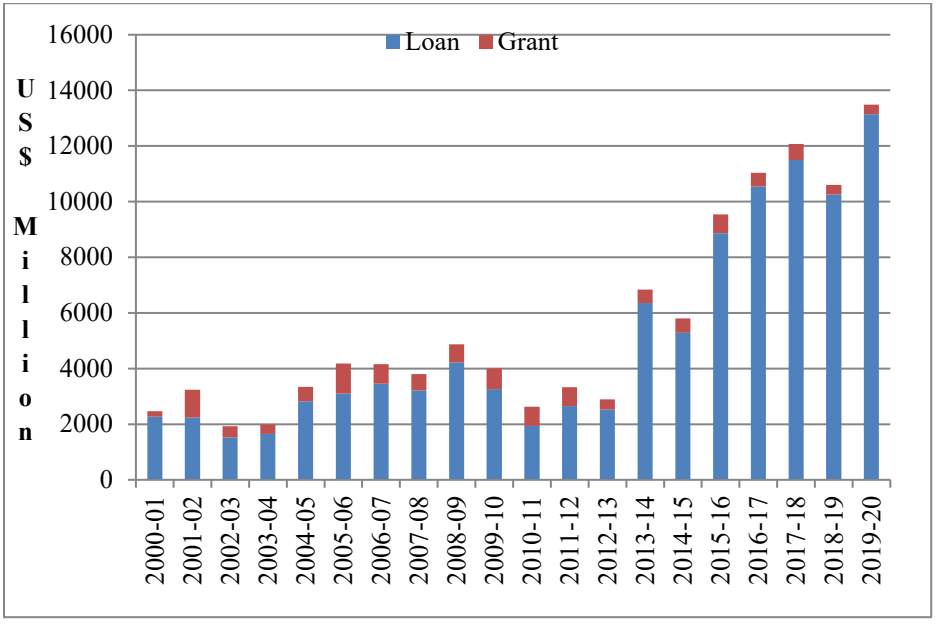


Note. Source: Pakistan Economic Survey (2022)

The top five donors of grants were USA, UK, Japan, UNHCR and Saudi Arabia, while for loans were Asian Development Bank, International Development Association, The International Bank for Reconstruction and Development (IBRD), and Japan. Recently China has become the top bilateral donor. Grant and loan wise Foreign Economic Assistance (FEA) is summarized in Figure 2.

Figure 2

Loan and Grant Wise Foreign Economic Assistance

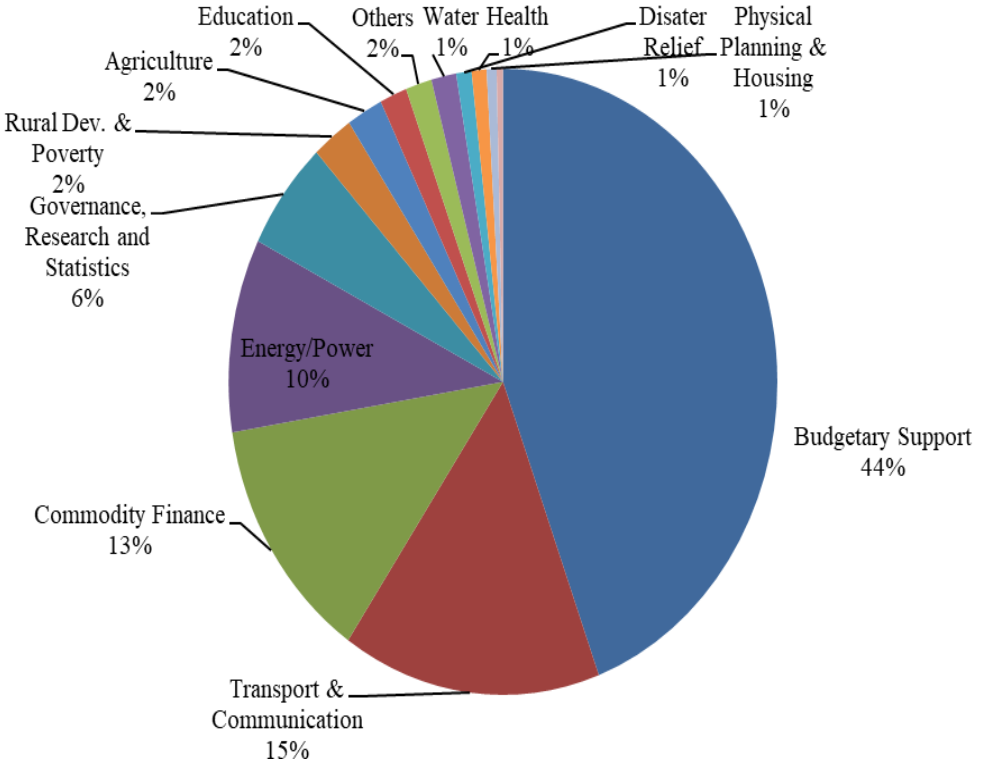


Note. Source: Economic Affairs Division (2020)

It is also worth noting here that nature of assistance is also changing over the years in favor of more aid from bilateral sources. Much of bilateral aid is tied to the purchase of goods from the donor country. The aid has been utilized for numerous developmental purposes. The data of Foreign Economic Assistance (FEA) of loans during the last twenty years revealed that beside Budgetary Support, major sectors of Pakistan's economy who were recipient of foreign aid were Energy and Power, Transport and Communications, Education and Training, Rural Development and Poverty Reduction, Earthquake, Governance, Research and Statistics, Agriculture, Water, Health and Nutrition, respectively. The details of sectoral composition of aid are summarized in Figure 3.

Figure 3

Sectoral Composition of New Commitments of FEA



Note. Source: Economic Affairs Division (2020)

The above sectors have direct relationship and are responsible for the societal development both in rural and urban domains of Pakistan. For example, the loans taken for Energy and Power projects, such as Nuclear Power Projects, Power Distribution Enhancement Program, Ghazi Barotha Hydropower Project, Keyal Khwar Hydropower Project, Neelum Jhelum Hydropower Project, and Sustainable Energy Reform Project are being used to increase the existing electricity generation. This, in turn, will ensure the un-interrupted availability of electricity at affordable prices. Similarly, roads and transportation related loans for the projects, such as Karakoram Highway Improvement Project, Rural Access Road Development Project, KP Road Development Project, and Indus Highway Construction Project will help to connect the public across country and increase their access from rural and far-flung areas to the mainstream highways and urban markets.

The social sector loans are helpful for better provision of civic facilities and eradicating the poverty. In this regard, loans taken for the Polio Eradication Programs, Women Health Development Project, and Northern Area Health Development Project are being used to enhance the efforts to eradicate polio from Pakistan and to provide basic Health facilities to the public. The Punjab Education Sector Project, Sindh Education Sector Project, Territory Education Support Project, Technical Education Project, and Baluchistan Education Support Project are also been financed through loans. These projects will be helpful in improving the existing educational facilities and eradicating the illiteracy from Pakistan.

Data and Methodology

The relationship between economic development and foreign aid cannot be estimated incognito in the presence of other factors which have direct and indirect effects on the development. Therefore, GDP is assumed to be the function of capital, foreign aid (both foreign loans and foreign grants), labor force and human capital (education), and openness to technological progress.

$$Y = f[K, L, F, E, O] \quad (1)$$

Where Y, L, K, F, E, and O represent real GDP per capita, capital stock, labor force, foreign aid, human capital, and openness, respectively. Most of the studies showed that there is a mixed impact of foreign aid and economic growth in Pakistan (Ishfaq, 2004; Khan & Rahim, 1993; Mohey-ud-din, 2005; Mubarak, 2008). Foreign aid will have positive effects because more foreign aid leads to more economic development in Pakistan (Mullick, 2004). In contrast to the previous studies, the current study examines the impact of foreign aid as a whole and foreign loans and foreign grants separately. The expected relationship between labor force and per capita income will be negative. According to (Michael, 2007) there is a mixed impact of labor force on GDP growth in most of the developing countries. Education builds stock of competences, knowledge, and skills in workers which further enhances the development.

The annual data from 1972 to 2020 are used for econometric analysis in this study. The name of the variables, abbreviations and their description along with data sources is are given in Table 2.

Table 2
Variables and Data Description

Sr. No.	Variables	Data Source	Description
1.	GDP Per Capita (Y)	SBP	GDP Per capita used as proxy for economic development.
2.	Investment (K)	SBP	The gross fixed capital formation as percentage of GDP is used as proxy for Capital Stock.
3.	Population Growth Rate (L)	SBP	Annual growth rate of population.
4.	Openness (O)	SBP	Sum of exports and imports as percentage of GDP is considered proxy for openness.
5.	Secondary School Enrollment (E)	Economic Survey	This study has used secondary school enrollment as proxy for Education.
6.	Foreign Assistance (F)	Economic Survey	Disbursements of foreign economic assistance percentage of GDP have been used as the main independent variable of the analysis.
7	IMF	The Ministry of Finance	The role of IMF is analyzed by using a dummy variable for IMF. In this regard, the years in which Pakistan remained the part of IMF program are given the value of 1for the rest of years the value 0 is assigned.

The time series are normally integrated therefore, the first step is to check stationarity of the data. The results of ordinary least square (OLS) are not reliable and spurious in case of non-stationary data (Newbold & Granger, 1974). To check the order of integration, Augmented Dickey-Fuller (ADF) Test is used. The results are presented in Table 3. The analysis depicts a mixture of I (0) and I (I) variables. Thus, in the current scenario, Autoregressive Distributed Lags Model (ARDL) is the proper method for estimation (Pesaran et al., 2001).

Table 3
Unit Root Test Results (ADF)

Variables	Level			1st Difference		
	Intercept	Trend and Intercept	None	Intercept	Trend and Intercept	None
Y	3.4820	-0.9737	14.5725	-6.0439*	…	…
O	4.5782*	3.4170	4.9981*			
L	0.1807	-1.8028	1.7202	-6.4735*	…	…
K	0.8070	-1.1451	1.7867	-6.5908*	…	…
E	-3.7663*	…	…	…	…	…
F	2.6691	-0.8160	5.7713*	…	…	…

Note. Null Hypothesis: There is unit root, * denotes the rejection of Null at 5% level.

For ARDL estimation, basic conditional Vector Error Correction Mechanism equation can be written as under.

$$\Delta Y_t = \alpha + \gamma_1 Y_{t-1} + \gamma_2 L_{t-1} + \gamma_3 K_{t-1} + \gamma_4 O_{t-1} + \gamma_5 E_{t-1} + \gamma_6 F_{t-1} + \gamma_7 IMF_{t-1} + \sum_{i=1}^{\rho} \omega_i \Delta Y_{t-i} + \sum_{i=0}^{\rho} \tau_i \Delta L_{T-I} + \sum_{i=0}^{\rho} \sigma_i \Delta K_{t-i} + \sum_{i=0}^{\rho} \pi_i \Delta O_{t-i} + \sum_{i=0}^{\rho} \emptyset_i \Delta E_{t-i} + \sum_{i=0}^{\rho} \beta_i \Delta F_{t-i} + \sum_{i=0}^{\rho} \delta_i \Delta IMF_{t-i} + \varepsilon_t (3)$$

Where α is intercept, εt is the error term, $\gamma_1 \ldots \gamma_7$ are the long run coefficients, and ω, τ, σ, β, φ, and θ are the short run dynamic coefficients. Here, Y, L, O, E, F, and K denote GDP per capita, population growth rate, openness, secondary school enrollment rate, foreign economic assistance, and investment, respectively.

Estimation Results

First step in ARDL is estimation of the bound test (F-Statistics). Here null hypothesis is of no cointegration. So,

Ho: $\gamma_1 = \gamma_2 = \gamma_3 = \gamma_4 = \gamma_5 = \gamma_6 = \gamma_7 = 0$ is against the alternative hypothesis of

H1: $\gamma_1 \neq \gamma_2 \neq \gamma_3 \neq \gamma_4 \neq \gamma_5 \neq \gamma_6 \neq \gamma_7 \neq 0$

Table 5 presents the estimation results of bound F-test statistics.

Table 4

Bound Test Results

F-Statistic Value	Lag Length	Significance Level	Bound Critical Values	
			I (0)	I (I)
4.52	2	1%	2.96	4.26
		5%	2.32	3.50
		10%	2.03	3.13

The calculated F-statistic is 4.52, which is greater than upper bound at 5% significance level, showing long run relation between the variables. Schwarz Bayesian Criterion is used for the selection of the optimal lag length.

Long Run Relationships

The following Table 5 presents long-run estimation results.

Table 5

ARDL Long Run Results (1, 0, 0, 1, 0, 1, 1)

Variables	Coefficients	*p*-Value
Y (-1)	0.1532	0.49
L	-3.6312	0.03
K	1.2465	0.00
E	-0.9863	0.01
F	-0.4256	0.03
IMF	0.1356	0.10
O	-0.7546	0.37
Constant	-2.9195	0.44
R^2	0.96	
Adjusted R^2	0.95	
F-stat	135.02	
Prob (F-stat)	0.00	
LM test	1.2354	
p value	(0.3801)	

The results presented in the above Table 5 suggest that foreign economic assistance has an adverse impact on GDP per capita in the long run. The analysis also depicts that the role of IMF is positive (although only near to significant at 10 level) for the economic growth of the country. Whereas,

the population growth supports Malthusian hypothesis which states that it has negative impact on growth and welfare of a country, as its coefficient has a negative sign. The gross capital formation has a positive effect on the economic development of Pakistan as investment boosts economic development of a country.

Contradictory to expectations, openness has insignificant impact on development. This may be due to the limited openness coupled with electricity shortage crisis, which hindered the improvement of competitiveness and productivity of the economy. The education, which is proxied by secondary school enrollment, also has a negative impact. This seems opposite to the theory about the impact of education (Pritchett, 2001). It is worth notable here that the negative effect may be due to non-vocational education. Moreover, quality of education, job opportunities, and lag in finding jobs also matter.

Short Run Relationships

The ARDL approach also provides the short run results with Error Correction Model (ECM). The Table 6 provides the ECM.

Table 6

ARDL Short Run Results

Variables	Coefficients	*p*-Value
Constant	-0.3412	0.14
D(Y(-1))	0.2356	0.04
D(POP)	-0.6148	0.86
D(K)	2.0215	0.00
D(SEC)	0.1236	0.97
D(SEC(-1))	-0.7451	0.37
D(F)	-0.1245	0.00
D(IMF)	0.0785	0.08
D(IMF(-1))	0.4019	0.63
D(O)	-0.4569	0.28
D(O(-1))	-0.6785	0.19
ECT(-1)	-0.5611	0.01
R^2	0.71	
Adjusted R^2	0.65	
F-stat	3.39	
Prob (*F*-stat)	0.01	

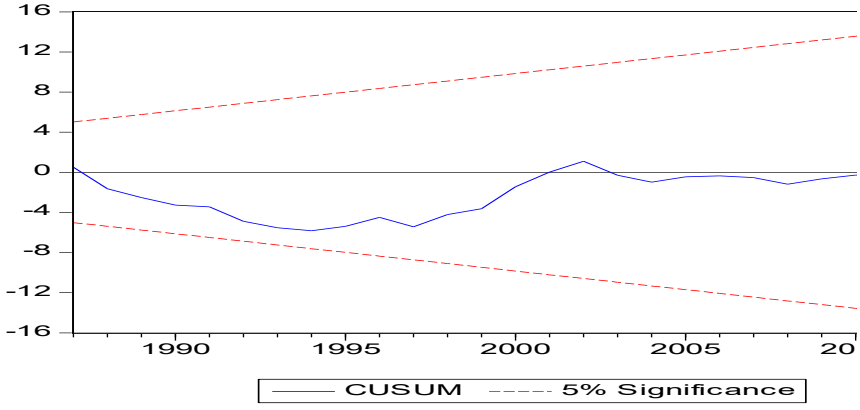
The Error Correction Term (ECT) is negative and significant. Its coefficient shows the speed of adjustment to the shocks in the exogenous variables. The value of error correction term is 0.56, which shows that 56% adjustment towards long run equilibrium occurs in a year.

The above analysis also illustrates that population growth, openness, and secondary enrollments have insignificant effects on the development. However, in Pakistan, investment has positive impact on GDP in the short run. In line with the long run estimation results it was found that foreign economic assistance has negative and significant relationship with GDP per capita in the short run. The results regarding the role of IMF are quite astonishing as it has been found that in the short run IMF's presence has a positive impact on the development however it is insignificant.

The cumulative sum test graphs show that the model is stable and coefficient lies within the critical limits.

Figure 4

CUSUM Model Stability Graph



CUMSUM test results

Conclusion

The current study concludes that the foreign aid, as a whole, has negative effect on GDP both in long run, as well as, in short run. Similarly, it has also been found that in the long run, the role of IMF is positive but and near to significant at 10% level for the development of Pakistan however, in the short run its effect is positive but insignificant. It is caused

due to the strict measures proposed by IMF, such as reduction in government expenditures (the government mostly preferred to reduce the development expenditure), imposing more taxes, reducing subsidies, raising the interest rates, and others. Due to these policies, the economy does not improve significantly in the short run but as it has significant positive effects in the long run,

Policy Implications

The best option for the development policy is to minimize the dependence on foreign economic assistance and rely more on internal resource generation by increasing tax base, tapping new sources, and diaspora to be mobilized in order to minimize the need for loans. It would be better for Pakistan to rely on stable and sustainable sources of external financing that are mainly within the policy control of the Government. However, there is a likelihood that despite all efforts Pakistan may have to look for foreign assistance in order to start mega projects, such as dams, energy sector projects, develop infrastructure, and others. Few of the guiding principles that may be kept in mind before negotiating for aid and tied aid should be discouraged either it is in the form of food or technical aid. It can be accepted for building capacity to formulate, implement and monitor development activities. It would be better if the aids are in the form of grants rather than loans as in the case of Pakistan, grants have development boosting effect. The loans should be taken for long terms not short terms. As the empirical analysis shows that IMF loans have, those are always for short periods, development retarding effects. Moreover, before getting a loan its impact assessment should be carefully done.

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