# The Importance of Good Governance in Achieving Economic Growth for Developing Nations: An Analysis of Sub-Saharan Africa

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**ABSTRACT:**

This paper aims to expand on the idea that good governance is essential in sustaining growth in developing countries. I have chosen variables that are specific to determining the effect of good governance on sustained growth in several Sub-Saharan African nations. These variables will take into account the increased levels of corruption and manipulation that takes place in many of these regions. By analyzing different countries in Sub-Saharan Africa, I will be able to account for different economic and political conditions. My results show that although these countries differ in various aspects of macroeconomic policy, stable governance has been the key factor in their success of sustaining growth, in a region where doing so is rare.

JEL Classification: G18, N17, O16,

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The author gratefully acknowledges the help and guidance of Professor Ramesh Mohan of Bryant University.

## 1.0 Introduction

The ability to properly govern a country has had a significant influence in the ability to sustain economic growth in sovereign nations. This effect has been examined in many journal articles and scholarly papers on various levels of governance. Abdellatif (2003) defines good governance as a government that ensures political, social and economic priorities are based on broad consensus in society and that the voices of the poorest citizens are heard in decision making process over the allocation of resources. It is important to note that this definition has evolved over the years and can be interpreted in different ways, but for my analysis I will focus on this definition. There is strong evidence that governance and institutions matter in accelerating development and in reducing poverty in most countries (Kahn, 2004). The soundness and effectiveness of government is therefore important in sustaining economic growth in these countries. The implementation of democracy has also proven to be more effective in sustaining economic growth for nations as opposed to other government regimes, and this has become more evident with recent conflicts in the Middle East.

This study plans to further the understanding of good governance on economic growth by focusing this analysis on developing nations in Sub-Saharan Africa. This analysis is important to the development and overall growth of these nations in a number of ways. It may act as a guide for improvement to existing governments in the region, as well as help these governments understand how long term perspectives in governance may assist their growth in the economic sectors. This study is relevant to the economic improvement of developing nations as their economies become more and more important on a global scale.

This paper is guided by a number of research objectives. First, it looks to further the understanding on the effect of good governance on economic growth in developing nations. This topic has been researched many times, but there is little empirical work that focuses specifically

on nations in Sub-Saharan Africa. I feel as though it is important to determine what factors in governance are most important in assisting these developing African nations with their economic growth. Many of these countries are home to vast mineral wealth, yet rank as some of the worst countries in terms of effective governance and economic development. This clearly indicates problems in the governance of these countries. It is important to note that some of these Sub-Saharan African nations have been effective in managing their mineral wealth and in governing their country fairly.

The rest of the paper is laid out as follows: Section 2 offers a brief literature review into research done by others on this topic. Section 3 reviews the empirical model that will be used to test for the significance between these two variables. Section 4 will review the empirical findings from the previous section, and section 5 will provide a conclusion as well as suggestions from improvements in these Sub-Saharan African nations.

## 2.0 Literature Review

Many papers and arguments have been made that explore the trend between good governance and economic growth. Yahyaoui, Chatti & Chtourou (2008) that a nation equipped with a legal system and effective property right is a nation that will create a favorable environment to capital accumulation and growth. They elaborate on this by stating that state defective institutions create a market for nonproductive activities such as rent seeking, corruption, and also generate high transaction costs which create economic inefficiencies (Yahyaoui et al. 2008). Transaction costs can become a huge obstacle for economic growth, and this is particularly true in developing nations. Economic agents in developing nations typically operate on a smaller scale than developed nations, and use less expensive but less efficient

methods of transactions, which decreases their competitiveness (De, 2010). The role of governance becomes especially important in these situations because of its ability to subsidize certain industries and promote efficiencies in the markets. De argues that income levels also play a key role in determining the quality of government institutions. More developed countries are more like to have a higher per capita income, and in turn are more likely to expect a higher level of government institutions, which creates good governance. These developed countries are also more likely to have a higher quality of participants in these institutions, as the education system in these countries tends to be better.

The need for sound and effective governance is especially important in the Sub Saharan African region. From 1970 to 1990, Real GDP in Sub-Saharan Africa grew by only US$ 80 and the regions aggregate GNP per-capita was just US$ 340 in 1990 (Hope, 2006). While countries like Botswana and Mauritius have been able to improve their economic efficiency, problems still remain for the majority of the region. Hope (2006) argues that this elusiveness of growth in Sub-Saharan Africa provides the justification for the reform of policies and laws in these countries, which can be interpreted as a move towards good governance. It has been commonly accepted that natural resource wealth in developing nations can create and internal discord and social lethargy (Atsushi & Yasuhisa, 2005). The vast mineral wealth in this region has proven ineffective in assisting growth, and this can be attributed to poor governance. Atsushi & Yasuhisa (2005) found that natural resource richness can be a key driver in spurring growth if a government has the ability to formulate and implement sound and effective resource management policies. This is relevant to my research due to the fact that some countries have been able to attain this proper resource management, while others have fallen victim to the "natural resource curse".

## 3.0 Data and Empirical Methodology

### 3.1 Empirical Model

$$GDPGROWTH = \beta 0 + \beta 1 LNETFDI + + \beta 2 LENROLL + \beta 3 MILEXP + \beta 4 GOVEXP + \beta 5 LINFLA + \beta 6 GOVEFF + \beta 7 PSNV + \beta 8 CORRUP + \varepsilon$$

GDP is the endogenous variable; it represents the annual percentage growth of GDP, which is the percentage growth of the final value of all goods and services produced within a country during a year over the previous year's growth.

I chose eight separate independent variables to test for a correlation on annual GDP growth. These different variables are a number of statistics recorded by the International Monetary Fund and the World Bank Group. I chose 8 different countries to obtain data from. These countries were of very different geographic, political and economic stature. The countries selected were Namibia, Botswana, South Africa, Tanzania, Ghana, Niger, Nigeria and Kenya. I selected the variables by choosing some from previous papers exploring this relationship, and choosing three other indices that relate to policy problems in Sub-Saharan Africa. The complete descriptions of these variables, as well as the expected relationship that they will have on our dependent variable, can be found in Appendices A and B, respectively. The first variable used in the model is the logged net inflows of foreign direct investment in US dollars. The second variable used is the logged net percentage of total enrollment for primary school students. The third given variable is the percentage of GDP used for military expenditures. The fourth given variable is the general government final consumption expenditure, given as a percentage of GDP. The fifth given variable is the logged annual percentage change of inflation in consumer prices.

The sixth, seventh and eighth variables are the government effectiveness index, political stability / no violence index, and the control of corruption index, respectively. Summary statistics for the variable mean, standard deviation and minimum/maximum values can be found in Table 1.

### 3.2 Data

The data used in this study was obtained from the International Monetary Fund and the World Bank Group. The data is in panel data form, used annually from the years 1996 to 2009. As was previously stated, this study is focusing on testing the relationship between good governance and economic growth in developing countries specifically from the Sub-Saharan Africa region. I chose eight different countries for my study, as to provide enough data points for each variable to give an accurate regression result. Many variables were missing data point(s) in at least one country, which shows the difficultly in recording accurate statistics in a region with such a poor economic and political climate. The index measured variables were recorded through surveys and polls administered in these countries, so there is always the possibility of inaccurate results for these indices. The regression method used was the least squares method.

## 4.0 Empirical Results

The primary goal of this paper was to find the determinants of GDP growth in various Sub-Saharan African countries. My results showed that three variables were highly significant on the dependent variable. The general government final consumption expenditure, government effectiveness index, and control of corruption index all held three stars ratings when tested against the dependent variable. My regression results showed the data to have a relatively poor $R^2$, which indicates that I have sufficient data with solid variability in the model. The relatively low value for the $R^2$ may be due to the fact that many of these countries do in fact have a poor

government structure and testing these variables for annual GDP growth may prove that the governance in these countries are possibly dependent on qualitative data that cannot be tested. My Durban Watson test value was 1.6277. Generally, anything less than two is considered an indicator of negative serial correlation. In future studies, one may consider logging or excluding variables from their regression, or running multiple regressions comprised of different variables, to control this effect.

The first variable I tested for significance on GDP growth was the net inflows of foreign direct investment in US dollars. Foreign direct investment is historically known to promote GDP growth, as the influx of money into the recipient country's economy can be used to create jobs and open up new markets to existing firms. My results showed a t-statistic of .781951, along with a probability value of .4379. This was not expected in the regression, as it shows little to no correlation of foreign direct investment on GDP growth. The result may have turned out this way for a number of reasons. The governments in this region are historically poor with money management, as can be seen with the management of mineral wealth in these countries (Atsushi & Yasuhisa, 2005).

My next variable I tested was the logged net enrollment of primary school students in these countries. My reasoning for including this variable was that the more students enrolled in school at an early age, the better chance they continue their education, and the better chance they become more productive workers, which of course would lead to increased GDP growth over time. My regression results showed a low correlation between primary enrollment percentages and GDP growth which was surprising. The underlying motive to this low correlation may be due to the fact that the secondary and tertiary level education institutions in this regions are of

lower standard than those in the developed world, so students may not continue on with their education simply because they do not see the value in it, or may not have the means to do so.

The next variable I tested was the general government final consumption expenditure, given as a percentage of GDP. I anticipated that this variable would have a positive effect on GDP growth, as investments in infrastructure, education, and healthcare would all be beneficial for the population and the economy as well. I was pleased to see a high correlation between my dependent variable and government consumption expenditure. The value of .0220 gave this a three star significance rating. This value could have gone either way, as many of these governments operate very inefficiently, and could use government funds for projects that many not spur economic growth. The fourth variable I tested was the percent of GDP allocated to military expenditures. Military expenditures show stable governance and can also create jobs if production is done domestically. My results showed insignificant correlation between this variable and economic growth. This may be because Sub-Saharan African nations have a history of internal conflict as well as violence, and may use these expenditures to fight government rebellions or other domestic disputes. If so, this would obviously have a negative effect on the output of a country.

My next variable that I tested was the percentage change in inflation of consumer prices. This could go either way in terms of its effect on GDP growth. Stable inflation rate of around 2 – 4% would indicate effective monetary policy and in turn increased economic growth. It could also mean that hyperinflation may be occurring, as was the case in Zimbabwe, which would obviously damage economic growth. Most of the data collected indicated that these countries had experienced a much higher rate of inflation than usual, so I anticipated that this variable would have a negative effect on our dependent variable. This was the case, as the probability statistic

of .9335 was the highest of all the variables in the regression, and showed a very insignificant correlation to GDP growth.

The next three variables that I tested were indices recorded by the World Bank Group that measured effective governance. The first variable was the government effectiveness index. I anticipated this would have a strong positive effect on GDP growth, as this is the aim of my paper. This index had a three star rating for correlation with the probability at .0192, my most significant variable. The next variable that I tested was the political stability / no violence index. This index measures the stability of the official government in power, as well as the limit of violence and crime throughout the country and acts of terrorism. I predicted that a higher value for this index would have a positive effect on GDP growth. With a t-value of 1.2204 and a probability of .2279, it actually had less effect on the dependent variable than I anticipated. The last variable I tested was the control of corruption index from the World Bank. I anticipated this would have a positive effect on GDP growth, and minimizing corruption in these African nations would allow the governments to operate more effectively and allocate the resources at their disposal more efficiently. The probability value of .0216 showed a significant correlation between this index and the dependent variable.

## 5.0 Conclusion

In summary, government consumption expenditure, control of corruption and government effectiveness ratings are very important in allowing Sub-Saharan African countries to achieve economic growth. I hypothesized that each variable would have a significant effect on the GDP growth, but that was not the case. To improve this study, I could have run separate

regressions to control for some of the variables with correlation between them, such as government consumption expenditure and government military expenditure. This regression did indicate the problem with running empirical tests to test for economic significance in developing nations. Many of the variables that I originally planned on using for this regression were missing many data points in the World Bank spreadsheets, and I questioned the validity of many of the reported numbers. In a region such as this one, the pressure to attain economic growth combined with the political and social instability may result in forged economic reports. In conclusion, stable and effective governance is crucial in any countries development, and although this regression did not link the two together as strongly as I anticipated, it is clear that maintaining sound governance in Sub-Saharan Africa is a task as important as any.

## Appendix A: Variable Descriptions

| Acronym | Description | Data source |
|---|---|---|
| GOVEXP | General government final consumption expenditure (% GDP) | World Bank Group |
| LNETFDI | Logged net inflows of foreign direct investment (US$) | World Bank Group |
| LENROLL | Logged total enrollment for primary school students (%) | World Bank Group |
| MILEXP | GDP allocated towards military expenditures (% GDP) | World Bank Group |
| LINFLA | Logged annual percentage change of inflation in consumer prices (%) | World Bank Group |
| GOVEFF | Government effectiveness index | World Bank Group |
| PSNV | Political Stability / No Violence Indexx | World Bank Group |
| CORRUP | Control of Corruption Index | World Bank Group |

## Appendix B: Expected Result

| Acronym | Expected Result | Reasoning |
|---|---|---|
| GOVEXP | + | The more a government spends on development, the higher its GDP growth will be |
| LNETFDI | + | More foreign direct investment indicates its attractiveness for investment and participation in the global economy, which should indicate good GDP growth |
| LENROLL | + | The more children in the education system, the higher the productivity of their labor once they reach the workforce, hence more GDP growth |
| MILEXP | + | Military spending indicates stability and government effectiveness, which should positively influence GDP growth |
| LINFLA | - | Monetary inflation greater than the normal 2-4% indicates poor monetary policy, which is harmful to GDP growth |
| GOVEFF | + | |

| | | |
|---|---|---|
| | | Effective governance should reflect a constant increase in a countries GDP |
| PSNV | + | Maintaining political stability and reducing violence and terrorism in countries should be beneficial to the growth of a country's GDP |
| CORRUP | + | Controlling corruption in the government should be beneficial to the growth of a countries GDP |

Table 1: Summary Statistics

| Variable | Obs. | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| LNETFDI | 111 | 19.3077 | 1.39651 | 13.1516 | 23.18834 |
| LENROLL | 112 | 4.1245 | 0.33068 | 3.17099 | 4.6009 |
| MILEXP | 112 | 1.6401 | 0.8748 | 0.5336 | 3.7643 |
| LINFLA | 112 | 9.7107 | 7.2711 | -2.3021 | 46.561 |
| GOVEFF | 112 | -0.305 | 0.7259 | -1.8521 | 0.8072 |
| PSNV | 112 | -0.45 | 0.9331 | -2.338 | 1.1222 |
| CORRUP | 112 | -0.434 | 0.8328 | -1.6244 | 1.086 |

Table 2: Empirical Results

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| LNETFDI | 0.236504 | 0.302454 | 0.781951 | 0.4379 |
| LENROLL | 1.891035 | 2.094758 | 0.902746 | 0.3709 |
| MILEXP | -0.064817 | 0.539874 | -0.120060 | 0.9049 |
| GOVEXP | -0.054296 | 0.022990 | -2.361681 | 0.0220 |
| LINFLA | 0.030575 | 0.364530 | 0.083876 | 0.9335 |
| GOVEFF | 4.633944 | 1.915814 | 2.418786 | 0.0192 |
| PSNV | 1.205029 | 0.987342 | 1.220478 | 0.2279 |
| CORRUP | -4.509486 | 1.902700 | -2.370046 | 0.0216 |
| C | -6.291225 | 7.490270 | -0.839920 | 0.4049 |

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