Determinants of Aid Effectiveness in Enhancing Governance: Geographical Location, Legal Origin, and Religious Diversity

By

Jineui Kim

THESIS

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

MASTER OF PUBLIC POLICY

IN ECONOMIC DEVELOPMENT

2011

Determinants of Aid Effectiveness in Enhancing Governance: Geographical Location, Legal Origin, and Religious Diversity

By

Jineui Kim

THESIS

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

MASTER OF PUBLIC POLICY

IN ECONOMIC DEVELOPMENT

2011

Determinants of Aid Effectiveness in Enhancing Governance:

Geographical Location, Legal Origin, and Religious Diversity

By

Jineui Kim

THESIS

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

MASTER OF PUBLIC POLICY

IN ECONOMIC DEVELOPMENT

Committee in charge:

Professor Jin PARK, Supervisor

Professor Joon-Kyung KIM

Professor Taejong KIM

Approval as of Dec, 2011

ABSTRACT

Determinants of Aid Effectiveness in Enhancing Governance:

Geographical Location, Legal Origin, and Religious Diversity

By

Jineui Kim

Along with the long history of aid industry, aid effectiveness has come to mixed conclusions in literature. Using the data from 136 countries between 2002 and 2009, this paper explores external determinants of aid effectiveness in enhancing governance. In order to capture more precise impact of aid on governance, only the aid amount, which has a policy objective on good governance, is considered. This paper provides evidence that aid promotes good governance, conditional on geographical location, legal origin, and religious diversity. Given aid for governance, aid significantly enhances governance in countries located in Sub-Saharan Africa, in countries with civil law tradition, and in countries with less religious tension. Also, among various dimensions of governance, only 'Political stability and absence of violence' indicator turns out to be positively influenced by aid in overall countries, while others are limitedly affected. These findings support the need for donors to select development assistance projects with great caution, considering the exogenous factors of each recipient country and target governance quality that needs to be enhanced.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my supervisor, Prof. Jin Park who encouraged me to grow as an independent researcher. His guidance and valuable comments was the milestone in every step of developing my thesis. It was also a great honor to have Prof. Joon-Kyung Kim as an adviser who inspired me to begin my research on the aid-governance nexus. I also thank my parents for their endless love and support during my study.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

I. Introduction

The United Nations proclaimed the Millennium Development Goals (MDG) in 2000, which includes a target to eradicate extreme poverty and hunger. In order to meet the target, funding for official development assistance (ODA) has more than doubled over the last decade, from 54.8 billion in 2002 to 135.1 billion in 2009. Along with this trend, as shown in Figure 1, funding to promote good governance in developing countries has almost quadrupled from 8.6 billion to 30.6 billion during the same period.[1] More rapid growth in governance-related aid reflects the widely acknowledged notion that good governance is an indispensable factor for both economic and social development.

The concept of 'good governance' became prominent around 1989-90 in international aid industry. By adding the adjective 'good,' the way a country is governed is deemed important and the procedures and quality of governance are broadly evaluated.[2] Since the Paris Declaration advocated the enhancement of aid effectiveness in 2005 by achieving its five fundamental principles, which are Ownership, Alignment, Harmonization, Managing for Results, and Mutual Accountability, more emphasis has been given to good governance. This is because, most importantly, without robust governance, achieving a country' ownership through forging its own development strategy is not feasible. In addition, it is hard to expect the government to use aid wisely or effectively for the development if the rules and institutions are not abided by its citizens, if the country suffers from political tension, if the

[1] Organization for Economic Cooperation and Development (OECD), "OECD.StatExtracts," http://stats.oecd.org/Index.aspx?DatasetCode=CRSNEW (accessed June 6, 2011).

[2] Deborah Brautigam and Stephen Knack, "Foreign Aid, Institutions, and Governance in Sub-Saharan Africa," *Economic Development and Cultural Change* 52, no. 2 (2004): 276.

government is incompetent, and if the process of building and managing government is corrupted. For these reasons, many donors include the improvement of governance as a major objective of their aid activities.

Despite time, money, and efforts the world spent for good governance, however, whether foreign aid is helpful in enhancing governance is still under debate. A large number of studies related to this issue have come to mixed conclusions. Some researchers argue that aid has no significant impact on governance and others demonstrate that it rather works against good governance. Only a small number of literatures suggest the improvement of governance through external aid. However, most previous studies have limitations in their aid data. They use the total amount of aid regardless of its policy objective but this could impede accurate analysis of the relationship between aid and governance. In light of this shortcoming, this study limits the scope of aid only to the amount that donors claim its purpose is to promote governance. By using a specified aid amount, this study intends to find out its more precise impact on governance.

In addition, this paper tries to determine meaningful exogenous factors, which could explain the aid's different levels of impact on governance. As a result, it finds evidence that higher aid levels are associated with larger improvement in governance only in countries with specific geographical location, legal origin, and religious diversity. Furthermore, a closer look at the six individual governance indicators leads to the findings that only "Political stability and absence of violence" has a strong causal relationship with aid in overall countries.

This study examines the issue empirically, using 136 country data over the 2002-2009 periods. Change in governance value between 2002 and 2009 is used as a dependent variable and average value of Aid/GDP ratio during the same period is used as an independent variable of interest. Numerous control and instrumental variables are also considered.

Chapter two examines how aid can influence governance and reviews literatures on aid-

governance nexus. Chapter three provides research method and data used in this study. Chapter four explains findings from this analysis. Lastly, policy recommendations are discussed in chapter five.

II. Literature Review

There is a common understanding that an effective aid based on good governance is crucial for development. Many researchers agree that aid is effective only under good quality of governance. Burnside and Dollar find that foreign aid has a "positive effect on growth in a good policy environment" based on the sample of 56 countries during the time period from 1970 to 1993.[3] They again conclude that "aid spurs growth conditional on the quality of institutions and policies."[4] Additionally, Kaufmann et al. provide evidence of "a strong causal relationship from better governance to better development outcomes"[5] and Svensson suggests that "long-run growth impact of aid is conditional on the degree of political and civil liberties in the recipient country."[6] That is, governance matters for social and economic development.

However, there are relatively few researches addressing whether aid contributes to better governance. Theoretically, aid could enhance as well as impair the quality of governance. On the positive side, aid could alleviate the binding revenue constraints of the government. Cash transfer as well as technical assistance enables them to build effective institutions, to develop strong bureaucracy and legal system, to recruit competent public officials with high salary, and to fight with corruption. Furthermore, enhanced governance could allure foreign investment and increased income and higher tax collection through economic growth could in turn be used as additional revenue for enhancing governance. Aid

[3] Craig Burnside and David Dollar, "Aid, Policies, and Growth," *The American Economic Review* 90, no. 4 (2000): 847.
[4] ---, "Aid, Policies, and Growth: Revisiting the Evidence," *World Bank Policy Research Working Paper* no. 3251 (2004): 19.
[5] Daniel Kaufmann, Aart Kraay, and Pablo Zoido-Lobaton, "Governance Matters," *World Bank Policy Research Working Paper* no. 2196 (1999): 2.
[6] Jakob Svensson, "Aid, Growth and Democracy," *Economics and Politics* Volume 11 (1999): 275.

could be an initiative of a virtuous circle.[7,8]

On the other hand, aid could also block the enhancement of governance. Aid might increase political instability by encouraging groups to compete with each other to have a control on the fund. Also, it could deteriorate governmental accountability by making the host countries to be more dependent on the external funding rather than its citizens. In addition, larger investment in public sector could weaken private sector, which is the engine of growth. Lastly, moral hazard, rent seeking, and free-rider problems could lead to corruption resulting in the delay or inhibition of necessary government reform. Since good governance is profitable to everyone but gives no private gains to executers, people have little incentive to pursue it.[9,10] Though unintended, especially when the aid is delivered over a long period of time, aid could undermine governance quality.

In an empirical test, Knack provides evidence that "higher aid levels erode the quality of governance."[11] He uses governance indices from the International Country Risk Guide (ICRG) which measures bureaucratic quality, corruption, and the rule of law. He creates ICRG index by summing up these three six-point scales indices. As a measurement for aid intensity, he uses ODA as a percentage of gross national product (GNP) and as a percentage of government expenditures. Brautigam and Knack also examine aid and governance quality in African region, finding "robust statistical relationship between high aid levels in Africa and deteriorations in governance." [12] In addition, Svensson provides empirical evidence explaining the positive relationship between aid and corruption in countries where there are

[7] Matthias Busse and Steffen Groning, "Does Foreign Aid Improve Governance?" *Economic Letters* 104 (2009): 76.
[8] Stephen Knack, "Aid Dependence and the Quality of Governance: Cross-Country Empirical Tests," *Southern Economic Journal* 68, no.2(2001): 311-314.
[9] Busse and Groning, "Does Foreign Aid Improve Governance?" 76.
[10] Knack, "Aid Dependence and the Quality of Governance," 311-314.
[11] Ibid, 310.
[12] Brautigam and Knack, "Foreign Aid, Institutions, and Governance in Sub-Saharan Africa," 276.

powerful competing social groups" in a country.[13] He uses ethnic diversity as a measure of the likelihood of competing social groups in a country.

There are also empirical researches demonstrating no significant impact of aid on governance. Burnside and Dollar argue that "there has not been any systematic influence of aid on policy."[14] Also, when limiting the concept of governance to democracy only, Stephen finds no evidence that aid promotes democracy, using a large data over the period of 1975-2000.[15] This could be possible when negative impact of aid offsets its positive impact.

This research differs from the previous studies in a sense that it limits the scope of aid to the amount aiming at good governance. Also, by limiting the time period, it tries to see the most recent trend of aid's effectiveness.

[13] Jakob Svensson, "Foreign aid and rent-seeking," *Journal of International Economics* no. 51 (2000): 455.
[14] Craig Burnside and David Dollar, "Aid, Policies, and Growth," *World Bank Policy Research Working Paper* no. 1777 (1997): 30.
[15] Stephen Knack, "Does Foreign Aid Promote Democracy?" *International Studies Quarterly* 48 (2004): 251.

III. Research method and Data

Analyzing cross-country data, this study tries to find out the relationship between aid and governance. It is based on the sample of 136 countries and the time period from 2002 to 2009 when both aid and governance data are available as well as reliable. By limiting the time period, this paper avoids relatively unreliable sources before 2002 and concentrates only on the recent trend.

The main hypothesis to be tested here is that aid provides positive impact on governance. If that is true, then countries with higher aid level should have bigger enhancement in governance quality when all the other things are equal. In order to demonstrate the aid-governance nexus, change in governance indicator, which is calculated by subtracting the initial period (2002) governance value from the end of period (2009) value, is used as a dependent variable and average value of Aid/GDP during the same period is used as an independent variable of interest. Additionally, considerable number of control and instrumental variables is considered in the analysis.

Foremost, this study uses the Worldwide Governance Indicators (WGI) from the World Bank as a measurement of governance quality. The World Bank provides aggregate subjective indicators which combine the reports from other enterprise, citizen and expert survey respondents and covers over the period of 1996-2009.[16] Six dimensions of WGI are '(1) Voice and accountability,' '(2) Political stability and absence of violence,' '(3) Government effectiveness,' '(4) Regulatory quality,' '(5) Rule of law,' and '(6) Control of

[16] World Bank, "Worldwide Governance Indicators," http://info.worldbank.org/governance/wgi/index.asp (accessed July 11, 2011).

corruption.' All six components are related to governance and also many issues in developing countries. Individual definitions of each indicator are detailed in Table 1. Each governance indicator used here is scaled from about -2.5 to 2.5, where higher values correspond to better governance outcomes. This study computes a composite governance indicator by summing the six indicator values to see the overall quality of governance. Panel B in Table 2 displays the summary statistics of the change in governance value.

Next, aid measure is calculated as ODA as a share of gross domestic product (GDP). Instead of using the total ODA amount, only the amount disbursed for the "Participatory development/Good governance" objective is considered. This is because aid has various purposes and including the amount that is not directly related to governance may distort the real influence of aid on governance. By excluding the aid amount that has little connection to governance, the study eliminates the biased data and reinforces the precise impact of aid on governance. Annual data on aid for good governance are available from the Organization for Economic Cooperation and Development (OECD) Creditor Reporting System (CRS) database where most donors report their main objectives of each aid activity. Average value of Aid/GDP is created by taking the mean of the 8 years observations during 2002-2009. Panel B in Table 2 also presents summary statistics of the averaged Aid/GDP.

The quality of governance may be influenced by other factors and this study tries to control those variables. Control and following instrumental variables are nearly identical to those used by Stephen Knack .[17] Control variables include population and GDP change over the given period, and initial (2002) governance value. Population increase could be associated with deterioration of governance. Larger number of people might cause difficulties in harmonizing the public opinions, information asymmetry problems and high

[17] Knack, "Aid Dependence and the Quality of Governance," 311-314.

transaction costs. Change in GDP could also give impact on governance quality. Increased GDP could be conducive to good governance by increasing financial resources from tax revenue and solving the binding revenue constraint of government. Both population and GDP data are obtained from the World Bank database. Lastly, this regression analysis also includes initial governance value and, by doing so, controls for the different potential opportunities to increase each country's governance index value. For instance, countries with higher initial WGI have limited opportunity to further increase their governance value, considering the fact that the range of WGI is from about -2.5 to 2.5. Panel B in Table 2 again shows summary statistics of various control variables used in this analysis.

In order to solve potential endogeneity issues through 2SLS method, various exogenous instrument variables are used. Initial GNI pc and average in infant mortality rate are good indicators for recipient needs. Also, initial population, and a set of colonial heritage dummies (Franc and UK zone dummy) capture donors' interests. Panel B in Table 2 displays summary statistics of these instrumental variables except dummy variables.

IV. Analysis and Findings

1. Is there an overall trend?

If aid enhances the quality of governance, then countries receiving higher level of aid should exhibit bigger improvement in governance quality when compared to other countries. Equation 1 and 2 in Table 3 Panel A report the results using Ordinary Least Square (OLS) and Two-Stage Least Squares (2SLS) method respectively. Since aid level could be responsive to observed quality of governance, this test corrects possible reverse causation issue using 2SLS. The instruments used in this method are effective, considering the fact that the combination of instruments and other variables produces an R^2 of 0.45 while only independent variables produce an R^2 of 0.15. All regressions report robust standard errors in parentheses and *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels.

In these regression results, though governance index is correlated with the aid level, no evidence is found that aid enhances governance. That is, the tests confirm that aid on balance has been ineffectual in promoting governance in overall recipient countries during the period of 2002-2009. For instance, while Georgia experienced the largest increase in governance quality, which is 5.39 point change, Mauritania recorded the largest decline, which is -4.72 point change. Besides the aid level, population change and initial governance value are more powerful predictors of WGI change. 10% increase in population results in nearly 0.7 point decrease in WGI change and 1 point increase in initial governance value leads to a one-tenth point reduction in WGI change. Changes in GDP are not associated with governance in this test, controlling for other variables.

Not having a significant causal relationship between the two in overall countries does

not necessarily imply that no governance-promoting programs worked as intended. There must be successful programs but the effect might be offset by other unsuccessful programs. Also, there might be other exogenous factors that affect the impact of aid. To figure out whether the impact of aid on governance is conditional on certain exogenous variables, this study generates additional hypothesis that the impact of aid on governance may differ depending on invariant conditions of each country. These conditions include geographical location, legal origin, and religious diversity.

2. Does geographical location matter?

136 developing countries could be divided into 6 different groups based on their geographical locations; East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, South Asia, and Sub-Saharan Africa. Equation 1 through 12 in Table 3 Panel B replicate equation 1 and 2 in Panel A, but using different samples of countries. As shown by the equation 12, aid coefficients are positive and highly significant only in Sub-Saharan African countries. The largest governance quality increases are by Liberia, which shows 4.64 point increase in WGI, and by Rwanda, which presents 4.03 point increase. In other regions, the results do not show any significance in using 2SLS method. Interestingly, though not having statistical significance, some countries (East Asia & Pacific, Latin America & Caribbean, and South Asia) even show negative signs in its coefficient, which means that the aid could undermine the governance quality according to the geographical location.

Sub-Saharan Africa is the region on which about 40 percent of world total aid, which is 106 billion USD, is poured during 2002-2009. Figure 2 reports the accumulated aid amount of each region. Also, Table 4 indicates that countries in this region show the highest

Aid/GDP level relative to other countries. This result could imply that enough accumulated aid amount as well as sufficient Aid/GDP ratio is crucial for governance enhancement since it requires a large amount of financial resources.

3. Does legal origin matter?

Several distinct legal traditions were introduced to many countries through colonization and imitation. Along with the legal system, not only rules and regulations, but also institutions and ideologies were transplanted concurrently. In accordance, countries of the same legal origin are believed to have similar strategies for economic and social development.

Many scholars suggest that adopted ideology influences the political concept of organizing private as well as public sector development. In regards to the private market, there is a vast amount of literature arguing that legal origin is important in explaining a country's development in private sector. For instance, Beck et al. demonstrate that legal origin matters for financial development because "legal traditions differ in their ability to adjust efficiently to evolving socioeconomic conditions."[18]

Public sector development could also depend on legal origin. Porta et al. relate legal tradition with government efficiency, arguing that "political heritage matters so much for government performance"[19] and Treisman also considers legal tradition as one of the important factors explaining corruption, which is one of key dimensions of governance. Understanding the fact that legal tradition is associated with governance, this chapter will focus on the impact of aid on governance under different legal origins and find out the most effective tradition for governance enhancement.

[18] Thorsten Beck, Asli Demirguc-Kunt, and Ross Levine, "Law and Finance: Why Does Legal Origin Matter?" *NBER Working Paper* no. 9379 (2002): 30.
[19] Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "The Quality of Government," *The Journal of Law, Economics and Organization* 15 (1999): 262.

In general, legal tradition is divided into two categories; civil law and common law. The civil law tradition, which is originated in Roman law, is the oldest and the most widely spread system amongst all. It focuses on the active role of centralized government. Therefore, many law scholars point out that civil law is associated with "a heavier hand of government ownership and regulation"[20] which emphasizes the state-leading allocation of resources. French law usually represents the civil law because it is followed by a large number of countries and it shows the most distinct features of rules and regulations of this system. German law is also considered to be a civil law but only a small number of countries are included in this legal tradition because Germany's colonial influence did not last long. Socialist legal origin, which is originated in the Soviet Union, is also a sub-tradition of civil law system. However, after the fall of the Berlin Wall, many Socialist tradition countries reverted to their former law tradition, such as French and German civil law system, and many scholars and public officials from these countries even object to be classified in this category. For these reasons, Socialists tradition is excluded from civil law tradition and analyzed separately in this paper.

On the other hand, common law origin countries produce more market-based policy. It is considered to have "better contract enforcement and greater security of property rights"[21] which is more focused on private market outcomes rather than its allocation by government. The tradition is originated in the UK and is now followed in many of its former colonies.

This study tests the hypothesis that there will be a cross-country difference in the impact of aid between different law tradition countries. Except those countries without the information, 75 countries are classified into two legal origin groups for this analysis; civil and

[20] Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "The Economic Consequences of Legal Origins," *NBER Working Paper* no.13608 (2007): 4.
[21] Ibid.

common law tradition. Socialist origin is separately considered. The legal origin data are collected from the CIA Factbook and a set of regional dummy variables is additionally considered in this analysis.

Panel C in Table 3 shows that there are strong causal relationships from increased aid to improved governance in both civil and common law countries, indicating that aid is effectively used in both legal systems. However, there is a difference in aid's impact between the two groups. The magnitude of the estimated coefficient for civil law (French law and German law) countries is twice as big as that of common law (British law) countries. This indicates that, in civil law countries, aid is twice as effective as that in common law countries.

This implies that, in civil law countries, where government's ownership is stronger and it plays more active role in the society than common law countries, the aid for enhancing governance is used more effectively. Since a large portion of foreign aid goes to recipient country's government, strong government ownership could be helpful in aid's effective usage for enhancing its capacity and reducing corruption.

Another interesting result in this regression is that aid's impact on governance in Socialist legal origin countries is statistically insignificant. That is, the effort to enhance governance through aid in these countries was unsuccessful. Socialist government represents an ultimate control of the society with limited freedom in property rights and many other economic activities. In this kind of society, insignificant result in enhancing governance, which includes regulatory quality of promoting private sector, is as expected. All of these results imply that the law heritage does influence the impact of aid on governance.

4. Does religious diversity matter?

Existence of competing social groups could also influence the impact of aid on governance. Svensson provides empirical evidence that "foreign aid and windfalls are on average associated with higher corruption in countries more likely to suffer from competing social groups."[22] In his study, ethnic diversity measure is used as a proxy for the likelihood of competing social groups in a country. Also, Rummel finds out that diverse religious population leads to a more violent conflict in a country and Montalvo and Reynal-Querol suggest that religious polarization is an important factor for explaining economic growth. Even though religious fractionalization may not be a fully sufficient condition for the existence of competing social group, it could be a good guidance in many developing countries, where religious conflict is pervasive.

In this study, three large religious groups in the world are considered; Christian, Muslim, and Buddhist. Christianity is the largest religion with about several hundred Christian denominations in the US alone and many more worldwide.[23] More than 2 billion adherents believe this religion and this number is about one third of the world's entire population.[24] Muslim is the second largest religion with about 1.6 billion adherents. This is about 23% of the world's population.[25] The number of Buddhist is estimated in a huge range difference between 350 million and 1.5 billion and this significant variation came from the trend that they do not have congregational memberships and do not participate in public ceremonies.[26]

In order to test whether the competing groups in a country matter for the impact of aid

---

[22] Svensson, "Foreign aid and rent-seeking," 437.
[23] USA Churches http://www.usachurches.org/christian-denominations.htm (accessed August 10,2011).
[24] Christianity at a glance (BBC Religions) http://www.bbc.co.uk/religion/religions/christianity/ataglance/glance.shtml(accessed August 10,2011).
[25] Pew Research Center, "The Future of the Global Muslim Population," Forum on Religion & Public Life (2011): 15.
[26] Buddhist Times http://www.buddhisttimes.net/2008/08/01/buddhist-populations-in-the-world/(accessed August 10,2011).

on governance, this study uses the percentage of largest religious group in a country as a proxy measure of competing social groups. In the cases where the largest religious group comprises less than 50%, a country has high probability to suffer from several powerful competing social groups. On the other hand, when the largest religion is the dominant group, a country is less likely to have religious conflict and, therefore, more stable and peaceful society. Among 132 countries, six countries including Bolivia have nearly 100% of Christian population. Muslim is believed by almost all the people in Maldives, Mauritania, and Saudi Arabia and 96% of Cambodian is Buddhist.

Panel D in Table 3 reports the regression results. Only the countries with major religious group comprising between 50% and 90% show very strong positive relationship between aid and governance. By comparison, despite its statistical insignificance, aid coefficient has a negative sign in countries with the group comprising less than 50%. This implies that possible religious tension might cause aid to negatively influence governance quality. However, the result of the third group is somewhat unexpected. The hypothesis of this test is that the greater the diversity in religious group, the smaller or even the negative impact the aid has on governance. However, countries with largest religious group comprising more than 90% turns out to have insignificant relationship between aid and governance. This implies that one excessively controlling religion could rather hinder the positive impact of aid on governance.

5. Six governance indicators

Until now this study used the composite value of six governance indicators as a dependent variable in order to measure the overall quality of governance. However, having

a closer look at each individual indicator could help evaluating more precise impact of aid on each dimension of governance. The regression results below indicate that the impact of aid is dissimilar between six governance areas.

Most importantly, only the 'Political stability and absence of violence' factor has a significant positive relationship with aid when all the countries are considered. This result implies that aid contributes only to maintaining political stability and reducing violence. Especially for post-conflict societies, massive amount of aid could support government to rebuild stable political environment and help people secure minimum standards of living. When other exogenous conditions are concerned, it shows similar results with the previous tests using the composite value of governance indicators. Panel A in Table 5 reports the results of regressing the 'Political stability and absence of violence' indicator against the same independent variables used in the previous tests.

'Voice and accountability' and 'Government effectiveness' indicators have slightly different results from the tests using the composite value. Aid enhances 'Voice and accountability' in Sub-Saharan African region or countries where largest religious group comprises between 50% and 90%. In case of 'Government effectiveness,' only geographical location and legal origin matters. Sub-Saharan African countries or those with civil law tradition have a significant relationship between aid and 'Government effectiveness.' Panel B and C indicate the regression results of these two indicators respectively.

For the last three indicators, 'Regulatory quality,' 'Rule of law' and 'Control of corruption,' no significant causal relationship is found in all circumstances. That is, regardless of its geographical location, legal origin, or religious diversity as well as in overall countries, aid has been unsuccessful in enhancing the three kinds of governance quality. Panel D, E, and F report this insignificant relationship. Broadly speaking, these three dimensions of WGI are closely related to private market where the role of monetary value is

important. "Regulatory quality" implies the "ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development." "Rule of law" is also related to private market considering the fact that it is about the quality of "contract enforcement, property rights" and others. Finally, "Control of corruption" captures the opportunity of "private gain."[27] It could imply that the development in governance that is related to private market needs more time and money to be enhanced compared to other dimensions.

[27] World Bank, "Worldwide Governance Indicators," http://info.worldbank.org/governance/wgi/index.asp (accessed July 11, 2011).

V. Policy Implication

Does aid work as intended? It does, but only in certain circumstances. First, the impact of aid on governance is inconclusive in overall countries. There is no general tendency for aid to be more efficacious in promoting governance with either small or large value of Aid/GDP. Even though the signs of coefficients are positive and correlation between the two exists, the causality lacks statistical significance. However, when countries are divided into three or more groups based on their common exogenous conditions, the results of the same analysis are different between groups. The study suggests that aid has a strong positive impact on governance in countries in Sub-Saharan Africa, countries with civil law tradition, and countries where the largest religious group comprises more than 50% but less than 90%. Also, it is found that, in overall countries, aid provides positive impact only on 'Political stability and absence of violence' factor.

These findings should be interpreted with caution. Basically, aid is better to be allocated to countries where it can be used productively. However, this study does not necessarily imply that aid should be spent only for countries with certain condition or it is better to make effort to enhance only certain dimension of governance. Instead, it implies that aid should be given selectively with great caution. Aid practitioners should consider these background conditions of recipient countries when establishing an individual aid strategy. Current aid strategy is suitable for some countries with certain conditions, but it may not be enough or need different strategies for others.

Many researchers suggest that aid has a negative impact on the quality of governance based on the data over long periods of time. Especially since 2000s, however, a large number of donors have emphasized the importance of governance in development and put

efforts on enhancing governance. In this sense, analyzing the data since 2002 is meaningful that it captures the most current trend. However, further investigation with longer term data needs to be followed for more substantial assessment.

Donor countries are making more and more efforts to achieve the MDG and eradicate poverty in the world. In order to achieve the MDG at the earliest possible, establishing good governance should be a priority before pursuing economic development. However, good governance cannot be achieved only through immediate money or knowledge transfers. Since it is a fundamental capacity that needs time to be enhanced, donors' continuous support as well as recipients' self-disciplined endeavor is required for further success.

Bibliography

Ajit, Shinde Kiran. “Quest for Good Governance: Contribution and Potential of Religious Institutions as Stakeholders.” presented at *The Quest for Good Governance* (2004): 1-14.

Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine. “Law and Finance: Why Does Legal Origin Matter?” *NBER Working Paper* no. 9379 (2002): 1-47.

Boone, Peter. “Politics and the effectiveness of foreign aid.” *European Economic Review* no.40 (1996): 289-329.

Brautigam, Deborah and Stehen Knack. “Foreign Aid, Institutions, and Governance in Sub-Saharan Africa.” *Economic Development and Cultural Change* 52, no. 2 (2004): 255-285.

Breuning, Marijke and John Ishiyama. “Foreign Aid, Democracy and Political Stability in Post Conflict Societies.” *Alternatives: Turkish Journal of International Relations* Volume 6, no. 1&2 (2007): 1-10.

Burnside, Craig and David Dollar. “Aid, Policies, and Growth.” *World Bank Policy Research Working Paper* no. 1777 (1997): 1-64.

---. “Aid, Policies, and Growth.” *The American Economic Review* 90, no. 4 (2000): 847-868.

---. “Aid, Policies, and Growth: Revisiting the Evidence.” *World Bank Policy Research Working Paper* no. 3251 (2004): 1-36.

Busse, Matthias and Steffen Groning, “Does Foreign Aid Improve Governance?” *Economic Letters* 104 (2009): 76-78.

Easterly, William and Ross Levine. “Africa’s Growth Tragedy: Policies and Ethnic Divisions.” *Quarterly Journal of Economics* Volume 112, no.4 (1997): 1203-1250.

Fox, Jonathan. “Are Middle East Conflicts More Religious?” *Middle East Quarterly* Vol. 8 Issue 4 (2001): 31-40.

Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobaton. “Governance Matters.” *World Bank Policy Research Working Paper* no. 2196 (1999): 1-64.

Klerman, Daniel and Paul G. Mahoney. “Legal Origin?” *Journal of Comparative Economics* 35 (2007): 278-293.

Knack, Stephen. “Aid Dependence and the Quality of Governance: Cross-Country Empirical Tests.” *Southern Economic Journal* 68, no. 2 (2001): 310-329.

---. “Does Foreign Aid promote Democracy?” *International Studies Quarterly* 48 (2004): 251-266.

Montalvo, Jose G. and Marta Reynal-Querol. “The Effect of Ethnic and Religious Conflict on Growth.” *IVIE WP*-EC 2000-04 (2000): 1-50.

Organization for Economic Cooperation and Development (OECD). “Evaluation of Programs Promoting Participatory Development and Good Governance.” OECD Paris (1997): 1-127.

Pew Research Center, “The Future of the Global Muslim Population,” Forum on *Religion & Public Life* (2011): 1-209.

Porta, Rafael La, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny. “The Quality of Government.” *The Journal of Law, Economics and Organization* 15 (1999): 222-279.

---. “The Economic Consequences of Legal Origins.” *NBER Working Paper* no.13608 (2007): 1-93.

Rummel, Rudolph J. “Is Collective Violence Correlated with Social Pluralism?” *Journal of Peace Research* vol. 34 no. 2 (1997): 163-175.

Svensson, Jakob. “Aid, Growth and Democracy.” *Economics and Politics*. Volume 11 (1999): 275-297.

---. “Foreign aid and rent-seeking.” *Journal of International Economics* no.51 (2000) 437-461.

Treisman, Daniel. “The causes of corruption: a cross-national study.” *Journal of Public Economics* 76 (2000): 399-457.

Figure 1: The ODA volume by year

The bar chart below represents the worldwide ODA disbursement amount by year from 2002 to 2009 (USD million). The aid amount, which has a policy objective on good governance, is indicated in black.

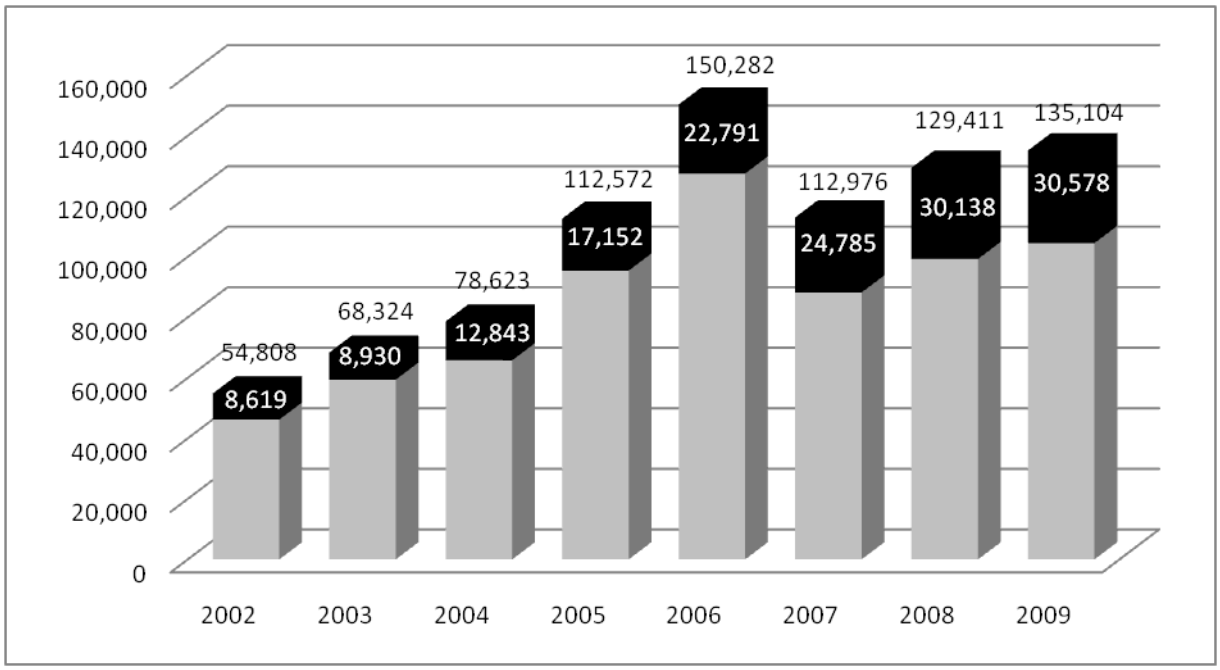

Figure 2: Accumulated ODA volume by Geographical Location

The pie chart below represents the accumulated ODA amount by geographical location during the 2002 – 2009 period. Total 106 billion USD was spent worldwide and Sub-Saharan African countries received nearly 40% of total ODA amount.

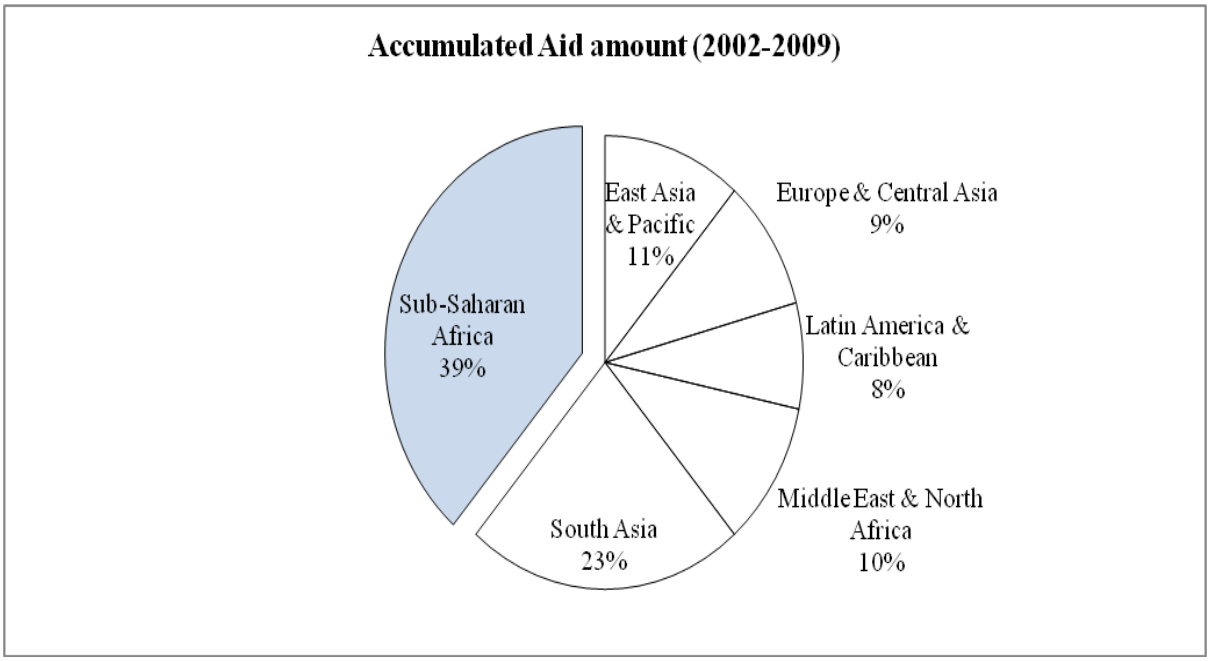

Table 1: Definition of Governance and Governance Indicators

Definition of governance and six governance indicators by the World Bank are provided below.

Name	Definition
Governance	***Governance*** consists of the traditions and institutions by which authority in a country is exercised. It includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them.
The Worldwide Governance Indicators (WGI)	
Voice and accountability	***Voice and accountability*** captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
Political stability and absence of violence	**Political stability and absence of violence** measures the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism
Government effectiveness	**Government effectiveness** captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
Regulatory quality	**Regulatory quality** captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Rule of law	**Rule of law** captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
Control of corruption	**Control of corruption** captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

Table 2: Definition and Summary Statistics of Variables

Definition and summary statistics of key variables are provided below. Panel A defines each variable. Panel B provides summary statistics.

Panel A. Variable definitions and data sources

Variables	Definition	Source
Aid/GDP	Official Development Assistance in % of (host) GDP, averaged over 2002-2009	OECD CRS and World Bank
Population change	population change in % of initial population	World Bank
GDP change	GDP change in % of initial GDP	World Bank
Initial GNIpc	Initial (log) value of GNI per capita	World Bank
Infant mortality	Infant mortality per 1000 birth, averaged over 2002-2009	World Bank
Initial population	Initial (log) value of total population	World Bank

Panel B. Summary statistics

	N	No. of 1	mean	median	sd	min	max
Dependent Variable							
WGI (sum) change	136		0.1382	0.1118	1.7551	-4.7163	5.39
Voice and accountability change	136		-0.0003	-0.0291	0.3096	-0.8212	1.1241
Political stability and absence of violence change	136		0.0333	0.0661	0.5592	-1.6005	1.4688
Government effectiveness change	136		0.0287	0.025	0.3792	-1.0544	1.2111
Regulatory quality change	136		0.0253	0.0678	0.3967	-1.1612	1.4332
Rule of law change	136		-0.002	0.0017	0.3282	-0.8706	1.1036
Control of corruption change	136		0.0164	-0.0016	0.3909	-0.9177	1.1433
Independent Variable							
Aid/GDP	136		1.6341	0.597	3.2111	0.0001	25.1358
Control Variable							
Population change	136		0.1214	0.1203	0.0807	-0.0902	0.308
GDP change	136		1.2101	1.0373	0.8188	-0.1063	5.4199
Initial WGI (sum)	136		-2.7308	-3.0271	3.7476	-11.261	7.5864
Initial Voice and accountability	136		-0.3913	-0.4517	0.839	-2.0339	1.3717
Initial Political stability and absence of violence	136		-0.3833	-0.3272	0.9023	-2.4193	1.2294
Initial Government effectiveness	136		-0.4852	-0.5189	0.6301	-2.1116	1.3797
Initial Regulatory quality	136		-0.4687	-0.4617	0.6998	-2.2446	1.4831
Initial Rule of law	136		-0.5015	-0.5235	0.69	-1.8944	1.4047
Initial Control of corruption	136		-0.464	-0.5467	0.6285	-1.7192	1.5632
Instrumental Variable							
Initial GNI pc	131		6.8983	6.9939	1.1485	4.382	9.1204
Infant mortality	125		45.7568	34.58	32.6669	4.8	136.72
Initial population	136		15.5102	15.7066	2.068	10.7517	20.9704
Franz zone	136	25	0.1838	0.0000	0.3888	0	1
UK zone	136	38	0.2794	0.0000	0.4504	0	1

Table 3: Determinants of Aid Effectiveness in Enhancing Governance

This table shows regression results of composite value of governance indicator on Aid/GDP in different exogenous conditions. Panel A reports the full sample results. Panel B, C and D present the sub-sample results in different settings of geographical location, legal origin, and religious diversity respectively. Regressions are estimated over the 2002-2009 period. All regressions report robust standard errors in parentheses and *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels.

Panel A. Regression results of full sample

Dependent Variable = WGI (sum)	(1) OLS	(2) 2SLS
Aid / GDP	0.144*	0.153
	(0.0779)	(0.105)
Population change	-6.839***	-6.570**
	(2.254)	(2.561)
GDP change	0.197	0.309
	(0.184)	(0.202)
Initial WGI(sum)	-0.100**	-0.105**
	(0.0453)	(0.0505)
Interaction term	Yes	Yes
Observations	136	120
R-squared	0.148	0.191

Panel B. Regression results of sub-samples by geographical location

Dependent Variable = WGI(sum)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	East Asia & Pacific		Europe & Central Asia		Latin America & Caribbean		Middle East & North Africa		South Asia		Sub-Saharan Africa	
	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	-0.118	-0.253	0.439	-1.461	-0.485	-0.584	0.810*	0.786	-0.283	-1.931	0.353***	0.371***
	(0.0820)	(0.208)	(0.565)	(1.249)	(0.391)	(0.453)	(0.411)	(0.806)	(0.531)	(3.436)	(0.0687)	(0.133)
Population change	3.608	10.72	-7.275	-22.27*	-8.845**	-5.471	3.317	6.045	9.572	10.96	-7.129*	-7.955
	(10.39)	(13.41)	(8.744)	(11.50)	(3.960)	(4.767)	(9.018)	(9.378)	(20.25)	(21.16)	(4.063)	(4.748)
GDP change	-1.053	-1.313	0.0306	-0.275	-0.578	-0.0962	1.052	-0.229	1.458	-4.627	0.737***	0.730**
	(0.638)	(0.980)	(0.227)	(0.507)	(0.530)	(0.491)	(1.493)	(1.875)	(2.631)	(8.748)	(0.219)	(0.323)
Initial WGI(sum)	-0.513***	-0.532**	0.0500	-0.0600	-0.126	-0.0749	0.0859	0.199	-0.124	0.624	-0.0240	-0.0248
	(0.145)	(0.196)	(0.200)	(0.269)	(0.0748)	(0.0826)	(0.197)	(0.246)	(0.344)	(0.905)	(0.0584)	(0.0718)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	19	17	16	14	31	27	12	10	8	6	46	44
R-squared	0.451	0.391	0.228	0.148	0.122	0.180	0.377	0.311	0.163	0.417	0.374	0.408

Panel C. Regression results of sub-samples by legal origin

Dependent Variable =WGI (sum)	(1)	(2)	(3)	(4)	(5)	(6)
	Civil Law		Common Law		Socialist	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.267***	0.356**	0.156***	0.326*	0.642	0.642
	(0.0927)	(0.160)	(0.0509)	(0.170)	(2.745)	(2.177)
Population change	-4.783	-5.200	7.362***	4.247	-16.50	-16.50
	(3.765)	(4.682)	(2.249)	(4.123)	(20.37)	(18.32)
GDP change	0.746***	0.841**	0.418	0.531	0.559	0.559
	(0.256)	(0.327)	(0.278)	(0.307)	(0.760)	(0.890)
Initial WGI(sum)	-0.143**	-0.103	0.0618	0.0692	-0.579	-0.579
	(0.0658)	(0.0741)	(0.0364)	(0.0576)	(0.675)	(0.635)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	52	51	23	22	8	8
R-squared	0.463	0.445	0.805	0.763	0.749	0.749

Panel D. Regression results of sub-samples by religious diversity

Dependent Variable = WGI(sum)	(1)	(2)	(3)	(4)	(5)	(6)
	≤ 50%		50%< ≤ 90%		> 90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	-0.193	-0.625	0.346***	0.355***	0.0428	0.253
	(0.337)	(0.480)	(0.0686)	(0.131)	(0.0841)	(0.189)
Population change	-4.161	1.111	-2.910	-2.897	-4.474	-13.93
	(4.366)	(9.473)	(3.394)	(3.566)	(4.841)	(9.335)
GDP change	0.0470	-0.0763	0.716***	0.730**	-0.560	-0.339
	(0.314)	(0.581)	(0.236)	(0.314)	(0.391)	(0.599)
Initial WGI(sum)	-0.0848	-0.0544	0.0331	0.0294	-0.230**	-0.200
	(0.0761)	(0.107)	(0.0505)	(0.0752)	(0.0859)	(0.140)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	19	19	58	54	49	40
R-squared	0.506	0.414	0.381	0.442	0.289	0.146

Table 4: Averaged Aid/GDP by Geographical Location

The table below reports the averaged Aid/GDP ratio by geographical location during the 2002 – 2009 period. While the mean value of Aid/GDP in overall countries is 1.63, Sub-Saharan African countries recorded 2.82.

	N	mean	median	sd	min	max
World	136	1.6341	0.597	3.2111	0.0001	25.1358
East Asia & Pacific	19	2.2906	0.8097	5.7764	0.001	25.1358
Europe & Central Asia	16	0.8274	1.0558	0.701	0.0208	1.8313
Latin America & Caribbean	31	0.4408	0.1064	0.7476	0.0025	2.8868
Middle East & North Africa	12	0.5926	0.1394	0.9779	0.0023	2.9724
South Asia	8	1.8857	0.8254	3.041	0.133	9.3136
Sub-Saharan Africa	46	2.8164	1.9564	3.4671	0.0281	17.2975

Table 5: Six Governance Indicators

This table shows regression results of six individual governance indicators on Aid/GDP in different exogenous conditions. Panel A to F respectively reports the results in different settings of geographical location, legal origin, and religious diversity. Regressions are estimated over the 2002-2009 period. All regressions report robust standard errors in parentheses and *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels.

Panel A. Regression results of 'Political stability and absence of violence'

Dependent Variable = Political stability and absence of violence	(1)	(2)	(3)	(4)	(5)	(6)
	Sub-Saharan Africa		Civil law		Largest religious group 50%< ≤90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.100***	0.124***	0.0770***	0.115**	0.0804***	0.126***
	(0.0172)	(0.0442)	(0.0251)	(0.0514)	(0.0178)	(0.0394)
Population change	-2.688***	-3.253**	-1.644	-1.821	-1.103	-1.741
	(0.976)	(1.597)	(1.363)	(1.453)	(0.844)	(1.113)
GDP change	0.251***	0.272**	0.350***	0.376***	0.208**	0.259***
	(0.0915)	(0.109)	(0.0719)	(0.103)	(0.0915)	(0.0942)
Initial WGI	-0.157*	-0.138	-0.283***	-0.258***	-0.0913	-0.0286
	(0.0796)	(0.0931)	(0.0747)	(0.0851)	(0.0946)	(0.0960)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	No	No	Yes	Yes	Yes	Yes
Observations	46	44	52	51	58	54
R-squared	0.387	0.414	0.515	0.494	0.437	0.457

Panel B. Regression results of 'Voice and accountability'

Dependent Variable = Voice and accountability	(1)	(2)	(3)	(4)	(5)	(6)
	Sub-Saharan Africa		Civil law		Largest religious group 50%< ≤90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.0585***	0.0638**	0.0336**	0.0264	0.0595***	0.0490*
	(0.0162)	(0.0247)	(0.0143)	(0.0268)	(0.0170)	(0.0248)
Population change	-1.020	-1.218	-0.834	-0.888	-0.274	-0.195
	(0.888)	(0.954)	(0.765)	(0.809)	(0.665)	(0.764)
GDP change	0.0406	0.0439	0.0238	0.0323	0.0586	0.0442
	(0.0517)	(0.0626)	(0.0420)	(0.0559)	(0.0597)	(0.0653)
Initial WGI	-0.0770	-0.0523	-0.172**	-0.125*	-0.0391	-0.0378
	(0.0674)	(0.0688)	(0.0727)	(0.0669)	(0.0474)	(0.0667)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	No	No	Yes	Yes	Yes	Yes
Observations	46	44	52	51	58	54
R-squared	0.299	0.338	0.316	0.285	0.299	0.329

Panel C. Regression results of 'Government effectiveness'

Dependent Variable = Government effectiveness	(1)	(2)	(3)	(4)	(5)	(6)
	Sub-Saharan Africa		Civil law		Largest religious group 50%< ≤90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.0574***	0.0714**	0.0456**	0.0513*	0.0454***	0.0332
	(0.0126)	(0.0290)	(0.0186)	(0.0287)	(0.0132)	(0.0283)
Population change	-0.780	-1.141	-0.508	-0.525	-0.0744	0.233
	(1.061)	(1.035)	(0.853)	(0.857)	(0.969)	(0.764)
GDP change	0.124**	0.138*	0.108**	0.109*	0.129**	0.125*
	(0.0490)	(0.0691)	(0.0400)	(0.0579)	(0.0536)	(0.0670)
Initial WGI	0.0394	0.0447	-0.115*	-0.121	0.00529	-0.00336
	(0.101)	(0.105)	(0.0645)	(0.0789)	(0.0782)	(0.0973)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	No	No	Yes	Yes	Yes	Yes
Observations	46	44	52	51	58	54
R-squared	0.251	0.251	0.383	0.383	0.247	0.314

Panel D. Regression results of 'Regulatory quality'

Dependent Variable = Regulatory quality	(1)	(2)	(3)	(4)	(5)	(6)
	Sub-Saharan Africa		Civil law		Largest religious group 50%< ≤90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.0342**	0.0110	0.0252*	0.0509	0.0481***	0.0343
	(0.0144)	(0.0326)	(0.0143)	(0.0402)	(0.0163)	(0.0298)
Population change	-0.671	-0.177	-0.661	-0.798	-0.579	-0.347
	(1.040)	(1.153)	(0.936)	(1.177)	(0.869)	(0.826)
GDP change	0.120**	0.0904	0.0279	0.0502	0.133**	0.118
	(0.0503)	(0.0770)	(0.0960)	(0.0841)	(0.0530)	(0.0735)
Initial WGI	-0.0834	-0.102	-0.0744	-0.0333	-0.0494	-0.0525
	(0.0836)	(0.0979)	(0.113)	(0.117)	(0.0582)	(0.0825)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	No	No	Yes	Yes	Yes	Yes
Observations	46	44	52	51	58	54
R-squared	0.175	0.133	0.247	0.231	0.346	0.336

Panel E. Regression Results of 'Rule of law'

Dependent Variable = Rule of law	(1)	(2)	(3)	(4)	(5)	(6)
	Sub-Saharan Africa		Civil law		Largest religious group 50%< ≤90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.0453***	0.0275	0.0418**	0.0381	0.0508***	0.0359
	(0.0130)	(0.0253)	(0.0173)	(0.0319)	(0.0151)	(0.0274)
Population change	-0.612	-0.247	-0.253	-0.264	-0.256	0.00372
	(0.935)	(0.918)	(0.854)	(0.946)	(0.773)	(0.748)
GDP change	0.0898**	0.0620	0.130**	0.140**	0.0919*	0.0729
	(0.0441)	(0.0619)	(0.0516)	(0.0653)	(0.0481)	(0.0641)
Initial WGI	-0.0672	-0.0988	-0.109	-0.0580	-0.00831	-0.0498
	(0.0710)	(0.0781)	(0.0793)	(0.0841)	(0.0669)	(0.0877)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	No	No	Yes	Yes	Yes	Yes
Observations	46	44	52	51	58	54
R-squared	0.273	0.257	0.353	0.357	0.290	0.293

Panel F. Regression Results of 'Control of corruption'

Dependent Variable = Control of corruption	(1)	(2)	(3)	(4)	(5)	(6)
	Sub-Saharan Africa		Civil law		Largest religious group 50%< ≤90%	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Aid / GDP	0.0379*	0.0343	0.0326	0.0360	0.0265	0.0235
	(0.0200)	(0.0297)	(0.0311)	(0.0342)	(0.0201)	(0.0323)
Population change	-1.916*	-1.837	-1.195	-1.199	-0.841	-0.678
	(1.081)	(1.173)	(1.287)	(1.095)	(0.936)	(0.983)
GDP change	0.0416	0.0304	0.0650	0.0706	0.0272	0.0258
	(0.0662)	(0.0756)	(0.0688)	(0.0732)	(0.0654)	(0.0831)
Initial WGI	-0.169	-0.185*	-0.261***	-0.244***	-0.0753	-0.0951
	(0.109)	(0.102)	(0.0786)	(0.0873)	(0.0804)	(0.111)
Interaction term	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummy	No	No	Yes	Yes	Yes	Yes
Observations	46	44	52	51	58	54
R-squared	0.161	0.179	0.462	0.440	0.141	0.148