Institutional Quality, Foreign Aid and Economic Performance

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Abstract

This study investigates the role of foreign aid in promoting sustainable development while taking institutional quality of a country into account. Data is taken from four South Asian countries for the years 1976 to 2013. A linear dynamic panel regression model is estimated using Generalised Method of Moments (GMM) technique. Results show that foreign aid has a negative impact on sustainable development except in cases where GDP growth is very low. This suggests that South Asian countries should accept aid only when GDP is low. Furthermore, GDP is an important channel through which aid effects sustainable development. Trade openness, urbanisation and domestic savings rate have significant positive impact on achievement of sustainable development.

JEL Classification: O1; H0

Key Words: Foreign aid; Sustainable development; Institutional quality; South Asia; Economic growth

1. Introduction

It has been seen that high growth rates do not always translate into high levels of development. The reason is that there are several other limitations to development such as destruction of environment, poverty, institutional shortcomings and persisting inequality. The developing countries are particularly more vulnerable because they have insufficient resources to achieve a sustainable future. They need assistance from the developed nations to boost their prosperity. In this respect, foreign aid plays a vital role. In the present era of increasing globalisation it has become of utmost importance to propagate global policies which will make it a positive force, contributing to inclusive and sustainable development. In other words there is a need for global partnership to protect the global environment, eradicate poverty and inequality. The literature related to relationship between foreign aid and economic performance is controversial. There are various studies that provide evidence of positive affect of foreign aid on growth rates in economy (Huang and Quibria). On the other hand there are numerous studies which provide evidence that aid is unproductive. It tends to result in larger bureaucracies and contributes to government inefficiencies (Friedman).

Theoretically, foreign aid provides necessary assistance to developing nations which is required to preserve their natural resources, increase equity in society and protect the environment. For this reason many economists believe that aid can be used as a tool to improve economic performance of a country. Before pursuing policies which will lead developing nations to accept foreign aid, it is important to empirically analyze the effectiveness of such policies. Some countries were able to increase economic growth and achieve development using foreign assistance while others got trapped into debt crisis and become dependent on foreign resources rather than increasing domestic resource mobilization. There are numerous reasons of bad performance in such nations. According to some studies bad governance, institutional shortcomings and political instability are among the few of the reasons. There is also some evidence that foreign aid creates dualism and substitute domestic saving rather than complimenting it. In these circumstances economic growth may not be able to promote development.

The modern concept of foreign aid originates from reconstruction era after the Second World War. It is a flow of capital from developed to less developed countries. There is almost always a loan aspect, inherently present in aid although often given on concessional terms. This makes it a double edged sword. On one hand foreign resources can help recipient countries to fill domestic resource gab but on the other hand it can lead to debt trap thus translating into slow down of economic growth and development in a country (Gukurume).

Most of the studies related to South Asian countries and investigated foreign aid's impact on economic growth have discovered a positive impact. Austria (2009) studies five South Asian territories and found that a positive relationship between foreign aid and economic growth exists in the long-run. Similarly Bhattarai (2009) found that in Nepal foreign aid effects economic growth positively. Burke and Almadi-Esfahani (2006) examined three South Asian economies and found that aid promote economic growth (Basnet). These studies have focused of aid-growth nexus rather than aid-development relation. Economic growth may not be able to translate into sustainable development in these countries. In present era of growing awareness about economic integration with social, political and environmental variables, focus should be on attaining sustainable development. Economic performance of a country can only be enhanced if all these aspects are considered.

South Asia is the region where institutional quality is poor as compared to developed countries. Table 1 provides percentile rank of various governance indicators for four South Asian countries. Table shows that percentile ranking of all indicators is less than 50, only exception is RL and VA in India. Situation in Pakistan and Bangladesh is worse than India and Sri Lanka. GE, CC and RL are most important indicators of institutional quality which can influence role of foreign aid in the country. When all three are considered collectively Sri Lanka has better ranking than other three countries. Situation in Pakistan and Bangladesh is very poor. This may lead to misallocation of foreign aid funds and negative impact on development.

[Insert Table 1 here]

In addition to poor institutional quality there is also lack of environmental protection in these countries as figures 1 shows. Ecological Footprint of these four nations is greater than their Biocapacity. Therefore, it can be deduced that regardless of foreign aid inflow South Asia has not achieved sustainable development.

[Insert figures 1 here]

Net official aid and gross savings both taken as percentage of GDP, and GDP per capita growth rate for Bangladesh, Pakistan, India and Sri Lanka are presented in figure 2, 3, 4, and 5 respectively. In case on Bangladesh it is clear that official aid and GDP per capita growth as well as gross savings move in opposite directions. Furthermore, since 1976 official aid received by the country shows decreasing trend while gross savings show an increasing trend.

[Insert figure 2 here]

In case of India there is not much change in official assistance received, whereas, gross savings are increasing. GDP per capita growth shows cyclical movements.

[Insert figure 3 here]

In case of Pakistan, gross savings and aid show opposite trends whereas GDP per capita is also moving opposite to aid but the difference is less apparent.

[Insert figure 4 here]

More or less same picture is presented in case of Sri Lanka. It is also showing a decrease in net official aid received by the country.

[Insert figure 5 here]

It is seen that South Asian countries have poor institutions, lack environmental protection and show a decreasing trend in official assistance received. Generally it is seen that aid decreases savings in these countries. In light of above argument it is difficult to accept that aid promotes development even though it may increase GDP growth rate. The main objective of current study is to analyse impact of foreign aid on sustainable development rather than GDP growth or per capita growth. Institutional quality is also taken into account. It uses panel data of South Asian economies. Policy implications are chalked out based on results of the study. It is divides as follow; section two provides literature review, section three discusses data and methodology, section four present results and section five concludes the study. Policy implications are also included in section five.

2. Literature Review

There is an array of literature review available which studies the impacts of foreign aid on growth in various regions of the world. Many of these researches take into account institutional quality as well. This section provides review of existing literature regarding the impact of foreign aid on economic performance.

Drometer (2013) analyses the relationship among foreign aid and institutional quality. It studies effect of foreign aid on institutional performance, using the panel data of developing countries. Study focuses on the shift of foreign aid, after the incidence of World Trade Centre, to developing countries near Afghanistan for the military purposes and investigates the performance of these countries. The results indicate a positive rather than negative relation between the foreign aid and institutional performance in economies under consideration.

Chawdhury and Das (2011) tested aid effectiveness hypothesis for South Asian economies. The results of the study show that four out of five countries being studied support the hypothesis. Thus showing that long-run positive relation between aid and economic growth exists in South Asian region. The study uses country-specific time series as well as panel co-integration technique for analysis. Data is taken for the years 1976 to 2008.

Daud and Azam (2011) study the impact aid given by Islamic Development Bank (IDB) to African countries. The study focuses on various development objects which IDB can target. Human capital development, poverty alleviation, infrastructural development and good governance are required to achieve sustainable development in the region. IDB can focus on these aspects while providing aid to these countries. It is advised to provide technical assistant rather than financial aid which is often used inefficiently in such countries, with high corruption and mismanagement in the public sector.

Tobin and Kosack (2006) study the role played by aid, foreign direct investment (FDI) and government in achieving the goal of sustainable development. Logically and empirically it is shown that aid promotes human resource development and sustainable development, whereas FDI either does not play any significant role or play a negative role due to outflow of resources. The positive role of aid depends on government policies and the extent to which they are pro human development. The paper employs simultaneous equation model for analysis and uses GMM technique for estimation.

There are many discrepancies in the literature on foreign aid and its contribution to sustainable development. Subedi studies the impact of aid on development in Nepal by over viewing economic conditions in the country with a special focus on Rapti-IRDP plan. It concludes that foreign aid has failed to reduce poverty and underdevelopment in Nepal. Furthermore, it has created dualism in the country, creating regional inequalities.

Gukurume (2012) studies role of foreign aid for African countries especially in Zimbabwe. The study relies on literature review to make important implications. It indicates that in African countries foreign aid is undermining sustainable development. The conditionality posed by donors and misuse of aid by recipients often lead to debt trap and dependency. In that respect, type of aid is also important. Sometimes aid is necessary (such as humanitarian aid) and plays positive role during crisis. Furthermore, there are many problems in developing countries which lead to inefficient use of aid and hence contributing to its negative impact. Therefore, aid can play both positive and negative role in an economy. It depends largely on the type of aid, objectives of donors and recipients and existing economic, political as well as social conditions in recipient nations.

Larsson (2009) also investigates whether official development assistance (ODA), institutional quality and economic growth are related or not, by using the panel data. The study concludes that there is no positive relationship between growth and foreign aid.

Kathavate and Mallik (2012) explore the interaction between the aid volatility and per capita economic growth with the consideration of institutional performance. The study uses Generalised Methods of Moments (GMM) on panel data of 78 countries and time period of 1984-2004. Result indicates existence of negative relation between aid volatility and growth of a country and both are dependent on institutional quality for the better performance. An important policy implication of the study is that aid is more effect when country has strong institutions.

Young and Sheehan (2014) study the impact of foreign aid on institutional quality. Study uses panel data of 116 countries and finds that aid inflow contributes to deterioration of both political and economic institutions. Study also analyses impact of institutional quality on growth and finds a significant positive relation between economic institutions and growth rate. When regression is run, controlling for governance indicators, it is observed that there is no statistically significant relationship between foreign aid and economic growth.

Khan and Ahmed (2007) analyses role of foreign assistance in increasing economic growth rate of Pakistan. The study finds that foreign aid does not play any significant role in promoting growth of the country. Islam (1992) finds that in Bangladesh there is only a weak positive relationship between economic growth and foreign assistance. Another study, Dhakal *et al*. (1996) provides inconclusive results after examining three South Asian countries, Pakistan, Nepal, and India.

Literature review reveals that foreign aid, economic growth and institutional quality are all interlinked. Various studies, especially related to South Asian countries, are focused on estimating the impact of foreign assistance on economic growth while institutional quality is ignored. Many important variables, such as trade openness, are ignored. In addition to this it is seen that aid might not effect growth directly, but have an indirect impact. To improve previous research the current study focuses on sustainable development, aid and institutional quality. Channels through which aid may have an indirect impact on sustainable development are also analysed to get better results.

3. Methodology and Data

In this section empirical model and data are discussed. The study follows Huang & Quibria (2014) which employs a simple theoretical model based on Solow growth model to derive an equation for analysing the effect of foreign assistance on sustainable development in South Asia [1]. It is given in the following equation;

$$SD_{it} = \alpha_0 + \alpha_1 SD_{i,t-1} + \alpha_2 AID_{it} + \alpha_3 IQ_{it} + \alpha_4 BAID_{it} + \alpha_5 CH_{it} + \alpha_6 AID * CH_{it} + \varepsilon_{it} \quad (1)$$

In equation (1) SD is sustainable development, it depends on its own lag, foreign aid (AID), institutional quality (IQ), control variables named beyond aid (BAID) and transmission channel (CH) and the variable (AID*CH), at time period t, for country i. α_0 is fixed effect and ε_{it} is error term.

Independent variables in this model are endogenous with respect to error term due to possible simultaneity or measurement errors. It is a linear dynamic panel regression model. Such model can be estimated using GMM technique. Huang and Quibria (2014), shows that GMM is an efficient technique for estimation of this model. It applies lagged values of the observed variables as instruments. It also tackles the issue of weak instruments with weak factor structure.

3.1. Measure of Sustainable Development

There are many indicators which can be used to measure sustainable development. Although no single index or variable can capture its full extent. In this study adjusted saving or genuine savings is used as proxy for sustainable development. Data is taken from WDI Database. It is taken as percentage of GNI. Genuine saving measures the net saving of a country and minus the environmental degradation, resource depletion plus the investment in human capital.

3.2. Foreign Aid and Institutional Quality

Foreign aid is the inflow of resources from abroad. The purpose is to assist a country so that it can bridge its resource gap. The aid is given of recipient countries by various bilateral and multilateral donors. It can be given by governments or non-government organisations for humanitarian or development purposes. In this paper net official development assistance and official aid received is used as an indicator of foreign aid. Institutional quality is measured by polity indicator (P). Data is taken from WDI Database and Polity IV Database.

3.3. Beyond Aid variables

Control variables include; gross domestic saving as percentage of GDP (GS), trade openness (TO), ratio of M2 to GDP (MG)-it is used to measure financial depth, urbanisation (U) and population growth rate (POP). Data is taken from WDI Database.

3.4. Transmission Channels

One potential transmission channel is considered in this study. It is economic growth (GR), measured as GDP per capita growth and its data is taken from WDI Database.

4. Results and Discussion

In this section estimated model is discussed in detail. Results are presented in table 2, it shows coefficients along with their p-values. It also shows that economic growth, as well as its interaction term, both are significant. This means that level of economic growth is very important for achieving sustainable development.

[Insert table 2 here]

Secondly, it implies that it is very likely that economic growth transmits effect of foreign aid on sustainable development, i.e. it is a possible transmission channel. In this model aid seems to be negatively effecting sustainable development. It should be noted that coefficient of economic growth rate is positive but that of aid and interaction term are negative. This suggests that indirect impact of aid on growth is positive when growth is low but it is negative when growth rate is high. The effect of institutional quality on sustainable development is negative and significant. But it should be noted that polity variable is used as a proxy for institutional quality. The negative impact may have been resulted due to measurement error. However it verifies Huang and Quibria, (2014).

In beyond aid variables all are significant except population growth rate. Domestic savings, trade openness, urbanisation and financial depth all have a positive and significant effect on sustainable development.

5. Conclusion and Policy Implications

This paper analyses the impact of foreign assistance and institutional quality on sustainable development in four South Asian countries. Foreign aid, received as official assistance, has a negative direct impact on sustainable development. It is seen that when economic growth is low the indirect impact of aid on sustainable development is positive, whereas, when it is high sustainable development is negatively affected by aid. Institutional quality has a negative impact on achievement of sustainable development. Beyond aid variables show positive impact on sustainable development.

Policy implications are that foreign aid should only be accepted when economic growth is low in these countries as it has a negative impact on achievement of sustainable development. Secondly, policies promoting trade openness should be favoured. Urbanisation and domestic savings should be increased to achieve sustainable development.

This paper is a contribution to existing literature on aid-growth debate. It contradicts results of some past studies. Negative impact of institutional quality on sustainable development is questionable. To improve these results robustness of the model should be checked to verify these results. Furthermore, this study utilises only one transmission channel but there could be various other channels through which aid may have an impact on achievement of sustainable development. Future studies can include such channels like natural resource exploitation, energy intensity etc.

Note

[1] Due to data availability four South Asian countries are included; Bangladesh, India, Pakistan and Sri Lanka. Data is for the years 1976 to 2013.

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Table 1: Governance Indicators' Percentile Rank* of South Asian Countries (2013)

Indicator/ Country	Pakistan	Bangladesh	India	Sri Lanka
Control of Corruption (CC)	17.7	20.57	35.89	51.67
Government Effectiveness (GE)	23.4	22.49	47.36	45.93
Political Stability and Absence of Violence/Terrorism (PSAV)	0.94	7.58	12.32	26.07
Regulatory Quality (RQ)	24.8	20.57	33.97	47.85
Rule of law (RL)	20.8	22.75	52.61	46.45
Voice and Accountability (VA)	24.6	35.07	61.14	28.91

*0 corresponds to lowest rank and 100 to highest rank

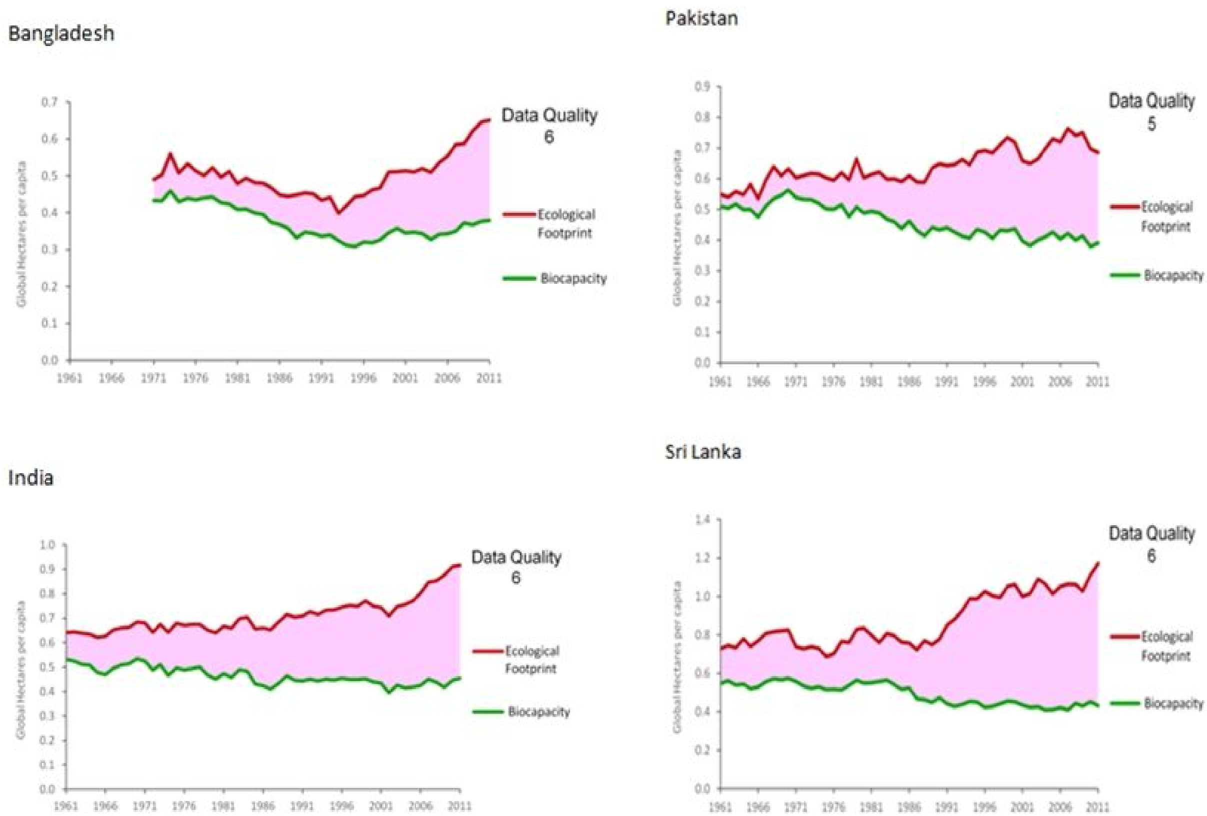
Source: World Development Indicators, Online Data Bank, Retrieved; June, 2015

Table 2: Estimation Results: Economic Growth as Transmission Channel

Dependent variable	Sustainable Development
Aid	-0.19
	(0.005)
Institutional Quality (P)	-0.18
	(0.000)
Economic Growth (GR)	0.16
	0.077
GRxAid	0.03
	0.027
Domestic Savings	0.39
	(0.000)
Trade Openness	0.082
	(0.000)
Financial Depth	0.14
	(0.000)
Urbanisation	0.17
	(0.002)
Population Growth	-0.18
	(0.531)
Constant	-3.51
	(0.034)
Wald Chi^2(9)	1730.71
Propability>Chi^2	(0.000)

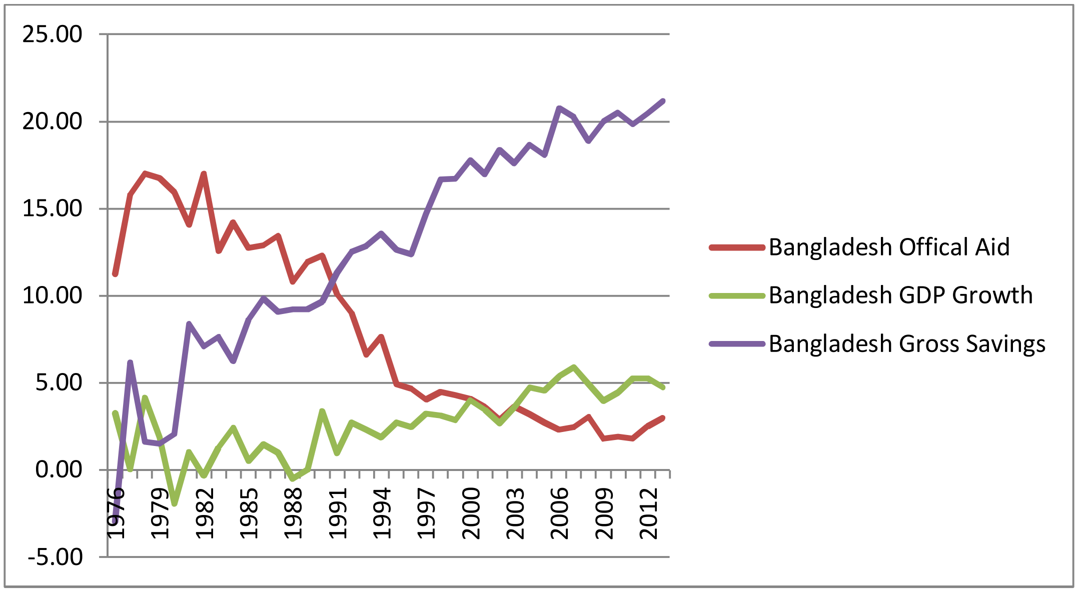
Source: Calculated by the author

Figure 1: Ecological Footprint of Bangladesh, India, Pakistan and Sri Lanka



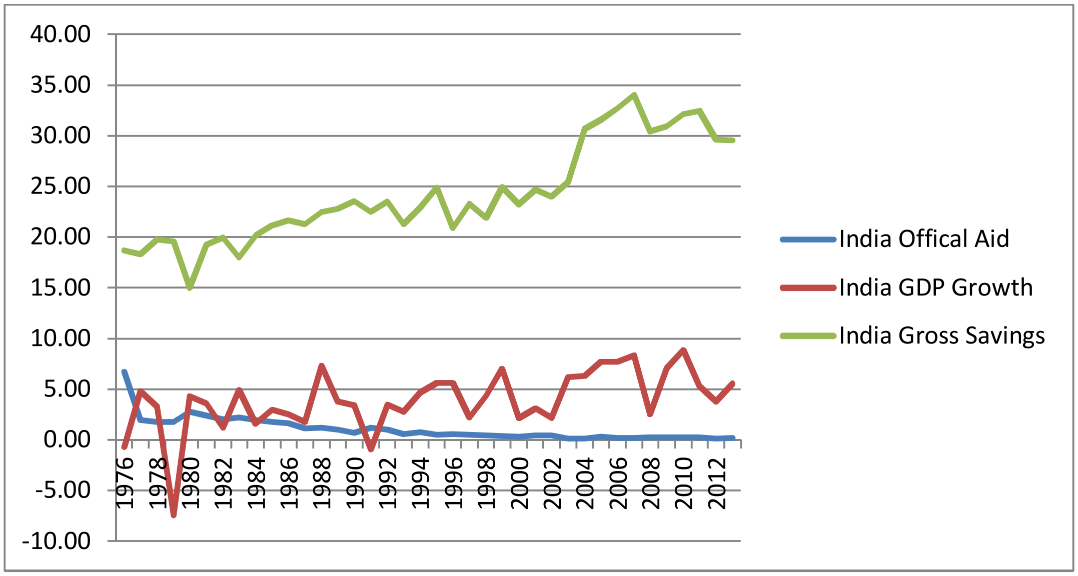
Source: Global Footprint Network, 2015

Figure 2: Aid, Growth and Savings in Bangladesh (1976-2013)



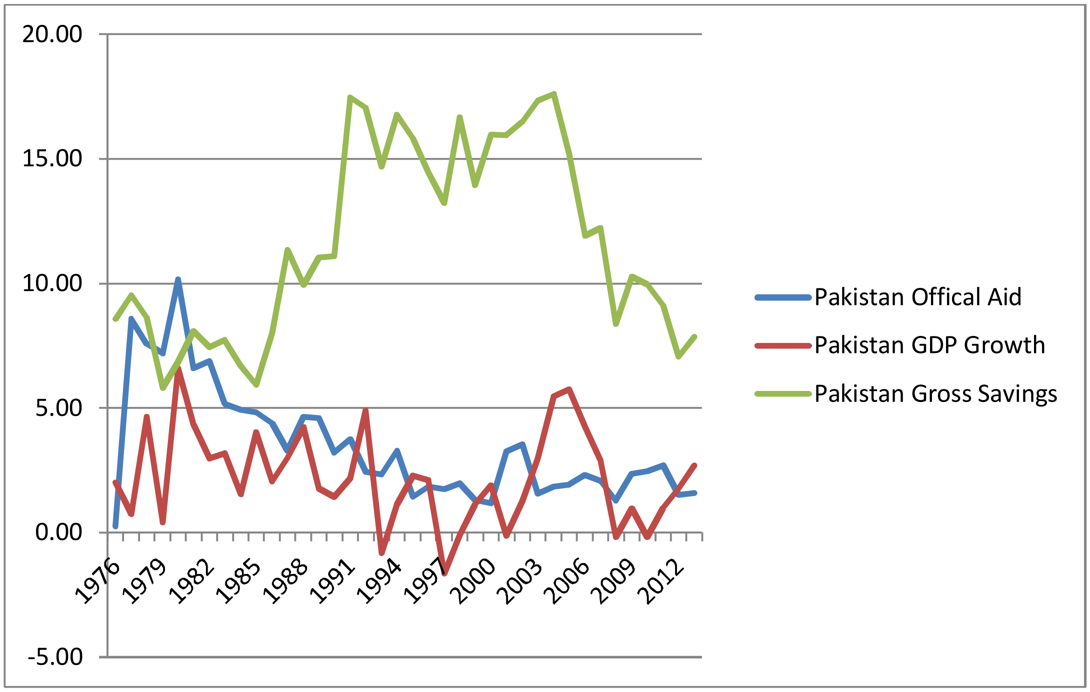
Source: World Development Indicators, Online Data Bank, Retrieved; June, 2015

Figure 3: Aid, Growth and Savings in India (1976-2013)



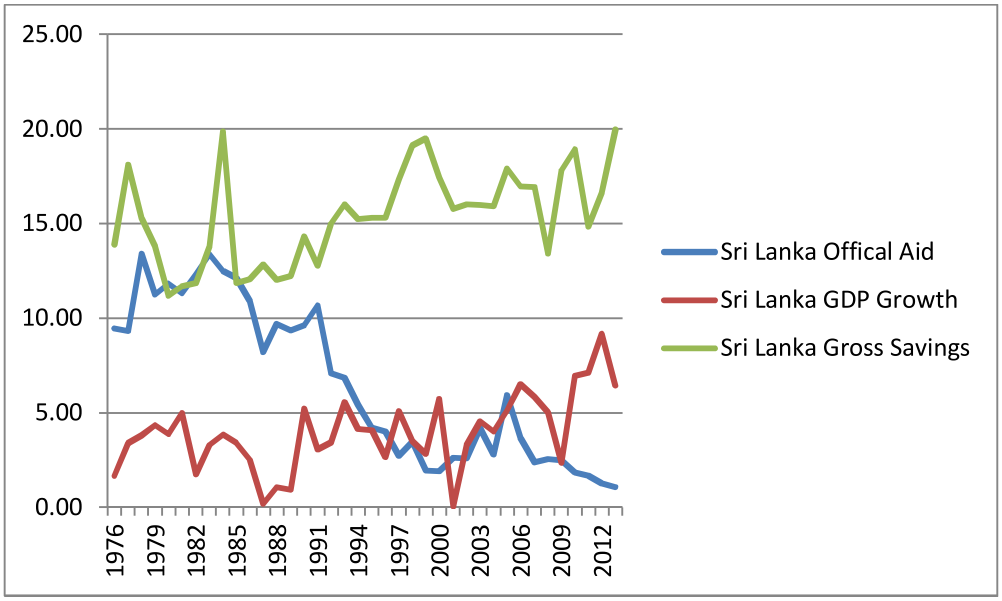
Source: World Development Indicators, Online Data Bank, Retrieved; June, 2015

Figure 4: Aid, Growth and Savings in Pakistan (1976-2013)



Source: World Development Indicators, Online Data Bank, Retrieved; June, 2015

Figure 5: Aid, Growth and Savings in Sri Lanka (1976-2013)



Source: World Development Indicators, Online Data Bank, Retrieved; June, 2015