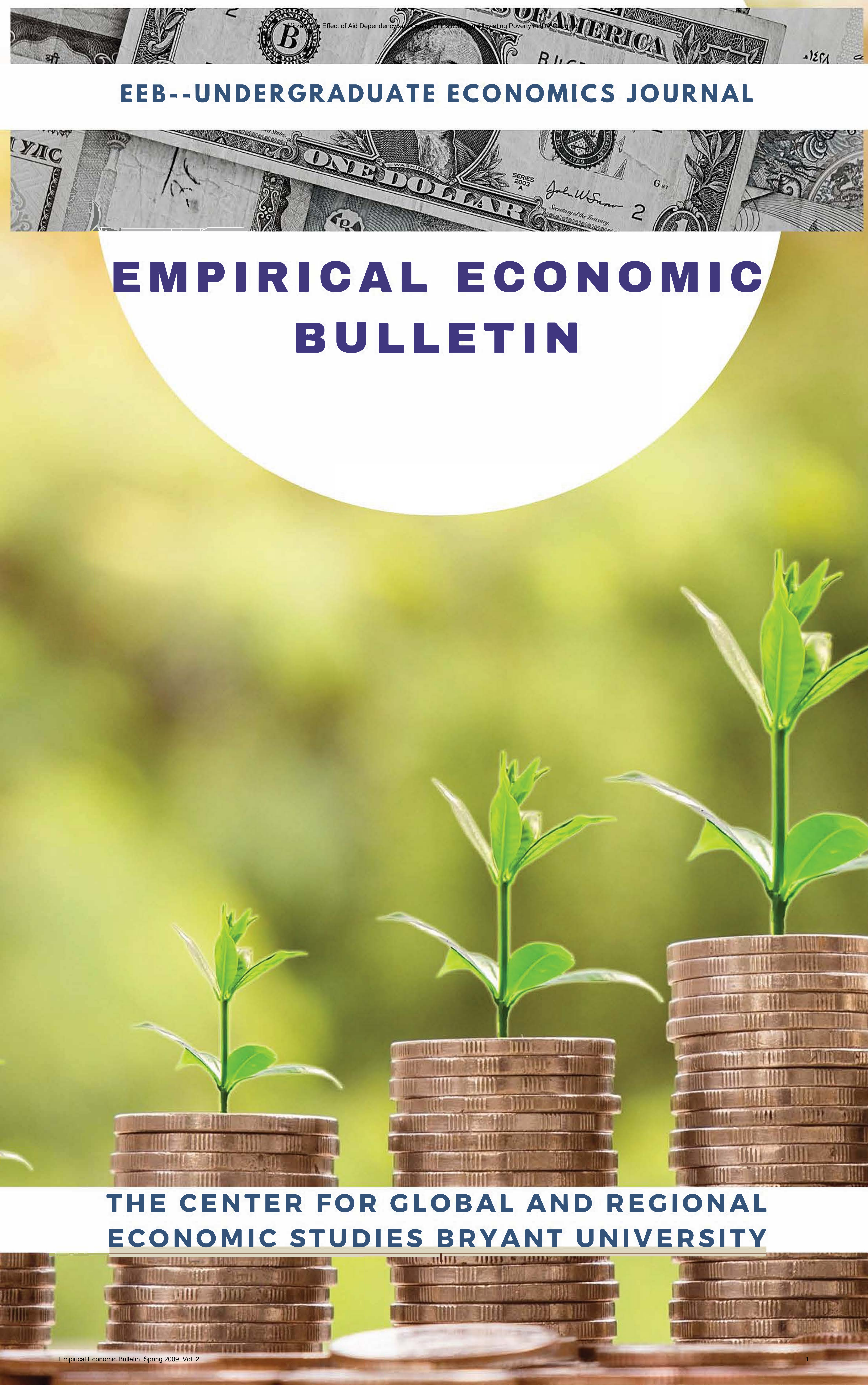

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The Effect of Aid Dependency and Quality of Institution in alleviating poverty in IDA countries

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Abstract:

Poverty alleviation has been a topic of much discussion ever since the Millennium Development Goals were set by World Bank in the 1990s. This paper examines to what extent aid dependency and quality of institution affect 31 IDA countries in achieving the first of eight MDG. The study provides evidence that although these IDA countries experience a decrease in poverty, it may not be enough to meet MDGs by 2015. Aid dependency increases the poverty level whereas some Quality of Institution indicators such as control of corruption, rule of law and regulatory quality have greater impact in reducing poverty than other indicators.

JEL Classification: E02, F34, I32, M38

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

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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 day[1] 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 research 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 168 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 5.

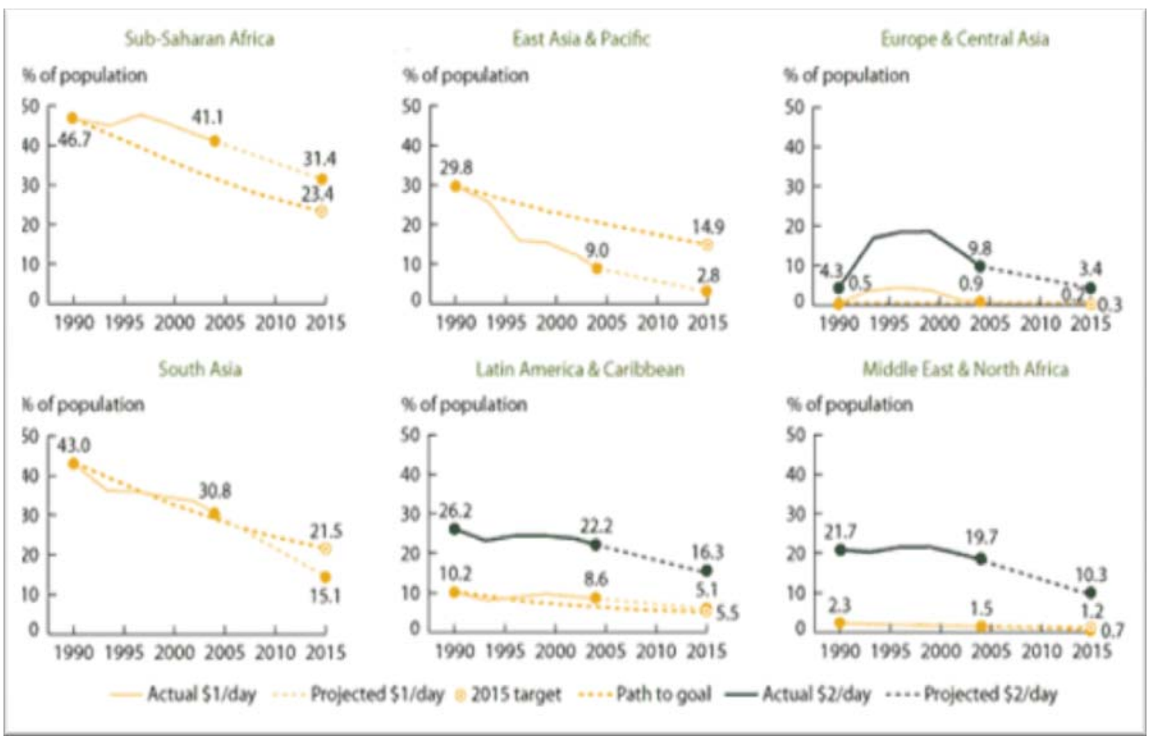
[1] **Poverty Analysis, (2009). Overview - Understanding Poverty, The World Bank Group, 2009**

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 (Poverty Analysis, 2009).

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.

Figure 1: Share of People living on less than $1 or $2 a day in 2004, and projection for 2015



Source: World Development Indicators

As of 2004, Latin America and Caribbean, Europe and Central Asia, Middle East and North Africa and South Asia are on target. "In middle-income countries, the median

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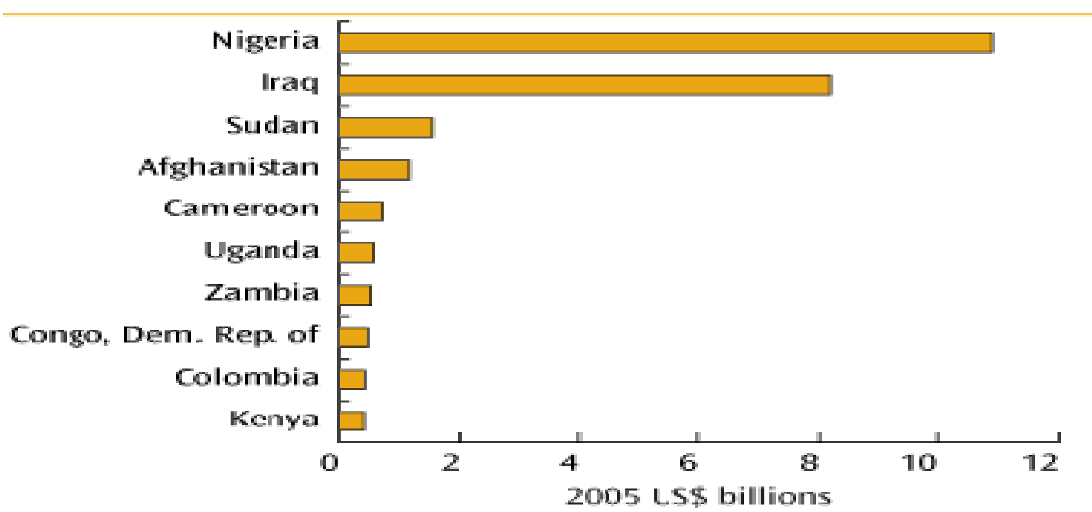
poverty line for the developing world—$2 a day in 2005 prices—is more relevant. By this standard, the poverty rate has fallen since 1981 in Latin America and the Middle East & North Africa, but not enough to reduce the total number of poor" (Poverty Analysis, 2009) .

The East Asia and Pacific region has made remarkable progress in halving their percent of people living in poverty over 14 years. It is expected that by 2015, only 2.8% percent of this region will be living below the poverty line.

South Asia and Sub-Saharan Africa had started with similar percentages of people living below the poverty line, at 43% and 46.7% respectively. In 2004, South Asia has managed to stay on track at 30.8%, but the same is not true for Sub-Saharan Africa region. In a span of 14 years, this region has only managed to bring 5.6 percent of the population below the poverty level. World Bank expects that this region will be 8% short of its original goal of 23.4% in 2015. 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.

Figure 2: Top 10 recipients of the net increase in net ODA, 2002-06



Source: DAC database and staff estimates

The figure above shows that seven of the top ten aid recipients between 2002 and 2006 are African countries. In addition, "Donors did make encouraging commitments to IDA ($25.1 billion for 2008-2011), as well as to the concessional windows of other regional development banks and the Global Fund for AIDS, TB and Malaria (GFATM)" (Global Monitoring Report, 2008). Furthermore, "Aid for health has scaled up dramatically with support from over 100 traditional and non-traditional entities amounting from $6.8 billion in 2000 to nearly $17 billion in 2006."

The trends for Quality of Institutions show that "Developing countries…have made progress in strengthening development strategies and institutional frameworks for implementation" (Global Monitoring Report, 2008). When countries perform well in a sound environment, they receive scaled-up aid from IDA. However, Global Monitoring Report states that in recent years, a significant portion of the increase in ODA has been concentrated in a few countries.

2.1 Literature Review

Economic literature on Aid, Policy Implication, Growth and Poverty Reduction show that on average, aid has little impact on growth. 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) shows 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 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. 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 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.

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:

$$G = c + b_1 X + b_2 P + b_3 A + b_4 A^2 + b_5 AP$$

(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.

$$Pov = C = \beta_1 GDP + \beta_2 Inflation + \beta_3 AgeDep + \beta_4 Aid + \beta_5 QOI \qquad (2)$$

The dependent viable in the equation, Pov, is the log of poverty (percent of population living below the poverty line) and 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. The seven Quality of Institution variables are run separately in seven equations to avoid any error of correlation. The seven variables, defined by World Governance Indicators, are presented in Appendix A.

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 168 to 31, as mentioned earlier. Of the 31 countries, 18 countries are from the Sub-Saharan African region, three from each of the following regions: South Asia, East Asia & Pacific, Europe & Central Asia, and Latin America & Caribbean regions, and one from the Middle East & North Africa region. Table 1 below shows the effects of GDP, Inflation, Age Dependency Aid dependency and quality of institutions on poverty. The significance level of each variable is expressed in parenthesis. Results that have significance level of 90% or better are indicated by: *, 95% or better with ** and 97.5% or better with ***.

Table 1 Effects of Aid Dependency and Quality of Institutions

Equation	1	2	3	4	5	6	7
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 ***

4.0 EMPIRICAL RESULTS

The results of all seven regression equations show that there is a consistent effect of independent variables on the dependent variable. 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 90% or better and 97.5%. On the other hand, the governance indicator Government Effectiveness has almost no significant impact on the poverty level.

Each of the seven regression equation show, with 95% significance level or better, that these IDA countries experience an increase in their poverty level when they increase their aid dependency. 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.

5.0 CONCLUSION AND POLICY RECOMMENDATION

It is evident from the results that aid dependency does very little to decrease poverty. High levels of aid, from foreign donors or even their governments, do 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. This raises the question: Should World Bank, IMF, OECD countries stop pouring billions of dollars into developing countries, particularly Sub-Saharan African countries?

Through effective rule of law and control of corruption these IDA countries do experience a decrease in their poverty level. 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.

It can, therefore, be suggested that World Bank work closely with Transparency International in setting stricter guidelines to qualify for financial aid. However, aid is making these IDA countries very dependent on donors. World Bank should also think of ways to slowly pull out of providing aid to the IDA countries, but this has to be done carefully otherwise the IDA countries will be severely hit if all donors pull out all at once.

Sub-Saharan Africa can also opt to follow policies implemented in South Asia. It was noted earlier that both Sub-Saharan Africa and South Asia began with similar percentages of people living below the poverty line in 1990. South Asia has seen their poverty level decline. Sub-Saharan Africa should follow South Asia's foot-steps to lower their percent of people living below the poverty line. By closely monitoring their quality of institution, in addition to generating high levels of GDP it may be possible for Sub-Saharan Africa to cut down its poverty level by 2015 to meet MDG.

It is also important to note that these conclusions and policy recommendations are based on the findings of this research. It would be possible to draw better conclusions about Sub-Saharan African if more countries could be included in the research.

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
Voice and Accountability	refers to the extent to which citizens of a country are able to participate in the selection of governments, as well as freedom of expression and association in the media.	World Governance Indicators
Control of Corruption	measures the extent to which public power is exercised for private gain, including petty and grand forms of corruption.	World Governance Indicators
Regulatory Quality	refers to the ability of the government to formulate and implement sound policies.	World Governance Indicators
Rule of Law	measures the extent to which agents have confidence in and abide by the rules of society, in particular the quality of police and courts.	World Governance Indicators
Government Effectiveness	measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures.	World Governance Indicators
Political Stability	measures the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism	World Governance Indicators

Appendix B- Variables and Expected Signs

Acronym	**Variable Description**	**Expected sign (+/-)**
Pov	(Dependent Variable) Log of % Population living below the poverty line	
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

BIBLIOGRAPHY

Barro, Robert (1991).Economic Growth in a Cross Section of Countries. *The Quarterly Journal of Economics*. 407-443.

Burnside, Dollar, Craig, David (1997).Aid Policies and Growth. *Policy Research Working Paper Series*. *1777*.

Collier, Dollar, Paul, David (2001).Can the World Cut Poverty in Half? How Policy Reform and Effective Aid Can Meet International Development Goals. *World Development*. *29*, 1787-1802.

Collier, Dollar, Paul, David (2002).Aid Allocation and Poverty Reduction. *European Economic Review*. *46*, 1475-1500.

Easterly, William (2003).Can Foreign Aid Buy Growth?. *Journal of Economic Perspectives*. *17*, 23-48.

Knack, Stephen (2000).Aid Dependence and the Quality of Governance: A Cross-Country Empirical Analysis. *Policy Research Working Paper Series*. *2396*.

Poverty Analysis, (2009). Overview - Understanding Poverty. Retrieved April 15, 2009, from World bank Web site: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,,contentMDK:20153855~menuPK:435040~pagePK:148956~piPK:216618~theSitePK:430367,00.html

Press Release, (2008, August 26). World Bank Updates Poverty Estimates for the Developing World. Retrieved April 15, 2009, from World Bank Web site: http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:21882162~pagePK:64165401~piPK:64165026~theSitePK:469382,00.html

The World Bank Group, (2009). Fact Sheet: Scaling Up Aid: Opportunities and Challenges in a Changing Aid Architecture . Retrieved April 29, 2009, from Global Monitoring Report 2008: Fact Sheet - Scaling Up Aid: Opportunities and Challenges in a Changing Aid Architecture Web site: http://web.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTGLOBALMONITOR/EXTGLOMONREP2008/0,,contentMDK:21710781~pagePK:64168445~piPK:64168309~theSitePK:4738057,00.html

The World Bank Group, (2009). Governance Matters 2008, Worldwide Governance Indicators 1996-2007. Retrieved April 15, 2009, from Governance & Anti-corruption Web site: http://info.worldbank.org/governance/wgi/index.asp

The World Bank Group, (2009). International Development Association. Retrieved April 15, 2009, from IDA - What is IDA? Web site: http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/IDA/0,,contentMDK:21206704~menuPK:83991~pagePK:51236175~piPK:437394~theSitePK:73154,00.html

World Bank, World Bank Governance Indicators. Retrieved April 29, 2009, from World Bank Web site: http://www.worldbank.org/wbi/governance/pdf/Governance_Indicators_eng.pdf