Can the nature of pre-colonial institutions explain governance quality in Africa?

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Abstract In this paper we analyse the influence of pre-colonial institutions on present day governance quality in Africa. The pre-colonial institutional variables are based on anthropological data collected by Murdock (1967). We find that a well developed (local) state hierarchy in pre-colonial societies has a positive influence on present day governance quality at country level, when complimented by a well developed community hierarchy in the pre colonial era. In addition, the extent to which pre-colonial communities were outward looking and clearly structured, also has a positive influence on present day governance quality. Furthermore, high social exclusion in pre-colonial times (measured as the extent to which pre-colonial slavery was present) and a large variance of organisational characteristics of pre-colonial societies in one country negatively influence governance quality. These findings suggest that pre-colonial institutional arrangements are quite persistent and are important to take into account when analysing Africa's long-run institutional development.

1. Introduction

Studies focusing on Africa tend to identify the lack of proper institutions as one of the main sources of its dismal growth performance over the last decades (World Bank 1992, 1994; Collier and Gunning 1999; Lewis 1996, Rodrik 1999, Rodrik et al. 2004). After independence, in a large number of countries predatory states emerged that benefited the ruling elites and which often resulted in slow growth and social conflict. However, within Africa quite striking variations in institutions can be discerned (Englebert 2000). Some of Africa's 'growth miracles', such as Botswana and Mauritius, seem to be based on high-quality- and growth-promoting institutions, whereas in many other cases slow growth seems to be connected to a lack of institutional quality.

This paper aims to explain the differences in present-day institutional quality – measured as governance quality - within Africa from a historical perspective. Contrary to Acemoglu et al. (2001) who argue that present-day differences in institutional quality and economic performance are rooted in the colonial period, we stress the *pre-colonial* origins of development. Over the years various Africa scholars have emphasised the importance of the pre-colonial institutions (Ayittey 2006, Hopkins 1973, Schapera 1970). Recently also the economic literature has started to pay attention to the pre-colonial period (Gennaioli and Rainer 2007).

We use anthropological data collected by Murdock (1967) to capture important pre-colonial institutional characteristics and link these data to present-day governance quality measured in terms of rule of law and the degree of democratisation. We find that variations in governance quality in the late twentieth century can be (partly) explained by the nature of pre-colonial institutional arrangements. The results point at the importance of well-organised local communities and their ability to shape an institutional context characterised by high governance quality.

The remainder of the paper will start with a literature review. In section three we will discuss the data and methods we used to build the model which links present-day governance quality to pre-colonial institutional measures. In section four the main results of the model are discussed. Section five summarises our main findings.

2. Literature Review

It is widely believed that institutions are an important determinant of economic development (Rodrik 1999, 2000, North 1990, Collier and Gunning 1999, Easterly and Levine 1997). However, it is still unclear why growth promoting institutions did develop in western and many east Asian countries, but did not emerge that strongly on the African continent.

Recently, attempts have been made to tackle this issue by trying to identify the historical roots of present-day institutions. For example, Acemoglu et. al (2001) argue that the historical roots of differences in present-day institutional quality can be found in the colonial period. Colonies in which white settlement was widespread (such as the United States, Canada, Australia and New Zealand) developmental institutions came into being, whereas in countries with high mortality risks (among others because of the incidence of malaria) colonial powers introduced extractive institutions on the basis of which resources were transferred to the colonial motherland[1].

However, the empirical proof for the suggestion that present-day differences in institutional quality are predetermined by the nature of the colonial institutions is rather weak[2]. Besides, contrary to what is often assumed in the older literature, new research indicates that colonial rule only had a limited impact on the institutional development of the colonised areas (Spear 2003). Especially due

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[1] Closely related to this view is the legal origins hypothesis (Glaeser and Shleifer 2002, La Porta et. al 1999, 2007) according to which differences in the nature of institutions after independence can be ascribed to differences in the nature of law institutions that were introduces by the colonisers. The British introduced common law institutions, whereas the French focused on civil law institutions.

[2] For example the extent to which institutions were extractive has not been quantified, nor has it been demonstrated that the colonial institutions indeed persisted over longer periods of time.

to the fact that only a limited number of Europeans actually settled in Africa, indirect rule had to be based on Africa's indigenous institutions (Boone 2003). It was in the interest of colonial rulers to leave these institutions intact as they enabled the agricultural sector to grow and thus increased tax income. This is also suggested by Greif (2006), who emphasises the influence of pre-colonial institutional arrangements in general on current institutional frameworks.

One of the few attempts to do quantitative research along these lines has been made by Gennaioli and Rainer (2007) who argue that pre-colonial centralisation of local communities, increased the ability of post-colonial governments to supply important public goods. One of the crucial elements in the Gennaioli and Rainer (2007) paper is that strong local state structures were needed to limit the rent-seeing behaviour of local chiefs at community level.

Contrary to Gennaioli and Rainer (2007), most historians and social scientists describe the nature of Africa's local, indigenous institutions in rather favourable terms. The pre-colonial institutional arrangements were often characterised by democratic structures in which the political power of chiefs was limited by councils of elderly people (Ayittey 2006, Schapera 1970). For example, in the Ashante and Zulu kingdoms and in Tswana chiefdoms the king or chief could not make any laws without consulting the chiefs and elderly. Custom and tradition in these societies set limits to the authority of the king, his cabinet and advisors (Boamah-Wiafe 1993, Curtin et al. 1988, Ayittey 2006).

Furthermore, the king or chief generally needed local chiefs or village headmen for support and had to rely on them in order to carry out its policy, as the local chief was in closer contact with the local community and was better informed about specific local issues. In case a village chief made a poor judgement, he could be held responsible by the council of elders and the council of commoners and he could be removed from power, as happened in among others the Ashante, the Tswana, the Oyo-Yoruba (Ayittey 2005, 2006, Schapera 1967, 1970, Falola 1984, Vaughan 1986). At the same time, local chiefs could be replaced by the king (Ayittey 2006). In other words, over the years a sophisticated system of checks and balances was created in these societies to govern live at the local level which guaranteed an adequate allocation of labour and capital.

A good example of the importance of such checks and balances can be found in pre-colonial Zimbabwe, where the Shona (the largest) and the Ndebele were the most important groups. Both groups have a history of state formation, but only the Ndebele also had a well developed community structure. In literature on pre-colonial societies, the Shona chiefdoms are described as being

fragmented and undisciplined (Maundeni 2004). Chiefs were often engaged in mutual feuds, and since succession was collateral, also within chiefdoms there were fights over power and wealth between different families at all levels of the state. The Shona state institutions were 'structured' in ways that worked to promote the temporary enrichment of a few warlords who easily lost to others […] the fragmentation of chiefly power that led to the failure to exercise leadership in economic matters […] (Maundeni 2004: 196-197). In contrast, the Ndebele state, which was much smaller than the Shona area, had developed community structure (Murdock 1967). The Ndebele state was coherent and disciplined and 'had coercive, destructive and transformative ability' (Maundeni 2004: 197). Present day Zimbabwe still sees the results of this history since the Zimbabwean state elite is based on the pre-colonial state culture of the dominant Shona. The Ndebele groups were and still are too small in terms of its population size to gain enough influence on national politics (Maundeni 2004).

Also for other pre-colonial societies, there is ample evidence that an important balance was created at state and community levels. For example Smith (1988) notes about the Oyo-Yoruba (in present day Nigeria) that 'in general a delicate balance of power was achieved and all parties in the state were usually at pains to maintain this' (Smith 1988: 92). Mair (1974) observes about the Edo (also in present day Nigeria) that 'every village was allotted a chief […]. Rather they were intermediaries, in both directions between the Oba [king] and the general population' Mair 1974: 155). In Eastern Africa, the Chewa of Malawi among others represent the strong pre-colonial structures based on state and community development. According to Page (1980), 'one of the reasons for [their] cultural survival can be found in the importance of local, village authority in Chewa life' (Page 1980: 172). So although in different forms, various societies were characterised by a comprehensive balance between different political levels.

Hopkins (1973) argues that Africa's (economic) institutions might have been different from those in other parts of the world –partly due to differences in endowment structures which induced distinct paths of institutional development- but that these institutional arrangements were conducive to growth. Individuals enjoyed substantial freedom to engage in economic transactions (Wickins 1981: 349, Falola 1984, Ayittey 2006:360) and at least in west Africa capital markets were well-functioning (Sundstroem 1965). These findings are not that surprising as colonial officials stressed how hard it was for white farmers to compete with the indigenous modes of production. In large

parts of Eastern and Southern Africa levels of labour productivity in agriculture where higher in African than in European farming (Pim 1946). It is quite interesting that many scholars who have studied Africa's institutional problems in the post-independence period point at the devolved system of social and political organisations in the colonial and even pre-colonial era [see: Colson 1957, Gluckman 1965, Nhlapo 1995 and Dore 1997]. Ndulo (2006) even states that "if colonial powers were shrewd enough to use traditional institutions in administering the colonial state (Lugard 1905-p. 149-50), why should African political systems not make use of them in an effort to reach out to small communities and help to build national consensus and cohesion?"

Of course, notwithstanding the rather strongly developed pre-colonial communal institutions, Africa did (and still does) suffer from a number of problems which put pressure on its institutional structures. One strand of literature emphasises the influence of resource endowments in terms of land labour ratios on institutional development (Engerman and Sokoloff 2002, Domar 1970, Lal 1998). Historically, population density in Africa was very low. This might have triggered an institutional development path characterised by relatively restrictive institutions, needed to tie the scarce labour to estates and might have led to high inequality both in wealth and in political power, since elites prefer more restrictive institutions to restrict economic political opportunities for the masses (Engerman and Sokoloff 2002, Engerman and Sokoloff 2000). Indeed, indigenous slavery, i.e. tied labour, was widespread in Africa during earlier periods of time, and some of the modern institutional mechanisms of political en social exclusion might stem from this period (Grace 1977, Klein 1977, McCormack 1977). For example, in many countries large segments of society are not able to take part in the political process. This enables ruling elites to formulate policies which benefit themselves, but which are often harmful for the society at large. Ndulo argues that only 'devolution', i.e. giving more power to rulers at regional or local levels, may increase the participation of larger segments of society (Ndulo 2006a).

A second strand of literature on Africa's institutional quality focuses on the heterogeneity of the population on the African continent. During pre-colonial times, communities were dispersed over the vast continent and were characterised by a high degree of cultural and institutional diversity (Murdock 1967). As long as local communities were the basic unit of social organisation, differently organised societies living next to each other posed no threat to institutional and economic development. Within this context, the local level institutions were sufficient to govern everyday life

and there was no need, and often no capacity, to develop special institutions for conflict management between groups (Kopytoff 1987, Ayittey 2006).

However, there are indications that this cultural and institutional diversity became problematic at the time that population density increased and groups of people could no longer easily leave their communities due to the growing problem of land scarcity. Curtin et al. (1988) point out that already in the colonial period institutional problems manifested themselves in the rapidly growing urban areas. People from different ethnic backgrounds and with different cultural origins started to live side by side in the new cities, but there was no simple, overriding African law system which could be used to rule the cities (Van Oppen 2006). While within group conflict management institutions were often well developed, inter-group conflict resolving institutions were generally absent (Ayitttey 2006: 101).

This lack of inter-group conflict management institutions had serious implications for the functioning of Africa's political markets after independence. The different ethnic groups faced tremendous difficulties in co-operating and organising effective collective action. The post-colonial central state gained power to the extent that it could pursue policies which were mainly directed at benefiting the ruling elite. But due to the fragmented nature of Africa's civil society, the communities could not successfully influence the central state. Many empirical studies have analysed the heterogeneity argument. According to Easterly and Levine (1997), Alesina and Rodrik (1994) and Alesina et al. (1999), heterogeneity of societies often leads to inefficient institutions, since in a heterogeneous society it is more difficult to find a socially optimal solution, both in the supply of public goods (in terms of composition and amount of supply) and in the distribution of costs. Also, when governments are busy satisfying their political support, they are likely to provide goods that are valued by their own followers, but are not necessarily good for development (Alesina et al. 1999). Moreover, when natural resources are present, this could increase tensions in a country over how this gains should be distributed (Hodler 2004, Sachs and Warner 2001). Agreement on how to distribute the costs or profits is much more difficult in a deeply divided society which lacks proper conflict management institutions (Rodrik 1999, Alesina and Drazen 1991).

Based on the literature discussed above the following effects from pre-colonial settings on contemporary governance quality can be discerned: First, strong and well developed local state and community structures of pre-colonial societies have a positive effect on institutional development paths. Second, the early day resource endowments (i.e. labour scarcity) in Africa led to pre-colonial

social exclusion which in turn negatively influenced long-run governance quality. Third, the (cultural) heterogeneity of Africa's pre-colonial societies (combined with the increasing population pressure already starting during colonial times) negatively influence governance quality in present day countries. And fourth, where pre-colonial inter-group conflict management institutions were developed best, it should be expected that institutional quality would develop favourably. In the next section we will quantify the pre-colonial characteristics and link them to present-day governance quality.

3. Data and Empirical analysis

In this section we will present the model in which contemporary governance quality is explained by a number of pre colonial institutional characteristics. Governance quality is measured at the country level. The data on pre colonial institutions are measured at the level of individual ethnic groups/ local communities and subsequently processed to get to a country level measure. It should be stressed that when we discuss state and community structures in the pre colonial period, these institutional characteristics *always* refer to community and state structures at a *local*, group/community level.

3.1 Governance quality

Institutional quality in African countries is measured in terms of *governance quality*, as we are primarily interested in the interaction between nation states and (local) communities. According to Bratton and van de Walle (1992), governance is "an interactive process by which state and social actors reciprocally probe for a consensus on the rules of the political game" (Bratton and van de Walle 1992: 30). Higher governance quality represents a higher ability in a country to establish "workable relations between individuals and institutional actors" (Chazan 1992) and co-ordinate diverse interests between different actors in society and thus promote policies that embody collective goals. (Frischtak, 1994: vii). Of course, governance quality is a broad concept and there are many different indicators to chose from (Goodloe Wescott 2003, Centre for Democracy and Governance, 1998). Most indicators can be placed into one of three broad aggregates - competitive and participatory political processes, rule of law, and government capacity (as defined by Kaufmann and Kraay 2004). We selected indicators that measure various aspects of the interaction between states

and communities, as 'no single governance indicator gives the whole picture' (Goodloe Wescott 2003: 55).

The first indicator – Rule of Law - measures whether a country has a legal framework that protects property rights and human rights of citizens. The second one – Democracy - measures to what extent a country has competitive and participatory political processes (Kaufmann et al. 2000, Goodloe Wescott 2003, and Court et al. 2002).

Factor analysis was used to combine the average over time of the index on rule of law between 1996 and 2002, taken from Kaufmann, Kraay and Mastruzzi (2007) and the average over time of the democratic score of a society between 1997 and 2002 taken from the Polity IV dataset (Marshall and Jaggers 2002). This enabled us to combine different aspects of governance or institutional quality in one variable[3]. Another option would of course be to link institutional or governance variables separately to pre-colonial institutions[4]. However, this would lead to analysing only limited parts of governance.

3.2 Pre-colonial institutions

Data on pre-colonial community characteristics in sub Saharan Africa were taken from the Ethnographic Atlas, created by Murdock (1967). The Ethnographic Atlas (Murdock 1967) is based on data previously published in various issues of the Journal *Ethnology* and contains a global sample of 862 societies for which 48 different variables are collected. For sub Saharan Africa, 292 societies are included. The actual time periods for which societies are included is dependent on the earliest period for which the author could find satisfactory data, mostly the last quarter of the nineteenth century. Murdock focused on the earliest date possible between 1850 and 1950 to avoid cultural effects of contact with Europeans as much as possible.

We selected variables that represent the extent to which both local state and community structures are well developed, the extent to which communities were characterised by social exclusion, and cultural characteristics to capture both cultural heterogeneity and the extent to which communities were outward looking, i.e. were looking for ties to other groups, as a measure for inter-group conflict management arrangements.

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[3] For factor scores see Appendix 1.
[4] We have estimated our model using democracy and rule of law separately as our dependent variable, and results do not change much (see Appendix 3).

As the data in the Ethnographic Atlas are presented at the level of groups, we combined these data with population data from the Atlas Narodov Mira (1964) to assign the different groups to present-day countries. This atlas represents the global distribution of ethnic groups and gives an explicit subdivision of groups over countries[5]. This enables us to calculate the proportion of each pre-colonial group that belongs to a specific country.

The following variables were taken from the Ethnographic Atlas:

- Jurisdictional hierarchy at the community level, i.e., "the number of jurisdictional levels up to and including the local community, ranging from the nuclear family to clan barrios.

- Jurisdictional hierarchy at the state level, i.e., the number of jurisdictional levels of those transcending the local community, ranging from autonomous villages to large states.

- The incidence of indigenous slavery, measuring "the forms and prevalence of slave status".

- Community Organisation, i.e., the prevalence of certain organisational features of communities such as the practice of endogamy or exogamy –the extent to which people marry within or outside their own ethnic group- combined with the presence or absence of clear segmented structures.

These variables have been scaled by Murdock (1967) from simple/flat structures to more complex and layered social structures, with the exception of slavery for which information was collected on whether indigenous slavery (ever) existed, and if so, which form was prevalent. In order to capture relevant information on pre-colonial institutional arrangements, we operationalise the four above mentioned community variables as follows:

1. Jurisdictional hierarchy at local community and state level (the State-Community variable). To capture the extent to which both local state and community structures are well developed, we calculate the percentage of the population that belonged to a group that has at the same time both a well-developed state-level hierarchy and a local-level hierarchy. Data in the ethnographic atlas on (local) state hierarchy range from 0 to 4, where 0 stands for stateless societies and 3 and 4 for large states. Following Gennaioli and Rainer (2007), we define (local) state

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[5] P. Roeder (2001) and Easterly and Levine (1997) use the Atlas to construct their ethnic fractionalisation measure.

hierarchy to be developed for a score from 2 and higher, e.g. from larger paramount chiefdoms to large states. According to Murdock (1967), the state level digits can also be interpreted as a measure of political complexity. The data on community hierarchy ranges from 0 to 2, i.e. from independent nuclear or polygynous families to clan-barrios. Local level hierarchy is defined as the levels above the nuclear family, e.g. scores of 1 and 2. Local hierarchy can be seen as the extent to which higher authority is founded on local structures (Schapera 1967, Ayittey 2005). A good example of a society with such a political structure is the Mossi state. In the Mossi state (which covers parts of present day Burkina Faso), the smallest political unit is the family, the next level is the extended family, followed by the village council. Districts are the subsequent divisions, and the King the final political level (Williamson 1987). Burkina Faso scores intermediate on the state-community level (0.59), where the Mossi represent 91% of this score.

2. Pre colonial social exclusion (the Slavery variable). To capture the extent of social exclusion in the pre colonial period, we calculate the percentage of the population that belonged to a group where indigenous slavery existed. The existence of slavery represents pre-colonial social exclusion. According to Vaughan (1986: 1974) '[..] African [slavery] was a form of institutionalised marginality in which individuals were restricted in their participation in the society [...]'. The expected impact on institutional quality is negative. Social exclusion leads to inequality both in wealth and in political power which in turn results in more restrictive institutions since elites often prefer to restrict economic and political opportunities for the masses (Engerman and Sokoloff 2002).

3. Cultural heterogeneity between groups (the Heterogeneous Community variable). To measure cultural heterogeneity we calculated the standard deviation of the population-weighted mean of the country level community organisation score[6] (see Englebert 2000), which can be seen as an indicator of the dispersion in organisational structure at the community level. The Ethnographic Atlas classifies communities from inward looking communities, without localised clans and where inhabitants marry within their community, to clearly segmented communities which are outward looking, i.e., where people marry outside their own group. There are six different categories, ranging

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[6] Standard deviation of the population weighted mean: $StDev_{c.o.s.} = (\sum_{i=1}^{n} P_i * C.O.S_i) / \sum_{i=1}^{n} P_i$, where P = population and C.O.S. is the community organisation structure

from 0 to 5. According to Easterly and Levine (1997) and Alesina and La Ferrara (2002), the more diversely the communities are organized in a country the more difficult it will generally be to organize people. This will have a negative effect on institutional quality hence governance.

4. Characteristics of local communities (the Community Organisation variable). We calculated the percentage of the population that belongs to a community that is clearly defined and practices exogamy to represent the development of (local) inter-group conflict management institutions. According to the anthropological "Alliance theory", the fact that communities marry outside their own group indicates that such communities co-operate on a regular basis with other communities and are looking for allies and see the benefits of cooperation which promotes social solidarity and lessen (internal) conflict (Levi-Strauss 1969, Chagnon 1968)[7]. For this we use the same data as for the calculation of the heterogeneity of communities.

Summary statistics of the variables described are presented in table 1 and pairwise correlations are shown in table 2[8].

Table 1: Summary statistics of Data

Variable	Mean	Median	Max.	Min.	Std. Dev.	Obs.
Governance	0.00	-0.20	2.73	-1.30	1.00	41
State-Community	0.46	0.43	0.99	0.00	0.33	42
Slavery	0.63	0.76	0.99	0.00	0.35	42
Community Heterogeneity	0.61	0.50	2.29	0.08	0.51	42
Community Organisation	0.24	0.10	0.98	0.00	0.28	42

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[7] Two other anthropological theories consistently pair exogamy with reduced likelihood of (internal) conflict and either increased survival rate of the group (Survival Value theory, see for example White 1949 and Service 1971) or promoted social cohesiveness (Conflicting Loyalties theory, see for example Colson, 1953 and Scheffler 1964).

[8] The actual data of the pre-colonial variables are available from the authors on request.

The summary statistics reveal that only the State-Community variable is truly normally distributed. Slavery and Governance are normally distributed at the 5 % level, and our community level variables are not normally distributed. However the residuals from the regression models are in all cases normally distributed.

Table 2: Pairwise correlations

	State-Community	Slavery	Community heterogeneity	Community Organisation
Governance	0.36	-0.21	-0.22	0.05
State-Community		0.26	0.36	0.12
Slavery			0.05	0.35
Community heterogeneity				0.26

The correlations between the independent variables do not point at multicollinearity. Besides, we checked for multicollinearity by estimating auxiliary regressions relating each independent variable to the other independent variable. Also this robustness check confirms the suggestion of low multicollinearity.

3.3 Empirical analysis

We begin our empirical analysis by examining the relationship between governance quality and each of the pre-colonial measures introduced above. Figure 1 to 4 below show the individual relationships between governance quality and the several indicators of pre-colonial institutions, i.e. State-Community, Slavery, Community Heterogeneity and Community Organisation, respectively.

Figure 1

Governance vs. State-Community

Figure 2

Governance vs. Slavery

Figure 3[9]

Governance vs. Community Heterogeneity

Figure 4
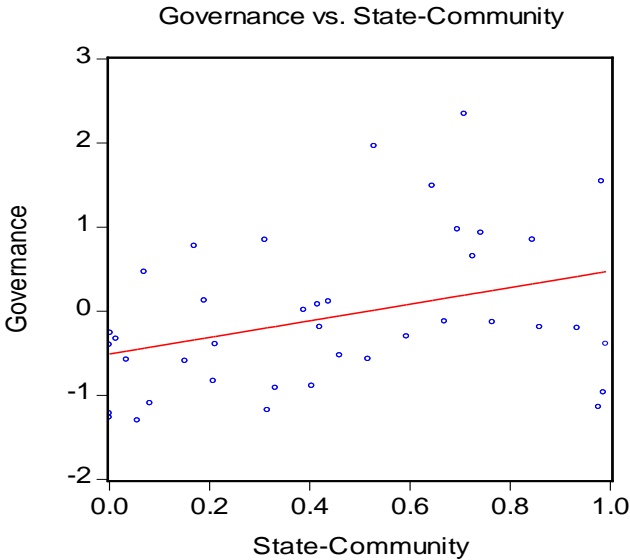
Governance vs. Community Organisation

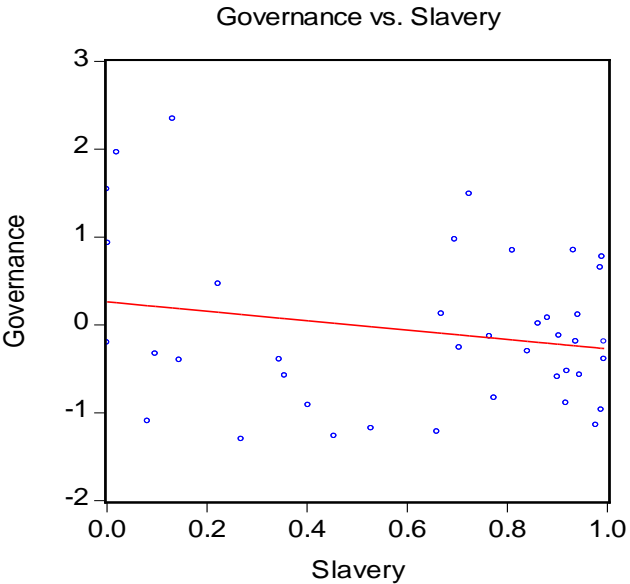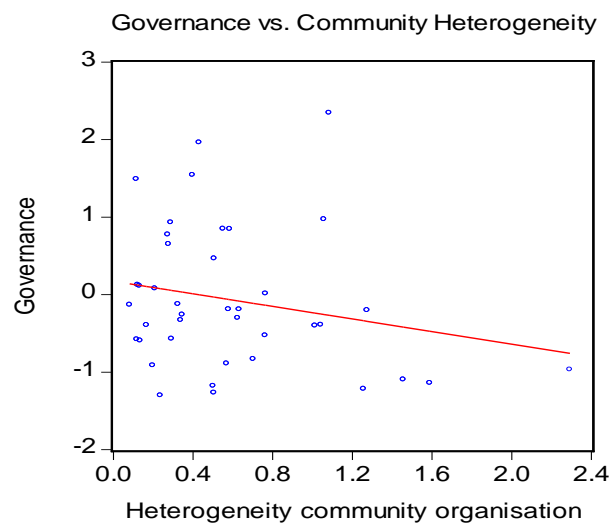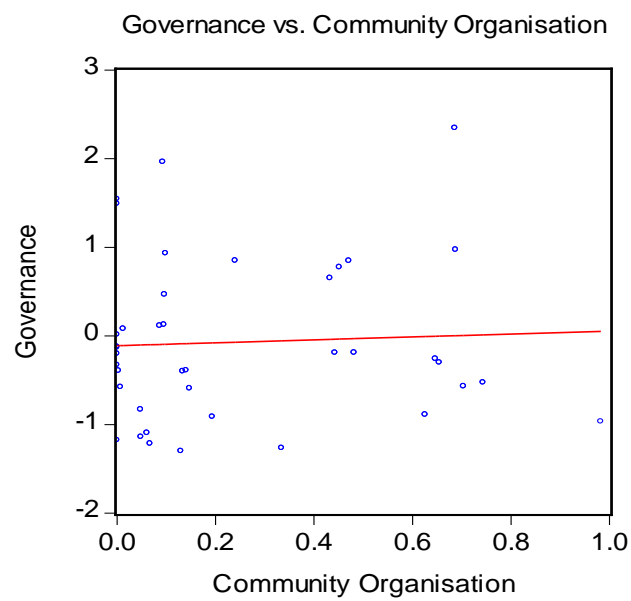
9 If the country-point on the right (Burundi) is left out, partial correlation between governance and heterogeneity of community organisation is -0.15. The outcome of the model is hardly influenced.

The first three figures show the expected relationship between governance and pre-colonial institutional measures. The more prevalent a well developed pre-colonial hierarchy structure both at the local and state level, the better contemporary governance quality is at the country level (figure 1). In contrast, in areas were slavery was common, present-day governance quality is on average lower (figure 2). The third figure shows that a larger variation of community organisation structures before colonisation are associated with lower contemporary governance quality. Finally, in the last figure we can see that the relationship between the part of the population that is organised with a clear community structure and outward looking characteristics and governance is not straightforward.

4. Empirical Results and Discussion

Having examined the correlations between the different variables, we now look at the relationship between the pre-colonial data and contemporary governance by estimating an OLS equation, where we include additional variables that potentially influence institutional quality[10]. The baseline equation is:

$$\text{Governance} = c + \beta1*\text{State-Community} + \beta2*\text{Slavery} + \beta3*\text{Heterogeneity Community} +$$
$$\beta4*\text{ Community Organization} + \beta5*X$$

Where ß1 to ß4 estimate the effects of our pre-colonial variables, and X is a vector of control variables, meant to capture other influences on institutional quality in our sample. See table 3 for the estimation results.

We first analyse the influence of each pre-colonial institutional variable on governance quality by adding the variables one at a time and start with the measure of the extent to which well developed local and state level hierarchy is prevalent in a country (State-Community, column 1). This variable is strongly and positively correlated with governance quality. Following Ayittey (2006), this reflects the importance of pre-colonial structures where "the principle of central government [at the local level] was combined with greater degree of local autonomy (Ayittey, 2006: 267).

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[10] See Appendix 2 for sources and explanations why specific controls were included and for pairwise correlations.

This effect remains robust in all the estimations when we control for other influences on governance quality (column 2-14). Indigenous slavery (Slavery, column 2), representing pre-colonial social exclusion, exerts a significant negative influence on governance quality. Societies in which substantial parts of the population were excluded from important political processes, might suffer from lock-in effects. These are societies that in the long-run are characterised by social polarisation and low levels of governance quality. This relationship also remains robust (significant minimally at the 10%) level to including control variables. Various authors note the long lasting effect of pre-colonial exclusion, see for example Grace (1977) on the Mende in Sierra Leone, Macgaffey (1977) on the Kongo in the Democratic Republic of Congo, Klein (1977) on the Wolof and Serer in Senegambia, and McCormack (1977) on the Sherbro in Sierra Leone. Moreover, Benin and Botswana, for example, are very comparable on every pre-colonial measure but Slavery. The most important society of Botswana (the Tswana) have no tradition in slavery, as did most other (smaller) groups (Schapera 1970). In contrast, in Benin, the major groups Ewe, Fon and the Oyo Yoruba customs that involved some form of slavery (Smith 1988, Argyle 1966). This is represented in a lower score on governance quality for Benin compared to Botswana.

The variance of community organisation in a country (Community Heterogeneity, column 3) is strongly negatively correlated with governance quality and also robust after including control variables. Finally, the addition of the percentage of the population belonging to a clearly segmented community characterised by exogamy (Community Organisation) generates an additional positive effect on governance, although this represents the weakest link between pre-colonial institutions and contemporary institutional quality (generally significant at 10%).

In columns 5 to 14 we introduce control variables which are also often linked to institutional quality, such as income per capita in 1990, ethnic fractionalisation, a colonial dummy, measures for internal conflict or tensions, resource endowments and early population density (for literature on these variables see appendix 2). As can already be seen in the pairwise correlation matrix (also in appendix 2), some of the control variables are highly correlated either with each other (see for example ln GDP pc 1990 and population density in 1900 ($r = 0.51$), or ethnic tension 1984-2000 and internal conflict 1984-2000 ($r = 0.74$). Also, some of the control variables seem to be highly correlated with our pre-colonial institutional variables (see for example Community Heterogeneity and Ethno-linguistic Fractionalisation 1985 ($r = - 0.75$). This might influence the interpretation of the coefficients of the variables involved.

Table 3: Basic Estimation Results

Independent variables	Dependent variable: Governance 1996-2002						
	1	2	3	4	5	6	7
State-Community	0.99**	1.18**	1.53***	1.54***	1.47***	1.44***	1.37***
	(0.44)	(0.45)	(0.35)	(0.32)	(0.29)	(0.20)	(0.42)
Slavery		-0.78*	-0.84**	-1.12**	-0.69**	-0.64*	-0.62*
		(0.44)	(0.40)	(0.43)	(0.33)	(0.33)	(0.34)
Community Heterogeneity			-0.73***	-0.89***	-1.04***	-0.97***	-1.05***
			(0.20)	(0.20)	(0.20)	(0.23)	(0.37)
Community Organisation				0.89*	0.93*	0.90*	0.94*
				(0.53)	(0.49)	(0.48)	(0.54)
Ln GDPpc 1990					0.57***	0.55***	0.56***
					(0.20)	(0.20)	(0.20)
British colonial dummy						0.21	0.19
						(0.25)	(0.26)
ELF 85							-0.25
							(0.96)
Total Military Intervention Score							
Ethnic Tensions 1984-2000[a]							
Internal Conflict 1984-2000[a]							
LHCpc							
Population density 1900							
R squared	0.10	0.17	0.29	0.34	0.43	0.42	0.40
no. Obs	40	40	40	40	40	40	40

Standard errors in parentheses. All regressions are estimated using OLS with White Heteroskedasticity-Consistent Standard Errors. * significant at 10%, ** significant at 5%, *** significant at 1%.   [a] Ethnic tension and Internal Conflict are scaled counterintuitively, in the sense that higher scores represent less tensions (even though differences in race, nationality or language may exists (ICRG risk guide).

Table 3: Basic Estimation Results (continued)

Independent variables	Dependent variable: Governance 1996-2002						
	8	9	10	11	12	13	14
State-Community	1.38***	1.50***	1.55***	1.55***	1.40***	1.43***	1.33***
	(0.29)	(0.32)	(0.37)	(0.26)	(0.31)	(0.36)	-0.37
Slavery	-0.56*	-1.24***	-0.69**	-0.52*	-1.11***	-0.57*	-1.24**
	(0.32)	(0.29)	(0.33)	(0.28)	(0.33)	(0.32)	(0.42)
Community Heterogeneity	-0.91***	-1.06**	-0.83	-0.98***	-1.21***	-1.10**	-1.21
	(0.24)	(0.43)	(0.54)	(0.22)	(0.41)	(0.47)	(0.80)
Community Organisation	1.42***	1.35**	1.07	1.18**	1.31***	1.15*	1.38**
	(0.50)	(0.49)	(0.66)	(0.44)	(0.47)	0.56*	(0.63)
Ln GDPpc 1990	0.38**	0.25	0.30	0.69***	0.45*	0.59**	0.47
	(0.17)	(0.21)	(0.26)	(0.17)	(0.22)	(0.23)	(0.33)
British colonial dummy	0.34	0.39*	0.36	0.26	0.32	0.29	0.17
	(0.21)	(0.19)	(0.22)	(0.21)	0.19	(0.21)	(0.29)
ELF 85							
Total Military Intervention Score	-0.04***	-0.03**	-0.03*	-0.04***	-0.04***	-0.04**	-0.04**
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
Ethnic tensions 1984-2000[a]		0.48***			(0.41***		0.55**
		(0.14)			(0.13)		0.19
Internal conflict 1984-2000[a]			0.12			0.07	
			(0.07)			(0.06)	
LHCpc				-0.07**	-0.04	-0.05*	-0.05
				(0.03)	(0.03)	(0.03)	(0.03)
Population density 1900							0.02
							(0.02)
R squared	0.53	0.72	0.61	0.66	0.73	0.65	0.65
no. Obs	40	30	30	37	30	30	25

Standard errors in parentheses. All regressions are estimated using OLS with White Heteroskedasticity-Consistent Standard Errors. * significant at 10%, ** significant at 5%, *** significant at 1%. [a] Ethnic tension and Internal Conflict are scaled counterintuitively, in the sense that higher scores represent less tensions (even though differences in race, nationality or language may exists (ICRG risk guide).

Income is generally significantly associated with better governance quality (columns 5 until 14) and conflict variables on average significantly negatively influence governance quality (column 8 until 14 show different combinations of conflict variables to see the robustness of these variables). Ethnic fractionalisation exerts hardly any influence on governance (column 7)[11]. Likewise, the dummy for British legal origin does not exercise a strong influence on governance (column 6 until 14, where its only significant in regression 9) and neither does population density in 1900 (column 14). Finally resource endowments is negatively correlated with governance quality but is only significant in half the cases it is included (column 11 until 14).

Generally speaking, the pre-colonial variables are not influenced much by the inclusion of the control variables. Only when we include "internal conflict" as a conflict measure, Community Heterogeneity and Community Organisation just lose their significance (p-values of 14% and 12% respectively). Besides, when we include population density in 1900 our measure of Community Heterogeneity is no longer significant (p-value of 15%) (which might be due to multicollinairity - see correlation table in the appendix - or to fewer observations).

The notion that local state *and* community hierarchy favourably impacts on present day governance quality differs from the idea as put forward by Gennaioli and Rainer (2007). In their paper they focus on the relationship between pre-colonial centralisation and the supply of certain public goods after independence. They argue that strong local state development is a necessary prerequisite of economic development because these state structures are instrumental in limiting the power of local, often corrupt, community leaders.

The difference between our argumentation and the approach by Gennaioli and Rainer (2007) partly stems from the choice of the dependent variable in the analysis as they focus on public goods supply whereas we are primarily interested in governance quality. Of course these concepts are somehow related, but far from identical. It is not surprising that an analysis in terms of public goods supply focuses on the importance of strongly developed state structures, and we would not like to challenge the notion that an efficient and adequate supply of public goods is enhanced by effective types of state organisation. Additionally, we should bear in mind that the concept of governance quality incorporates more than state efficiency in terms of providing society with an effective supply

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[11] The correlation between governance quality and ethnic fractionalisation is low, i.e. -0.11. Since it correlates highly with some of our other independent variables, it is excluded from our other equations.

of public goods. It reflects the extent to which nation states and social actors interact and are able to define and promote public interest (Bratton and van de Walle 1992, Chazan 1992 and Frischtak 1994). It is therefore not surprising that in using the broader concept of governance quality as the dependent variable, other variables than just central state capacity seem to be of importance.

But more importantly, we disagree with the rather negative view Gennaioli and Rainer (2007) present on the quality of Africa's pre-colonial communal institutions. They argue that strong states were needed to limit the rent-seeking behaviour of local elites and stress the low quality of Africa's local leadership in the pre-colonial era (Gennaioli and Rainer 2007). Their claim seems to be based on a rather limited and sometimes even biased[12] reading of the literature. No mention is made of the nature of Africa's indigenous structures at all (for example the huge anthropological literature on the age-grade system and its beneficial impact on the outcome of political processes (see a.o. Boamah-Wiafe 1993; Curtin et al. 1988, Ayittey 2006)). Besides, also the positive colonial view on the vitality of Africa's communal organisations (see for example Pim 1946 and several of the British Colonial Bluebooks) is not taken into account. Moreover, Gennaioli and Rainer (2007) do not attempt to quantify the quality of Africa's indigenous, local institutions and their impact on present-day institutional quality. The alleged poor quality of the local institutions is postulated and strangely enough they do not use the community data which are part of the Murdock dataset.

On the basis of a thorough survey of the literature as well as on our regression analysis, we come to the conclusion that high state development underpinned by well-developed communities structures which are successful in providing checks and balances on the power of the ruling elites, enhance the development of favourable institutions and high governance quality.

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[12] Gennailoli and Rainer (2007) argue that decentralisation as a means to improve local leaders accountability, i.e. by improving voters' information, increased ability to replace misbehaving politicians, and fostering peoples mobility' (see footnote 4, p. 191) is not relevant for Africa. Especially migration (leaving corrupt local leaders) was not a feasible option in pre-colonial times. In contrast, for example Ayittey (2006: 109), Schapera (1967, 1970) and Falola (1984) stress that actually the most powerful weapon to restrain rulers was indeed the threat of people leaving. Although leaving was often difficult and entailed high costs, it was used as a measure of last resort (Schapera 1967:154). Furthermore, in many cases replacing (or killing) the chief was also an option in case rulers abused their power (Ayittey 2006: 170, Schapera 1970, Vaughan 1986: 178). In essence, these authors argue that final power lay with the people. Many groups were characterised by a rather complex and balanced system of checks and balances to avoid abuse of power by chiefs. Furthermore in making their case for the abusive and corrupt local leaders Gennailoli and Rainer (2007) selectively quote Tosh (1978) on p. 190. Where they quote the sentence on abusive behaviour of local chiefs, they miss the preceding sentences in which Tosh (1978) states that "The way political offices were filled rapidly departed still further from pre-colonial practice" (Tosh 1978: 1982). Moreover, in his book, Tosh (1978) makes the claim that the colonial powers had difficulty in dealing with the stateless Lango. Therefore, they assigned chiefs (first form the Baganda, later from the Lando themselves) to certain territories, and invested them with powers "unprecedented public authority and personal privilege, and it gave them sway over communities to which they had no prior claim" (Tosh 1978: 245). In other words, only after the *colonial powers interfered* in the traditional power structure did the leaders of the Lango (in certain cases) become abusive and corrupt.

5. Conclusion

This paper aims to show how differences in present-day governance quality between African countries can be explained. On the basis of an extensive reading of the literature we argue that the nature of the indigenous pre-colonial institutions can be seen as an important determinant of present day levels of governance quality.

A regression model was built on the basis of an anthropological dataset. Estimations show that differences in governance quality between African countries in the late twentieth century can to a considerable extent be explained from pre-colonial institutional variables. The incidence of slavery and a great variety in community structures in the pre-colonial era seem to have a negative impact on present-day governance quality, whereas a strong development of state as well as communal structures and the nature of community organisations have a positive impact. These findings are in line with qualitative studies by various Africa scholars on the pre-colonial period, as well as the literature on the post independence era. These strands of literature both emphasise that the quality of local communal institutions, with its favourable impact on the emergence of civil society structures, enhances the formulation of proper policies at central state level.

This paper points at the pre colonial origins rather than the *colonial* origins of development, as put forward by Acemoglu et al (2001). In this respect we follow Gennaioloi and Rainer (2007) who also stress the importance of pre colonial institutional arrangements. However, contrary to them we put more emphasis on the importance of local community structures and the positive effect they can have on the process of long-term institutional development.

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Appendix 1

Table A1.1: factor analysis scores + underlying variables

	Governance	Democracy 1997-2002	Rule of Law and Order 1996-2002
Angola	-1.18	1.00	-1.54
Benin	0.97	6.00	-0.27
Botswana	2.35	9.00	0.58
Burkina Faso	-0.30	0.67	-0.54
Burundi	-0.96	0.83	-1.28
Cameroon	-0.91	1.00	-1.26
Cape Verde			
Central African Republic	0.01	5.00	-1.09
Chad	-0.58	1.00	-0.90
Congo, Dem. Rep.			-1.99
Congo, Rep.	-1.21	0.00	-1.37
Cote d'Ivoire	-0.26	3.00	-0.97
Djibouti	-0.13	2.00	-0.63
Equatorial Guinea	-1.09	0.00	-1.25
Eritrea			
Ethiopia	-0.12	3.00	-0.82
Gabon	-0.40	0.00	-0.50
Gambia, The	0.08	0.00	0.01
Ghana	0.65	4.33	-0.27
Guinea	-0.89	1.00	-1.23
Guinea-Bissau	-0.39	5.00	-1.52
Kenya	-0.33	3.00	-1.04
Lesotho	1.54	8.00	-0.07
Liberia	-1.26	3.00	-2.04
Madagascar	0.93	7.17	-0.55
Malawi	0.85	6.67	-0.54
Mali	0.78	6.00	-0.48
Mauritania	-0.39	0.00	-0.50
Mauritius	2.73	10.00	0.79
Mozambique	0.47	6.00	-0.80
Namibia	1.49	6.00	0.29
Niger	-0.19	2.67	-0.83
Nigeria	-0.57	3.20	-1.34
Rwanda	-1.14	0.00	-1.30
Sao Tome and Principe			-0.32
Senegal	0.85	5.00	-0.19

Table A1.1 continued: factor analysis scores + underlying variables

	Governance	Democracy 1997-2002	Rule of Law and Order 1996-2002
Sierra Leone	-0.19	5.00	-1.30
Somalia			-2.15
South Africa	1.96	9.00	0.18
Sudan	-1.30	0.00	-1.47
Swaziland	-0.20	0.00	-0.29
Tanzania	0.13	2.50	-0.45
Togo	-0.53	1.00	-0.85
Uganda	-0.59	0.00	-0.71
Zambia	0.12	3.00	-0.57
Zimbabwe	-0.83	0.00	-0.96

sources: Democracy: Polity IV (Marshall and Jaggers 2002), Rule of Law and Order: Kaufmann et al. 2007)

Appendix 2:
Included control variables

-GDP pc 1990. Per capita income in 1990 is included to control for income differences across countries. Data are taken from Maddison (2003).

-**Colonial dummy.** To see whether different colonising powers had a distinct influence on governance quality we include a dummy for British colonies.

-Ethnic Linguistic Fractionalisation. Given that the heterogeneity of most African societies is often argued to negatively influence governance quality (Easterly and Levine 1997, Alesina et al. (1999), we include an ethnic fractionalisation measure of 1985 taken from P. G. Roeder (2001).

-Ethnic Tensions. Since ethnic diversity is often argued to create tensions and conflicts which negatively influence governance quality (Horowitz 1985, Gurr 1993, Sambanis 2001)[13], we include the average measure for ethnic tension between 1984-2000 (taken from the ICRG).

-Total Military Intervention Score. Military intervention, or military coups have been a pervasive phenomenon in SSA (McGowan 2003). These interventions create political instability and military rule is almost by definition authoritarian. This leads to a worsening in governance quality. (Taken from McGowan 2003).

-Internal Conflict. The final measure of violence measures the extend to which countries experienced internal conflict. Countries that experience more internal conflict have on average lower governance quality (Elbawadi, I. and N. Sambanis 2002, 2000)

-**Mineral resource dependence**. Engerman and Sokoloff (2002) argue that capital intensive production systems in general, and mineral resource dependent systems in particular, are likely to lead to sub-optimal institutional development paths. Therefore the mineral resource dependency in the late colonial period will be included in the analysis. We include the log of hydrocarbons deposits per captia (BTU's per person of proven crude oil and natural gas reserves in 1993, taken from Gallup et al. 1998).

-**Population density 1900.** Africa stands out for its low population density. Domar (1970) indicates that low population density in combination with land-abundance can result in sub-optimal paths of institutional development. Therefore population density in 1900 is included. Population data are derived from Mc Evedy and Jones (1978). Information on the area of the various African countries in squared km. is taken from the World Development Indicators.

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[13] There are also many studies either arguing the opposite (namely that fractionalisation makes countries saver) Collier and Hoeffler 2002, Collier (2001), or that there is no effect of ethnic heterogeneity on instability and conflict (Elbawadi and Sambanis 2000 and 2002).

	State-Community	Slavery	Community Heterogeneity	Community Organisation	Log GDP pc 1990	British Colonial Dummy	Etho-linguistic Fract. 1985	Ethnic Tension 1984-2000	Internal Conflict 1984-2000	TMSI* 1980-2001	Log Hydro carbons pc
Slavery	0.26										
Community Heterogeneity	0.36	0.05									
Community Organisation	0.12	0.35	0.26								
Log GDP pc 1990	0.02	-0.47	0.23	-0.11							
British Colonial Dummy	0.03	-0.10	-0.13	-0.07	0.18						
Etholinguistic Fract. 1985	-0.59	0.02	**-0.75**	0.01	-0.22	-0.14					
Ethnic Tension 1984-2000	0.11	0.24	0.11	0.17	0.28	0.04	-0.16				
Internal Conflict 1984-2000	0.03	-0.07	-0.09	0.22	0.43	0.06	0.13	**0.74**			
TMSI* 1980-2001	0.01	0.30	0.05	**0.50**	-0.35	0.05	0.08	-0.16	-0.26		
Log Hydrocarbons pc	-0.13	-0.18	0.01	-0.22	0.31	-0.15	0.14	-0.17	-0.11	-0.29	
Population Density 1900	0.34	0.26	0.45	-0.05	**0.51**	0.19	-0.35	0.04	-0.10	-0.14	-0.04

*Total Military Intervention Score

Appendix 3

Table A3.1: Robustness check: dependent variable: Democracy

Independent variables	Dependent variable: Democracy 1997-2002						
	1	2	3	4	5	6	7
State-Community	1.63	2.22	3.23**	3.29***	3.18***	3.18***	3.47**
	(1.41)	(1.53)	(1.24)	(1.09)	(1.11)	(1.11)	(1.43)
Slavery		-2.39	-2.57*	-3.72***	-3.09**	-3.08**	-3.17**
		(1.59)	(1.39)	(1.32)	(1.23)	(1.21)	(1.18)
Community Heterogeneity			-2.10***	-2.80***	-3.02***	-3.00***	-2.68*
			(0.64)	(0.63)	(0.66)	(0.76)	(1.41)
Community Organisation				3.79**	3.85**	3.84**	3.69**
				(1.55)	(1.53)	(1.55)	(1.80)
Ln GDPpc 1990					0.83	0.83	0.79
					(0.70)	(0.72)	(0.70)
British colonial dummy						0.04	0.12
						(0.86)	(0.88)
ELF 85							1.12
							(3.62)
Total Military Intervention Score							
Ethnic tenstions 1984-2000[a]							
Internal conflict 1984-2000[a]							
LHCpc							
Population density 1900							
R squared	0.01	0.087	0.18	0.28	0.28	0.26	0.24
no. Obs	40	40	40	40	40	40	40

Standard errors in parentheses. All regressions are estimated using OLS with White Heteroskedasticity-Consistent Standard Errors. * significant at 10%, ** significant at 5%, *** significant at 1%. [a] Ethnic tension and Internal Conflict are scaled counterintuitive, in the sense that higher scores represent less tensions (even though differences in race, nationality or language may exists (ICRG risk guide).

Table A3.1 continued: Robustness check: dependent variable: Democracy

Independent variables	Dependent variable: Democracy 1997-2002						
	8	9	10	11	12	13	14
State-Community	3.06***	3.61**	3.79**	3.71***	3.29**	3.34**	2.70
	(1.10)	(1.39)	(1.36)	(0.99)	(1.35)	(1.32)	(1.59)
Slavery	-2.91**	-4.89***	-3.53***	-3.21***	-4.44**	-3.10**	-4.49**
	(1.22)	(1.42)	(1.12)	(1.09)	(1.61)	(1.22)	(2.05)
Community Heterogeneity	-2.87***	-3.27**	-3.08	-2.70***	-3.76**	-4.08**	-2.40
	(0.76)	(1.57)	(1.82)	(0.72)	(1.71)	(1.95)	(3.44)
Community Organisation	4.90**	4.71**	4.70*	3.87**	4.57**	5.01*	4.45
	(1.79)	(1.93)	(2.52)	(1.81)	(1.98)	(2.48)	(3.08)
Ln GDPpc 1990	0.48	0.25	0.63	1.26*	0.89	1.67*	1.08
	(0.71)	(0.88)	0.86	(0.68)	(0.10)	(0.83)	(1.20)
British colonial dummy	0.30	0.49	0.54	0.25	0.26	0.31	0.26
	(0.84)	(0.85)	(0.91)	(0.81)	(0.82)	(0.85)	(1.16)
ELF 85							
Total Military Intervention Score	-0.09	-0.07	-0.09	-0.09	-0.08	-0.12	-0.08
	(0.06)	(0.08)	(0.09)	(0.05)	(0.08)	(0.08)	(0.10)
Ethnic tenstions 1984-2000[a]		0.93			0.69		0.79
		(0.69)			(0.72)		(1.05)
Internal conflict 1984-2000[a]			0.07			-(0.12)	
			(0.30)			0.269211	
LHCpc				-0.17*	-0.13	-0.20**	-0.08
				(0.08)	(0.10)	(0.09)	(0.1)
Population density 1900							0.04
							(0.13)
R squared	0.291507	0.36689	0.304939	0.396385	0.375136	0.346416	0.219971
no. Obs	40	30	30	37	30	30	25

Standard errors in parentheses. All regressions are estimated using OLS with White Heteroskedasticity-Consistent Standard Errors. * significant at 10%, ** significant at 5%, *** significant at 1%.   [a] Ethnic tension and Internal Conflict are scaled counterintuitive, in the sense that higher scores represent less tensions (even though differences in race, nationality or language may exists (ICRG risk guide).

Table A3.2: Robustness check: dependent variable: Rule of Law

Independent variables	Dependent variable: Rule of Law 1996-2002						
	1	2	3	4	5	6	7
State-Community	0.49	0.62**	0.84***	0.86***	0.81***	0.79***	0.69***
	(0.29)	(0.28)	(0.24)	(0.24)	(0.19)	(0.18)	(0.23)
Slavery		-0.48**	-0.51**	-0.64**	-0.25	-0.24	-0.21
		(0.23)	(0.24)	(0.28)	(0.22)	(0.23)	(0.24)
Community Heterogeneity			-0.39**	-0.46**	-0.59***	-0.57***	-0.68***
			(0.18)	(0.18)	(0.16)	(0.19)	(0.19)
Community Organisation				0.50	0.52	0.52	0.57
				(0.36)	(0.34)	(0.36)	(0.35)
Ln GDPpc 1990					0.49***	0.48***	0.49***
					(0.13)	(0.13)	(0.13)
British colonial dummy						0.15	0.11
						(0.19)	(0.19)
ELF 85							-0.35
							(0.55)
Total Military Intervention Score							
Ethnic tenstions 1984-2000[a]							
Internal conflict 1984-2000[a]							
LHCpc							
Population density 1900							
R squared	0.05	0.09	0.17	0.19	0.34	0.33	0.32
no. Obs	42	42	42	42	42	42	42

Standard errors in parentheses. All regressions are estimated using OLS with White Heteroskedasticity-Consistent Standard Errors. * significant at 10%, ** significant at 5%, *** significant at 1%. [a] Ethnic tension and Internal Conflict are scaled counterintuitive, in the sense that higher scores represent less tensions (even though differences in race, nationality or language may exists (ICRG risk guide).

Table A3.2 continued: Robustness check: dependent variable: Rule of Law

Independent variables	Dependent variable: Rule of Law 1996-2002						
	8	9	10	11	12	13	14
State-Community	0.75***	0.66***	0.62**	0.75***	0.62***	0.58**	0.86***
	0.178491	(0.16)	(0.25)	(0.22)	(0.17)	(0.26)	(0.17)
Slavery	-0.21	-0.53**	-0.19	-0.04	-0.46*	-0.12	-0.41*
	(0.23)	(0.23)	(0.29)	(0.20)	(0.22)	(0.27)	(0.23)
Community Heterogeneity	-0.56**	-0.81***	-0.51	-0.67***	-0.85***	-0.60**	-0.80**
	(0.21)	(0.21)	(0.30)	(0.23)	(0.19)	(0.26)	(0.34)
Community Organisation	0.81**	0.76*	0.41	0.74**	0.72*	0.42	0.56*
	(0.34)	(0.40)	(0.45)	(0.32)	(0.39)	(0.41)	(0.32)
Ln GDPpc 1990	0.40***	0.24*	0.20	0.60***	0.33***	0.33*	0.28
	(0.13)	(0.13)	(0.18)	(0.16)	(0.12)	(0.17)	(0.21)
British colonial dummy	0.20	0.26*	0.22	0.11	0.23	0.20	0.13
	(0.18)	(0.13)	(0.16)	(0.20)	(0.15)	(0.17)	(0.17)
ELF 85							
Total Military Intervention Score	-0.02**	-0.02**	-0.01	-0.02**	-0.02*	-0.02	-0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Ethnic tenstions 1984-2000[a]		0.42***			0.38***		0.42***
		(0.11)			(0.11)		(0.12)
Internal conflict 1984-2000[a]			0.17***			0.16**	
			(0.06)			(0.06)	
LHCpc				-0.05**	-0.02	-0.02	-0.04*
				(0.02)	(0.02)	(0.03)	(0.02)
Population density 1900							0.01
							(0.02)
R squared	0.38	0.71	0.60	0.46	0.79	0.60	0.70
no. Obs	42	32	32	39	32	32	25

Standard errors in parentheses. All regressions are estimated using OLS with White Heteroskedasticity-Consistent Standard Errors. * significant at 10%, ** significant at 5%, *** significant at 1%. [a]
Ethnic tension and Internal Conflict are scaled counterintuitive, in the sense that higher scores represent less tensions (even though differences in race, nationality or language may exists (ICRG risk guide).