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Institutional benchmarking of foreign aid effectiveness in Africa

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Abstract

This paper integrates two main strands of the aid-development nexus in assessing whether institutional thresholds matter in the effectiveness of foreign aid on institutional development in 53 African countries over the period 1996-2010. Eight government quality indicators are employed: rule of law, regulation quality, government effectiveness, corruption, voice & accountability, control of corruption, political stability and democracy. Three hypotheses are tested and the following findings are established: (1) Institutional benefits of foreign-aid are contingent on existing institutional levels in Africa. (2) But for a thin exception (democracy), foreign-aid is more negatively correlated with countries of higher institutional quality than with those of lower quality. (3) The institutional benefits of foreign-aid are not questionable until greater domestic institutional development has taken place. The reverse is true instead. Government quality benefits of development assistance are questionable in African countries irrespective of prevailing institutional quality levels.

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1. Introduction

For more than half a century, the political economy of foreign-aid has been widely debated in academic and policy-making circles. A substantial literature on institutions and development suggests that, Africa is poor because it is deficient of good institutions: dictatorships, lack of property rights, weak courts and contract-enforcement, political instability, high corruption, violence and hostile regulatory environment for private business. With respect to this strand, in order to end African poverty, the West needs to promote good institutions (Easterly, 2005). In response to how foreign-aid might promote good institutions in aid-recipient countries, much of the literature has focused on how institutions matter in the effectiveness of foreign-aid (Alesina & Dollar, 2000; Alesina & Weder, 2002; Knack, 2001; Dixit, 2004; Djankov et al., 2005; Asongu, 2012ab).

From the interesting literature on aid and institutions, the debate has centered around three main questions. Firstly, do donors allocate more to poor countries who have better institutions (e.g less corruption, more democracy)? Secondly, does foreign-aid induce better or worse institutional quality? Thirdly, how would outsiders engineer a transition from the present state of informal institutions towards more formal institutional settings through foreign-aid? The first strand of the debate is relevant because donors have widely assumed that aid would be more effective in countries with better institutions. More so the answer to the first concern also affects the response to the second. Implying, if donors give more aid to countries with better institutions, this would create an incentive for reformers in the recipient country to adapt to institutions. Much of the literature has found no evidence that democracies or less corrupt states are rewarded with more aid (Alesina & Dollar, 2000; Alesina & Weder, 2002). On the second question, a great chunk of the literature has pointed to the institutional (Knack, 2001; Asongu, 2012a) and democratic (Djankov et al., 2005) perils of foreign-aid, especially in ethnically fractionalized

states (Svensson, 2000). Lastly, there is the thorny third question (strand) about how aid would practically go about changing institutions in the interest of developing recipient countries. In substance the transition from informal to formal institutions is somehow complex and attempts by Western aid agencies to introduce top-down formal institutions have not fared well in the complicated maze of bottom-up arrangements. To this third question, Dixit (2004) has presented an interesting argument as to how introducing imperfect rule-based institutions could actually make things worse, as they create outside opportunities for members of relationship-based networks[2].

This paper contributes to existing literature by integrating the last two strands highlighted above within the same empirical framework. Thus, we put some empirical structure on two questions of the aid-institutions nexus in order to give policymakers guidance on the issues. In substance, this work attempts to elucidate the following questions. Are the institutional benefits of development-assistance contingent on existing institutional quality (second strand)? At what institutional thresholds will foreign-aid be instrumental in improving institutional quality (third strand)? Are the institutional benefits of foreign-aid questionable until greater domestic institutional development has taken place (second and third strands)?

It has been well documented in the globalization-development literature that, certain 'threshold' levels in financial and institutional development are imperative for an economy to get the full indirect benefits and reduced risks of capital account globalization (Henry, 2007; Rodrik & Subramanian, 2009; Kose et al., 2011). Empirically assessing the aid-institutions nexus in light of the available weight of empirical evidence on 'threshold theories' from the openness-development literature could provide relevant policy implications on the two complementary research questions highlighted above. Though not in form, yet in substance, the literature points

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[2] Network members can then cheat on their partners and vamoose to operate in the rule-based system. A society could get caught in-between formal and informal institutional settings with neither working well.

to the existence of certain initial institutional threshold conditions (corruption, democracy…etc) but lacks a unifying framework that explores the most quantifiable government quality indicators currently available[3].

The contribution of this paper to the literature is sixfold. Firstly, we deviate from the mainstream approach to the aid-institutions nexus that does not incorporate all dimensions of government quality and provide an exhaustive assessment with eight institutional quality dynamics (rule of law, regulation quality, voice & accountability, government effectiveness, corruption, political stability, corruption-control and democracy)[4]. Secondly, a substantial bulk of studies in the literature is based on data collected between 1960 and 2001. By using much recent data, the paper provides an updated account of the nexus with more focused policy implications. Thirdly, owing to the debate on methodological issues in the assessment of foreign-aid effectiveness, this paper provides new dimensions to the debate by investigating the aid-development nexus when existing institutional quality dynamics matter. Thus, there is the presumption here that certain institutional thresholds might be imperative in the institutional-effectiveness of foreign-aid. Fourthly, this paper integrates two of the three strands currently prevailing in the literature by putting some empirical structure on them, in order to give policymakers the much needed guidance. Thus, blanket aid policies might not be effective unless they are contingent on the prevailing strands of the debate, existing levels of 'institutional development dynamics' and tailored differently across countries with the least and most advanced institutions. Fifthly, with the year 2015 approaching, it is momentous time to assess donors' objective of reaching the MDGs. In plainer terms, examining the effectiveness of development assistance on institutions in light of the four points underlined above (in the run-up

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[3] This is probably because most studies are based on data collected between 1960 and 2001. Government quality indicators for developing countries were not available before 1996 (See World Development Indicators: Good Governance).
[4] Knack & Keefer (1995) have concluded that more indicators are needed to properly account for the quality of institutions (p. 223).

to 2015) could provide crucial policy options to donor and multilateral agencies on their assistance impact. Sixthly, this paper is an extension of the Okada & Samreth (2012) and Asongu (2012c) debate 'on the effect of foreign-aid on corruption' to other institutional dynamics[5].

The rest of the paper is organized as follows. Section 2 presents existing literature on aid effectiveness. Measurement and methodology issues are discussed in Section 3. Empirical analysis is covered in Section 4. We conclude with Section 5.

2. Literature review

2.1 Africa's needs and Western responses

A substantial number of African countries lie quite low on standard international comparisons. Borrowing from Easterly (2005), they occupy most of the bottom places in income per capita, percentage of population living in extreme poverty (less than one US dollar a day), life expectancy, infant mortality, literacy, AIDS prevalence and the human development index (HDI). The last four decades have been those of extreme growth dismay in Africa. The West has responded to Africa's tragedy with intensive involvement of foreign-aid agencies and international organizations. In the mean, African countries receive much more aid in terms of percentage GDP than other developing countries. The West does more because Africa is poor, nay its efforts are suppose to have positive impacts on development.

The year 2005 was that during which the West pressed hardest to salvage Africa. In July of that year, the G8 agreed to double foreign-aid to Africa from $25 billion a year to $50 billion to finance the 'Big push', as well as erase African aid-loans incurred during previous attempts at

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[5] "*The Okada & Samreth (2012, EL) finding that aid deters corruption could have an important influence on policy and academic debates. This paper partially negates their criticism of the mainstream approach to the aid-development nexus. Using updated data (1996-2010) from 52 African countries, we provide robust evidence of a positive aid-corruption nexus. Development assistance fuels (mitigates) corruption (the control of corruption) in the African continent. As a policy implication, the Okada & Samreth (2012, EL) finding for developing countries may not be relevant for Africa*" (Asongu, 2012c).

a 'Big push'. Before this effort, Africa was already the most aid-intensive region on the planet. In September of that same year, world leaders assembled at the United Nations to further discuss progress on ending poverty in the continent.

2.2 Conflicts in the literature

A great bulk of the literature on the effectiveness of aid has almost exclusively been oriented towards the macroeconomic impacts of aid; assessing the effects of aid on economic savings, investment and growth. The low-depth of analytical framework, heavy reliance on empirical evidence (which is often ambiguous at best) and inconclusive results with recently refined methodologies (Masud & Yontcheva, 2005), leaves the aid-development nexus widely open to debate. For the purpose of clarity, literature pertaining to the effectiveness of aid in growth (development) could be classified into two strands as summarized in Table 1: one acknowledging the negative consequences of aid and the other brandishing the positive rewards of development assistance.

The first strand includes authors advocating the case for the insignificant impact of aid on investment, savings or growth. Aid has been established to improve unproductive public consumption (Mosley et al., 1992) and stops short of increasing investment. This latter point has been validated by Boone (1996) and Reichel (1995). Ghura (1995) has pointed to the negative effect of aid on domestic savings whereas Pedersen (1996) asserts, foreign-aid distorts development and ultimately leads to aid dependency.

In the second strand, we find studies brandishing the positive effects of aid on growth and development. Among these works, we shall highlight that of   Burnside & Dollar (2000) which conclude on the effectiveness of aid when policies are good. The Burnside & Dollar (2000) paper has received significant comments from researchers (Guillaumont & Chauvet, 2001; Colier & Dehn, 2001; Easterly et al., 2003); comments that have been challenged as being "extremely data

dependent" (Clemens et al., 2004). In the African context, the Okada & Samreth (2012) finding that aid deters corruption has been negated in the context of Africa by Asongu (2012c). Hence, it would be interesting to extend the debate in the context of other institutional dynamics.

Table 1: Summary of conflicts in the literature

Researchers	Main findings
First-strand: Aid does not lead to growth (development)	
Mosley et al. (1992)	Aid increases unproductive public consumption and fails to promote growth.
Reichel(1995)	Aid fails to promote savings owing to the substitution effect.
Ghura(1995)	Aid negatively impacts savings.
Boone(1996)	Aid is insignificant in improving economic development for two reasons: poverty is not caused by capital shortage and it is not optimal for politicians to adjust distortionary policies when they receive aid flows.
Pedersen (1996)	Foreign Aid distorts development and leads to aid dependency.
Asongu(2012a)	Development assistance is perilous to government quality dynamics
Asongu(2012b)	Development assistance is inhumane and leads to reversed economics
Asongu (2012c)	Foreign aid fuels corruption
Second-strand : Aid improves growth (development)	
Burnside & Dollar (2000)	Aid can be effective when policies and economic management are good.
Ghura(1995)	Aid positively impacts savings for good adjusters.
Guillaumont & Chauvet (2001)	Aid effectiveness is contingent on environmental factors(shocks and hazards)
Collier & Dehn(2001)	Aid effectiveness depends on negative supply shocks. Targeting aid contingent of negative supply shocks is better than 'targeting' based on good policies.
Collier & Dollar(2001)	The positive effect of aid on poverty depends on its impact on per-capita income growth; and impact of per-capita income growth on poverty reduction.
Feeny (2003)	The sectoral allocation of foreign aid to Papua New Guinea has been broadly in line with a strategy to effectively reduce poverty and increase human well-being.
Gomanee et al.(2003)	Aid has either a direct effect on welfare or indirect effect through public spending on social services.
Clement et al. (2004)	Aid has a short-term positive impact on growth
Ishfaq (2004)	Foreign Aid, in a limited way though, has helped in reducing the extent of poverty in Pakistan.
Mosley et al. (2004)	Foreign assistance has an indirect impact on poverty and the well-being of recipient countries.
Addison et al. (2005)	Aid increases pro-poor public expenditure and has a positive effect on growth. Aid broadly works to mitigate poverty, and poverty would be higher in the absence of aid.
Fielding et al. (2006)	There is a straight forward positive impact of aid on development outcomes.
Okada & Samreth (2012)	Aid discourages corruption

Source (Author)

An extensive literature on institutions and development suggests that Africa is poor because it has poor institutions: dictatorship, lack of property rights, weak courts and contract enforcement, violence and political instability, hostile regulatory environment for private business and price instability. In a bid to end African poverty, according to this perspective the West needs to promote good institutions and governance. Svensson (2000) finds that aid

increases corruption in ethnically fractionalized states (which is the situation of most African countries). The results of Knack (2001) suggest that higher aid worsens bureaucratic quality, leads to violation of established laws with great impunity and more corruption (controlling for potential reverse causality). In the same line of thought, Djankov et al. (2005) notice that high aid caused setbacks to democracy between 1960 and 1999. Indeed they found aid's effect on democracy to be worse than that attributed to the 'natural resource curse'.

3. Data and Methodology

3.1 Data

We examine 53 countries for the period 1996-2010 with data from African Development Indicators (ADI) of the World Bank (WB), Transparency International and La Porta et al., (2008, p. 289). Variable definitions and corresponding sources are presented in Appendix 3. Institutional quality dependent variables include: the rule of law, regulation quality, corruption-control, government-effectiveness, voice & accountability, political stability (or no violence), corruption and democracy. The independent variable of interest is Net Official Development Assistance (NODA). For robustness purposes we use three different NODA indicators: Total NODA; NODA from the Development Assistance Committee (DAC) countries; and NODA from Multilateral Donors. Whereas the first is used in the empirical section, the last two have been used for robustness checks. Borrowing from recent development threshold literature (Asongu, 2012d), we control for inflation, economic prosperity, population growth, autocracy, foreign investment, trade, per capita economic prosperity and public investment. These control variables are broadly consistent with the causes of institutional quality (Goel & Nelson, 2005; Lambsdorff, 2006).

Details about descriptive statistics (with presentation of countries), correlation analysis (showing the relationships between key variables used in the paper), and variable definitions are

presented in the appendices. The 'summary statistics' (Appendix 1) of the variables used in the panel regressions shows that there is quite some variation in the data utilized so that one should be confident that reasonable estimated nexuses should emerge. The purpose of the correlation matrix (Appendix 2) is to address issues resulting from overparametization and multicolinearity. Based on a preliminary assessment of the correlation coefficients, there do not appear to be any serious concerns in terms of the relationships to be estimated.

3.2 Methodology

Consistent with Billger & Goel (2009) and recent development threshold literature (Asongu, 2012d), to determine whether existing levels in development dynamics affects how development assistance comes into play, we use quantile regression. This approach permits us to investigate if the relationship among institutional dynamics and foreign-aid differs throughout the distributions of institutional dynamics (Koenker & Hallock, 2001).

Some studies on the determinants of institutional-quality are based on estimation by Ordinary Least Squares (OLS), which report parameter estimates at the conditional mean of institutional development. Whereas mean effects are certainly important, this study broadens such findings using quantile regression. In addition, one of the underlying assumptions of OLS regression is that the error term and the dependent variable are normally distributed. However, in quantile regression the error term need not be distributed normally. Thus, based on this estimation technique we are able to carefully assess the incidence of development assistance throughout the conditional distribution with particular emphasis on countries with the best and worst institutions. Quantile regression (hence QR) yields parameters estimated at multiple points in the conditional distribution of the dependent variable (Koenker & Bassett, 1978) and has gained increasing relevance in recent development (Billger & Goel, 2009; Okada & Samreth, 2012; Asongu, 2012ef) and African institutional (Asongu, 2012gh) literature. Beyond these facts,

the choice of this estimation technique is in line with the research hypotheses stressed in the motivation of the paper. Accordingly, the θ th quantile estimator of the endogenous variable is obtained by solving for the following optimization problem.

$$\min_{\beta \in R^k} \left[\sum_{i \in \{i:\, y_i \geq x_i'\beta\}} \theta |y_i - x_i'\beta| + \sum_{i \in \{i:\, y_i \geq x_i'\beta\}} (1-\theta) |y_i - x_i'\beta| \right] \qquad (1)$$

Where $\theta \in (0, 1)$. Contrary to OLS that is based on minimizing the sum of squared residuals, with QR we minimize the weighted sum of absolute deviations. For example the 10th or 75th quantiles (with $\theta = 0.10$ or 0.75 respectively) by approximately weighing the residuals. The conditional quantile of y_i given x_i is:

$$Q_y(\theta / x_i) = x_i'\beta_\theta \qquad (2)$$

where unique slope parameters are derived for each θ th quantile of interest. This formulation is analogous to $E(y / x) = x_i'\beta$ in the OLS slope though parameters are estimated only at the mean of the conditional distribution of the endogenous variable. For the model in Eq.(2) the dependent variable y_i is an institutional quality indicator while x_i contains a constant term, foreign-aid, inflation, economic prosperity, population growth, autocracy, foreign investment, trade, per capita economic prosperity and public investment. The quantile estimation approach is more robust than the OLS approach in the presence of outliers when the distribution of the dependent variable is a highly non-normal pattern (Okada & Samreth, 2012; Asongu, 2012d).

4. Empirical analysis

4.1 Summary of results

The results presented in Tables 3-6 include OLS and QR estimates. OLS estimates provide a baseline of mean effects and we compare these to estimates of separate quantiles in the conditional distributions of the institutional development dependent variables. In the interpretation of estimated coefficients, it is worth noting that smaller values (in conditional

distributions) of the dependent variable denote less institutional quality (democracy, rule of law, regulation quality, corruption, government effectiveness, political stability, voice & accountability and corruption-control). Table 3 shows results for the rule of law and regulation quality regressions. Table 4 report's findings for government effectiveness and political stability. Results in Table 5 are those of voice & accountability and democracy. Corruption and corruption-control results are disclosed in Table 6.

Table 2 below summarizes foreign-aid correlations with institutional development based on findings in Tables 3-6. This spirit of this summary is to synthesize the potential incidence of foreign-aid on institutional development when existing government-quality dynamics matter. Hence, from horizontal and vertical comparative perspectives, policy-makers could have some guidance on the issue of institutional benchmarks (thresholds) in the African aid-development nexus. Based on the summary of results below, the following broad conclusions could be established. (1) But for a thin exception (effect on democracy), the negative correlation between foreign-aid and institutional quality is higher in top quantiles than in bottom quantiles. (2) Foreign-aid appears to be more positively correlated with democracy when the existing level of democracy is already high.

Table 2: Summary of results (foreign-aid correlations with institutional development)

	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
		Rule of Law					**Regulation Quality**			
Spec. 1	-0.002	-0.001	-0.005	**-0.012****	-0.008	-0.004	**-0.005****	**-0.009****	-0.005	0.001
Spec. 2	**-0.005***	**-0.008****	**-0.012***	**-0.011***	-0.007	**-0.014*****	**-0.022*****	**-0.019*****	**-0.018*****	-0.012
		Government Effectiveness					**Political Stability**			
Spec. 1	0.0004	-0.0002	-0.004	**-0.009****	-0.001	-0.001	**0.010****	-0.003	-0.013	-0.005
Spec. 2	**-0.006***	**-0.013*****	-0.008	-0.009	-0.005	-0.004	0.001	-0.0003	-0.004	-0.006
		Voice & Accountability					**Democracy**			
Spec. 1	-0.005	**0.007***	0.001	**-0.011*****	**-0.012*****	**-0.021***	0.012	**0.036****	0.038	**0.030*****
Spec. 2	**0.008***	0.006	0.002	-0.007	**-0.014****	**-0.207*****	-0.052	0.060	0.002	0.008
		Corruption					**Control of Corruption**			
Spec. 1	**0.011*****	0.009	0.007	**-0.015***	-0.009	0.001	0.001	**-0.005***	-0.003	-0.007
Spec. 2	0.006	0.002	0.0007	-0.005	-0.011	-0.0008	-0.001	**-0.007****	-0.004	-0.008

*, **, ***, denote significance levels of 10%, 5% and 1% respectively. Lower quantiles (e.g., Q 0.1) signify nations where institutional quality is least. Spec: Specification.

Broadly from Tables 3-6, most of the control variables are significant with the right signs. Inflationary pressures could seriously infringe on institutional quality, as evidenced from the socio-political unrests across Africa owing to soaring food prices in 2008 (Asongu, 2012i). Population growth inherently reflects a danger to governance mechanisms if measures are not put in place to improve security in the face of rising demography. Autocratic governments are generally associated with little regulation quality and 'rule of law' in the African continent (Asongu, 2011). Landlocked countries inherently have lower levels of development (François & Manchin, 2006). English Common law countries have higher levels of government quality in Africa (Asongu, 2011; Asongu, 2012j, p. 190). Government quality in Africa also increases with income levels (Asongu, 2012j, p. 190).

Table 3: Rule of Law and Regulation Quality

	Rule of Law						Regulation Quality					
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
	Specification 1						**Specification 1**					
Constant	-0.457***	-1.52***	-1.252***	-0.368***	0.190*	0.450***	-0.484	-1.363***	-1.051	-0.375***	0.139	0.253**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.095)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.138)	(0.022)
Development Assistance	-0.002	-0.002	-0.001	-0.005	-0.012**	-0.008	-0.001	-0.004	-0.005**	-0.009**	-0.005	0.001
	(0.450)	(0.398)	(0.499)	(0.347)	(0.0132)	(0.222)	(0.540)	(0.235)	(0.027)	(0.044)	(0.560)	(0.842)
Economic Prosperity	0.006	0.005	-0.002	0.002	0.005	-0.0006	0.005	-0.003	-0.002	0.003	0.011	0.011
	(0.214)	(0.362)	(0.662)	(0.860)	(0.713)	(0.959)	(0.317)	(0.487)	(0.702)	(0.758)	(0.396)	(0.301)
Inflation	-0.0007***	-0.0003	-0.0004***	-0.00005***	-0.00007***	-0.00008***	-0.00009***	-0.001	-0.00007***	-0.00007***	-0.00009***	-0.0001***
	(0.001)	(0.905)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.699)	(0.000)	(0.000)	(0.000)	(0.000)
Population growth	-0.119***	-0.013	-0.050	-0.067*	-0.112***	-0.128***	-0.036	0.015	0.012	-0.016	-0.084**	-0.090*
	(0.001)	(0.822)	(0.158)	(0.080)	(0.000)	(0.000)	(0.321)	(0.839)	(0.670)	(0.638)	(0.014)	(0.075)
Autocracy	0.001	0.013	0.027***	-0.028	-0.015	-0.015	-0.008	0.0009	-0.003	-0.022	-0.029*	-0.020
	(0.873)	(0.194)	(0.002)	(0.103)	(0.429)	(0.438)	(0.300)	(0.972)	(0.637)	(0.148)	(0.082)	(0.285)
Landlocked	0.047	0.134	0.179*	-0.127*	0.038	-0.075	-0.033	0.076	-0.059	-0.183**	0.084	0.097
	(0.435)	(0.317)	(0.078)	(0.065)	(0.561)	(0.247)	(0.568)	(0.636)	(0.297)	(0.029)	(0.228)	(0.144)
English	0.357***	0.090	0.276***	0.402***	0.367***	0.476***	0.355***	0.179	0.562***	0.385***	0.332***	0.399***
	(0.000)	(0.630)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.496)	(0.000)	(0.000)	(0.000)	(0.000)
Low Income	-0.157**	-0.055	0.071	-0.066	-0.301***	-0.319**	-0.169**	0.101	0.046	-0.122	-0.343***	-0.349**
	(0.031)	(0.761)	(0.405)	(0.580)	(0.003)	(0.013)	(0.016)	(0.583)	(0.570)	(0.229)	(0.002)	(0.012)
Adjusted (Pseudo) R²	0.169	0.034	0.058	0.081	0.190	0.301	0.148	0.039	0.074	0.069	0.146	0.264
Observations	470	470	470	470	470	470	469	469	469	469	469	469
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
	Specification 2						**Specification 2**					
Constant	-0.755***	-1.809***	-1.199***	-0.460***	-0.266**	-0.074	-0.251***	-1.432***	-0.470***	0.083	0.121	0.252
	(0.000)	(0.000)	(0.000)	(0.000)	(0.047)	(0.819)	(0.000)	(0.000)	(0.000)	(0.452)	(0.382)	(0.107)
Development Assistance	-0.007*	-0.005*	-0.008**	-0.012*	-0.011*	-0.007	-0.017***	-0.014***	-0.022***	-0.019***	-0.018***	-0.012
	(0.068)	(0.067)	(0.021)	(0.097)	(0.093)	(0.407)	(0.000)	(0.006)	(0.000)	(0.000)	(0.000)	(0.258)
FDI	-0.003	-0.004	0.005**	-0.003	-0.008**	-0.015***	-0.005*	-0.009	-0.002	0.001	-0.004	-0.008**
	(0.373)	(0.527)	(0.027)	(0.380)	(0.0149)	(0.000)	(0.093)	(0.282)	(0.827)	(0.710)	(0.195)	(0.014)
Trade	-0.0001	0.0001	-0.002*	-0.001	0.0009	0.004	-0.003***	0.001**	-0.003***	-0.006****	-0.004***	-0.003*
	(0.876)	(0.813)	(0.089)	(0.508)	(0.506)	(0.128)	(0.000)	(0.037)	(0.000)	(0.000)	(0.007)	(0.057)
Per capita GDP growth	-0.005	-0.011***	-0.008	0.001	0.006	0.006	-0.003	-0.006	-0.015**	-0.002	0.010	0.013
	(0.455)	(0.043)	(0.209)	(0.865)	(0.549)	(0.728)	(0.631)	(0.385)	(0.017)	(0.791)	(0.274)	(0.215)
Public Investment	0.052***	0.055***	0.053***	0.046***	0.044***	0.036**	0.024***	0.016	0.017	0.032***	0.035***	0.024**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.037)	(0.000)	(0.128)	(0.101)	(0.006)	(0.000)	(0.040)
Landlocked	-0.030	0.134	0.125	-0.095	-0.050	-0.097	0.061	0.222**	0.065	0.041	0.079	0.067
	(0.656)	(0.158)	(0.234)	(0.214)	(0.435)	(0.163)	(0.302)	(0.038)	(0.477)	(0.547)	(0.251)	(0.319)
English	0.381***	0.294***	0.356***	0.388***	0.302***	0.241**	0.344***	0.257*	0.443***	0.357***	0.415***	0.417***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.016)	(0.000)	(0.092)	(0.000)	(0.000)	(0.000)	(0.000)
Low Income	-0.354***	0.152*	-0.108	-0.391***	-0.504***	-0.652***	-0.190***	0.190	-0.036	-0.325***	-0.402***	-0.405***
	(0.000)	(0.080)	(0.446)	(0.001)	(0.000)	(0.000)	(0.000)	(0.300)	(0.674)	(0.000)	(0.000)	(0.002)
Pseudo R²	0.277	0.133	0.119	0.184	0.273	0.349	0.246	0.068	0.121	0.154	0.255	0.333
Observations	367	367	367	367	367	367	366	366	366	366	366	366

Notes. Dependent variables are Regulation Quality and the Rule of Law. *,**,***, denote significance levels of 10%, 5% and 1% respectively. Lower quantiles (e.g., Q 0.1) signify nations where Regulation Quality and (or) the Rule of Law are (is) least. P-values in brackets. FDI: Foreign Direct Investment.

Table 4: Government Effectiveness and Political Stability

	Government Effectiveness						Political Stability					
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
			Specification 1						**Specification 1**			
Constant	-0.330	-1.52***	-1.194***	-0.457***	0.262***	0.510***	-0.390***	-2.016***	-0.998***	-0.128	0.579***	0.669***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.009)	(0.000)	(0.003)	(0.000)	(0.000)	(0.545)	(0.003)	(0.000)
Development Assistance	-0.0009	0.0004	-0.0002	-0.004	-0.009**	-0.001	-0.001	-0.001	0.010**	-0.003	-0.013	-0.005
	(0.741)	(0.828)	(0.933)	(0.272)	(0.035)	(0.855)	(0.815)	(0.789)	(0.017)	(0.738)	(0.102)	(0.592)
Economic Prosperity	0.004	-0.001	0.004	0.013	0.018	0.011	0.014*	0.015	0.007	0.010	0.006	-0.0009
	(0.345)	(0.793)	(0.413)	(0.210)	(0.135)	(0.442)	(0.093)	(0.134)	(0.239)	(0.336)	(0.618)	(0.951)
Inflation	-0.00005**	-0.000	-0.00001**	-0.00001*	-0.00003***	-0.00005***	-0.00006*	0.000	-0.00002*	-0.00005***	-0.00006***	-0.00007***
	(0.027)	(0.253)	(0.045)	(0.080)	(0.007)	(0.000)	(0.060)	(0.370)	(0.053)	(0.005)	(0.000)	(0.000)
Population growth	-0.098***	0.041	0.031	0.0008	-0.053	-0.091***	-0.160***	-0.072*	-0.144***	-0.143*	-0.162*	-0.074
	(0.004)	(0.113)	(0.331)	(0.981)	(0.150)	(0.009)	(0.004)	(0.067)	(0.000)	(0.080)	(0.077)	(0.405)
Autocracy	-0.012	-0.0001	0.00009	-0.042**	-0.053***	-0.007	0.028**	0.053**	0.103***	0.006	-0.044**	-0.059***
	(0.116)	(0.988)	(0.991)	(0.037)	(0.000)	(0.816)	(0.035)	(0.017)	(0.000)	(0.810)	(0.026)	(0.000)
Landlocked	-0.079	0.132*	-0.080	-0.157***	-0.120**	-0.103	-0.127	-0.151	-0.435***	-0.194	-0.060	-0.122*
	(0.150)	(0.088)	(0.213)	(0.012)	(0.043)	(0.122)	(0.161)	(0.604)	(0.003)	(0.198)	(0.469)	(0.093)
English	0.413***	0.406***	0.582***	0.390***	0.319***	0.295**	0.298***	0.146	0.326	0.377***	0.207**	0.389***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.011)	(0.000)	(0.527)	(0.054)	(0.005)	(0.027)	(0.000)
Low Income	-0.311***	-0.150	-0.198**	-0.303***	-0.570***	-0.642***	0.065	0.317	-0.134	-0.023	0.049	-0.036
	(0.000)	(0.146)	(0.029)	(0.001)	(0.000)	(0.000)	(0.548)	(0.417)	(0.433)	(0.891)	(0.779)	(0.880)
Adjusted (Pseudo) R²	0.276	0.073	0.099	0.099	0.221	0.368	0.062	0.048	0.082	0.029	0.040	0.124
Observations	451	451	451	451	451	451	470	470	470	470	470	470
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
			Specification 2						**Specification 2**			
Constant	-0.506***	-1.381***	-0.663***	-0.346**	-0.062	0.106	-1.192***	-3.090***	-1.620***	-0.988***	-0.512***	0.604
	(0.000)	(0.000)	(0.000)	(0.029)	(0.686)	(0.548)	(0.000)	(0.000)	(0.000)	(0.000)	(0.016)	(0.114)
Development Assistance	-0.008**	-0.006*	-0.013***	-0.008	-0.009	-0.005	-0.005	-0.004	0.001	-0.0003	-0.004	-0.006
	(0.023)	(0.062)	(0.000)	(0.218)	(0.287)	(0.374)	(0.332)	(0.592)	(0.769)	(0.973)	(0.652)	(0.644)
FDI	-0.003	0.001	0.003	-0.003	-0.006*	-0.0009	-0.009*	-0.019	-0.010	-0.009*	-0.011**	-0.002
	(0.355)	(0.255)	(0.178)	(0.373)	(0.097)	(0.959)	(0.075)	(0.591)	(0.442)	(0.090)	(0.024)	(0.894)
Trade	-0.001**	-0.0001	-0.004***	-0.003**	-0.002	-0.002	0.005***	0.01****	0.004***	0.005***	0.005***	0.0007
	(0.032)	(0.894)	(0.000)	(0.022)	(0.101)	(0.258)	(0.000)	(0.000)	(0.005)	(0.000)	(0.002)	(0.764)
Per capita GDP growth	0.0009	-0.002	0.002	0.017	0.011	-0.002	0.005	0.006	-0.003	0.002	0.002	0.013
	(0.894)	(0.716)	(0.774)	(0.208)	(0.434)	(0.808)	(0.636)	(0.706)	(0.816)	(0.911)	(0.875)	(0.325)
Public Investment	0.040***	0.017***	0.038***	0.049***	0.058***	0.054***	0.060***	0.045**	0.078***	0.049***	0.056***	0.021
	(0.000)	(0.003)	(0.000)	(0.000)	(0.000)	(0.005)	(0.000)	(0.025)	(0.000)	(0.000)	(0.004)	(0.324)
Landlocked	-0.073	0.213**	0.050	-0.149**	-0.145*	-0.124*	-0.122	0.048	-0.470***	-0.378**	0.066	-0.030
	(0.239)	(0.0173)	(0.587)	(0.037)	(0.063)	(0.079)	(0.224)	(0.852)	(0.000)	(0.022)	(0.630)	(0.809)
English	0.389***	0.179**	0.385***	0.418***	0.398***	0.453***	0.241***	0.657***	0.577***	0.242*	0.136	0.064
	(0.000)	(0.037)	(0.000)	(0.000)	(0.000)	(0.000)	(0.007)	(0.000)	(0.000)	(0.053)	(0.226)	(0.752)
Low Income	-0.435***	-0.071	-0.297***	-0.559***	-0.694***	-0.733***	-0.132	0.228	-0.486***	-0.151	-0.199	-0.416**
	(0.000)	(0.482)	(0.006)	(0.000)	(0.000)	(0.000)	(0.234)	(0.268)	(0.002)	(0.381)	(0.216)	(0.029)
Pseudo R²	0.312	0.078	0.094	0.195	0.324	0.406	0.194	0.138	0.133	0.098	0.118	0.141
Observations	359	359	359	359	359	359	368	368	368	368	368	368

Notes. Dependent variables are Government-effectiveness and Political-stability. *,**,***, denote significance levels of 10%, 5% and 1% respectively. Lower quantiles (e.g., Q 0.1) signify nations where Government-effectiveness and (or) Political-stability are (is) least. P-values in brackets. FDI: Foreign Direct Investment.

Table 5: Voice & Accountability and Democracy

	Voice & Accountability						Democracy					
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
	Specification 1						Specification 1					
Constant	-0.550***	-1.681***	-1.144***	-0.411***	0.321***	0.658***	2.470***	-3.538***	1.609	5.450***	6.363***	8.008***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)	(0.000)	(0.000)	(0.000)	(0.188)	(0.000)	(0.000)	(0.000)
Development Assistance	-0.004	-0.005	0.007*	0.001	-0.011***	-0.012***	0.004	-0.021*	0.012	0.036**	0.038	0.030***
	(0.253)	(0.123)	(0.062)	(0.680)	(0.007)	(0.000)	(0.804)	(0.093)	(0.757)	(0.019)	(0.154)	(0.002)
Economic Prosperity	0.006	0.006	0.004	-0.003	0.014	0.012	0.041	0.018	0.0002	-0.012*	-0.021***	-0.017
	(0.250)	(0.267)	(0.465)	(0.675)	(0.334)	(0.508)	(0.109)	(0.072)	(0.982)	(0.089)	(0.001)	(0.717)
Inflation	-0.00005**	-0.0002	-0.00002***	-0.00002**	-0.00005***	-0.00004***	-0.0002*	-0.0001	-0.000	-0.00002	-0.00005	-0.0001***
	(0.016)	(0.937)	(0.005)	(0.026)	(0.005)	(0.000)	(0.074)	(0.914)	(0.986)	(0.438)	(0.147)	(0.000)
Population growth	-0.063	-0.007	-0.050	0.012	-0.015	-0.051*	-0.448**	-0.009	-0.157	-0.093	0.093	-0.017
	(0.108)	(0.950)	(0.394)	(0.743)	(0.666)	(0.071)	(0.022)	(0.912)	(0.151)	(0.504)	(0.162)	(0.813)
Autocracy	-0.079***	-0.029**	-0.048**	-0.127***	-0.192***	-0.190***	-0.102**	0.493***	-0.235	-0.881***	-1.057***	-1.129***
	(0.000)	(0.011)	(0.010)	(0.000)	(0.000)	(0.000)	(0.037)	(0.000)	(0.269)	(0.000)	(0.000)	(0.000)
Landlocked	-0.034	0.035	-0.141**	-0.143**	-0.090	-0.088	0.103	-0.592*	0.172	0.846***	-0.532**	0.195
	(0.581)	(0.772)	(0.040)	(0.034)	(0.178)	(0.106)	(0.762)	(0.068)	(0.481)	(0.000)	(0.011)	(0.377)
English	0.479***	0.270	0.507***	0.429***	0.290***	0.161**	2.257***	-0.046	0.426	0.943***	2.219***	1.983***
	(0.000)	(0.259)	(0.000)	(0.000)	(0.000)	(0.040)	(0.000)	(0.884)	(0.256)	(0.000)	(0.000)	(0.000)
Low Income	0.083	0.361*	0.142	-0.151	-0.194**	-0.140	0.624	1.273***	-0.139	-1.707***	-0.904**	-1.414***
	(0.270)	(0.074)	(0.153)	(0.160)	(0.040)	(0.117)	(0.129)	(0.000)	(0.829)	(0.000)	(0.011)	(0.000)
Adjusted (Pseudo) R²	0.245	0.045	0.068	0.186	0.298	0.386	0.093	0.173	0.008	0.293	0.410	0.444
Observations	470	470	470	470	470	470	593	593	593	593	593	593
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
	Specification 2						Specification 2					
Constant	-0.716***	-1.725***	-1.189***	-0.835***	0.192	0.656***	0.741	-1.900**	-0.194	-0.492	5.018***	7.093***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.431)	(0.004)	(0.224)	(0.018)	(0.634)	(0.561)	(0.001)	(0.000)
Development Assistance	0.005	0.008*	0.006	0.002	-0.007	-0.014**	-0.072***	-0.207***	-0.052	0.060	0.002	0.008
	(0.257)	(0.087)	(0.147)	(0.664)	(0.304)	(0.022)	(0.008)	(0.000)	(0.379)	(0.136)	(0.965)	(0.819)
FDI	-0.007	-0.003	-0.0003	-0.008	-0.008	-0.009	-0.060**	-0.054	-0.041	-0.022	-0.035	-0.065***
	(0.125)	(0.122)	(0.891)	(0.108)	(0.115)	(0.647)	(0.013)	(0.594)	(0.563)	(0.332)	(0.191)	(0.000)
Trade	-0.0003	0.002**	-0.001	0.0004	-0.002*	-0.0007	0.0005	-0.021	-0.0005	0.008	0.0001	0.011
	(0.748)	(0.018)	(0.199)	(0.739)	(0.054)	(0.744)	(0.922)	(0.186)	(0.892)	(0.525)	(0.987)	(0.227)
Per capita GDP growth	-0.004	-0.001	-0.004	-0.005	0.005	0.022	0.102**	0.292***	0.040	0.037	-0.001	-0.020
	(0.672)	(0.862)	(0.591)	(0.701)	(0.789)	(0.137)	(0.029)	(0.000)	(0.343)	(0.455)	(0.985)	(0.781)
Public Investment	0.023**	-0.020**	0.023*	0.017	0.050**	0.026	0.185***	0.152***	0.032	0.120	0.068	0.021
	(0.018)	(0.042)	(0.059)	(0.143)	(0.013)	(0.141)	(0.000)	(0.000)	(0.402)	(0.130)	(0.520)	(0.788)
Landlocked	-0.180**	-0.004	-0.314***	-0.236**	-0.265***	-0.160*	-0.576	-0.883	-0.570	-0.178	-0.784	-0.707*
	(0.038)	(0.967)	(0.003)	(0.044)	(0.007)	(0.085)	(0.173)	(0.403)	(0.239)	(0.861)	(0.301)	(0.058)
English	0.510***	0.156	0.584***	0.833***	0.398**	0.030	2.270***	0.913	0.740**	2.706***	3.305***	1.319**
	(0.000)	(0.231)	(0.000)	(0.000)	(0.012)	(0.822)	(0.000)	(0.185)	(0.043)	(0.002)	(0.002)	(0.028)
Low Income	-0.207**	0.244*	-0.079	-0.337***	-0.463***	-0.435***	1.073**	3.943***	1.459**	0.174	-0.686	-1.003*
	(0.031)	(0.095)	(0.462)	(0.004)	(0.000)	(0.000)	(0.029)	(0.000)	(0.0119)	(0.785)	(0.494)	(0.067)
Pseudo R²	0.119	0.0004	0.075	0.124	0.119	0.157	0.114	0.066	0.0003	0.072	0.081	0.128
Observations	368	368	368	368	368	368	449	449	449	449	449	449

Notes. Dependent variables are Voice & Accountability and Democracy. *, **, ***, denote significance levels of 10%, 5% and 1% respectively. Lower quantiles (e.g., Q 0.1) signify nations where Voice & Accountability and (or) Democracy are (is) least. P-values in brackets. FDI: Foreign Direct Investment.

Table 6: Corruption and Corruption-Control

	Corruption						Corruption-Control					
	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
			Specification 1						Specification 1			
Constant	4.289	**2.343*****	**3.151*****	**4.552*****	**5.118*****	**5.594*****	**-0.261*****	**-1.343***	**-0.669*****	-0.118	0.212	**0.499*****
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.001)**	**(0.050)**	**(0.001)**	(0.516)	(0.175)	**(0.004)**
Development Assistance	0.003	**0.011*****	0.009	0.007	**-0.015***	-0.009	0.0002	0.001	0.001	**-0.005***	-0.003	-0.007
	(0.684)	**(0.009)**	(0.108)	(0.443)	**(0.064)**	(0.577)	(0.944)	(0.475)	(0.651)	**(0.084)**	(0.667)	(0.359)
Economic Prosperity	0.016	0.004	0.009	-0.001	-0.00003	0.008	-0.0002	-0.001	-0.001	0.002	0.004	-0.0003
	(0.137)	(0.557)	(0.367)	(0.874)	(0.998)	(0.759)	(0.958)	(0.813)	(0.804)	(0.814)	(0.791)	(0.989)
Inflation	**-0.00009*****	-0.00001	**-0.00005*****	**-0.00009*****	**-0.0001*****	**-0.0001*****	**-0.00005*****	-0.0002	**-0.00004*****	**-0.00005*****	**-0.00005*****	**-0.00007*****
	(0.008)	(0.218)	**(0.003)**	**(0.000)**	**(0.000)**	**(0.001)**	**(0.007)**	(0.917)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Population growth	**-0.585*****	**-0.235***	**-0.437*****	**-0.667*****	**-0.538*****	**-0.475*****	**-0.135*****	0.002	**-0.185***	**-0.195****	-0.090	**-0.089****
	(0.000)	**(0.052)**	**(0.002)**	**(0.000)**	**(0.000)**	**(0.008)**	**(0.001)**	(0.991)	**(0.051)**	**(0.039)**	(0.216)	**(0.013)**
Autocracy	**-0.051*****	-0.006	-0.002	**-0.069***	**-0.111*****	**-0.112*****	-0.006	0.0009	0.006	-0.009	**-0.036***	-0.025
	(0.001)	(0.576)	(0.838)	**(0.056)**	**(0.000)**	**(0.007)**	(0.467)	(0.928)	(0.362)	(0.548)	**(0.073)**	(0.513)
Landlocked	**0.372*****	0.028	0.240*	0.091	**0.516*****	**0.640*****	**0.095***	0.063	**0.155****	0.014	0.064	**0.237****
	(0.000)	(0.857)	(0.082)	(0.555)	**(0.004)**	**(0.000)**	**(0.090)**	(0.533)	**(0.023)**	(0.864)	(0.482)	**(0.024)**
English	**0.322*****	0.076	0.106	**0.519*****	**0.469*****	**0.304****	**0.219*****	**0.205*****	**0.138****	**0.170***	**0.246*****	0.183
	(0.000)	(0.493)	(0.356)	**(0.000)**	**(0.001)**	**(0.021)**	**(0.000)**	**(0.002)**	**(0.017)**	**(0.067)**	**(0.001)**	(0.163)
Low Income	**-0.495*****	-0.047	-0.146	**-0.405***	**-0.645*****	**-1.039*****	**-0.210*****	0.0168	-0.024	-0.074	-0.432	**-0.385*****
	(0.000)	(0.692)	(0.272)	**(0.071)**	**(0.003)**	**(0.005)**	**(0.001)**	(0.843)	(0.734)	(0.620)	(0.001)	**(0.005)**
Adjusted (Pseudo) R²	0.323	0.030	0.062	0.108	0.276	0.395	0.150	0.016	0.031	0.060	0.135	0.199
Observations	363	363	363	363	363	363	462	462	462	462	462	462

	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90	OLS	Q 0.1	Q 0.25	Q 0.50	Q 0.75	Q 0.90
			Specification 2						Specification 2			
Constant	**2.689*****	**1.374*****	**1.810*****	**2.241*****	**3.274*****	**4.095*****	**-0.652*****	-1.475	**-1.206*****	**-0.593*****	-0.149	0.188
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	(0.000)	**(0.000)**	**(0.000)**	(0.364)	(0.333)
Development Assistance	-0.005	0.006	0.002	0.0007	-0.005	-0.011	-0.002	-0.0008	-0.001	**-0.007****	-0.004	-0.008
	(0.556)	(0.196)	(0.733)	(0.921)	(0.598)	(0.217)	(0.510)	(0.721)	(0.639)	**(0.025)**	(0.485)	(0.221)
FDI	0.0006	-0.008	0.0002	-0.004	0.005	0.008	-0.002	-0.006	0.0001	-0.006	-0.004	-0.002
	(0.956)	(0.296)	(0.987)	(0.803)	(0.787)	(0.599)	(0.459)	(0.391)	(0.965)	(0.109)	(0.255)	(0.459)
Trade	0.0003	**0.004*****	0.002	**0.004***	0.0007	-0.002	0.0005	**0.002****	0.001	0.001	0.00005	-0.001
	(0.837)	**(0.003)**	(0.283)	**(0.078)**	(0.766)	(0.243)	(0.480)	**(0.018)**	(0.297)	(0.549)	(0.970)	(0.315)
Per capita GDP growth	**-0.027***	-0.011	**-0.024***	-0.012	-0.007	-0.028	**-0.013***	-0.013	-0.007	0.007	-0.011	-0.014
	(0.079)	(0.240)	**(0.064)**	(0.474)	(0.795)	(0.308)	**(0.072)**	(0.101)	(0.661)	(0.552)	(0.369)	(0.138)
Public Investment	**0.081*****	**0.036*****	**0.054****	**0.103*****	**0.113*****	**0.115*****	**0.042*****	**0.021****	**0.041*****	**0.042*****	**0.050*****	**0.070*****
	(0.000)	**(0.001)**	**(0.012)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.015)**	**(0.001)**	**(0.003)**	**(0.002)**	**(0.000)**
Landlocked	**0.229***	**0.203***	0.209	0.159	**0.492*****	**0.334****	0.066	0.118	0.066	-0.028	0.104	0.118
	(0.091)	**(0.084)**	(0.194)	(0.437)	**(0.004)**	**(0.010)**	(0.310)	(0.165)	(0.418)	(0.712)	(0.293)	(0.222)
English	**0.872*****	**0.329*****	**0.487*****	**0.942*****	**0.727*****	**0.729*****	**0.256*****	**0.165****	**0.162****	0.126	**0.273****	**0.235***
	(0.000)	**(0.006)**	**(0.007)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.019)**	**(0.024)**	(0.153)	**(0.010)**	**(0.073)**
Low Income	**-1.142*****	-0.120	**-0.482****	**-1.337*****	**-1.712*****	**-1.795*****	**-0.392*****	0.043	**-0.151***	**-0.393*****	**-0.665*****	**-0.764*****
	(0.000)	(0.391)	**(0.032)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	(0.615)	**(0.079)**	**(0.002)**	**(0.000)**	**(0.000)**
Pseudo R²	0.395	0.073	0.084	0.207	0.374	0.446	0.241	0.064	0.073	0.138	0.239	0.262
Observations	277	277	277	277	277	277	359	359	359	359	359	359

Notes. Dependent variables are Corruption and Control of Corruption. *, **, ***, denote significance levels of 10%, 5% and 1% respectively. Lower quantiles (e.g., Q 0.1) signify nations where Corruption and (or) Control of Corruption are (is) least. P-values in brackets. FDI: Foreign Direct Investment.

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4.2 Discussion, policy recommendations and limitations

Before engaging in the discussion of the findings, it will be interesting to point-out the intuition motivating this paper. From the interesting literature on aid and institutions, the debate has centered around three main questions as we have already discussed in the introduction. This analysis has integrated the last two strands (questions) within the same empirical framework. Thus, in a bid to put some empirical structure on these last two concerns in the aid-institutions nexus (so as to give policy makers guidance on the issues), this work has elucidated the following questions. (1) Are the institutional benefits of development-assistance contingent on existing institutional quality (second strand)? (2) At what institutional thresholds will foreign-aid be instrumental in improving institutional quality (third strand)? (3) Are the institutional benefits of foreign-aid questionable until greater domestic institutional development has taken place (second and third strands)?

Based on the available weight of empirical evidence (as summarized in Table 2 above) we have stressed that foreign-aid is less perilous to institutional development when existing institutional development levels are low than when they are high. Hence, the following answers could be provided to the examined questions. (1) Institutional benefits of foreign-aid are contingent on existing institutional levels in Africa. (2) But for a thin exception (democracy), foreign-aid is more negatively correlated with countries of higher institutional quantiles than with those of lower quantiles. (3) The institutional benefits of foreign-aid are not questionable until greater domestic institutional development has taken place. The reverse is true instead. Government quality benefits of development assistance are questionable in African countries irrespective of institutional quality level. As a policy implication, blanket policies based on the aid-development nexus are unlikely succeed without taking existing institutional development levels into account. Therefore policy measures should be contingent on prevailing levels of

institutional development and tailored differently across best and worst countries in terms of institutional development.

These results are broadly consistent with recent findings in the African institutional literature (Asongu, 2012a) and substantiate the Asongu (2012c) position in the debate with Okada & Samreth (2012) 'on the effect of foreign aid on corruption'. Hence, even with a different methodological underpinning, we have confirmed the perilous stance of development assistance in African institutional development. Results of the paper are also broadly in line with the first strand of conflicts in the literature (summarized in Table 1). However, countries with better levels of institutional quality are more tilted to this first school of thought that propagates the thesis of a negative aid-development nexus (Mosley, 1992; Reichel, 1995; Ghura, 1995; Boone, 1996; Pedersen, 1996; Asongu, 2012abc). Conversely, the effect of foreign aid on democracy for top quantile countries is broadly consistent with the second school of thought on the positive aid-development nexus (Burnside & Dollar, 2000; Ghura, 1995; Guillaumont & Chauvet, 2001; Collier & Dehn, 2001; Collier & Dollar, 2001; Feeny, 2003; Gomanee et al., 2003; Clement et al., 2004; Ishfaq, 2004; Mosley et al., 2004; Addison et al., 2005; Fielding et al., 2006).

Two main drawbacks have been retained in this study: the perception based nature of the indicators employed and the unfeasibility of using the first difference of the indicators to calibrate results that are more substantial in inferring causality. Firstly, the perception-based measurements could be subject to biased estimates (owing to media propaganda for instance). However to the best of our knowledge, good-governance measures from World Development Indicators are the most reliable institutional measures in the development literature. More so, the use of a plethora of them (eight in total) and finding broadly consistent results across indicators somehow mitigates issues of variable selection bias. In substance, this adds to the robustness of our empirical evidence and soundness of resulting policy recommendation. Secondly, employing the

first difference of the indicators to appreciate the effect of changes in foreign aid on changes in institutional quality is not feasible because, the first difference variations of good governance indicators are not very substantial to enable reasonable nexuses to emerge.

5. Conclusion

This paper has integrated two main strands of the aid-development nexus in assessing whether institutional thresholds matter in the effectiveness of foreign aid on institutional development in 53 African countries over the period 1996-2010. Eight government quality indicators have been employed: rule of law, regulation quality, government effectiveness, corruption, voice & accountability, control of corruption, political stability and democracy. Three hypotheses have been tested and the following findings established: (1) Institutional benefits of foreign-aid are contingent on existing institutional levels in Africa. (2) But for a thin exception (democracy), foreign-aid is more negatively correlated with countries of higher institutional quality than with those of lower quality. (3) The institutional benefits of foreign-aid are not questionable until greater domestic institutional development has taken place. The reverse is true instead. Government quality benefits of development assistance are questionable in African countries irrespective of prevailing institutional quality levels. As a policy implication, blanket policies based on the aid-development nexus are unlikely succeed without taking existing development levels into account. Therefore, policy measures should be contingent on prevailing levels of institutional development and tailored differently across best and worst countries in terms of institutional development.

Appendices

Appendix 1: Summary Statistics and Presentation of Countries

	Panel A: Summary Statistics					
	Variables	**Mean**	**S.D**	**Min.**	**Max.**	**Observations**
Quality of Government	Rule of Law	-0.706	0.682	-2.691	1.053	633
	Regulation Quality	-0.687	0.674	-2.729	0.905	631
	Government Effectiveness	-0.681	0.614	-1.853	0.807	598
	Political Stability	-0.557	0.958	-3.311	1.143	636
	Voice & Accountability	-0.674	0.734	-2.174	1.047	636
	Control of Corruption	-0.607	0.623	-2.495	1.086	622
	Democracy	2.373	4.093	-8.000	10.000	750
	Corruption	2.984	1.065	1.000	6.400	462
Development Assistance (DA)	Total DA	10.811	12.774	-0.251	148.30	704
	DA from Multilateral Donors	4.481	5.512	-1.985	64.097	704
	DA from DAC countries	6.244	8.072	-0.679	97.236	704
Control Variables	Economic Prosperity (GDPg)	4.763	7.293	-31.300	106.28	759
	Per capita Economic Prosperity (GDPpcg)	2.326	6.702	-33.073	90.140	768
	Population Growth	2.356	1.005	-1.081	10.043	795
	Inflation	57.55	955.55	-100.00	24411	673
	Public Investment	7.449	4.500	0.000	39.984	655
	Financial Openness (FDI)	4.221	8.451	-8.629	145.20	557
	Trade Openness (Trade)	77.853	39.698	17.859	275.23	719
	Autocracy	1.905	3.563	-8.000	9.000	750
Dummy variables	English Common law countries	0.377	0.485	0.000	1.000	795
	Landlocked countries	0.283	0.450	0.000	1.000	795
	Low Income countries	0.584	0.493	0.000	1.000	795

Panel B: Presentation of Countries

Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Congo Democratic Republic, Congo Republic, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tomé & Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Togo, Tunisia, Uganda, Zambia, Zimbabwe, Tanzania, Comoros.

S.D: Standard Deviation. Min: Minimum. Max: Maximum. FDI: Foreign Direct Investment. GDPg: GDP growth.
GDPpcg: GDP per capita growth. DA: Development Assistance. DAC: Development Assistance Committee.

Appendix 2: Correlation analysis

	Government Quality								Foreign Aid			Control Variables											
RL	RQ	GE	PolS	VA	CC	Demo	C	DA	DAMD	DADAC	FDI	Trade	GDPg	GDPpcg	Popg	Infl	Auto	PubI	Eng	LL	LI	
1.00	0.81	0.88	0.79	0.72	0.87	0.52	0.84	-0.20	-0.17	-0.20	0.001	0.17	0.02	0.08	-0.29	-0.09	0.18	0.22	0.17	0.02	-0.36	RL
	1.00	0.81	0.63	0.70	0.72	0.48	0.72	-0.24	-0.22	-0.23	-0.14	0.01	0.06	0.11	-0.19	-0.14	0.10	0.08	0.14	0.05	-0.28	RQ
		1.00	0.64	0.65	0.83	0.41	0.86	-0.27	-0.25	-0.24	-0.04	0.12	0.03	0.10	-0.35	-0.06	0.01	0.13	0.30	-0.05	-0.43	GE
			1.00	0.68	0.68	0.52	0.67	-0.14	-0.12	-0.14	0.04	0.30	0.04	0.10	-0.22	-0.06	0.22	0.24	0.05	-0.04	-0.25	PolS
				1.00	0.66	0.75	0.65	-0.0009	-0.002	0.002	-0.02	0.03	0.03	0.07	-0.15	-0.07	-0.24	-0.02	0.24	0.01	-0.14	V&A
					1.00	0.48	0.88	-0.14	-0.12	-0.14	0.01	0.16	-0.05	0.006	-0.28	-0.07	0.16	0.21	0.12	0.02	-0.32	CC
						1.00	0.42	-0.03	0.011	-0.05	-0.04	0.008	0.05	0.06	-0.06	-0.04	0.09	0.14	0.16	0.09	-0.02	Demo
							1.00	-0.22	-0.21	-0.21	0.04	0.20	-0.04	0.04	-0.45	-0.04	-0.03	0.08	0.24	0.03	-0.39	C
								1.00	0.90	0.95	0.16	-0.10	0.05	0.00	0.36	-0.004	-0.25	0.19	-0.05	0.08	0.45	DA
									1.00	0.73	0.09	-0.09	0.07	0.01	0.40	-0.02	-0.21	0.22	-0.03	0.13	0.47	DAMD
										1.00	0.19	-0.09	0.03	-0.008	0.30	0.009	-0.26	0.14	-0.05	0.05	0.38	DADAC
											1.00	0.45	0.19	0.20	-0.03	0.01	-0.03	0.07	0.10	-0.04	-0.07	FDI
												1.00	0.12	0.17	-0.25	0.02	0.12	0.18	0.18	-0.09	-0.35	Trade
													1.00	0.98	0.33	-0.05	0.10	0.12	0.003	-0.02	-0.05	GDPg
														1.00	0.18	-0.04	0.11	0.11	0.01	-0.03	-0.13	GDPpcg
															1.00	-0.10	-0.005	0.04	-0.10	0.05	0.42	Popg
																1.00	0.008	-0.07	0.04	0.05	0.03	Inflation
																	1.00	0.14	-0.16	0.01	-0.18	Auto
																		1.00	-0.13	0.08	-0.05	PubIvt
																			1.00	0.11	-0.05	Eng
																				1.00	0.27	LL
																					1.00	LI

RL:Rule of Law.   RQ: Regulation Quality. GE: Government Effectiveness. V&A: Voice & Accountability. CC: Corruption-Control. Demo: Democracy. C: Corruption Perception Index.   FDI: Foreign Direct Investment. GDPg: GDP   growth. GDPpcg: GDP per capita growth. Popg: Population growth. PubI: Public Investment. DA: Net Official Development Assistance. Auto: Autocracy. Inf: Inflation. Eng: English Common Law countries. LL: Landlocked countries. LI: Low Income countries.

Appendix 3: Variable Definitions

Variables		Signs	Variable Definitions	Source(s)
Rule of Law		RL	Rule of Law (estimate)	World Bank (WDI)
Regulation Quality		RQ	Regulation Quality (estimate)	World Bank (WDI)
Government Effectiveness		GE	Government Effectiveness(estimate)	World Bank (WDI)
Political Stability		PolS	Political Stability/ No Violence (estimate)	World Bank (WDI)
Voice & Accountability		VA	Voice and Accountability (estimate)	World Bank (WDI)
Control of Corruption		CC	Control of Corruption(estimate)	World Bank (WDI)
Democracy		Demo	Level of Institutionalized Democracy	World Bank (WDI)
Corruption		C	Corruption Perception Index	Transparency International
Development Assistance	1	DA	Total Development assistance (% of GDP)	World Bank (WDI)
Development Assistance	2	DAMD	Development Assistance from Multilateral Donors(% of GDP)	World Bank (WDI)
Development Assistance	3	DADAC	Development Assistance from DAC Countries (% of GDP)	World Bank (WDI)
External Debt Flow		FDI	Foreign Direct Investment (% of GDP)	World Bank (WDI)
Trade(Openness)		Trade	Imports plus Exports in commodities (% of GDP)	World Bank (WDI)
Population growth		Popg	Average annual population growth rate	World Bank (WDI)
Public Investment		PubI	Gross Public Investment (% of GDP)	World Bank (WDI)
Inflation		Infl	Consumer Price Index (annual %)	World Bank (WDI)
Economic Prosperity		GDPg	GDP Growth (annual %)	World Bank (WDI)
Autocracy		Auto	Level of Institutionalized Autocracy	World Bank (WDI)
Per Capita Economic prosperity		GDPpcg	GDP per capita Growth (annual %)	World Bank (WDI)
English		Eng	English Common law countries	La Porta et al. (2008, p. 289)
Landlocked		LL	Landlocked Countries	-----
Low Income		LI	Low Income Countries	World Bank (FDSD)

WDI: World Bank Development Indicators. GDP: Gross Domestic Product. DAC: Development Assistance Committee. FDSD: Financial Development and Structure Database.

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