

The Effect of Aid Dependency and Quality of Institution in alleviating poverty in IDA countries (1st draft)

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Abstract:

Poverty alleviation has been placed in spotlight ever since the Millennium Development Goals were set by World Bank in the 1990s. This paper examines to what extent a country's aid dependency and quality of institution affect 31 IDA countries in achieving the first of the MDG. The study shows that these countries experience a decrease in poverty, but not necessarily at a rate enough to meet MDGs. Although greater Quality of Institution reduces poverty, some indicators such as control of corruption, rule of law and regulatory quality have greater impact than others.

JEL Classification: F34, I32, M38

Keywords: Aid Dependency, Measurement and Analysis of Poverty, Government Effectiveness, IDA

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The author thanks....

1.0 INTRODUCTION

Poverty has been an issue of much concern especially in the late 90s when the millennium development goals were set. World Bank has classified extreme poverty as those who live on an income of \$1.25 per day¹ in 2005 prices. As of 2005, 1.4 billion people live in extreme poverty (Poverty Analysis, 2009). Countries affiliated World Bank and IMF have since worked towards achieving this goal. As of 2008, World Bank reports that they have underestimated the number of people living in extreme poverty (World Bank Press Release 2008). As a result, many studies have been conducted to analyze the effect to what extent economic growth has succeeded in alleviating poverty.

This paper explores the effect that aid dependency and quality of institution has had on poverty alleviation and concentrates on 31 IDA countries between the years 2000 and 2007. The countries used in this study are listed in Appendix C.

This paper was written with a particular focus on IDA countries. World Bank has a separate organization called IDA, International Development Association, which deals with the “world’s poorest countries and helps them attain interest-free loans and grants for programs that boost economic growth, reduce inequalities and improve people’s living conditions” (What is IDA?, 2009). IDA countries face the worst of extreme poverty, and as a result these countries became the focal point of this study. As of 2008, there are 78 such IDA members; however, due to unavailability of data some countries were excluded from this study.

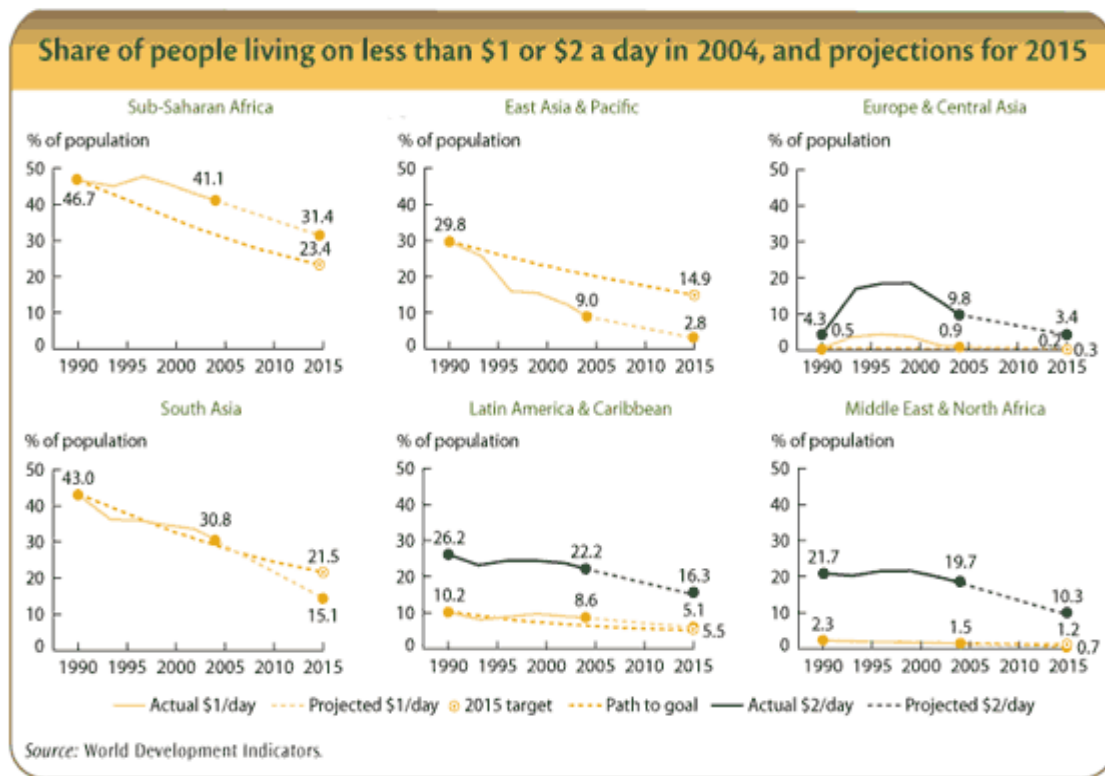
The rest of the paper is organized as follows: Section 2 summarizes the current trends in poverty in IDA countries based on World Development Report and similar studies. Section 3 outlines the empirical model and describes its variables. The results of this study are discussed in section 4 which is followed by conclusion and policy recommendation in section 6.

¹ Poverty Analysis, (2009). Overview - Understanding Poverty, The World Bank Group, 2009

2.0 TRENDS

According to World Bank, “living standards have risen dramatically over the last decades ...but wide regional disparities persist” (Poverty Analysis, 2009). The World Bank website reports that the proportion of people living in extreme economic poverty has dropped from 52 percent in 1981 to 26 percent in 2005. Although this statistic may seem encouraging, in Sub-Saharan Africa over the same time period, “in absolute terms, the number of poor people has nearly doubled”, from 200 million to 380 million.

In the following chart World Bank provides data on where the world stands in terms of the percent of people living below \$1 or \$2 a day in 2004 and where the world is projected to stand in 2015.



As of 2004, Latin America and Caribbean, Europe and Central Asia, Middle East and North Africa and South Asia are on target. South Asia is projected to fare better than the 2015 target. East Asia and Pacific region have made remarkable progress in halving their percent of people living in poverty in 14 years. It is expected that by 2015, only 2.8% percent of this region will be living below the poverty line.

However, the Sub-Saharan Africa region does not share the same success story. In a span of 14 years, this region has only managed to bring 5.6 percent of the population above the poverty line. World Bank expects that this region will be 8% short of its original goal of 23.4%. It is difficult to predict if Sub-Saharan Africa will continue to experience a fall in the percent of people living below the poverty line given its poor track record at reducing poverty, especially compared to the rest of the world.

2.1 Literature Review

Economic literature on Aid, Policy Implication, Growth and Poverty Reduction show that on average, aid has little impact on growth. In their article “Aid Allocation and Poverty Reduction,” Collier and Dollar (2001) concludes that “actual allocation of aid is radically different from poverty-efficient allocation” of aid. However, a study conducted by Burnside and Dollar (2000) show that aid has a positive impact on growth in a good policy environment. This also shows that the quality of government policy, institution, transparency, accountability and control all come into play in determining the effectiveness of aid. Collier and Dollar (2001) in “Development Effectiveness” agrees with Burnside and Dollar (2000) that the allocation of aid that has maximum effect on poverty depending on the level of poverty and the quality of policies. In his article “Can foreign aid buy growth?” Easterly (2003) has an interesting take on the Burnside and Dollar model. He supports but Burnside and Dollar paper but says that economic growth depends on investment as a share of GDP, and therefore determines the quality of the investment – similar approach to that of Burnside, Dollar and collier.

In a separate study on “Economic Growth in a Cross Section of Countries” Barro (1991) finds that political instability – measure of quality of governance, is inversely related to growth and investment. Based on his findings, Barro speculates that the extreme poverty and below-average growth rate conditions in Sub-Saharan Africa can be attributed to poor governance.

In his paper “Aid dependence and the Quality of Governance”, Stephen Knack (2000) states that the amount of aid is a determinant of the quality of governance. According to Knack, “higher aid levels erode the quality of governance” through poor control of corruption and the rule of law.

3.0 DATA AND EMPIRICAL METHODOLOGY

3.1 Definition of Variables

The model used in this study is based on a Collier-Dollar's simple growth model that explains the relationship between growth and aid dependency and government policies:

$$G = c + b_1X + b_2P + b_3A + b_4A^2 + b_5AP \quad (1)$$

In this equation by Collier-Dollar, Growth, G , is modeled as a function of five independent variables: exogenous conditions (X), the level of policy (P), the level of aid dependency *relative to GDP* (A), the level of aid squared (A^2) and the interaction of policy and aid.

The equation above has been adjusted to take extreme poverty, aid dependency and quality of institution into account.

$$Pov = C = \beta_1GDP + \beta_2Inflation + \beta_3AgeDep + \beta_4Aid + \beta_5QOI \quad (2)$$

The dependent viable in the equation, Pov (percent of population living below the poverty line) is expressed as a function of the independent variables: GDP per capita growth, inflation (GDP deflator), Age dependency ratio (dependents to working-age population), Aid (as a percent of GNI) and Quality of Institution, QOI, for which CPIA transparency, accountability, and corruption in the public sector rating (1=low to 6=high) and World Governance Indicators: Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption have been used.

3.2 Data

The data for this study was obtained from World Development Indicators and World Governance Indicators which is publicly available on World Bank's website. It must be mentioned here that the data is not completely comparable from country to country. Often due to unavailability of data the number of countries has been cut short from 78 to 31, as mentioned earlier. The summary statistics are provided in Table 1.

<Insert Table 1 about here>

4.0 EMPIRICAL RESULTS

The results of all seven regression show that there is a consistent effect of independent variables on the dependent variable. The seven Quality of Institution variables are run separately in seven equations because the variables are assumed to be correlated to one another.

The results reveal that increase in GDP and higher quality of institution tends to reduce poverty level whereas higher inflation, age dependency ratio and aid dependency tends to increase poverty level. The effect of each variable matches the expected effect on the dependent variable. The expected signs of the regression model are indicated in Appendix B.

The independent variable GDP per capita growth shows with very high significance level, 97.5% or better, that poverty level can be reduced through higher GDP. Aid dependency also shows some statistically significant results, 95% or better in terms of its effect on poverty.

Of all the regressions run, the Quality of Institutions variables: Control of Corruption, Rule of Law and Regulatory Quality are statistically significant with significance levels of 9%, 2.5% and 10% respectively. The results also show that Aid as an independent variable (with significance levels of 5% or better) has very little effect on the percent of population living below the poverty line. Given that 18 of the 31 countries used in this study are Sub-Saharan African countries, the results are likely to reflect the effect of Sub-Saharan countries compared to other regions. See Appendix C.

From the results it is evident that that there are poor levels of government effectiveness. Government effectiveness as a measure of Quality of Institution has almost no significant impact on the poverty level.

5.0 CONCLUSION

It is evident from the results that aid dependency has very little impact on the poverty level. High levels of aid, from foreign donors or even their governments, does not necessarily ensure that the lives of the poor improve. This may be because aid does not trickle down to the extreme poor, but is rather consumed along the bureaucratic process. Through effective rule of law and control of corruption these IDA countries do experience a decrease in their poverty level. It was not possible to draw conclusions about Sub-Saharan African IDA countries since most had to be excluded from this study due to unavailable data. Results from this study and trends from other studies show that even though the poverty level has decreased, the Sub-Saharan African countries are still lagging behind. In order to meet the MDGs by 2015, countries in Sub-Saharan Africa must engage in transparency in their government policies and ensure political stability.

Appendix A: Acronym, Description and Data Source

Acronym	Description	Data source
IDA	International Development Association – organization that deals with the world’s poorest countries and helps them attain interest-free loans and grants for programs that boost economic growth, reduce inequalities and improve people’s living conditions.	World Bank
MDG	Millennium Development Goals - an eight-point road map with measurable targets and clear deadlines for improving the lives of the world’s poorest people that 189 world leaders promised at the United Nations Millennium Summit in 2000 to achieve by 2015.	End Poverty 2015 Millennium Campaign
CPIA	Country Policy and Institutional Assessment – means of rating countries against a set of 16 criteria grouped in four clusters: (a) economic management; (b) structural policies; (c) policies for social inclusion and equity; and (d) public sector management and institutions.	World Bank

Appendix B- Variables and Expected Signs

Acronym	Variable Description	Expected sign (+/-)
Pov	(Dependent Variable) Log of % Population living below the poverty line	
C	Constant	If (+)
GDP	GDP per capita growth	(-)
Inflation	GDP deflator – measure of prices of all new domestically produced goods and services in an economy ¹	(+)
AgeDep	Age Dependency Ratio	(+)
Aid	Aid (as a percent of GNI)	(+)
QOI	Quality of Intitution	(-)

¹ Bureau of Economic Analysis

Appendix C: Countries used in this study

Bangladesh
Benin
Burkina Faso
Cambodia
Cameroon
Cape Verde
Cote d'Ivoire
Guinea
Haiti
Honduras
Kyrgyz Republic
Lao PDR
Madagascar
Malawi
Mali
Mauritania
Moldova
Mozambique
Nepal
Nicaragua
Nigeria
Rwanda
Senegal
Sierra Leone
Sri Lanka
Tajikistan
Tanzania
Uganda
Vietnam
Yemen, Rep.
Zambia

South Asia: 3

Sub-Saharan Africa: 18

East Asia and Pacific: 3

Europe and Central Asia: 3

Latin America and Caribbean: 3

Middle East and North Africa: 1

Table 1 Summary Statistics

Equation	1	2	3	4	5	6	7
Dep. Var.	Log(Pov)	Log(Pov)	Log(Pov)	Log(Pov)	Log(Pov)	Log(Pov)	Log(Pov)
Constant	1.5698 (0.0000)***	1.3674 (0.0000)***	1.3463 (0.0000)***	1.3574 (0.0000)***	1.4161 (0.0000)***	1.2767 (0.0000)***	1.3074 (0.0000)***
GDP per capita growth (%)	-0.0390 (0.0103)***	-0.0419 (0.0057)***	-0.0475 (0.0019)***	-0.04481 (0.0031)***	-0.4335 (0.0083)***	-0.4373 (0.0023)***	-0.0381 (0.0111)***
Inflation, GDP deflator	0.0016 (0.3159)	0.0026 (0.0865)*	0.0030 (0.0455)**	0.0021 (0.1567)	0.0025 (0.1153)	0.0033 (0.0242)***	0.0033 (0.0354)**
Age Dependency Ratio	0.2965 (0.1139)	0.2346 (0.2048)	0.2201 (0.2239)	0.2916 (0.1172)	0.2532 (0.2124)	0.2767 (0.1131)	0.2608 (0.1516)
Aid (as a % of GNI)	0.0083 (0.0225)***	0.0091 (0.0174)***	0.0095 (0.0117)***	0.0077 (0.0326)**	0.0077 (0.0427)**	0.0092 (0.0095)***	0.0080 (0.0261)**
CPIA	-0.0702 (0.1428)						
Voice and Accountability		-0.057 (0.1886)					
Control of Corruption			-0.1043 (0.0895)*				
Political Stability				-0.0471 (0.1276)			
Government Effectiveness					-0.0008 (0.9577)		
Rule of Law						-0.1148 (0.0250)***	
Regulatory Quality							-0.1207 (0.0982)*

Significance Level: 90% or better * 95% or better ** 97.5% or better ***

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