Indian Management Studies Journal 24, 25 (2020, 2021) 1-11

Indian
Management
Studies Journal

Effectiveness of Foreign Aid in India : Comparative Analysis of World Bank and Asian Development Bank

Zeenia Singh Ahluwalia* and Rajinder Kaur**

** Department of Commerce, Punjabi University, Patiala.*

*** Department of Commerce, Punjabi University, Patiala*

Abstract

Finance is an indispensable part of any country's economic development. Not only it's mere availability is important, making adequate amount of finance available, at the right time is must for any country to grow and sustain that growth. Developing countries like India, have never been financially self-sufficient. Hence, these countries have constantly been relying upon foreign aid for assistance. One such source of foreign aid is International Financial Institutions (IFI). The present study is an attempt to draw out a comparison in the impact of lending by two of the IFIs, World Bank and Asian Development Bank on India's economic growth. The period of the study is from 1991 to 2018. Results of the regression analysis reveal that World Bank lending has negative impact on India's economic growth, whereas, Asian Development Bank's lending has a positive impact on India's economic growth.

Key Words

Finance, Economic Growth, Development, World Bank, Asian Development Bank

INTRODUCTION

It is rightly said that finance is the life blood for any country's development. Just as the body malfunctions due to lack of adequate amount of blood, the economy also behaves in a similar manner, if satisfactory supply of finance is not maintained. It is herculean task for any country, specially the developing countries, to be able to hold up and bear its process of economic development independently, without any external assistance. Financial aid influences the process of growth by reducing the saving investment gap, increasing productivity and transferring the modern technology (Khan and Ahmed 2007). One widely used source of aid are, International Financial Institutions like The World Bank, IMF and The Asian Development Bank, which provide assistance in different forms to the nations worldwide. These institutions provide assistance in different forms as per the needs of the recipient country and the terms of lending also vary not only from country to country but also from project to project.

India has never been a self-sufficient nation as far as finance is concerned and thus has been taking financial assistance from major international financial institutions for different projects pertaining to different sectors of the economy. This paper is an attempt to study, the relationship between India and the World Bank as well as between India and the Asian Development Bank (ADB). India was one of the founding members of the World Bank and received its first assistance in the year 1948. Since then, India has been one of the largest recipients of the World Bank lending. Further, India was a founding member of ADB in 1966, has been ADB'S top borrower since 2010 and is now the bank's fourth largest shareholder.

RATIONALE OF THE STUDY

With a population of more than 1.2 billion, India is the world's largest democracy. Over the past decade, the country's integration into the global economy has been accompanied by economic growth. India has now emerged as a global player. India's rapid economic growth in recent decades has lifted the country to become the world's third-largest economy (in purchasing power parity terms), while major economic reforms have been helping dramatically reduce poverty since 2004. However, the country is still diseased by poverty, unemployment, increasing environmental pressure, climate change etc. Adding fuel to the fire is the current Covid-19 pandemic, which has aggravated already existing problems for the nation. India is the founding member of the World Bank and the Asian Development Bank and have been depending on foreign assistance from these International Financial Institutions for forever, now is the time than ever to find the answer to the question that what impact does the foreign assistance actually have on the country's economic growth. Hence, the present study is being conducted.

REVIEW OF LITERATURE

Islam (1992) developed a theoretical framework in his paper, specifying the relationship between foreign capital and economic growth in Bangladesh, which was tested empirically by employing time series analysis. Time series data for the period 1972 to 1988 had taken into consideration. The study concluded that foreign capital was instrumental in economic development of Bangladesh. However, not all categories of foreign capital were found to be equally vital. The results showed that loans and food aid had a stronger influence on economic growth as compared to the other categories. Further, it was found that the domestic resources had far greater effect on growth in comparison to foreign resources. The study suggested that in order to trans-figurate Bangladesh economically, mobilization of domestic resources should be the center of attention for the government rather than reliance on foreign resources.

Mallick and Moore (2005) conducted a study to analyze the impact of World Bank lending on the economic growth of 30 countries using the Panel Data approach. Both, concessional and non-concessional loans, for the period from 1970 to 2001, had taken into account. The study concluded that World Bank lending exerted positive impact on the rate of growth of GDP Per Capita in both, the long run as well as short run.

Kargbo (2012) conducted a study for a period 1970-2007 to find out the impact of foreign aid on economic growth in Sierra Leone. The results showed a positive and significant impact of foreign aid on economic growth in non-war times while the impact was found to be weak or non-existent during the time of war, indicating, that the impact of aid may change with time.

Hossain (2014) scrutinized the impact of foreign aid on economic growth in Bangladesh for a period of 33 years, from 1982 to 2012 and found out that although, the proportion of foreign aid has been declining over the period of years in Bangladesh, but it has a positive impact on the economic growth of the country. The author concludes, that, the government should overcome the capacity constraints and ensure political stability in order to gain maximum utilization of aid.

According to the study, carried for the period 1994-2011 by Girma (2015) to find out the impact of foreign aid on economic growth in Ethiopia, foreign aid has positive impact on the economic growth only if it is augmented with stable macroeconomic policy environment. In the absence of the latter, a negative impact of foreign aid was witnessed on economic growth.

Giri, Mohapatra, and Sehrawat (2016) analyzed foreign aid has impact on the economic growth in India. The data was used for the period 1970-2014. The results affirmed that in both, long and short run, foreign aid has positive and significant impact on the economic growth in India. The study also concluded that the effectiveness of foreign aid in economic growth is dependent on macroeconomic policy environment in India.

Kasour and Masood (2017) carried out a study on South Asian economies to investigate the factors, that promote foreign aid dependence and to check their nature of their relationship with foreign aid. A positive and significant relation was found between Gross Domestic Investment and foreign aid, in both, long and short run. The study also revealed that Gross Domestic Savings reduces the dependence on foreign aid.

Sothan (2017) attempted in his study to find out the growth impact of foreign aid in Cambodia. The study was conducted for the period 1980-2014. The results showed that although, aid had a positive impact on growth in the long run, but in the short run, it's impact was found to be negative on both investment and growth. The author suggested a shift from aid contingence to promoting domestic investment for sustainable development.

RESEARCH GAP

Majority of the studies have been conducted to analyze the impact of foreign aid altogether on the economic growth of the countries. However, in this study we have specifically taken loans advanced by the World Bank and Asian Development Bank to India. Further, no study has been conducted for the said time period, from 1991 to 2018 for the said objectives.

OBJECTIVES

The present study was conducted to cover the following objectives :

- To analyze the impact of World Bank lending on economic growth in India
- To analyze the impact of Asian Development Bank lending on economic growth in India

RESEARCH METHODOLOGY

The study is completely secondary in nature. Data for a period of 28 years, from 1991 to 2018, has been taken. The data has been made available from various issues of Asian Development Bank's Key Indicators for Asia, Pacific and World Bank's World Development Indicators. For the purpose of assessing the impact of World Bank lending and Asian Development Bank lending, Correlation and Multiple Linear Regression have been employed, separately for both the banks. GDP per capita has been taken as the proxy of economic growth (GDP) and the dependent variable as well. Aid (Per Capita Aid by World Bank and ADB), Gross Domestic Savings as a % of GDP (GDS) and Consumer Price Index (annual % change) (CPI) has been taken as independent variables. Statistical software, SPSS 16 was used for the purpose of analysis.

ANALYSIS AND FINDINGS

Impact of World Bank Lending on India's Economic Growth

To find out the impact of World Bank lending on India's economic growth correlation and regression analysis was done. the results of the same are given as follows :

Correlation Analysis

Table 1
Results of Correlation between GDP and the Independent Variables

	PCL	**GDS**	**CPI**
Pearson Correlation	0.481*	0.669**	0.993**
Sig. Value	0.042	0.000	0.000
N	28	28	28
Result	Positive, Moderate and Significant	Positive, Moderate and Significant	Positive, Strong and Significant

* Correlation Significant at 0.05 Level (2-Tailed)
** Correlation Significant at 0.01 Level (2-Tailed)
Source : Author's Construction from SPSS Software

A correlation analysis was conducted to find the degree of association of GDP per capita with the rest of the independent variables, i.e. Per capita lending by World Bank (PCL), Gross Domestic Saving (GDS) and Consumer Price Index (CPI). The results of the same that have also been tabulated in Table 1, are as follow :

- A Moderate Positive Correlation ($r(26) = .481$, $p < .001$) was found between GDP and PCL, indicating a Significant Linear Relationship between the two variables.
- There exists a significant linear relationship between GDP and GDS as a Positive Moderate Correlation ($r(26) = .669$, $p < .005$) was

found between the two.

- A strong Positive Correlation (r(26) = .993, $p < .005$) was found between GDP and CPI, indicating a Significant Linear Relationship between the two variables.

Regression Analysis

To find out the impact of World Bank lending on the economic growth of India a regression analysis was carried out using the following model :

$$Y = c + \beta_1 PCL + \beta_2 GDS + \beta_3 CPI$$

Where,

Y = GDP Per Capita

PCL = Per Capita Lending (by World Bank)

GDS = Gross Domestic Savings (as a % of GDP)

CPI = Consumer Price Index

Table 2

Summary Statistics of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995[a]	.989	.988	49.9218720

a. Predictors : (Constant), PCL, CPI, GDS

b. Dependent Variable : GDP

Source : Author's Construction from SPSS Software

Table 2, contains the Summary Statistics of the Regression Analysis. R square value is 0.989, meaning thereby, that 98.9% of the variations in the dependent variable (GDP per capita) can be explained by the chosen regression model.

Table 3

Results of ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5460595.379	3	1820198.460	730.360	.000[b]
Residual	59812.639	24	2492.193		
Total	5520408.019	27			

a. Dependent Variable : GDP

b. Predictors : (Constant), PCL, CPI, GDS

Source : Author's Construction from SPSS Software

As depicted by Table 3, the ANOVA resulted in F = 730.360 and F is significant at less than 0.001 level indicating that the relationship between dependent and independent variables as modeled in this paper is statistically significant.

Table 4
Coefficients of the Variables

Model	Unstandardized Co-efficients		Standardized Co-efficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	99.220	75.093	1.321	.199	
GDS	8.810	3.112	.079	2.831	.009
CPI	9.683	.280	.945	34.543	.000
PCL	-2.473	7.858	-.007	-.315	.756

a. Dependent Variable : GDP
b. Predictors : (Constant), PCL, CPI, GDS
Source : Author's Construction from SPSS Software

It can be observed from Table 4, PCL has a negative but statistically insignificant effect on GDP. On the other hand, a positive and statistically significant impact of GDS and PCI can be seen on the economic growth of the country. The results of the estimated model are, thus, as follows :

$$GDP = 99.22 + 9.68(CPI) + 8.81(GDS) - 2.47(PCL)$$

Where,
Y = GDP Per Capita
PCL = Per Capita Lending (by World Bank)
GDS = Gross Domestic Savings (as a % of GDP)
CPI = Consumer Price Index

Impact of Asian Development Bank Lending on India's Economic Growth

To find out the impact of Asian Development Bank lending on India's economic growth, correlation and regression analysis was done. The results of the same are given as follows:

Correlation Analysis

A correlation analysis was conducted to find the degree of association

Table 5
Results of Correlation of Independent variables with GDP

	PCL	GDS	CPI
Pearson Correlation	0.909**	0.669**	0.993**
Sig. Value	0.000	0.000	0.000
N	28	28	28
Result	Positive, Strong and Significant	Positive, Moderate and Significant	Positive, Strong and Significant

** Correlation Significant at 0.01 Level (2-Tailed)
Source : Author's Construction from SPSS Software

of GDP per capita with the rest of the independent variables, i.e. Aid (Per Capita Lending by the Asian Development Bank), Gross Domestic Saving (GDS) and Consumer price index (CPI). The results of the same that have also been tabulated in Table 5, are as follows :

A strong positive correlation (r(26) = .909, $p < .005$) was found between GDP and Aid, indicating a significant linear relationship between the two variables.

There exists a significant linear relationship between GDP and GDS, as a positive moderate correlation (r(26) = .669, $p < .005$) was found between the two.

A strong positive correlation (r(26) = .993, $p < .005$) was found between GDP and CPI, indicating a significant linear relationship between the two variables.

Regression Analysis

To find out the impact of Asian Development Bank lending on the economic growth of India a regression analysis was carried out using the following model:

$$Y = c + \beta_1 PCL + \beta_2 GDS + \beta_3 CPI$$

Where,

Y = GDP Per Capita

PCL = Per Capita Lending by Asian Development Bank to India

GDS = Gross Domestic Savings (as a % of GDP)

CPI = Consumer Price Index

Table 6
Results of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995[a]	.990	.989	48.12525071

a. Predictors : (Constant), PCL, CPI, GDS
b. Dependent Variable : GDP
Source : Author's Construction from SPSS Software

Table 6, contains the summary statistics of the regression analysis. R square value is 0.990,meaning thereby, that 99% of the variations in the dependent variable (GDP per capita) can be explained by the chosen regression model.

Table 7
Results of ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5464823.065	3	1821607.688	786.518	.000[b]
Residual	55584.954	24	2316.040		
Total	5520408.019	7			

a. Dependent Variable : GDP
b. Predictors : (Constant), PCL, CPI, GDS
Source : Author's Construction from SPSS Software

As depicted by Table 7, the ANOVA resulted in F = 786.518 and F is significant at less than 0.001 level indicating that the relationship between dependent and independent variables as modeled in this paper is statistically significant

Table 8
Coefficients of the Variables

Model	Unstandardized Co-efficients		Standardized Co-efficients	t	Sig.
	B	Std. Error	Beta		
Constant	107.587	72.448		1.485	.151
AID	.30	.021	.066	1.390	.177
CPI	9.083	.505	.886	17.989	.000
GDS	8.302	2.920	.075	2.843	.005

a. Dependent Variable : GDP
b. Predictors : (Constant), PCL, CPI, GDS
Source : Author's Construction from SPSS Software

It can be observed from Table 8, Aid has a positive but statistically insignificant effect on GDP. On the other hand, a positive and statistically significant impact of GDS and CPI can be seen on the economic growth of the country. The results of the estimated model are, thus, as follows :

$$GDP = 107.587 + 0.30(PCL) + 9.083(CPI) + 8.30(GDS)$$

Where,

Y = GDP Per Capita

PCL = Per Capita Lending by Asian Development Bank to India

CPI = Consumer Price Index

GDS = Gross Domestic Savings (as a % of GDP)

CONCLUSION

Whether foreign aid assists or hinders the economic growth contentious matter. In order to get an insight into this disputable matter, the present study was conducted. Effectiveness of aid in the form of lending by the World Bank and Asian Development Bank to India was judged. Data was assessed for a period of 28 years, from 1991 to 2018. A positive, strong and significant correlation was found between India's economic growth and ADB's lending. The results were similar in case of World Bank lending as well.

Further, regression analysis revealed that foreign aid in the form of World Bank lending have a negative impact on India's economic growth, which also coincides with the results of Moyo and Mafuso (2017) and Abouharb and Duchesne (2019). The results however, were different in case of Asian Development Bank's lending as multivariate regression analysis revealed that aid had positive but insignificant effect on economic growth of India. These results were similar to studies conducted by Mallick and Moore (2005) and Giri, Mohapatra, and Sehrawat (2016).

POLICY IMPLICATIONS

In order to ensure maximum utilization of foreign aid, effective policy making and implementation of the same is vital. The government should set up organized committees that not only monitor the amount of loans received but also ensure the application of that loan for the same objective for which it was applied for at the first place. Moreover, keeping the rationale of our Honorable Prime Minister, MR. Narendra Modi in view, if the country really wants to be 'Atma Nirbhar', more focus should be made on reducing the reliance on external funds. This can be done by prioritizing the use of domestic savings and revenue and keeping any sort of foreign assistance as a secondary source of help. Further, the country should address the root of the some of the problems for which the loans have been taken. For instance, instead of taking loan for dealing with the fiscal deficit or the BOP deficit, etc, India should formulate its fiscal and trade policies in a more efficient manner so as to avoid getting trapped in the deficit-debt spiral.

References

Girma, H. (2015), "The Impact of Foreign Aid on Economic Growth : Emperical Evidence from Ethiopia (1974-2011) using ARDL Approach", *Journal of Research in Economics and International Finance,* Vol. 4 No. 1, pp. 1-12.

Hossain, B. (2014), "The Effect of Foreign Aid on the Economic Growth of Bangladesh", *Journal of Economics and Development Studies,* Vol. 2 No. 2, pp. 93-105.

Giri, A. K.; Mohapatra, G.; and Sehrawat, M. (2016), "Foreign Aid, Macroeconomic Policies and Economic Growth Nexus in India : An ARDL Bounds Testing Approach", *Theoretical and Applied Economics,* Vol. XXIII No. 4, pp. 183-202.

Kargbo, P. M. (2012), "Impact of Foreign Aid on Economic Growth in Sierra Leone : Empirical Analysis", Working Paper No. 2012/17 under UNU-WIDER Project Foreign Aid : Research and Communication (ReCom).

Kousar, S.; and Masood, S. (2017), "Factors Promoting Foreign Aid Dependence in South Asian Countries", *South Asian Studies A Research Journal of South Asian Studies,* Vol. 31 No. 1, pp. 177-191.

M. Islam, A. (1992), "Foreign Aid and Economic Growth : An Econometric Study of Bangladesh", *Applied Economics,* Vol. 24 No. 5, pp. 541-544.

Sothan, Seng (2017), "Foreign Aid and Economic Growth : Evidence from Cambodia", *Journal of International Trade and Economic Development,* Vol. 27 No. 2, pp. 168-183.